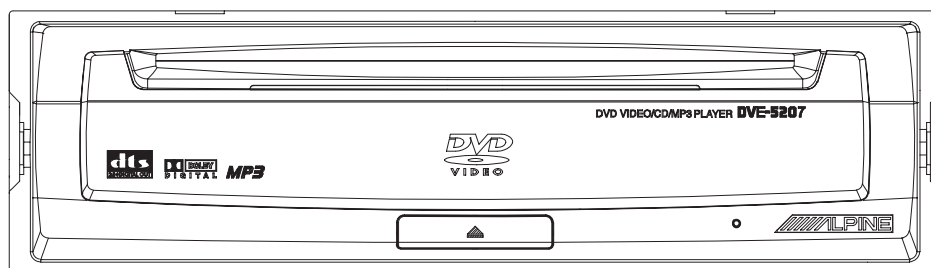


///ALPINE SERVICE MANUAL

DVD-VIDEO Player



3 / 05-A
68E38377S01



DVE-5207

<Cautions for Safe Repair Work>



The following cautions will prevent accidents in the workplace and will ensure safe products.

*The symbols indicate caution is needed to prevent injuries and damage to property.



The symbols and their meanings follow.

 Warning	If you ignore this symbol and handle the product incorrectly or unsafely, serious injury or death may result.
 Caution	If you ignore this symbol and handle the product incorrectly or unsafely, injury or only material damage may result.



*The following symbols indicate two levels of cautions.



 When you see this symbol, you have to be very careful.	
 When you see this symbol, you have to follow the instructions there.	



Warning

 Do not look squarely into the laser light coming from the pickup. You may lose your sight.	 Fuse Caution Always use a designated fuse. Use of an incorrect fuse may result in a fire.
--	--


Caution

 Do not allow wiring to be caught in the screw/chassis. If wiring is caught in the screw/chassis, it may cause a short circuit, resulting in a fire.	 Battery Caution Use the designated battery. Confirm the correct polarity and seat of the battery. An incorrect battery or an improperly connected or seated battery may result in a fire.
---	---

 High Temperature Caution Touching the heat sink may cause severe burns.	 Designated Parts Caution Look up the part list and ensure that only designated parts are used to prevent problems or accidents.
---	---

 Reverse Power Supply Connections or Misconnections Caution Reverse power supply connections or misconnections may cause ignition problems and smoke may result.	 Wiring Caution Ensure that the wiring is correct when rewiring to prevent problems with ignition/breakdown.
---	---

 Soldering Caution Hot solder from solder splash may cause severe burns.	 Wear Gloves Wear gloves to prevent electrical shocks or injury from the end face of the metal.
---	--

 For the FDA laser standard, the following CAUTION label is stuck on each product Please be careful for repair.	CAUTION-Laser radiation when open, DO NOT STARE INTO BEAM
--	--

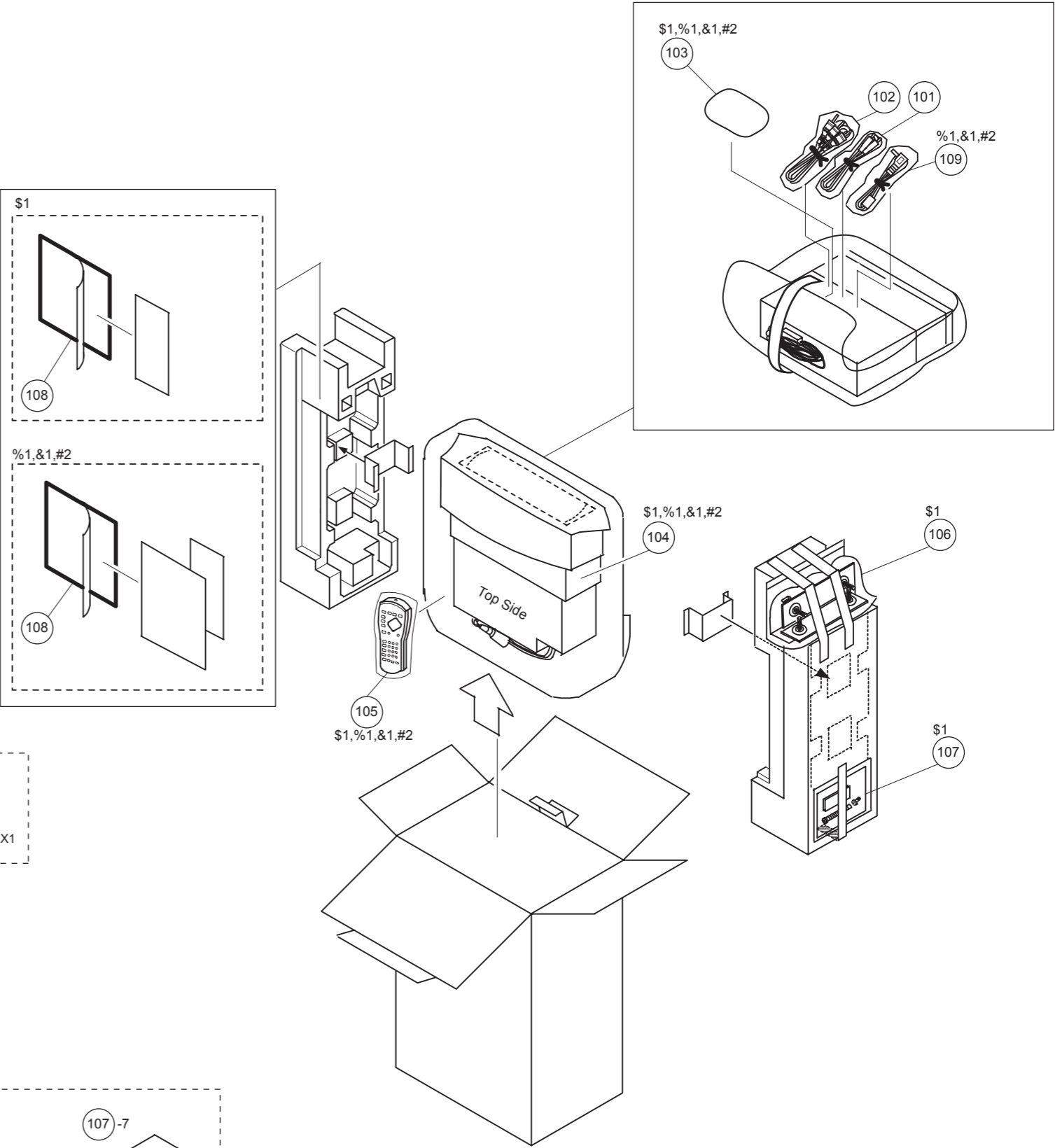
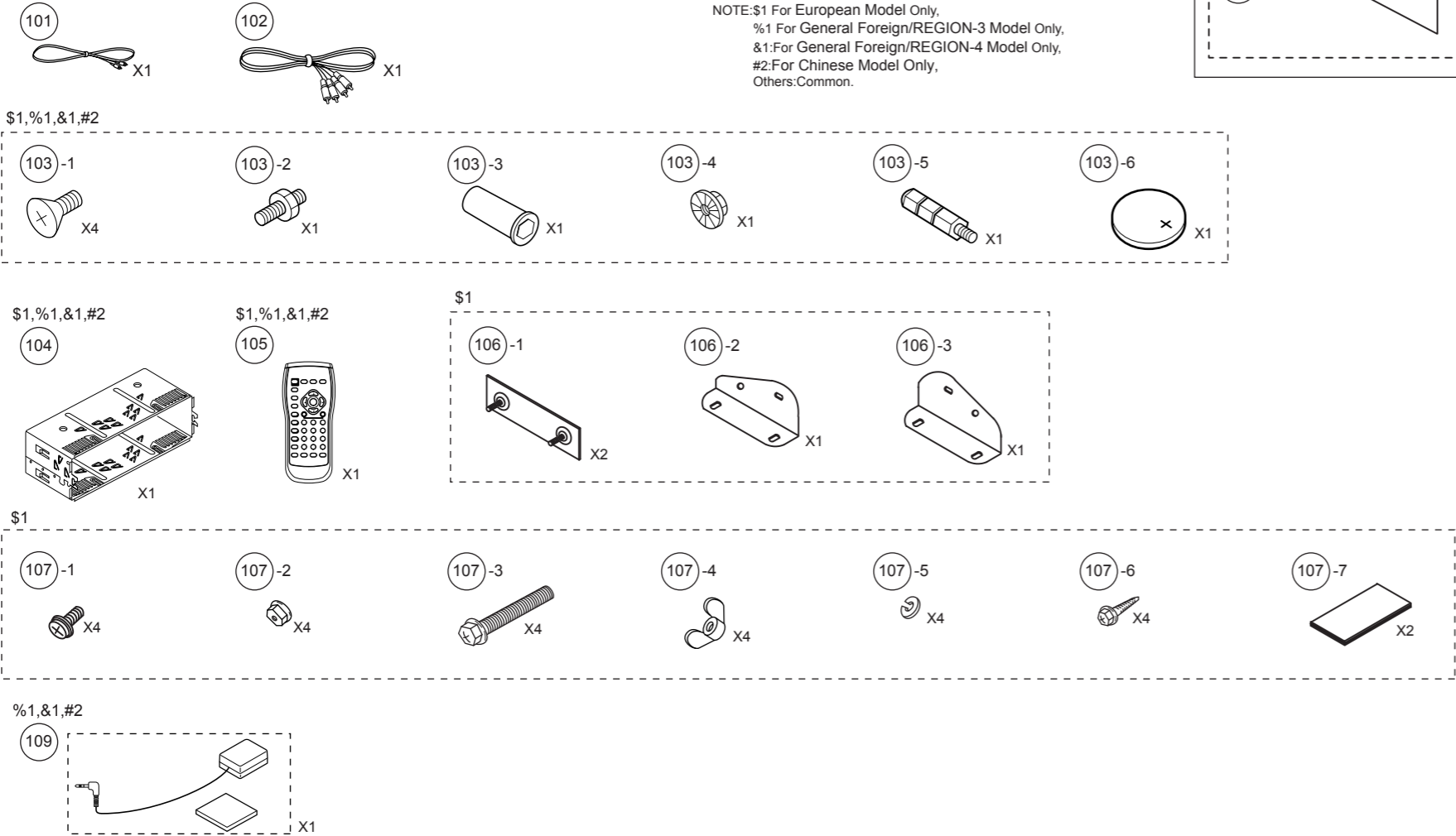
Packing Assembly Parts List

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
101	01T25634Y02	ASSY,WIRE VIDEO 2000	#2 103-6	60S70585F01	BAT,LIT.3V (CR2025)
102	01T15832W11	ASSY,RCA CABLE 2.0-2	\$1 104	15D00529K02	CASE,INNER
\$1 103-1	03S60820Y16	SCR,MCH 5X8 ZN A	%1 104	15D00529K02	CASE,INNER
%1 103-1	03S60820Y16	SCR,MCH 5X8 ZN A	&1 104	15D00529K02	CASE,INNER
&1 103-1	03S60820Y16	SCR,MCH 5X8 ZN A	#2 104	15D00529K02	CASE,INNER
#2 103-1	03S60820Y16	SCR,MCH 5X8 ZN A	\$1 105	01T75472Y01	ASSY,REMO RUE-4201
\$1 103-2	46A70667Y01	STUD,BOLT	%1 105	01T75472Y01	ASSY,REMO RUE-4201
%1 103-2	46A70667Y01	STUD,BOLT	&1 105	01T75472Y01	ASSY,REMO RUE-4201
&1 103-2	46A70667Y01	STUD,BOLT	#2 105	01T75472Y01	ASSY,REMO RUE-4201
#2 103-2	46A70667Y01	STUD,BOLT	\$1 106-1	07A50414W03	BKT MTG.BASE
\$1 103-3	36A11113W01	CAP,RUBBER(A)	\$1 106-2	07B81278W01	BKT,SIDE (L)
%1 103-3	36A11113W01	CAP,RUBBER(A)	\$1 106-3	07B81278W02	BKT,SIDE (R)
&1 103-3	36A11113W01	CAP,RUBBER(A)	\$1 107-1	03D40121T67	SCR,MCH(W/W)M5X10 A
#2 103-3	36A11113W01	CAP,RUBBER(A)	\$1 107-2	02-02981Z01	NUT,CUS 6X6 ZB A
\$1 103-4	02B70670Y01	NUT,CUS 5X5.5 ZN A	\$1 107-3	03B90962F03	BOLT,HEX M6X50 A
%1 103-4	02B70670Y01	NUT,CUS 5X5.5 ZN A	\$1 107-4	02-02949Z01	NUT,CUS 6X9.5 ZB A
&1 103-4	02B70670Y01	NUT,CUS 5X5.5 ZN A	\$1 107-5	04-02958Z01	WAS,SPR6.1X12.2X1.5A
#2 103-4	02B70670Y01	NUT,CUS 5X5.5 ZN A	\$1 107-6	03S70694Y03	SCR,TPG 5X15 ZB A
\$1 103-5	03A60836Y01	SCR,CUS 5X7 ZN A	\$1 107-7	75T58346F01	PAD,MAGIC TAPE
%1 103-5	03A60836Y01	SCR,CUS 5X7 ZN A	\$1 108	68-02278Z32	O/M AOEU AODL
&1 103-5	03A60836Y01	SCR,CUS 5X7 ZN A	%1 108	68-02278Z33	O/M AAO AODL
#2 103-5	03A60836Y01	SCR,CUS 5X7 ZN A	&1 108	68-02278Z33	O/M AAO AODL
\$1 103-6	60S70585F01	BAT,LIT.3V (CR2025)	#2 108	68-02770Z09	O/M,AOCH 5207
%1 103-6	60S70585F01	BAT,LIT.3V (CR2025)	%1 109	01T15694Y05	ASSY,REMOCON EYE
&1 103-6	60S70585F01	BAT,LIT.3V (CR2025)	&1 109	01T15694Y05	ASSY,REMOCON EYE
			#2 109	01T15694Y05	ASSY,REMOCON EYE

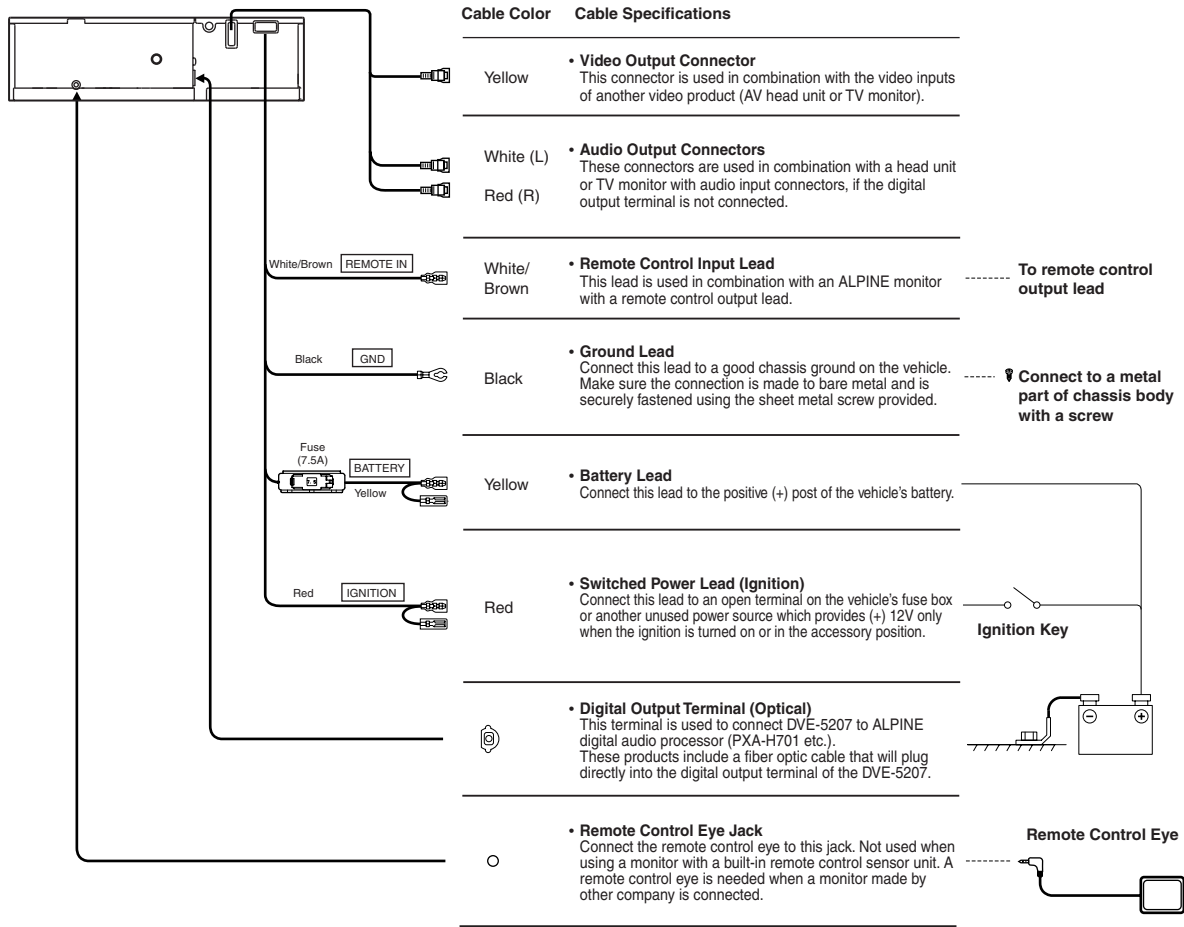
NOTE:\$1:For European Model Only, %1:For General Foreign/REGION-3 Model Only,&1:For General Foreign/REGION-4 Model Only, #2:For Chinese Model Only, Others:Common.

Packing Method View

NOTE:\$1 For European Model Only, %1 For General Foreign/REGION-3 Model Only, &1:For General Foreign/REGION-4 Model Only, #2:For Chinese Model Only, Others:Common.



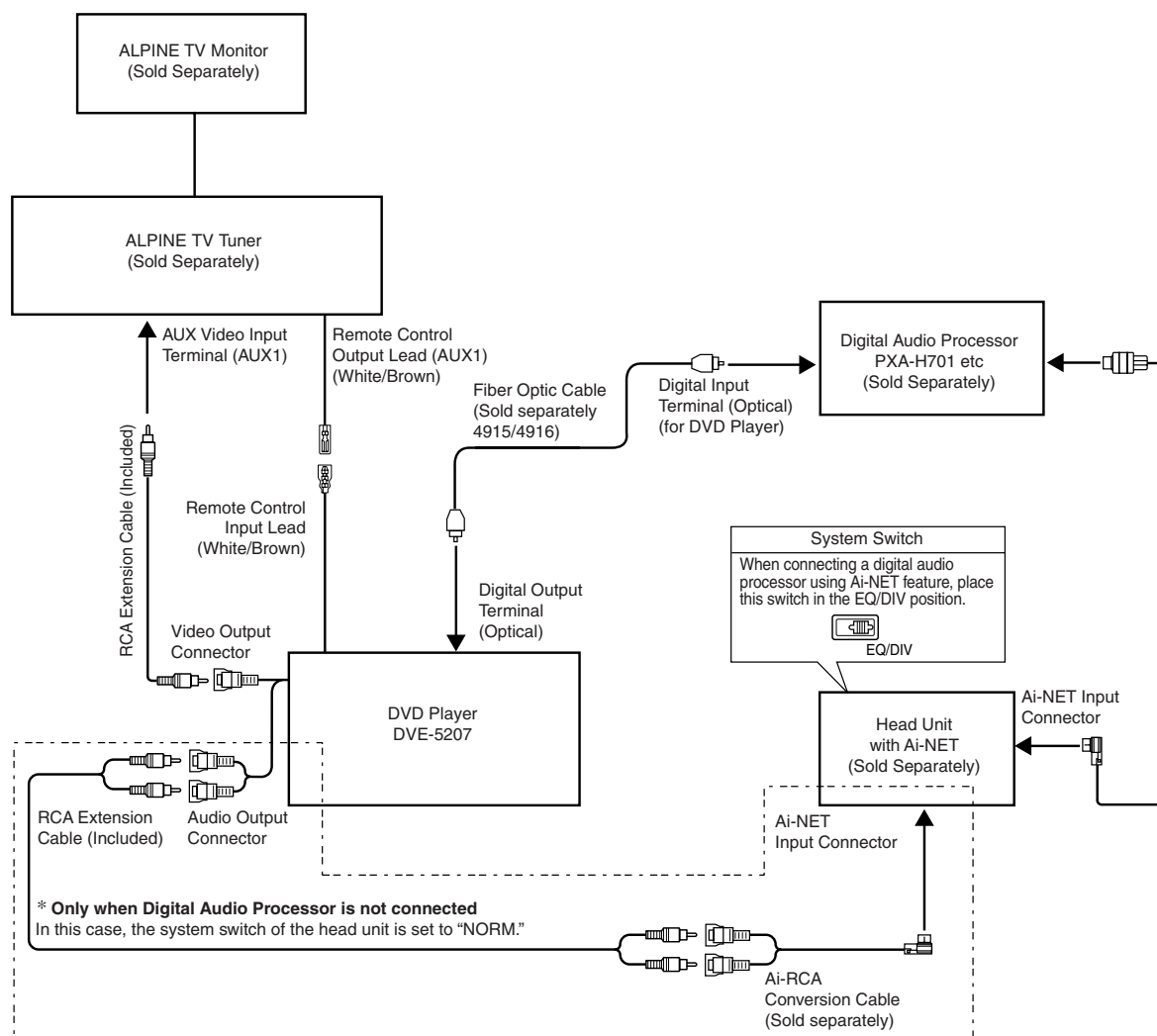
(North American Model Only)



- Connect properly.
Never connect to parts other than the ones indicated in these operating instructions.
- Also refer to the operating instructions of the other products in the system.
- A remote control eye is needed when a monitor made by another company is connected.

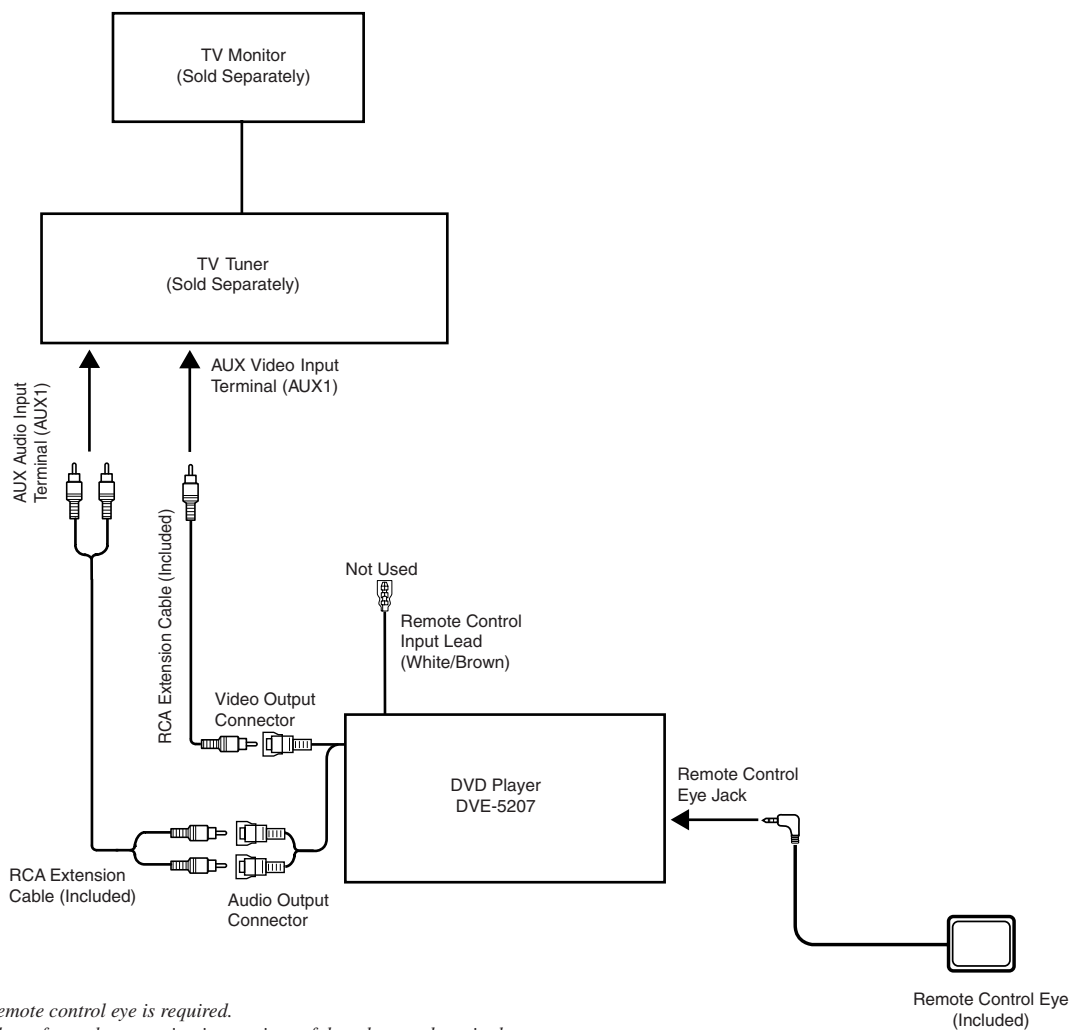
System Example

Connecting an Ai-NET compatible Head Unit, Digital Audio Processor (PXA-H701, PXA-H900, etc.) and ALPINE TV Monitor



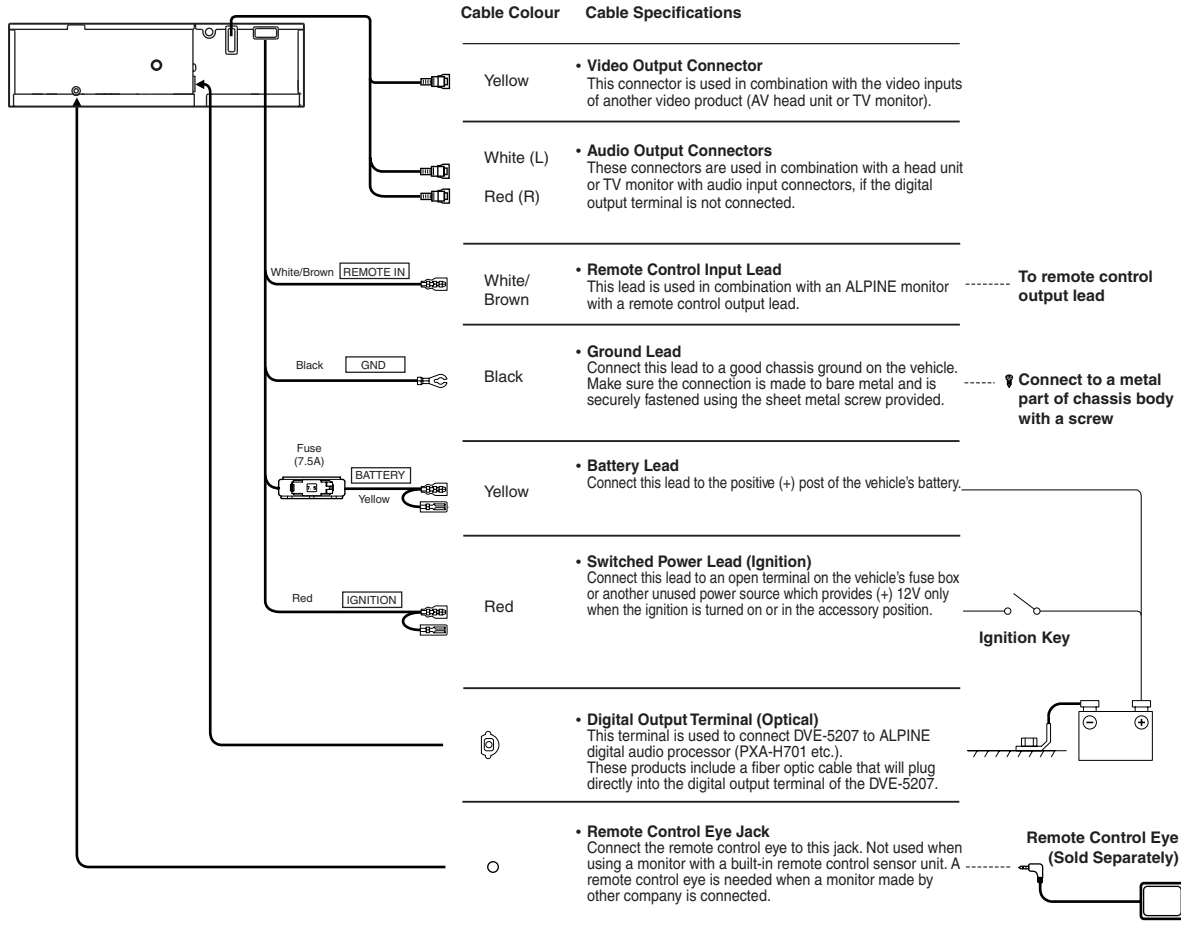
- Also refer to the operating instructions of the other products in the system.

Connecting Another Manufacturer's TV Monitor



- Remote control eye is required.
- Also refer to the operating instructions of the other products in the system.
- When you connecting another manufacturer's TV monitor, the remote control input lead (White/Brown), is not used.

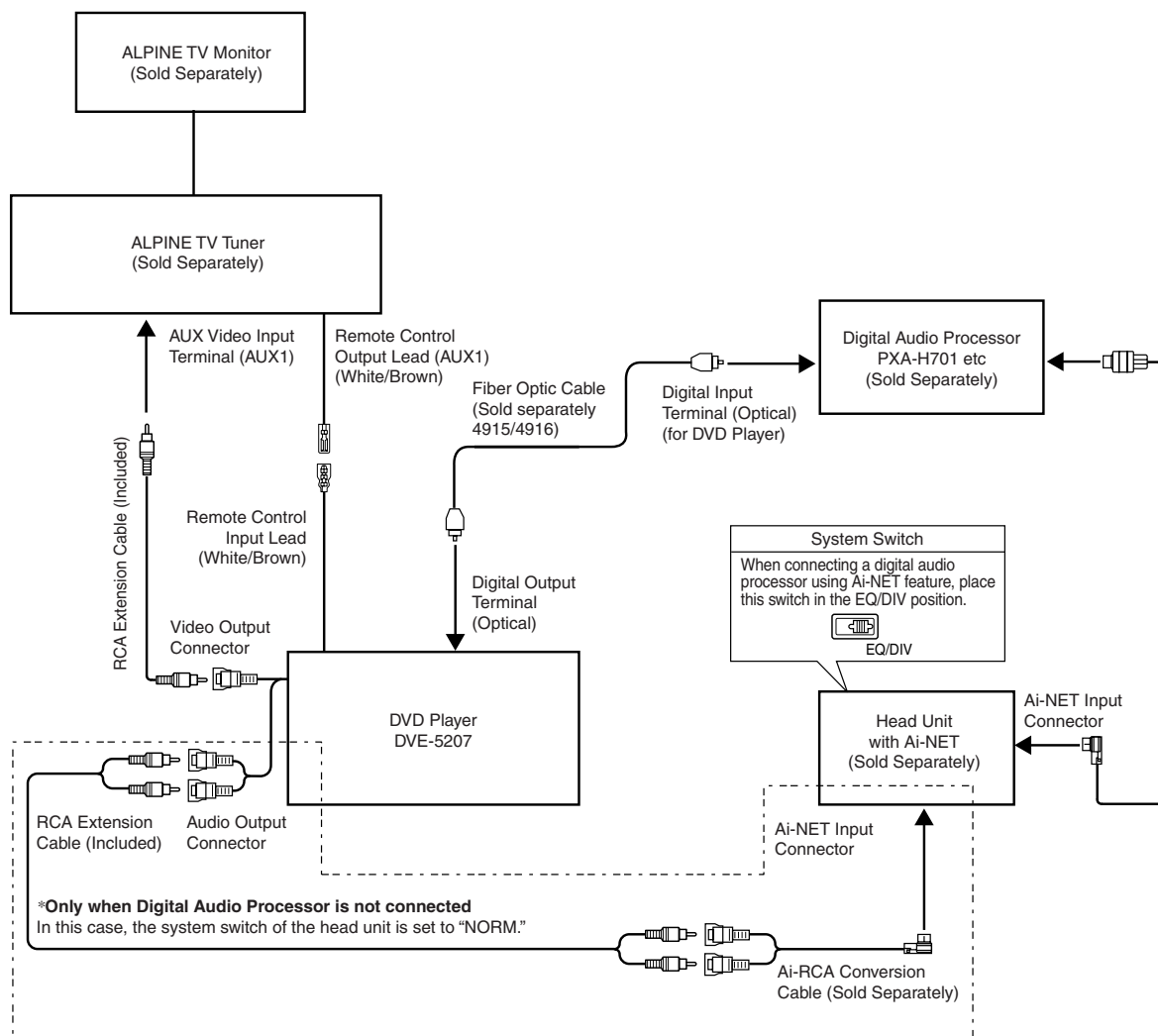
(European Model Only)



- Connect properly.
Never connect to parts other than the ones indicated in these operating instructions.
- Also refer to the operating instructions of the other products in the system.
- A remote control eye is needed when a monitor made by another company is connected.

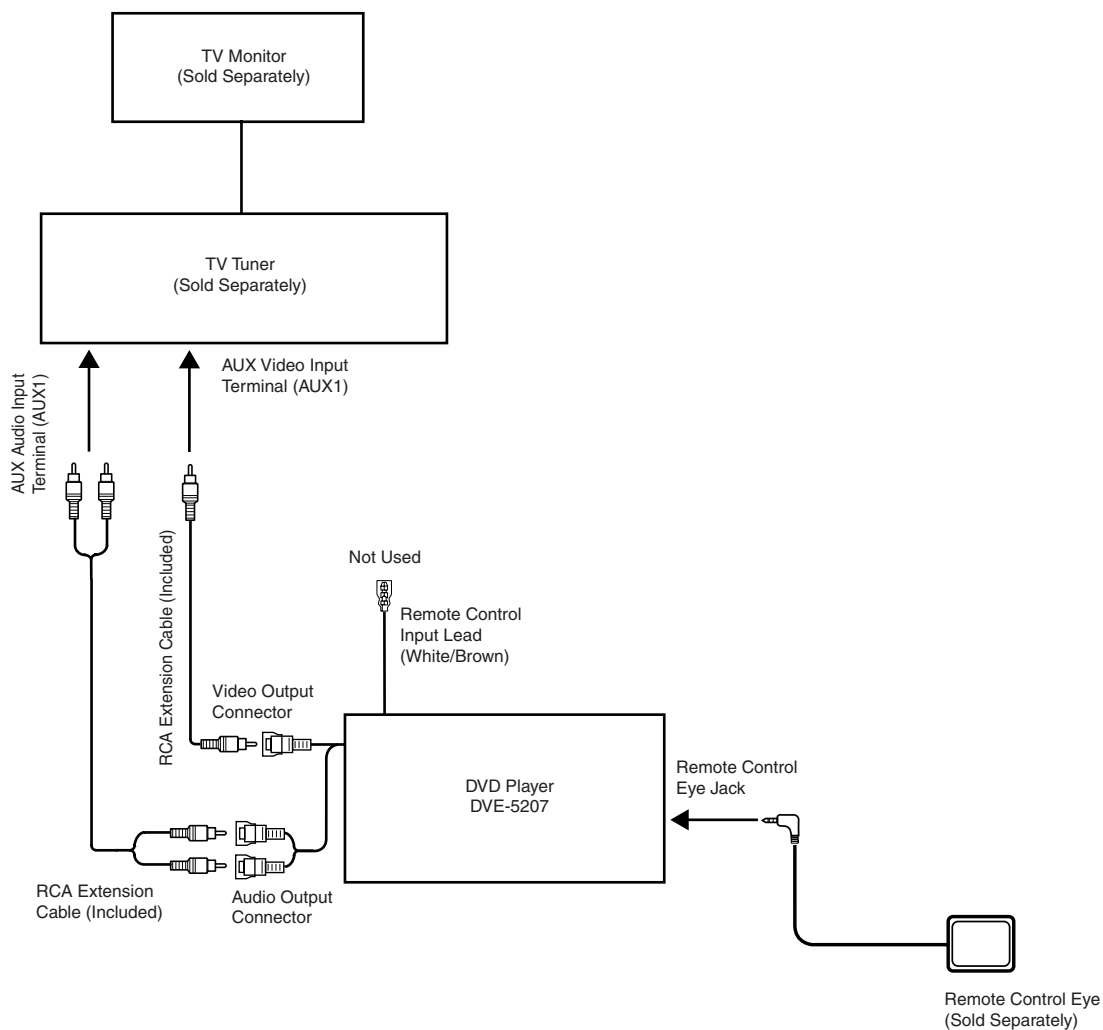
System Example

Connecting an Ai-NET compatible Head Unit, Digital Audio Processor (PXA-H701, PXA-H900, etc.) and ALPINE TV Monitor



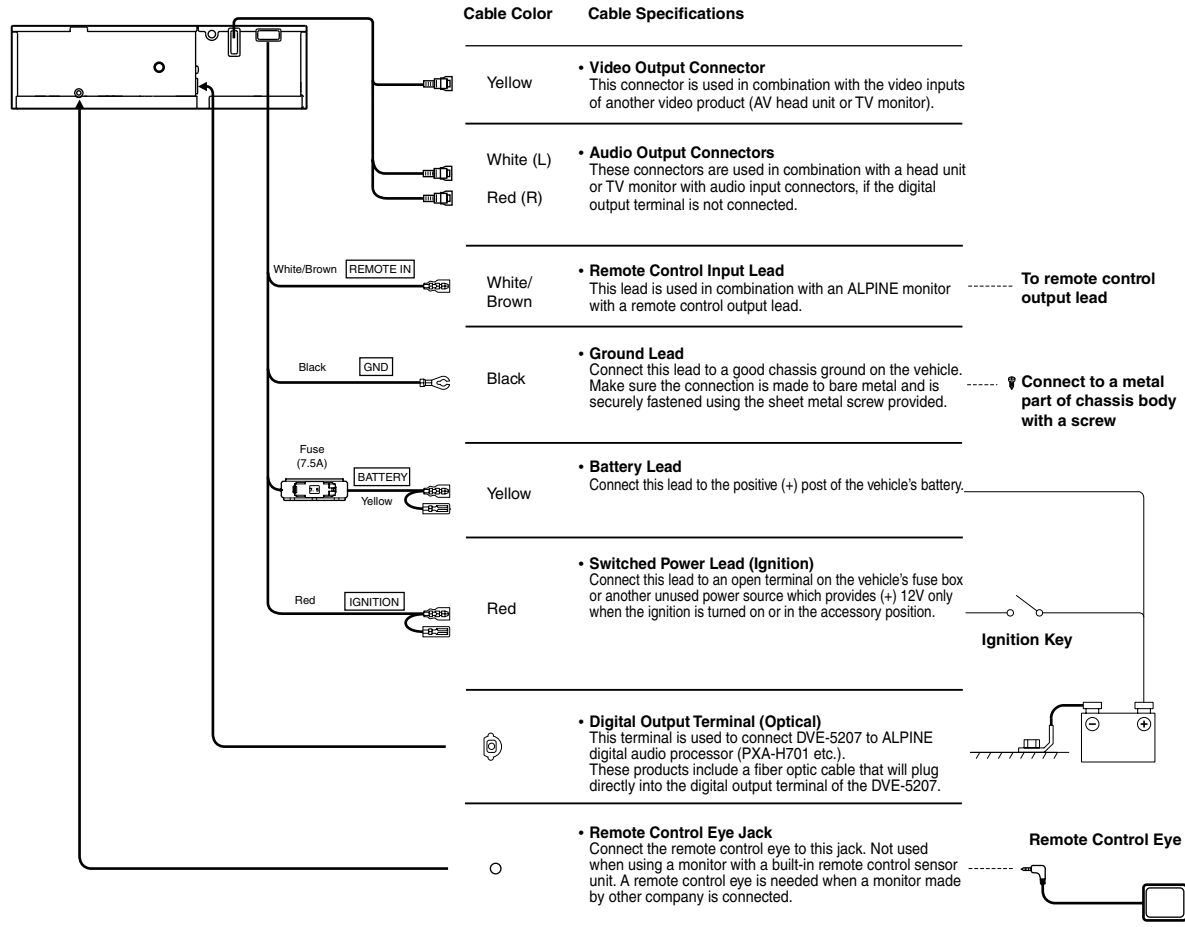
- Also refer to the operating instructions of the other products in the system.

Connecting Another Manufacturer's TV Monitor



- Remote control eye is required.
- Also refer to the operating instructions of the other products in the system.
- When you connecting another manufacturer's TV monitor, the remote control input lead (White/Brown), is not used.

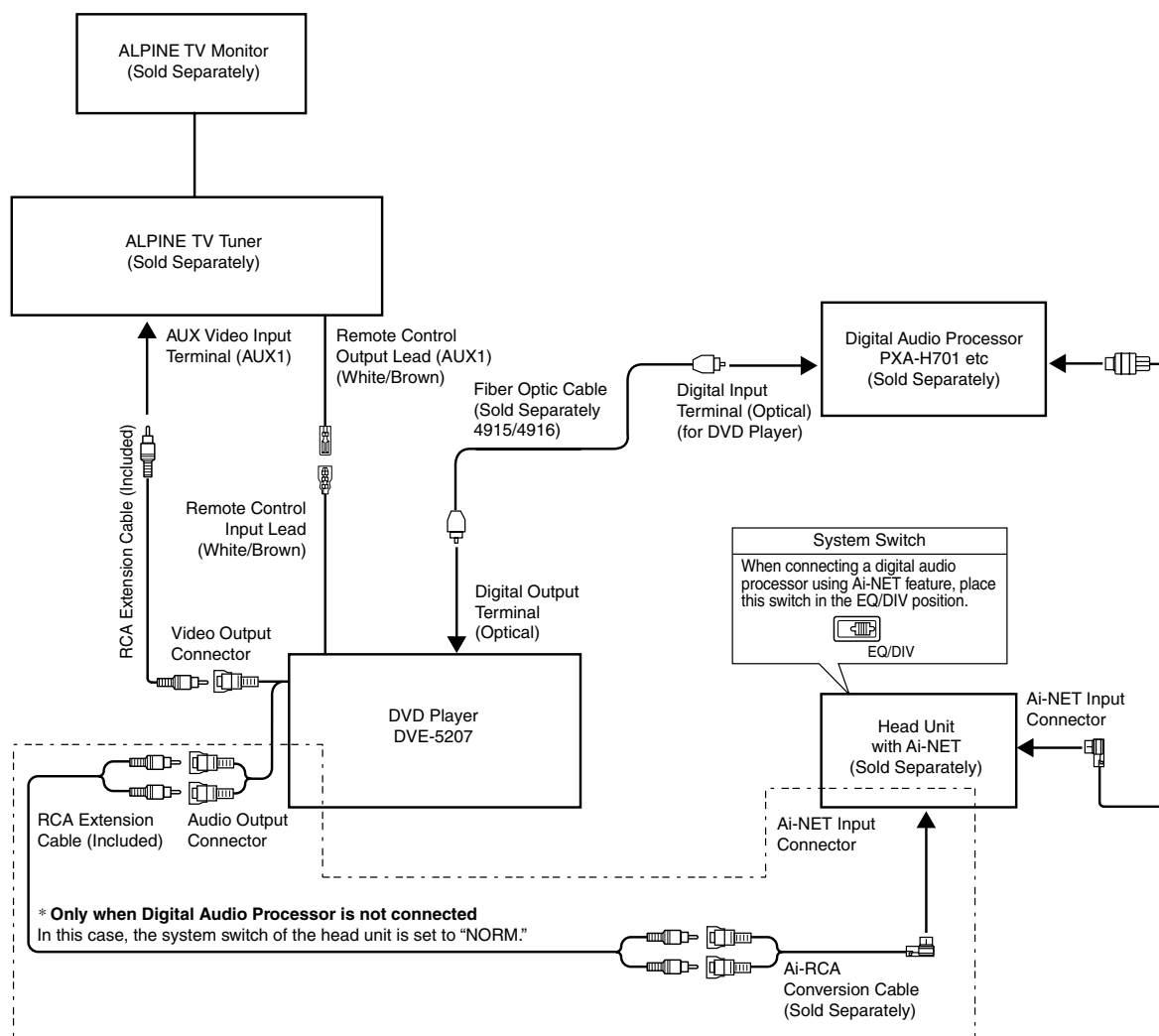
(General Foreign Model Only)



- *Connect properly.*
Never connect to parts other than the ones indicated in these operating instructions.
- *Also refer to the operating instructions of the other products in the system.*
- *A remote control eye is needed when a monitor made by another company is connected.*

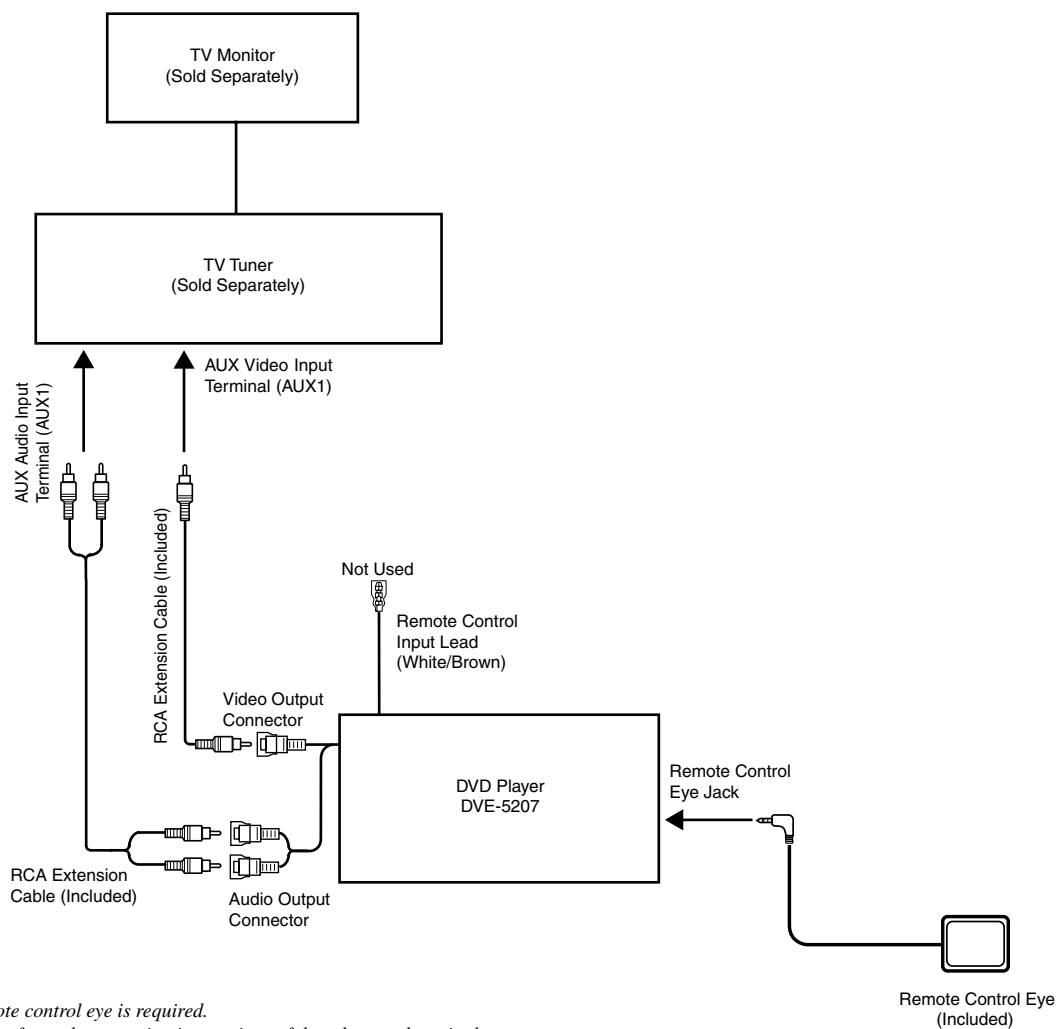
System Example

Connecting an Ai-NET compatible Head Unit, Digital Audio Processor (PXA-H701, PXA-H900, etc.) and ALPINE TV Monitor



- Also refer to the operating instructions of the other products in the system.

Connecting Another Manufacturer's TV Monitor



- Remote control eye is required.
- Also refer to the operating instructions of the other products in the system.
- When you connecting another manufacturer's TV monitor, the remote control input lead (White/Brown), is not used.

Specifications

<CD/DVD SECTION>

System Optical (DVD System)

(CD AUDIO)

Channel Balance (1kHz, TCD-782) 0±3dB

Distortion (1kHz, TCD-782) 0.3%

Frequency Response (Ref. 1kHz, TCD-782) 17Hz : 0±3dB

127Hz : 0±2dB

10.007kHz : 0±2dB

19.997kHz : 0±4dB

S/N Ratio (TCD-782) 75dB

Separation (1kHz, TCD-782) 70dB

De-Emphasis (Ref. 1kHz, TCD-782) 4kHz : -20±3dB

16kHz : -20±3dB

(MP-3 AUDIO)

Channel Balance (1kHz, SCD-5100 (Folder2-128kbps)) 0±3dB

Distortion (1kHz, SCD-5100 (Folder2-128kbps))	0.3%
---	------

Frequency Response (Ref. 1kHz, SCD-5100 (Folder2-128kbps)) 17Hz : 0±3dB

127Hz : 0±2dB

10.007kHz : 0±2dB

19.997kHz : 0±4dB

S/N Ratio (SCD-5100 (Folder2-128kbps)) 75dB

Separation (1kHz, SCD-5100 (Folder2-128kbps))	70dB
---	------

(DVD-VIDEO)

* **AUDIO PRE-OUT** : Title Number 4/Audio Stream 2/LPCM 48k

Channel Balance (1kHz, TDV-540A) Chapter 1 : 0±3dB

Distortion (1kHz, TDV-540A) Chapter 1 : 0.3%

Frequency Response (Ref. Chapter 9/999Hz, TDV-540A) Chapter 6 : 17Hz : 0±4dB

Chapter 8 : 127Hz : 0±2dB

Chapter 13 : 10.007kHz : 0±2dB

Chapter 15 : 19.997kHz : 0±4dB

S/N Ratio (Ref. Chapter 1, TDV-540A) Chapter 2 : 80dB

Separation (1kHz, TDV-540A) Chapter 3(L Only), 4(R Only) : 65dB

***VIDEO PRE-OUT** : NTSC/Terminating Resistance 75 ohm

: PAL/Terminating Resistance 75 ohm

Luminance Level (TDV-540A Title 2/Chapter 6 (NTSC)) 1±0.1V

(V-509 Title 4/Chapter 3 (PAL))

Luminance Frequency Response (6MHz, TDV-540A Title 2/Chapter 8 (NTSC)) -4±2dB

(6MHz, V-509 Title 5/Chapter 2 (PAL))

Luminance Signal S/N Ratio (TDV-540A Title 2/Chapter 4 (NTSC)) 60dB

(V-509 Title 4/Chapter 4 (PAL))

(VIDEO-CD)

***AUDIO** (MPEG Audio) : Title Number 4/Audio Stream 2/LPCM 48k

Channel Balance (1kHz, TVD-581A or HLV-402)	0±3dB
Distortion (1kHz, TVD-581A or HLV-402)	0.3%
Frequency Response (Ref. 1kHz, TVD-581A or HLV-402)	21Hz : 0±4dB 127Hz : 0±2dB 10.007kHz : 0±2dB 19.997kHz : 0±4dB
S/N Ratio (TVD-581A or HLV-402)	80dB
Separation (1kHz, TVD-581A or HLV-402)	65dB

***VIDEO** : NTSC/Terminating Resistance 75 ohm

: PAL/Terminating Resistance 75 ohm

Luminance Level (TVD-581A or HLV-402 (NTSC), HLV-402 (PAL))	1±0.15V
Luminance Frequency Response (2MHz, TVD-581A or HLV-402 (NTSC), HLV-402 (PAL))	-2±2dB
Luminance Signal S/N Ratio (TVD-581A or HLV-402 (NTSC), HLV-402 (PAL))	55dB

<DVD Deck Mechanism>

Test Disc	for Single layer disc valuation : TDV-520C for Dual layer disc valuation : TDV-540C
RF Waveform Amplitude	1.125±0.5Vp-p
Quantity of Jitter (all-T standard deviation)	Less than 14.0%
Measurement Angle Range	Front and Rear : -20°~50° Right and Left : ±20°
Laser Current	Initial value ±2mA (The initial value of laser current is indicated on the Flexible Cable.)

<Pickup>

Wave Length	DVD : 665nm CD : 800nm
Laser Power	CLASS II

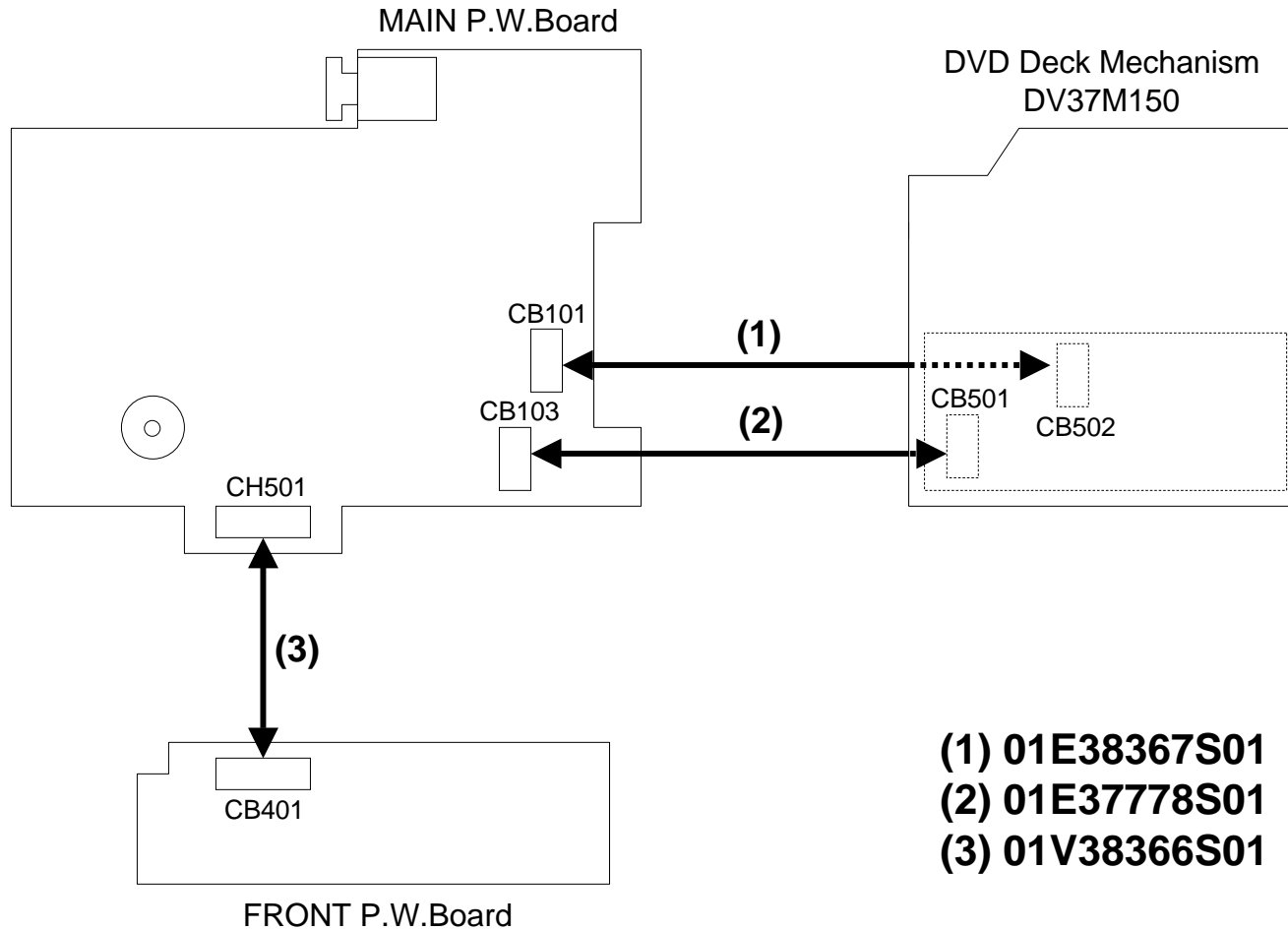
<GENERAL>

Power Supply	DC14.4V
Output Level (Ref. 1kHz) /Impedance	CD : 1200±200mV / ch / 10kohm MP-3 : 1200±200mV / ch / 10kohm DVD-VIDEO : 1200±200mV / ch / 10kohm VIDEO-CD : 1200±200mV / ch / 10kohm
Back Up Current ("ACC OFF" after 1 minute)	5mA
Dimensions (W x H x D)	Chassis : 178 x 50 x 158mm Nose : 170 x 46 x 19.5mm
Weight	1.5kg

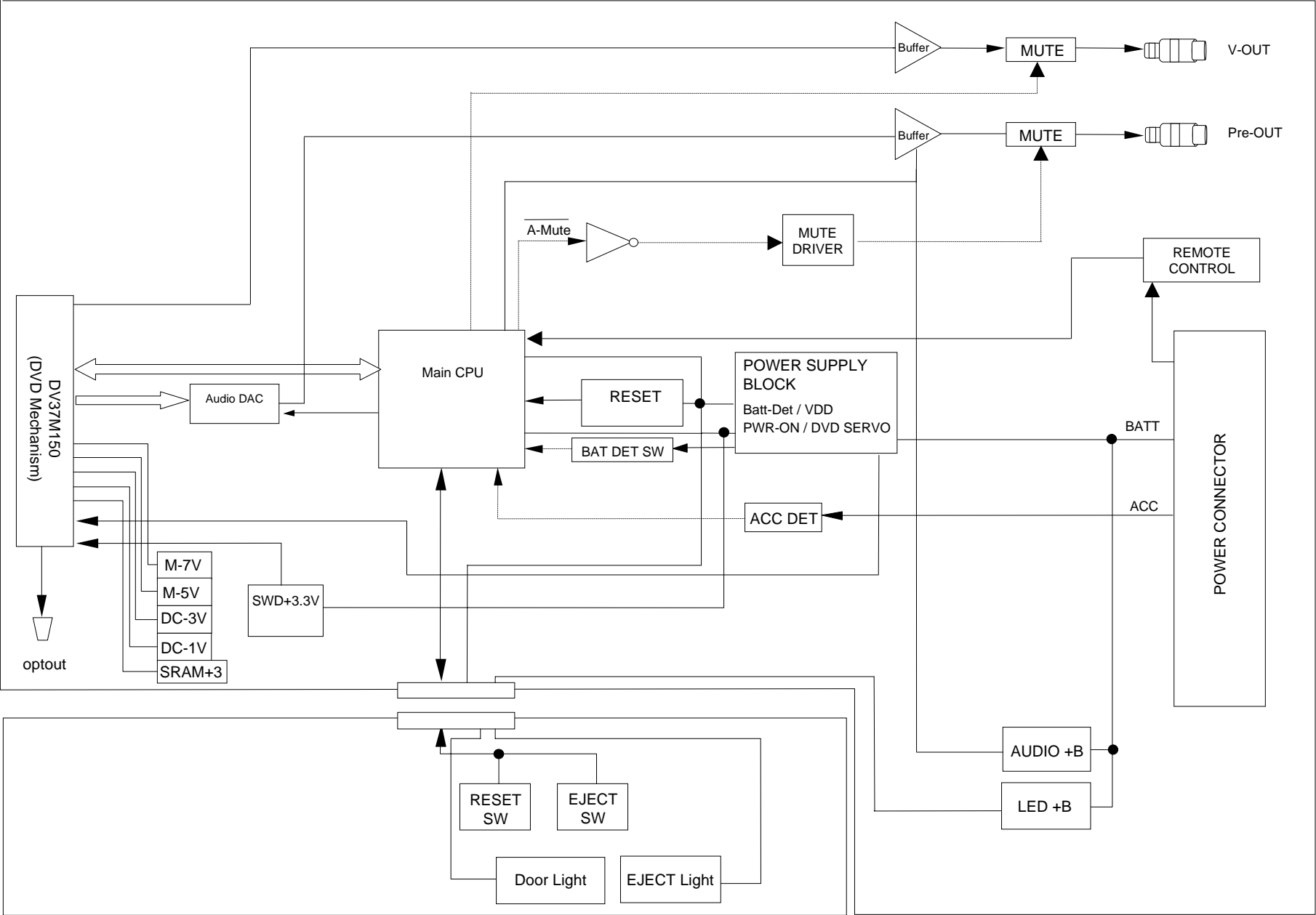
NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.

Extension Cable

*Always connect the Extension Cable when making checks of voltage and repair.



Block Diagram



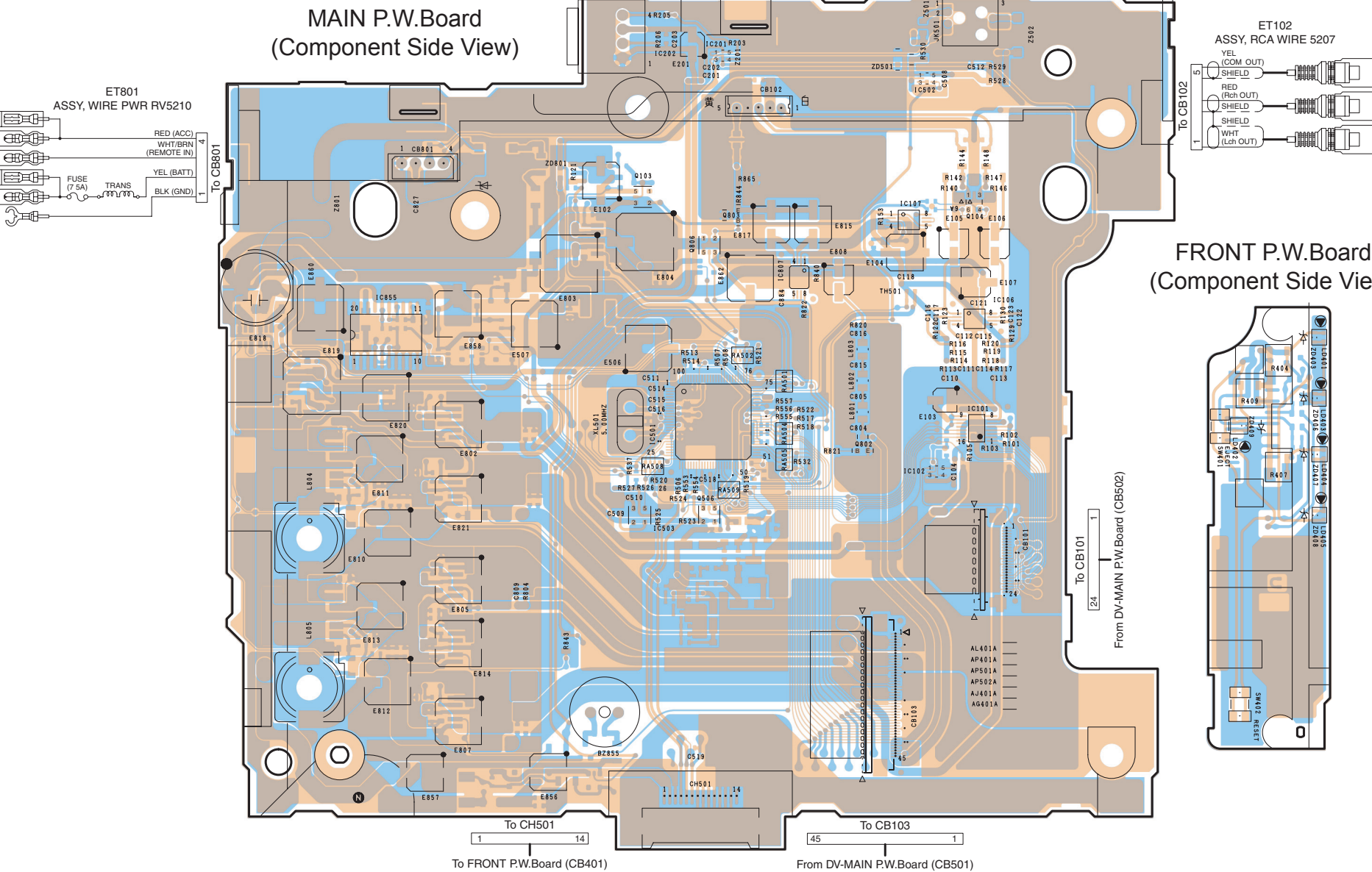
1

2

3

4

5



Orange Color Pattern:Component Side Pattern
Blue Color Pattern:Foil Side Pattern

A

B

C

D

E

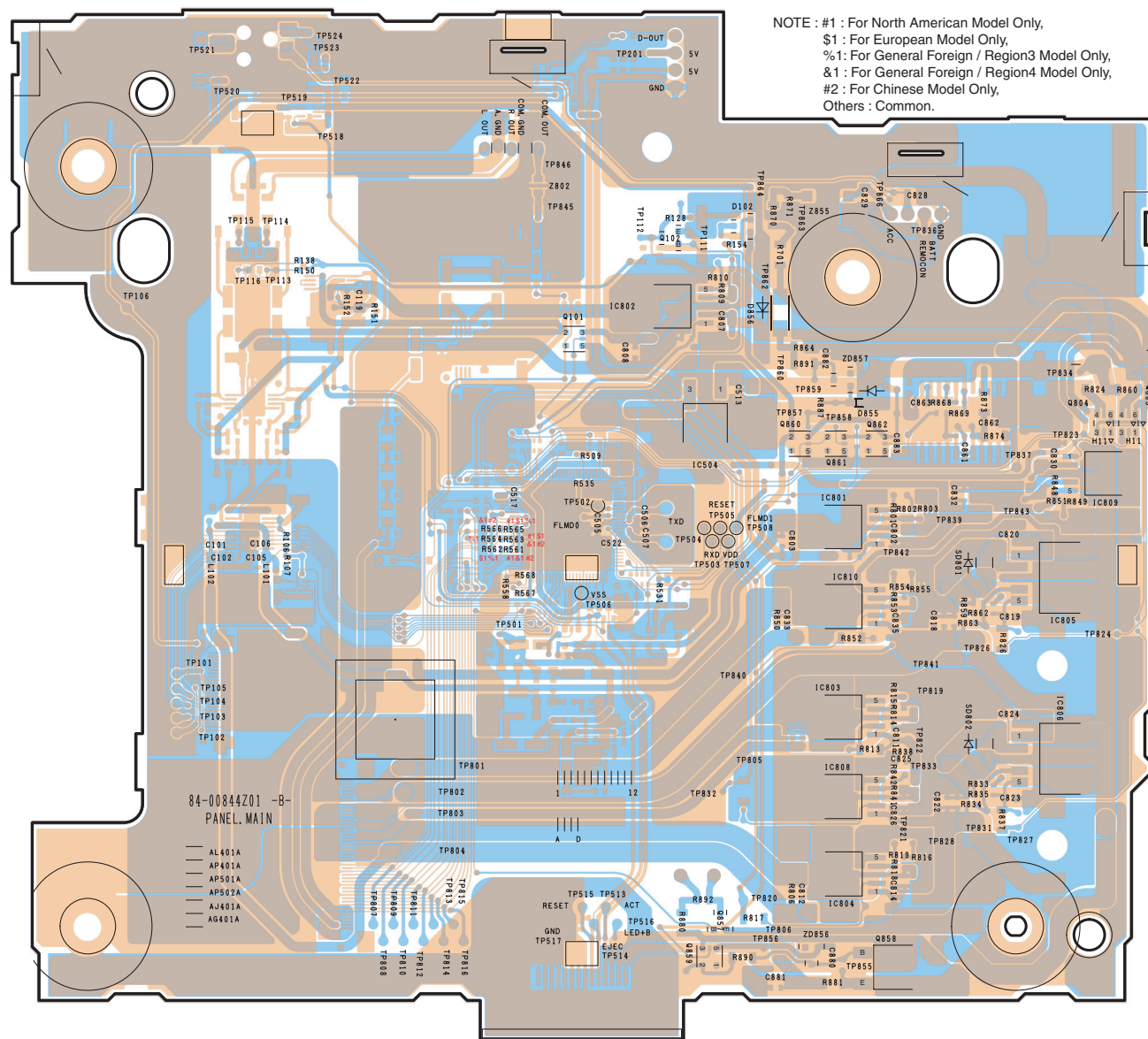
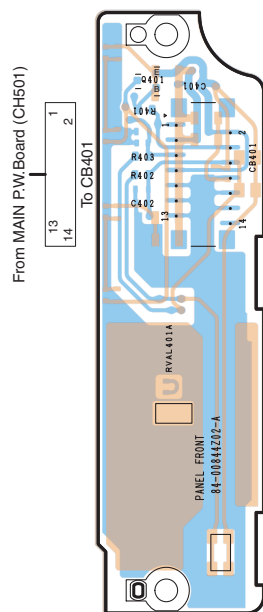
F

G

MAIN P.W.Board (Foil Side View)

NOTE : #1 : For North American Model Only,
\$1 : For European Model Only,
%1 : For General Foreign / Region3 Model Only,
&1 : For General Foreign / Region4 Model Only,
#2 : For Chinese Model Only,
Others : Common.

FRONT P.W.Board
(Foil Side View)



Orange Color Pattern:Component Side Pattern
Blue Color Pattern:Foil Side Pattern

1

2

3

4

5

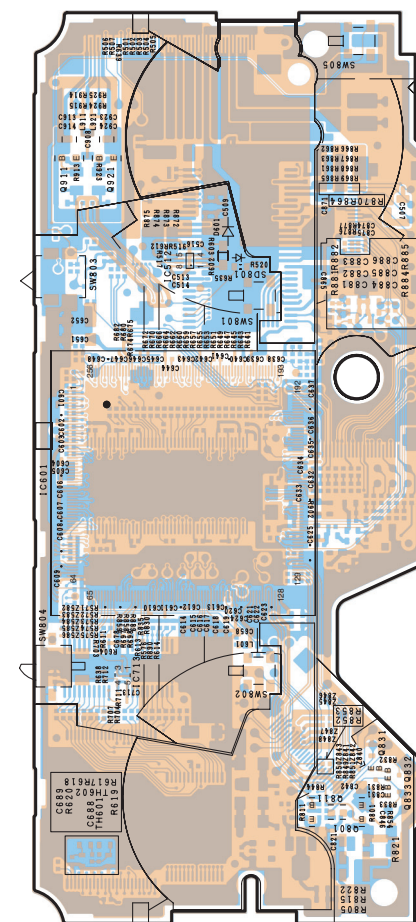
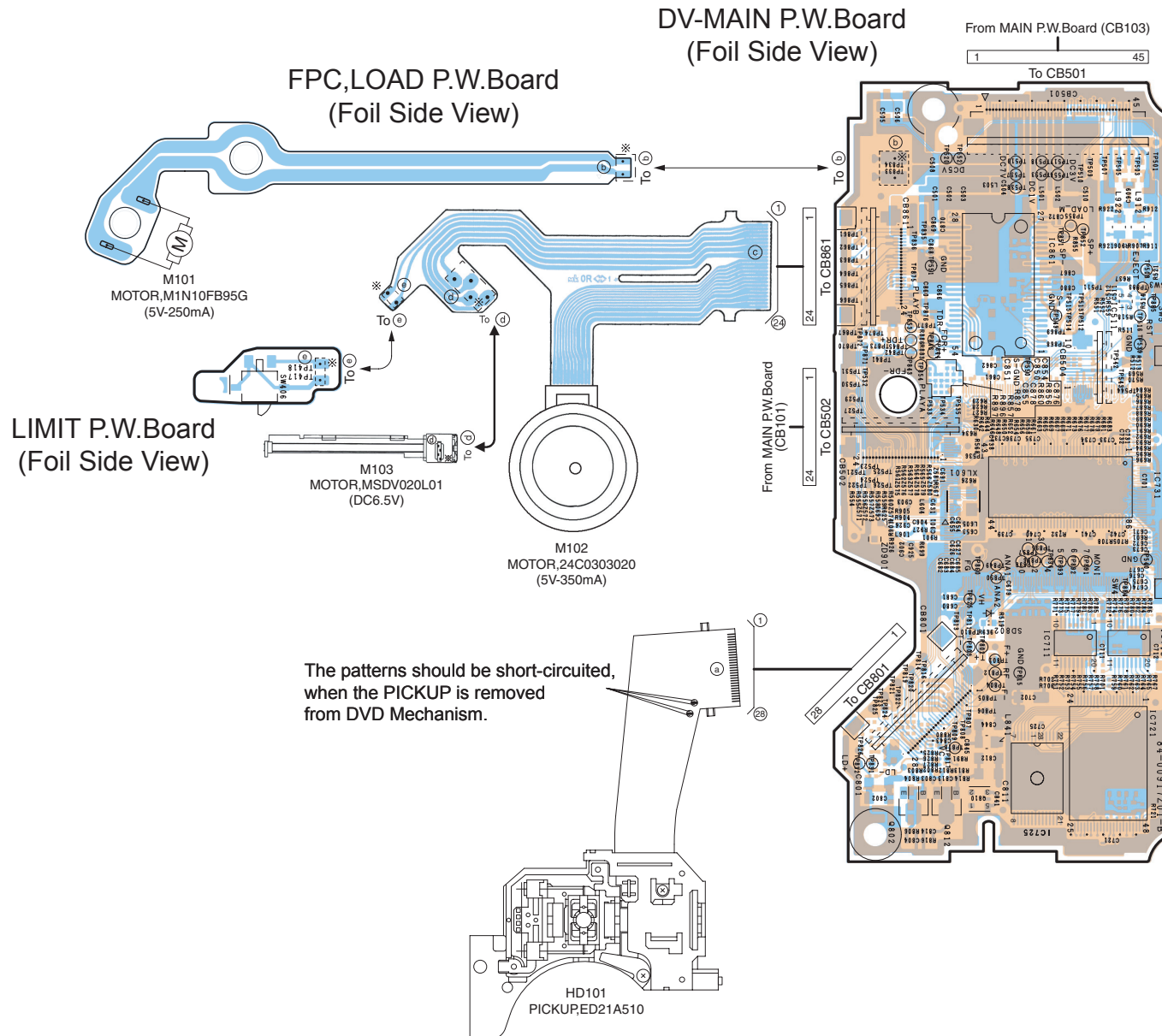
DV-MAIN P.W.Board
(Foil Side View)

From MAIN P.W.Board (CB103)

FPC,LOAD P.W.Board
(Foil Side View)

LIMIT P.W.Board
(Foil Side View)

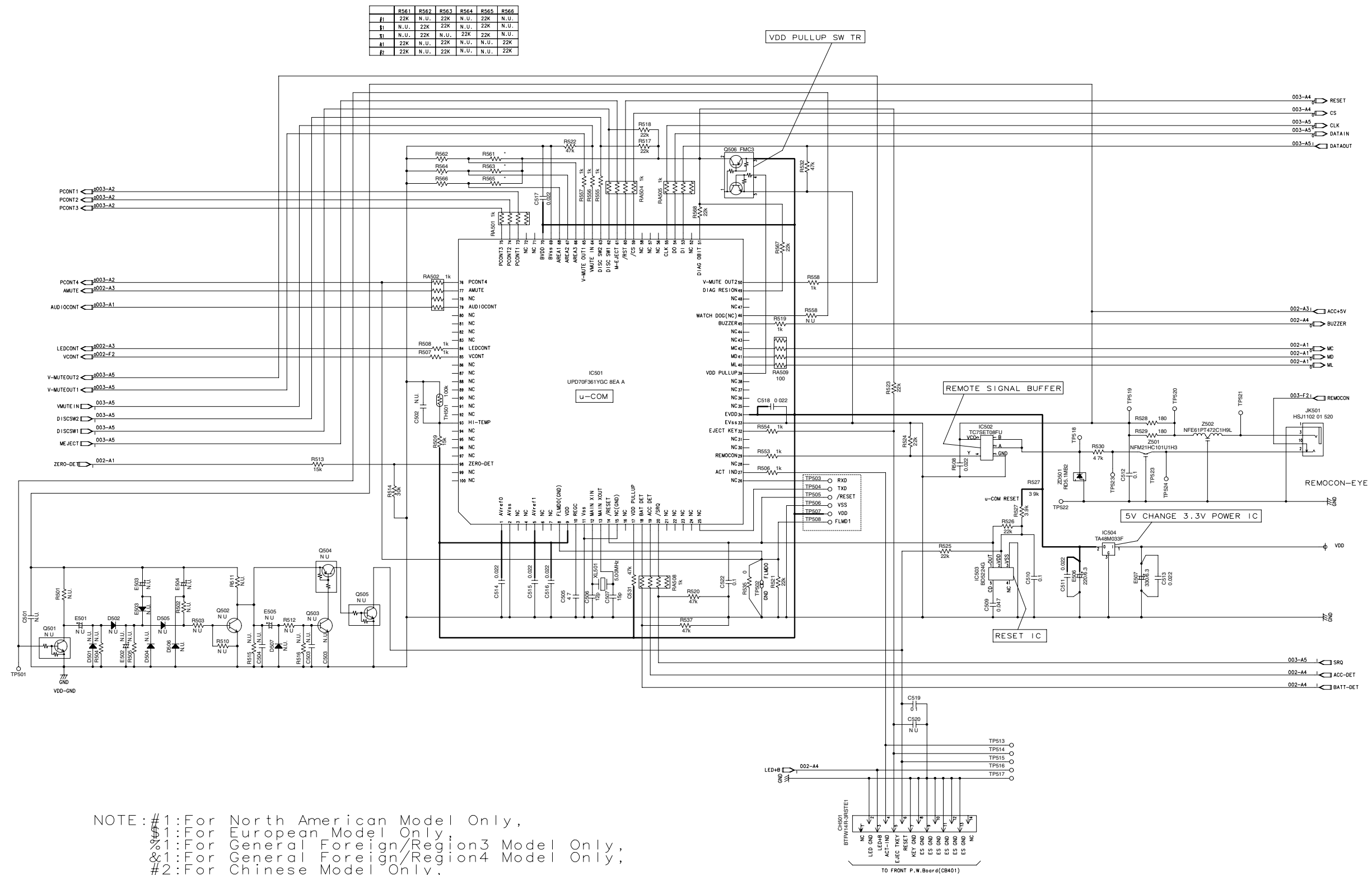
DV-MAIN P.W.Board
(Component Side View)



Orange Color Pattern:Component Side Pattern
Blue Color Pattern:Foil Side Pattern

Schematic Diagram(1/7)

DVE-5207



MAIN P.W.Board(1/3)
 NOTE: N.U. is Not Used Parts.

F

1



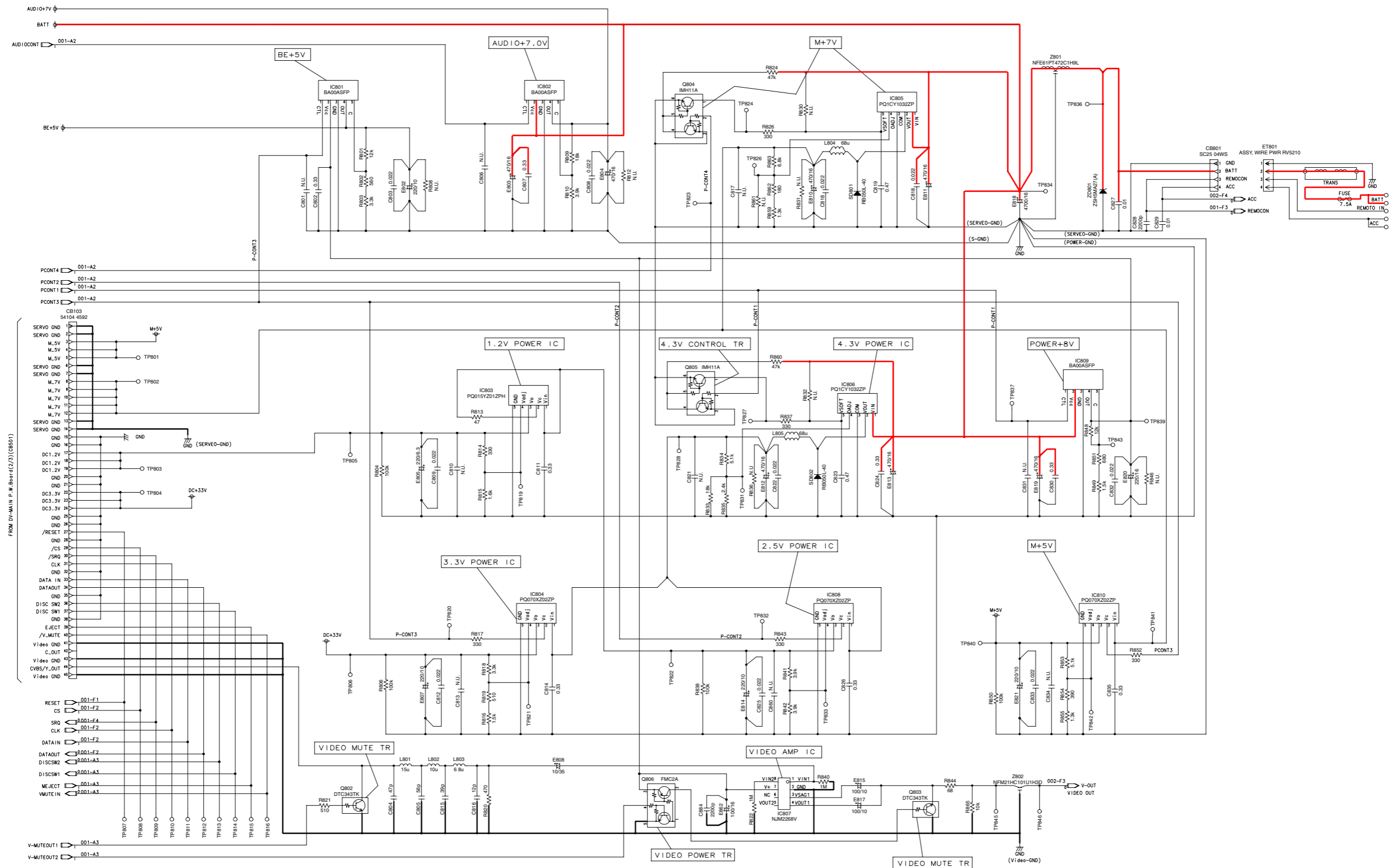
3

4

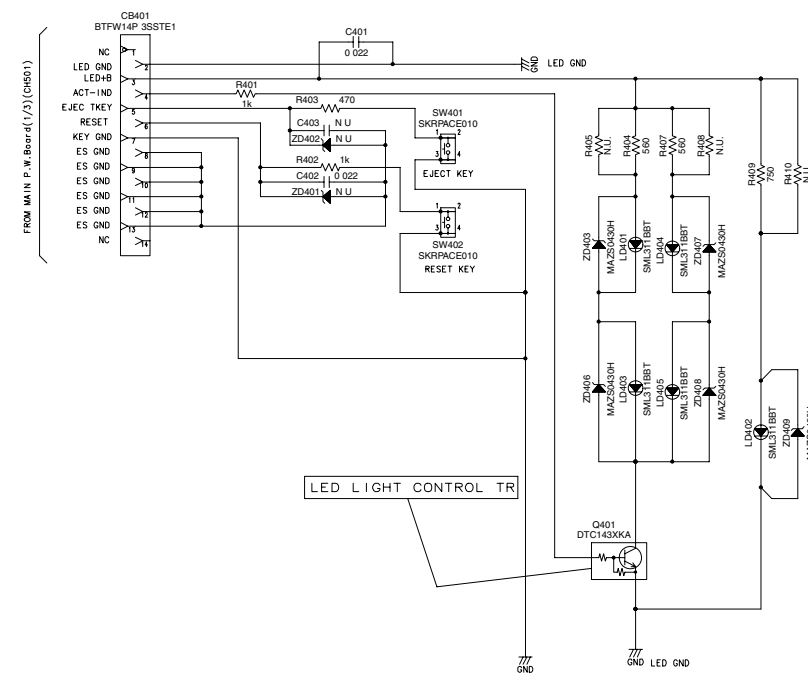
5

Schematic Diagram(3/7)

DVE-5207



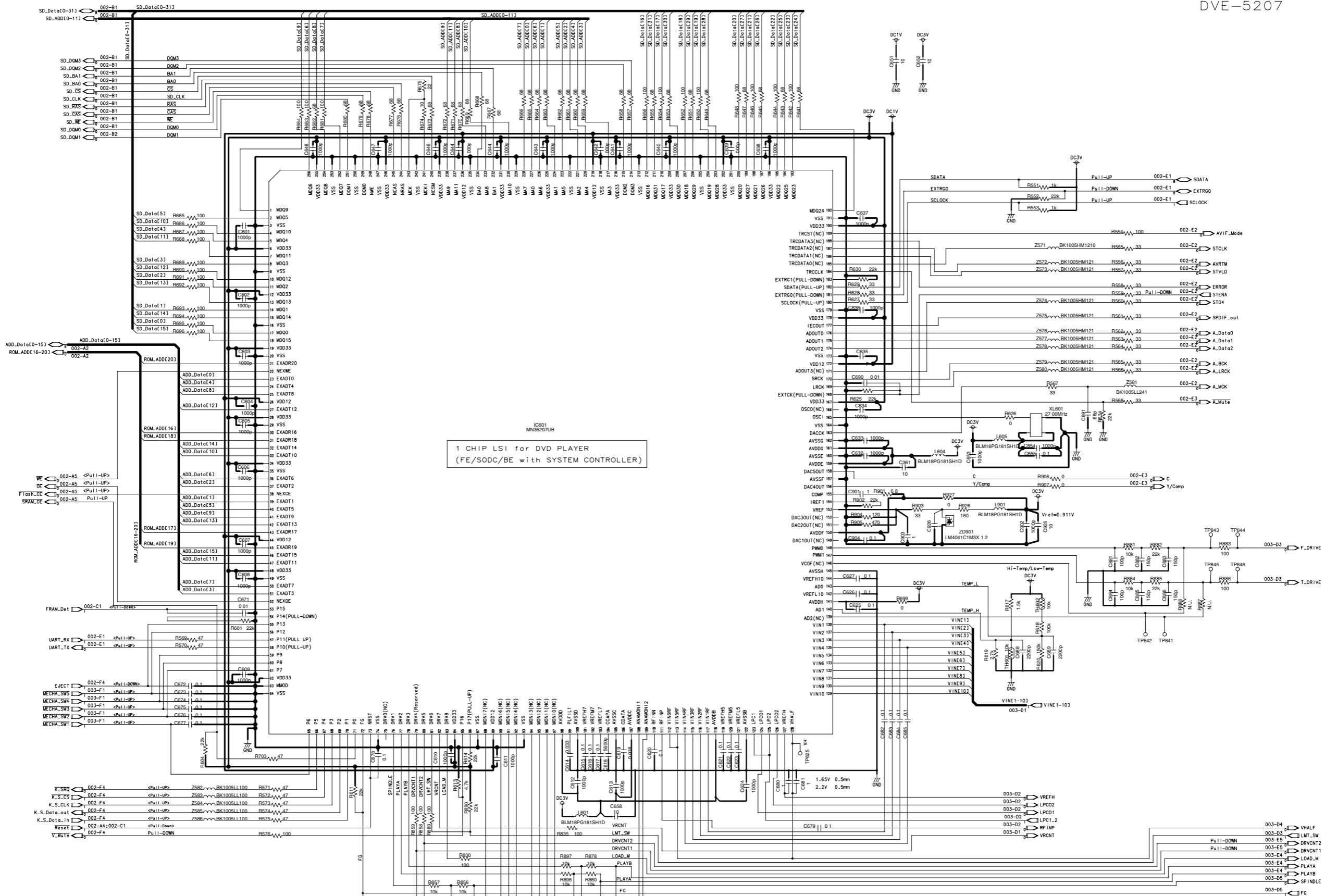
MAIN P.W.Board(3/3)
NOTE:N.U.is Not Used Parts.



FRONT P.W.Board
NOTE:N.U.is Not Used Parts.

Schematic Diagram(5/7)

DVE-5207



DV-MAIN P.W.Board(1/3)
NOTE:N.U.is Not Used Parts.

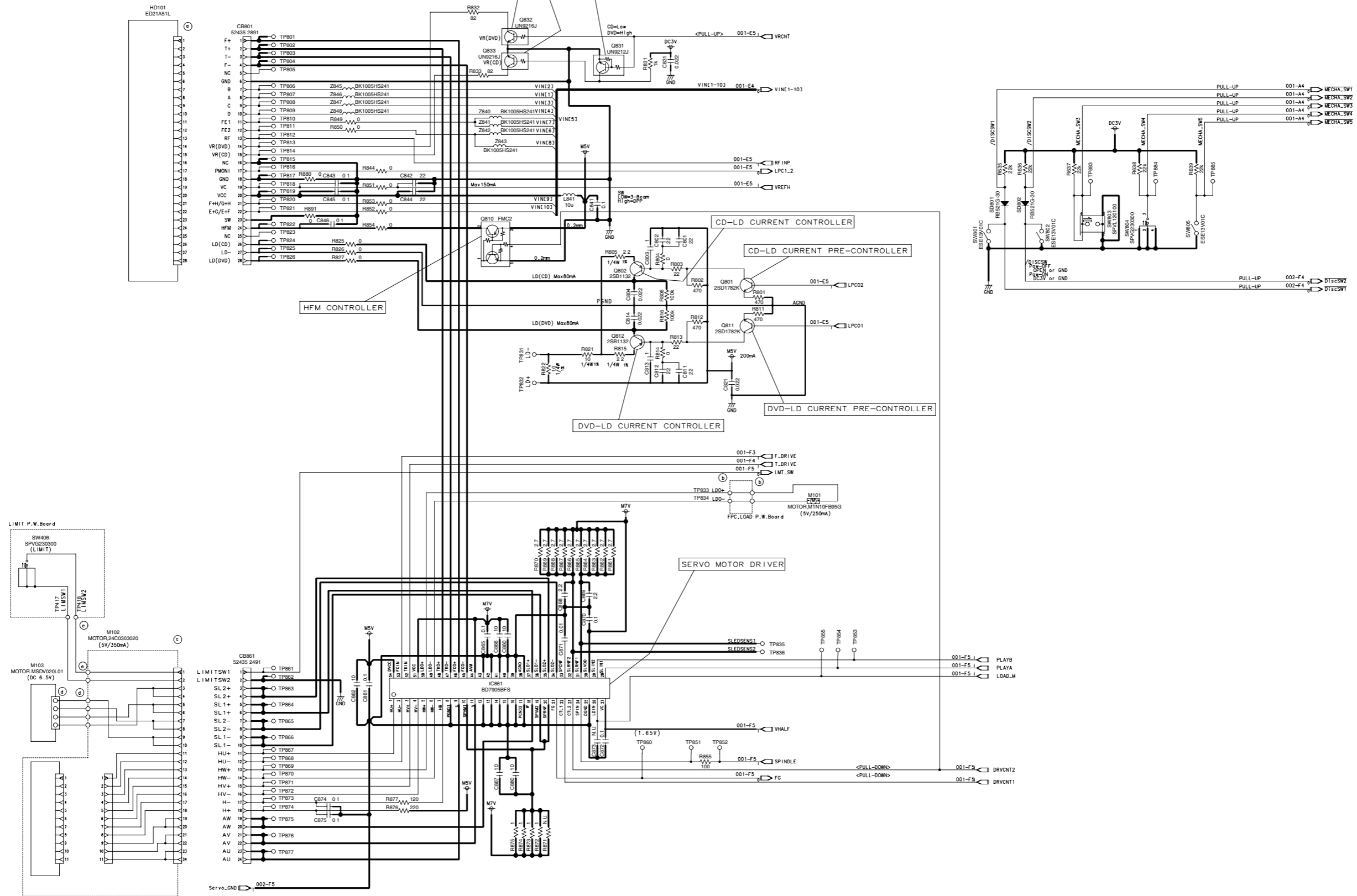
F

5



Schematic Diagram(7/7)

DVE-5207



Terminal Voltage of IC/TR

IC101		
NO.	VOLTAGE	NOTE
1	PULSE	
2	PULSE	
3	PULSE	
4	0	
5	3.28	
6	5.06	
7	PULSE	
8	PULSE	
9	0	
10	2.52	
11	3.26/0	/ZERO detect
12	3.26	
13	PULSE	
14	PULSE	
15	PULSE	
16	PULSE	

IC201		
NO.	VOLTAGE	NOTE
1	PULSE	
2	PULSE	
3	0	
4	PULSE	
5	5.06	

IC202		
NO.	VOLTAGE	NOTE
1	0	
2	2.15	
3	5.06	
4	PULSE	

IC102		
NO.	VOLTAGE	NOTE
1	3.25/0	/AMUTE ON
2	3.26/0	/ZERO detect
3	0	
4	5.05/0	
5	5.06	

IC106		
NO.	VOLTAGE	NOTE
1	PULSE	
2	PULSE	
3	PULSE	
4	0	
5	PULSE	
6	PULSE	
7	PULSE	
8	6.97	

IC107		
NO.	VOLTAGE	NOTE
1	3.48	
2	3.48	
3	3.48	
4	0	
5	3.48	
6	3.48	
7	3.48	
8	6.97	

IC501								
NO.	VOLTAGE	NOTE	NO.	VOLTAGE	NOTE	NO.	VOLTAGE	NOTE
1	3.3		36	0		68	3.3	#1, \$1, %1
2	0		37	0			0	&1, #2
3	0		38	0		69	0	
4	0		39	3.3		70	3.3	
5	3.3		40	PULSE		71	0	
6	0		41	PULSE		72	0	
7	0		42	PULSE		73	3.3	
8	0.35		43	0		74	3.3	
9	3.3		44	0		75	3.3	
10	2.55		45	0/PULSE	BZ off/on	76	3.3	
11	0		46	0		77	3.3/0	AMUTE OFF/ON
12	PULSE		47	0		78	3.3	
13	PULSE		48	0		79	3.3	
14	3.3/0	Reset OFF/ON	49	3.3		80	0	
15	0		50	3.3/0	ON/OFF	81	0	
16	2.53		51	3.3		82	0	
17	3.3		52	0		83	0	
18	4.94		53	PULSE		84	3.3	
19	4.91		54	PULSE		85	3.3	
20	PULSE		55	PULSE		86	0	
21	0		56	0		87	0	
22	0		57	0		88	0	
23	0		58	0		89	0	
24	0		59	PULSE		90	0	
25	0		60	3.3/0	RESET OFF/ON	91	0	
26	0		61	0		92	0	
27	PULSE		62	3.33/0.03	/LOAD&EJECT	93	2.77	
28	0		63	3.33/0.03	/LOAD&EJECT	94	0	
29	4.90	PULSE effective	64	3.20		95	0	
30	0		65	0		96	0	
31	0		66	3.3	#1, &1, #2	97	0	
32	3.3/0.07	EJECT OFF/ON		0	\$1, %1	98	3.3/0	/ZERO detect
33	0		67	3.3	#1, \$1, &1	99	0	
34	3.37			0	%1, #2	100	0	
35	0							

NOTE : #1:For North American Model Only, \$1:For European Model Only, %1:For General Foreign/Region3 Model Only, &1:For General Foreign/Region4 Model Only, #2:For Chinese Model Only, Others:Common.

IC502		
NO.	VOLTAGE	NOTE
1	3.57	PULSE effective
2	3.57	PULSE effective
3	0	
4	4.91	PULSE effective
5	4.91	PULSE effective

IC503		
NO.	VOLTAGE	NOTE
1	3.36	
2	3.36	
3	0	
4	NC	
5	1.91	

IC504		
NO.	VOLTAGE	NOTE
1	4.97	
2	3.37	
3	0	

IC801		
NO.	VOLTAGE	NOTE
1	3.22	
2	8.04	
3	0	
4	5.06	
5	1.235	

IC802		
NO.	VOLTAGE	NOTE
1	3.26	
2	14.32	
3	0	
4	7.03	
5	1.232	

IC803		
NO.	VOLTAGE	NOTE
1	2.48	
2	2.46	
3	1.207	
4	1.001	
5	0	

IC804		
NO.	VOLTAGE	NOTE
1	4.29	
2	3.2	
3	3.29	
4	1.25	
5	0	

IC805		
NO.	VOLTAGE	NOTE
1	14.35	
2	7.1	
3	0	
4	1.26	
5	6.73	

IC806		
NO.	VOLTAGE	NOTE
1	14.35	
2	4.35	
3	0	
4	1.26	
5	6.73	

IC807		
NO.	VOLTAGE	NOTE
1	PULSE	
2	0	
3	PULSE	
4	PULSE	
5	4.46	
6	NC	
7	8.04	
8	4.54	

IC808		
NO.	VOLTAGE	NOTE
1	4.29	
2	3.32	
3	2.49	
4	1.247	
5	0	

IC809		
NO.	VOLTAGE	NOTE
1	3.01	
2	14.38	
3	0	
4	8.04	
5	1.23	

IC810		
NO.	VOLTAGE	NOTE
1	7.08	
2	3.2	
3	4.99	
4	1.248	
5	0	

IC855		
NO.	VOLTAGE	NOTE
1	0	
2	0	
3	0	
4	3.56	
5	4.87	
6	2.75	
7	0	
8	0	
9	0	
10	0	
11	0	
12	0	
13	0	
14	NC	
15	4.97	
16	4.97	
17	14.35	
18	0	
19	0	
20	0	

Q101		
NO.	VOLTAGE	NOTE
1	0.01	POWER ON
2	6.95	
3	7.05	
4	3.12	
5	0	

Q102		
NO.	VOLTAGE	NOTE
B	3.1/0	Usually / AMUTE ON
C	0.01/0	
E	0/4.67	

Q103		
NO.	VOLTAGE	NOTE
1	14.31/0.01	Usually / AMUTE ON
2	-0.4/14.31	
3	14.37/14.38	
4	0.01/4.67	
5	0	

Q104		
NO.	VOLTAGE	NOTE
1	PULSE/0	Usually / AMUTE ON
2	0	
3	PULSE/0	
4	-0.5/11.77	
5	0	
6	-0.5/11.77	

Q401		
NO.	VOLTAGE	NOTE
B	PULSE	POWER ON
C	PULSE	
E	0	

Q506		
NO.	VOLTAGE	NOTE
1	0	POWER ON
2	3.36	
3	3.36	
4	3.33	
5	0	

Q802		
NO.	VOLTAGE	NOTE
E	0/0	Usually / VMUTE1 ON
B	0/2.68	
C	PULSE/0.03	

Q803		
NO.	VOLTAGE	NOTE
E	PULSE/0	Usually / VMUTE2 ON
B	0/8.03	
C	0/0	

Q804		
NO.	VOLTAGE	NOTE
1	6.73	POWER ON
2	2.97	
3	0	
4	0.01	
5	0.01	
6	0	

Q805		
NO.	VOLTAGE	NOTE
1	6.73	POWER ON
2	3.01	
3	0	
4	0.01	
5	0.01	
6	0	

Q806		
NO.	VOLTAGE	NOTE
1	8.04/0.01	Usually / VMUTE2 ON
2	0/8.03	
3	8.04/8.04	
4	0/3.35	
5	0	

Q857		
NO.	VOLTAGE	NOTE
B	0/pulse	BZ off/on
C	14.3/pulse	
E	0	

Q858		
NO.	VOLTAGE	NOTE
B	12.53	POWER ON
C	14.38	
E	11.9	

Q859		
NO.	VOLTAGE	NOTE
1	0.02	POWER ON
2	14.28	
3	14.32	
4	3.12	
5	0	

Q860		
NO.	VOLTAGE	NOTE
1	0.01	ACC ON
2	4.91	
3	4.97	
4	4.91	
5	0	

Q861		
NO.	VOLTAGE	NOTE
1	0.01	ACC ON
2	4.91	
3	4.94	
4	3.39	
5	0	

Q862		
NO.	VOLTAGE	NOTE
1	0.01	BATT ON
2	4.94	
3	4.97	
4	4.87	
5	0	

[Measuring Conditions]

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : See each data

(DVD Deck Mechanism)

IC601									
1	-	53	3.3	105	0	157	0	209	3.28
2	-	54	0	106	1.7	158	0	210	-
3	0	55	3.3	107	3.3	159	3.32	211	-
4	-	56	3.3	108	2.32	160	0	212	-
5	-	57	3.3	109	1.78	161	3.26	213	0
6	3.3	58	3.3	110	1.78	162	0	214	3.28
7	-	59	3.3	111	1.78	163	1.56	215	3.28
8	-	60	3.32	112	1.62	164	0	216	3.28
9	0	61	3.3	113	1.62	165	1.36	217	-
10	-	62	3.3	114	0	166	1.76	218	0
11	-	63	0	115	0	167	3.28	219	1.12
12	3.28	64	0	116	1.6	168	0	220	-
13	-	65	3.3	117	0	169	1.6	221	-
14	-	66	3.3	118	3.32	170	1.58	222	0
15	-	67	3.3	119	1.84	171	0	223	-
16	0	68	3.3	120	1.58	172	1	224	-
17	-	69	3.3	121	1.36	173	0	225	3.34
18	-	70	0	122	0	174	0	226	-
19	3.26	71	3.28	123	0	175	0	227	-
20	0	72	3.28	124	0	176	0	228	-
21	-	73	3.3	125	0	177	3.3	229	0
22	3.28	74	0	126	0	178	3.24	230	-
23	-	75	1.6	127	2.16	179	0	231	3.28
24	-	76	1.6	128	1.6	180	3.28	232	0
25	-	77	1.6	129	2.12	181	0	233	-
26	1.02	78	1.6	130	2.12	182	3.3	234	0
27	-	79	0	131	2.14	183	0	235	0
28	3.28	80	0	132	2.14	184	0	236	1.12
29	0	81	3.28	133	2.16	185	0	237	-
30	-	82	0	134	2.14	186	0	238	-
31	-	83	1.62	135	2.16	187	0	239	3.26
32	-	84	3.28	136	2.16	188	0	240	2.82
33	-	85	3.22	137	2.16	189	0	241	1.6
34	3.28	86	3.28	138	2.16	190	3.28	242	0
35	0	87	0	139	2.16	191	0	243	1.56
36	-	88	0	140	1.48	192	-	244	3.26
37	-	89	1.02	141	3.28	193	-	245	3.26
38	3.3	90	0	142	1.12	194	-	246	0
39	-	91	0	143	1.86	195	-	247	3.24
40	-	92	0	144	2.06	196	3.28	248	3.28
41	-	93	0	145	0	197	-	249	0
42	-	94	0	146	1.1	198	-	250	3.32
43	-	95	0	147	1.6	199	-	251	-
44	1.06	96	0	148	1.58	200	-	252	0
45	-	97	0	149	0	201	0	253	-
46	-	98	3.26	150	3.28	202	3.28	254	-
47	-	99	0.9	151	0	203	-	255	3.28
48	3.28	100	0	152	0	204	-	256	-
49	0	101	2.32	153	0.9	205	0		
50	-	102	2	154	0.82	206	-		
51	-	103	1.78	155	2.26	207	-		
52	3.3	104	0	156	0	208	-		

IC511	
1	3.21
2	3.22
3	0
4	3.21
5	3.22

IC512	
1	0
2	0
3	0
4	0
5	3.22
6	3.22
7	3.22
8	3.22

IC711			
1	0	11	0.5
2	-	12	-
3	-	13	-
4	-	14	-
5	-	15	-
6	-	16	-
7	-	17	-
8	-	18	-
9	-	19	-
10	0	20	3.3

IC712			
1	0	11	0.5
2	-	12	-
3	-	13	-
4	-	14	-
5	-	15	-
6	-	16	-
7	-	17	-
8	-	18	-
9	-	19	-
10	0	20	3.26

IC713	
1	-
2	3.22
3	0
4	-
5	3.22

IC721			
1	-	25	-
2	-	26	3.3
3	-	27	0
4	-	28	3.3
5	-	29	-
6	-	30	-
7	-	31	-
8	-	32	-
9	-	33	-
10	-	34	-
11	3.26	35	-
12	3.26	36	-
13	0	37	3.3
14	0	38	-
15	0	39	-
16	-	40	-
17	-	41	-
18	-	42	-
19	-	43	-
20	-	44	-
21	-	45	-
22	-	46	0
23	-	47	3.28
24	-	48	-

IC725	
1	-
2	-
3	-
4	-
5	-
6	-
7	-
8	-
9	-
10	-
11	-
12	-
13	-
14	0
15	-
16	-
17	-
18	-
19	-
20	3.26
21	-
22	1.88
23	-
24	-
25	-
26	-
27	3.27
28	3.24

IC731									
1	3.24	19	3.26	37	-	55	3.28	73	0
2	-	20	3.26	38	0	56	-	74	-
3	3.24	21	0	39	-	57	0	75	0
4	-	22	0	40	-	58	0	76	-
5	-	23	0	41	3.28	59	3.28	77	-
6	0	24	0	42	-	60	-	78	0
7	-	25	0	43	3.26	61	-	79	-
8	-	26	0	44	0	62	-	80	-
9	3.28	27	0	45	-	63	-	81	3.3
10	-	28	3.26	46	0	64	-	82	-
11	-	29	3.26	47	-	65	-	83	-
12	0	30	0	48	-	66	-	84	0
13	-	31	-	49	3.28	67	3.3	85	-
14	0	32	0	50	-	68	1.62	86	0
15	3.28	33	-	51	-	69	0		
16	3.26	34	-	52	0	70	0		
17	3.3	35	3.28	53	-	71	3.3		
18	3.26	36	-	54	-	72	0		

IC861									
1	5.12	12	0	23	0	34	0	45	0
2	5.12	13	0	24	1.56	35	0	46	0
3	5.12	14	0	25	0	36	0	47	0
4	5.12	15	0	26	1.56	37	0	48	0
5	5.12	16	0	27	1.6	38	0	49	1.0
6	5.12	17	0	28	1.6	39	0	50	1.04
7	5.14	18	0	29	1.6	40	0	51	7.14
8	0	19	7.14	30	7.12	41	0	52	1.58
9	0	20	7.12	31	7.12	42	0	53	1.52
10	7.2	21	3.32	32	7.12	43	0	54	5.1
11	0	22	0	33	0	44	7.1		

	E	B	C
Q801	0	0	5.0
Q802	5.0	5.0	0
Q811	0	0	5.0
Q812	5.0	5.0	0
Q831	0	0	2.7
Q832	0	0	0
Q833	0	2.7	0
Q911	1.04	0.31	0
Q921	0.67	0	0

Q810	
1	5.0
2	0
3	5.0
4	0
5	0

[Measuring Conditions]

1. Power Supply Voltage : 5.0V / 7.0V
2. Measuring Meter : Digital Oscilloscope
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD-MECH simple substance
: Power supply ON state

Description of IC Terminal

D70F3261YGC : IC501

No.	Symbol	I/O	Terminal Description
1	AVref0	-	AVREF power supply input terminal. (connect to VDD)
2	AVss	-	GND potential supply terminal of A/D converter.
3	NC	-	No connect terminal.
4			
5	AVref1	-	AVREF power supply input terminal. (connect to VDD)
6	NC	-	No connect terminal.
7			
8	FLMD0(GND)	-	GND connect terminal.
9	VDD	-	VDD supply terminal.
10	REGC	I	Capacitor connect terminal. (4.7uF connect)
11	Vss	-	GND potential supply terminal.
12	MAIN XIN	I	Crystal connect terminal for main system clock OSC.
13	MAIN XOUT		
14	/RESET	I	System reset input terminal.
15	NC(GND)	-	GND connect terminal.
16	NC	-	No connect terminal.
17	VDD PULLUP	-	Pull-up connect terminal.
18	BAT DET	I	BATT ON detection signal input terminal.
19	ACC DET	I	ACC ON detection signal input terminal.
20	/SRQ	I	SRQ signal input terminal from B/E.
21	NC	-	No connect terminal.
I			
26			
27	ACT IND	O	FRONT action direct terminal.
28	NC	-	No connect terminal.
29	REMOCON	I	Remote control signal input terminal.
30	NC	-	No connect terminal.
31			
32	EJECT KEY	I	EJECT key input terminal.
33	EVss	-	GND connect terminal.
34	EVDD	-	VDD connect terminal.
35	NC	-	No connect terminal.
I			
38			
39	VDD PULLUP	O	Pull-up power supply control output terminal.
40	ML	O	M-LATCH output terminal for DAC.
41	MD	O	M-DATA output terminal for DAC.
42	MC	O	M-CLK output terminal for DAC.
43	NC	-	No connect terminal.
44			
45	BUZZER	O	BUZZER signal output terminal.
46	WATCH DOG(NC)	-	No connect terminal.
47	NC		
48			
49	DIAG RESION	I	Detection terminal for displaying DIAG of DVD mechanism.
50	V-MUTE OUT2	O	V-MUTE 2 control output terminal.

No.	Symbol	I/O	Terminal Description
51	DIAG 0BIT	I	Detection terminal for turning off 0 bit MUTE.
52	NC	-	No connect terminal.
53	DI	I	DATA input terminal from B/E.
54	DO	O	DATA output terminal to B/E.
55	CLK	O	CLK terminal for B/E.
56	NC	-	No connect terminal.
57			
58			
59	/CS	O	CS output terminal for B/E.
60	/RST	O	RST output terminal for B/E.
61	M-EJECT	O	EJECT output terminal.
62	DISC SW1	I	DISC detect terminal-1.
63	DISC SW2	I	DISC detect terminal-2.
64	VMUTE IN	I	V-Mute input terminal.
65	V-MUTE OUT1	O	V-Mute output terminal.
66	AREA3	I	Destination setting input terminal.
67	AREA2		
68	AREA1		
69	BVss	-	GND connect terminal.
70	BVDD	-	VDD connect terminal.
71	NC	-	No connect terminal.
72			
73	PCONT1	O	POWER CONT 1 terminal.
74	PCONT2	O	POWER CONT 2 terminal.
75	PCONT3	O	POWER CONT 3 terminal.
76	PCONT4	O	POWER CONT 4 terminal.
77	AMUTE	O	A-MUTE terminal.
78	NC	-	No connect terminal.
79	AUDIOCONT	O	AUDIO-CONT output terminal.
80	NC	-	No connect terminal.
I			
83			
84	LEDCONT	O	LED-CONT output terminal.
85	VCONT	O	V-CONT output terminal.
86	NC	-	No connect terminal.
I			
92			
93	HI-TEMP	I	HI-TEMP signal input terminal.
94	NC	-	No connect terminal.
I			
97			
98	ZERO-DET	I	Audio ZERO detection input terminal.
99	NC	-	No connect terminal.
100			

MN35207UB : IC601 (DV37M150)

No.	Symbol	I/O	Terminal Description
1	MDQ9	I/O	SDRAM data 9 terminal.
2	MDQ5	I/O	SDRAM data 5 terminal.
3	VSS	-	GND terminal.
4	MDQ10	I/O	SDRAM data 10 terminal.
5	MDQ4	I/O	SDRAM data 4 terminal.
6	VDD33	-	I/O power supply terminal.
7	MDQ11	I/O	SDRAM data 11 terminal.
8	MDQ3	I/O	SDRAM data 3 terminal.
9	VSS	-	GND terminal.
10	MDQ12	I/O	SDRAM data 12 terminal.
11	MDQ2	I/O	SDRAM data 2 terminal.
12	VDD33	-	I/O power supply terminal.
13	MDQ13	I/O	SDRAM data 13 terminal.
14	MDQ1	I/O	SDRAM data 1 terminal.
15	MDQ14	I/O	SDRAM data 14 terminal.
16	VSS	-	GND terminal.
17	MDQ0	I/O	SDRAM data 0 terminal.
18	MDQ15	I/O	SDRAM data 15 terminal.
19	VDD33	-	I/O power supply terminal.
20	VSS	-	GND terminal.
21	EXADR20	I/O	External memory address 20 terminal.
22	NEXWE	O	External memory write enable output terminal.
23	EXADT0	I/O	External memory address data 0 terminal.
24	EXADT4	I/O	External memory address data 4 terminal.
25	EXADT8	I/O	External memory address data 8 terminal.
26	VDD12	-	Logic power supply terminal.
27	EXADT12	I/O	External memory address data 12 terminal.
28	VDD33	-	I/O power supply terminal.
29	VSS	-	GND terminal.
30	EXADR16	I/O	External memory address 16 terminal.
31	EXADR18	I/O	External memory address 18 terminal.
32	EXADT14	I/O	External memory address data 14 terminal.
33	EXADT10	I/O	External memory address data 10 terminal.
34	VDD33	-	I/O power supply terminal.
35	VSS	-	GND terminal.
36	EXADT6	I/O	External memory address data 6 terminal.
37	EXADT2	I/O	External memory address data 2 terminal.
38	NEXCE	O	External memory chip select output terminal.
39	EXADT1	I/O	External memory address data 1 terminal.
40	EXADT5	I/O	External memory address data 5 terminal.
41	EXADT9	I/O	External memory address data 9 terminal.
42	EXADT13	I/O	External memory address data 13 terminal.
43	EXADR17	I/O	External memory address 17 terminal.
44	VDD12	-	Logic power supply terminal.
45	EXADR19	I/O	External memory address 19 terminal.
46	EXADT15	I/O	External memory address data 15 terminal.
47	EXADT11	I/O	External memory address data 11 terminal.

No.	Symbol	I/O	Terminal Description
48	VDD33	-	I/O power supply terminal.
49	VSS	-	GND terminal.
50	EXADT7	I/O	External memory address data 7 terminal.
51	EXADT3	I/O	External memory address data 3 terminal.
52	NEXOE	O	External memory output enable terminal.
53	P15	I	FRAME detection input terminal.
54	P14(PULL-DOWN)	-	Pull-down connect terminal.
55	P13	I	EJECT input terminal.
56	P12	I	MECHA_SW5 input terminal.
57	P11(PULL-UP)	-	Pull-up connect terminal.
58	P10(PULL-UP)		
59	P9	I	MECHA_SW4 input terminal.
60	P8	I	MECHA_SW3 input terminal.
61	P7	I	MECHA_SW2 input terminal.
62	VDD33	-	I/O power supply terminal.
63	MMOD	I	Test mode setting terminal.
64	VSS	-	GND terminal.
65	P6	I	MECHA_SW1 input terminal.
66	P5	O	K_SRQ output terminal.
67	P4	I	K_S_CS input terminal.
68	P3	I	K_S_CLK input terminal.
69	P2	O	K_S_Data output terminal.
70	P1	I	K_S_Data input terminal.
71	P0	O	SRAM chip select output terminal.
72	FG	I	Motor Frequency Generator input terminal.
73	NRST	I	Master reset input terminal.
74	VSS	-	GND terminal.
75	DRV0(NC)	-	No connect terminal.
76	DRV1	O	Spindle driver control output terminal.
77	DRV2	O	Sled motor driver-A output terminal.
78	DRV3	O	Sled motor driver-B output terminal.
79	DRV4(Reserved)	O	Driver logic control output-1 terminal.
80	DRV5	O	Driver logic control output-2 terminal.
81	DRV6	I	LIMIT SW input terminal.
82	DRV7	O	VR control output terminal.
83	DRV8	O	Loading driver output terminal.
84	VDD33	-	I/O power supply terminal.
85	P16	O	V_Mute output terminal.
86	P17(PULL-UP)	-	Pull-up connect terminal.
87	VSS	-	GND terminal.
88	MONI7(NC)	-	No connect terminal.
89	VDD12	-	Logic power supply terminal.
90	MONI6(NC)	-	No connect terminal.
91	MONI5(NC)		
92	MONI4(NC)		
93	VSS	-	GND terminal.
94	MONI3(NC)	-	No connect terminal.
95	MONI2(NC)		

No.	Symbol	I/O	Terminal Description
96	MONI1(NC)	-	No connect terminal.
97	MONI0(NC)		
98	AVDDD	-	Analog power supply terminal.
99	PLFIL1	O	Capacitor connect terminal for DRCVCO.
100	AVSSD	-	Analog GND terminal.
101	VREFH7	O	ADC reference voltage terminal for DRC. (TOP)
102	VREFM7	O	ADC reference voltage terminal for DRC. (MDL)
103	VREFL7	O	ADC reference voltage terminal for DRC. (BTM)
104	CCAPA	O	Capacitor connect terminal for INLINE CAPA.
105	AVSSC	-	Analog GND terminal.
106	CDATA	O	Capacitor connect terminal for INLINE DATA.
107	AVDDC	-	Analog power supply terminal.
108	ANAMONI1	O	Internal analog monitor 1 terminal.
109	ANAMONI2	O	Internal analog monitor 2 terminal.
110	RFINN	I	External RF input (-) terminal.
111	RFINP	I	External RF input (+) terminal.
112	VIN6RF	I	RF input 6 terminal.
113	VIN5RF	I	RF input 5 terminal.
114	VIN4RF	I	RF input 4 terminal.
115	VIN3RF	I	RF input 3 terminal.
116	VIN2RF	I	RF input 2 terminal.
117	VIN1RF	I	RF input 1 terminal.
118	AVDDB	-	Analog power supply terminal.
119	VREFH5	I	5 bit AD reference voltage H terminal
120	VREFM5	I	5 bit AD reference voltage M terminal
121	VREFL5	I	5 bit AD reference voltage L terminal
122	AVSSB	-	Analog GND terminal.
123	LPC1	I	DVD LPC input terminal.
124	LPCO1	O	DVD LPC output terminal.
125	LPC2	I	CD LPC input terminal.
126	LPCO2	O	CD LPC output terminal.
127	VREFH	O	Decoupling terminal of reference voltage 2.20V. / Reference power supply terminal to Pickup.
128	VHALF	O	Decoupling terminal of reference voltage 1.65V.
129	VIN10	I	CD head input terminal.
130	VIN9		
131	VIN8		
132	VIN7	I	DVD head input terminal.
133	VIN6		
134	VIN5		
135	VIN4	I	DVD head input terminal.
136	VIN3		
137	VIN2		
138	VIN1		
139	AD2(NC)	-	No connect terminal.
140	AD1	I	TEMP_H input terminal.
141	AVDDH	-	Analog power supply terminal.
142	VREFL10	O	AD self bias reference terminal. (Low side)
143	AD0	I	TEMP_L input terminal.

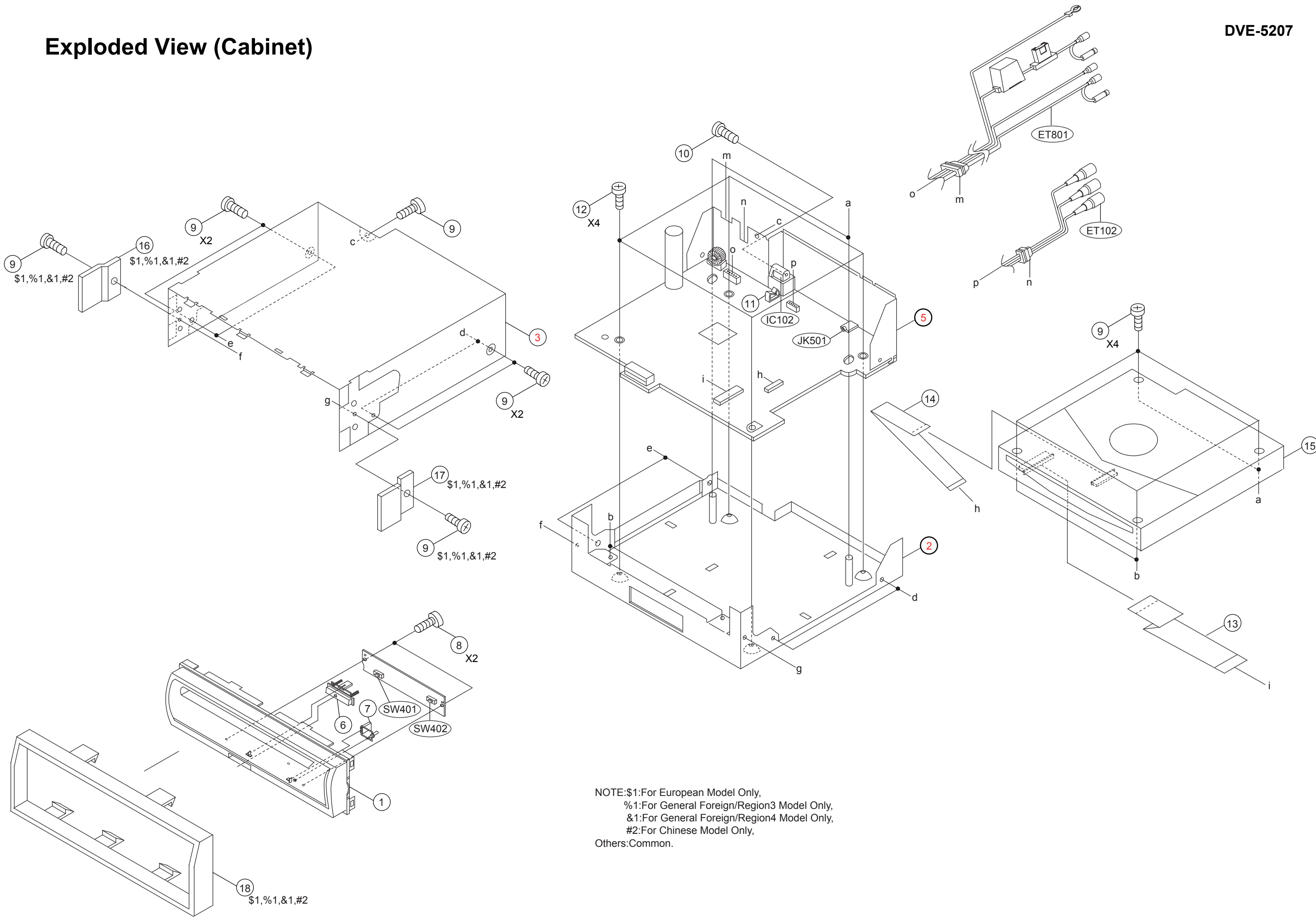
No.	Symbol	I/O	Terminal Description
144	VREFH10	O	AD self bias reference terminal. (Hi side)
145	AVSSH	-	Analog GND terminal.
146	VCOF(NC)	-	No connect terminal.
147	PWM1	O	Tracking drive output terminal.
148	PWM0	O	Focus drive output terminal.
149	DAC1OUT(NC)	-	No connect terminal.
150	AVDDF	-	Power supply terminal for DAC.
151	DAC2OUT(NC)	-	No connect terminal.
152	DAC3OUT(NC)		
153	VREF	I	Internal DAC reference voltage terminal.
154	IREF1	I	Resistor connect terminal for internal DAC bias current setup.
155	COMP	I	Capacitor connect terminal for internal DAC stable.
156	DAC4OUT	O	Y(brightness) / Comp(composite) analog signal terminal.
157	AVSSF	-	GND terminal for DAC.
158	DAC5OUT	O	C(color) analog signal terminal.
159	AVDDE	-	Power supply terminal for PLL.
160	AVSSE	-	GND terminal for PLL.
161	AVDDG	-	Power supply terminal for PLL.
162	AVSSG	-	GND terminal for PLL.
163	DACCK	O	Master clock output terminal.
164	VSS	-	GND terminal.
165	OSC1	I	OSC input terminal. (27MHz)
166	OSC0(NC)	-	No connect terminal.
167	VDD33	-	I/O power supply terminal.
168	EXTCK(PULL-DOWN)	-	Pull-down connect terminal.
169	LRCK	O	LR channel clock output terminal.
170	SRCK	O	Bit clock output terminal.
171	ADOUT3(NC)	-	No connect terminal.
172	VDD12	-	Logic power supply terminal.
173	VSS	-	GND terminal.
174	ADOUT2(NC)	-	No connect terminal.
175	ADOUT1(NC)		
176	ADOUT0	O	Audio Data 0 output terminal.
177	IECOUT	O	SPDIF output terminal.
178	VDD33	-	I/O power supply terminal.
179	VSS	-	GND terminal.
180	SCLOCK(PULL-UP)	-	Pull-up connect terminal.
181	EXTRG0(PULL-DOWN)	-	Pull-down connect terminal.
182	SDATA(PULL-UP)	-	Pull-up connect terminal.
183	EXTRG1(PULL-DOWN)	-	Pull-down connect terminal.
184	TRCCLK	O	A_Mute output terminal.
185	TRCDATA0(NC)	-	No connect terminal.
186	TRCDATA1(NC)		
187	TRCDATA2(NC)		
188	TRCDATA3(NC)		
189	TRCST(NC)		
190	VDD33	-	I/O power supply terminal.
191	VSS	-	GND terminal.

No.	Symbol	I/O	Terminal Description
192	MDQ24	I/O	SDRAM data 24 terminal.
193	MDQ23	I/O	SDRAM data 23 terminal.
194	MDQ25	I/O	SDRAM data 25 terminal.
195	MDQ22	I/O	SDRAM data 22 terminal.
196	VDD33	-	I/O power supply terminal.
197	MDQ26	I/O	SDRAM data 26 terminal.
198	MDQ21	I/O	SDRAM data 21 terminal.
199	MDQ27	I/O	SDRAM data 27 terminal.
200	MDQ20	I/O	SDRAM data 20 terminal.
201	VSS	-	GND terminal.
202	VDD33	-	I/O power supply terminal.
203	MDQ28	I/O	SDRAM data 28 terminal.
204	MDQ19	I/O	SDRAM data 19 terminal.
205	VSS	-	GND terminal.
206	MDQ29	I/O	SDRAM data 29 terminal.
207	MDQ18	I/O	SDRAM data 18 terminal.
208	MDQ30	I/O	SDRAM data 30 terminal.
209	VDD33	-	I/O power supply terminal.
210	MDQ17	I/O	SDRAM data 17 terminal.
211	MDQ31	I/O	SDRAM data 31 terminal.
212	MDQ16	I/O	SDRAM data 16 terminal.
213	VSS	-	GND terminal.
214	DQM3	O	SDRAM data mask 3 terminal.
215	DQM2	O	SDRAM data mask 2 terminal.
216	VDD33	-	I/O power supply terminal.
217	MA3	O	SDRAM address 3 terminal.
218	VSS	-	GND terminal.
219	VDD12	-	Logic power supply terminal.
220	MA4	O	SDRAM address 4 terminal.
221	MA2	O	SDRAM address 2 terminal.
222	VSS	-	GND terminal.
223	MA5	O	SDRAM address 5 terminal.
224	MA1	O	SDRAM address 1 terminal.
225	VDD33	-	I/O power supply terminal.
226	MA6	O	SDRAM address 6 terminal.
227	MA0	O	SDRAM address 0 terminal.
228	MA7	I	SDRAM address 7 terminal.
229	VSS	-	GND terminal.
230	MA10	O	SDRAM address 10 terminal.
231	VDD33	-	I/O power supply terminal.
232	BA1	O	SDRAM bank address 1 terminal.
233	MA8	I/O	SDRAM address 8 terminal.
234	BA0	O	SDRAM bank address 0 terminal.
235	VSS	-	GND terminal.
236	VDD12	-	Logic power supply terminal.
237	MA11	O	SDRAM address 11 terminal.
238	MA9	O	SDRAM address 9 terminal.
239	VDD33	-	I/O power supply terminal.

No.	Symbol	I/O	Terminal Description
240	NCSM	O	SDRAM chip select terminal.
241	MCKI	I	Clock input terminal from SDRAM.
242	VSS	-	GND terminal.
243	MCK	O	Clock output terminal to SDRAM.
244	NRAS	O	SDRAM row address strobe terminal.
245	NCAS	O	SDRAM column address strobe terminal.
246	VDD33	-	I/O power supply terminal.
247	VSS	-	GND terminal.
248	NWE	O	SDRAM write enable terminal.
249	DQM0	O	SDRAM data mask 0 terminal.
250	VSS	-	GND terminal.
251	DQM1	O	SDRAM data mask 1 terminal.
252	MDQ7	I/O	SDRAM data 7 terminal.
253	VSS	-	GND terminal.
254	MDQ8	I/O	SDRAM data 8 terminal.
255	VDD33	-	I/O power supply terminal.
256	MDQ6	I/O	SDRAM data 6 terminal.

Exploded View (Cabinet)

DVE-5207



Exploded View (DVD Deck Mechanism)

DVE-5207

(DV37M150)

