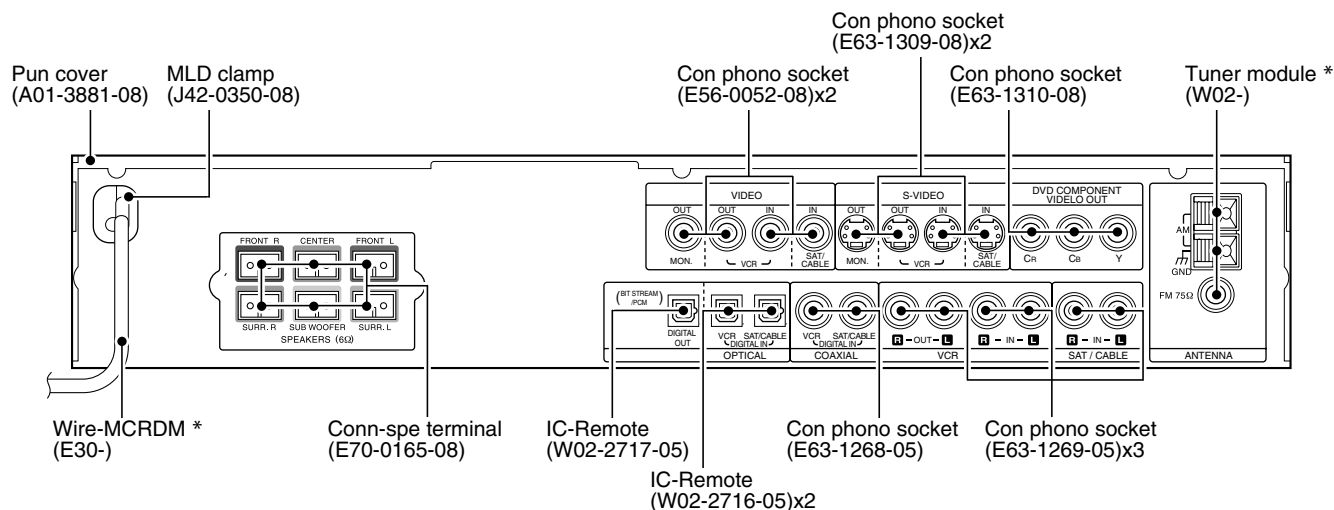
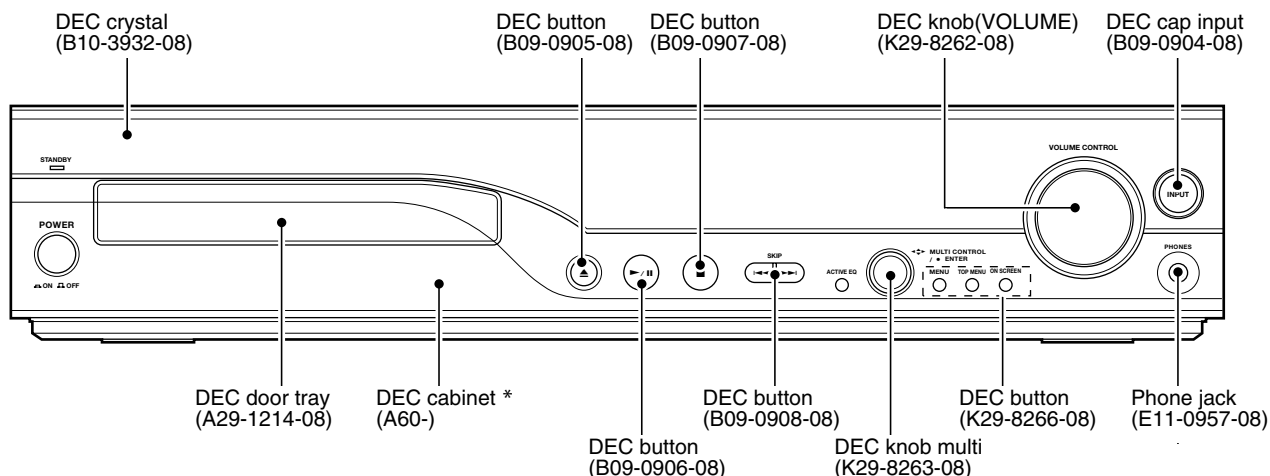


DVR-8100

SERVICE MANUAL

(DVT-8100)

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B51-5824-00 (K/K) 1836



* Refer to parts list on page 24.

In compliance with Federal Regulations, following are reproduction of labels on, or inside the product relating to laser product safety.

Caution : No connection of ground line if disassemble the unit. Please connect the ground line on rear panel, PCBs, Chassis and some others.

KENWOOD Corp. certifies this equipment conforms to DHHS Regulations No.21 CFR 1040. 10, Chapter 1, subchapter J.

DANGER : Laser radiation when open and interlock defeated.
AVOID DIRECT EXPOSURE TO BEAM.




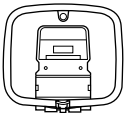

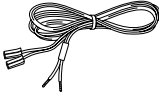

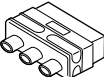
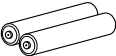
DVR-8100

CONTENTS / ACCESSORIES / CAUTIONS

Contents

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INTERCONNECTION DIAGRAM	15		

Accessories

<p>FM indoor antenna (1) (T90-0882-08)</p> 	<p>Loop antenna (1) (T90-0896-08)</p> 	<p>Video cord (1) (E30-1427-05)</p> 	<p>Speaker cords (6) (E30-7265-08): RD (E30-7286-08): WH (E30-7285-08): VT (E30-7283-08): GN (E30-7269-08): GY (E30-7284-08): BL</p> 
<p>Remote control unit (1) (A70-1600-08): X (A70-1601-08): ET</p> 	<p>SCART plug adaptor (1) (Europe and U.K. only) (E69-0012-05)</p> 	<p>Batteries (R6/AA) (2)</p> 	

SYSTEM CONFIGURATION

SYSTEM	MAIN UNIT	SPEAKER
DVT-8100	DVR-8100	KSW-8100

Cautions

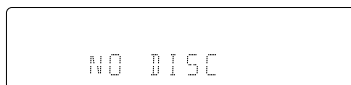
Speaker model names

System	Speakers
DVR-8100	KSW-8100 (Left speaker, right speaker, center speaker, surround speakers and subwoofer)

Note related to transportation and movement

Before transporting or moving this unit, carry out the following operations.

- ① Remove the disc from the unit.
- ② Press the ►|| key.



- ③ Wait a few seconds and turn the unit OFF.



Manufactured under license from Dolby Laboratories. "DOLBY", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.



"DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

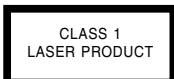
Operation to reset

The microcomputer may fall into malfunction (impossibility to operate, erroneous display, etc.) when the power cord is unplugged while power is ON or due to an external factor. In this case, execute the following procedure to reset the microcomputer and return it to normal condition.

Set the POWER switch to ON (set to Standby mode). Then press the ►► key, ◀◀ key and STOP key in this order.

- Please note that resetting the microcomputer clears the contents stored in and returns and to condition when it left the factory.

The marking of products using lasers (For countries other than U.S.A., U.S.-Military and Canada)



The marking this product has been classified as Class 1. It means that there is no danger of hazardous radiation outside the product.

Location: Back panel



Inside this laser product, a laser diode classified as Class 2 laser radiation is contained as alerted by the internal caution label shown above. Do not stare into beam.

Location: DVD laser pick-up unit cover inside this product



Inside this laser product, a laser diode classified as Class 3A laser radiation is contained as alerted by the internal caution label shown above. Do not stare into beam or view directly with optical instruments.

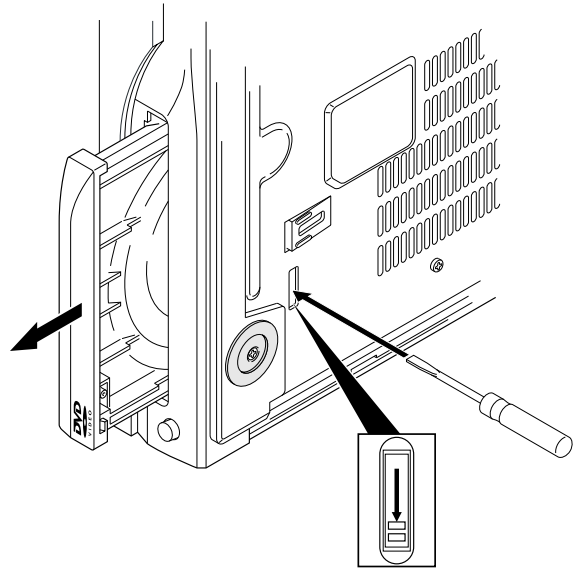
Location: CD laser pick-up unit cover inside this product

DISASSEMBLY FOR REPAIR / BLOCK DIAGRAM

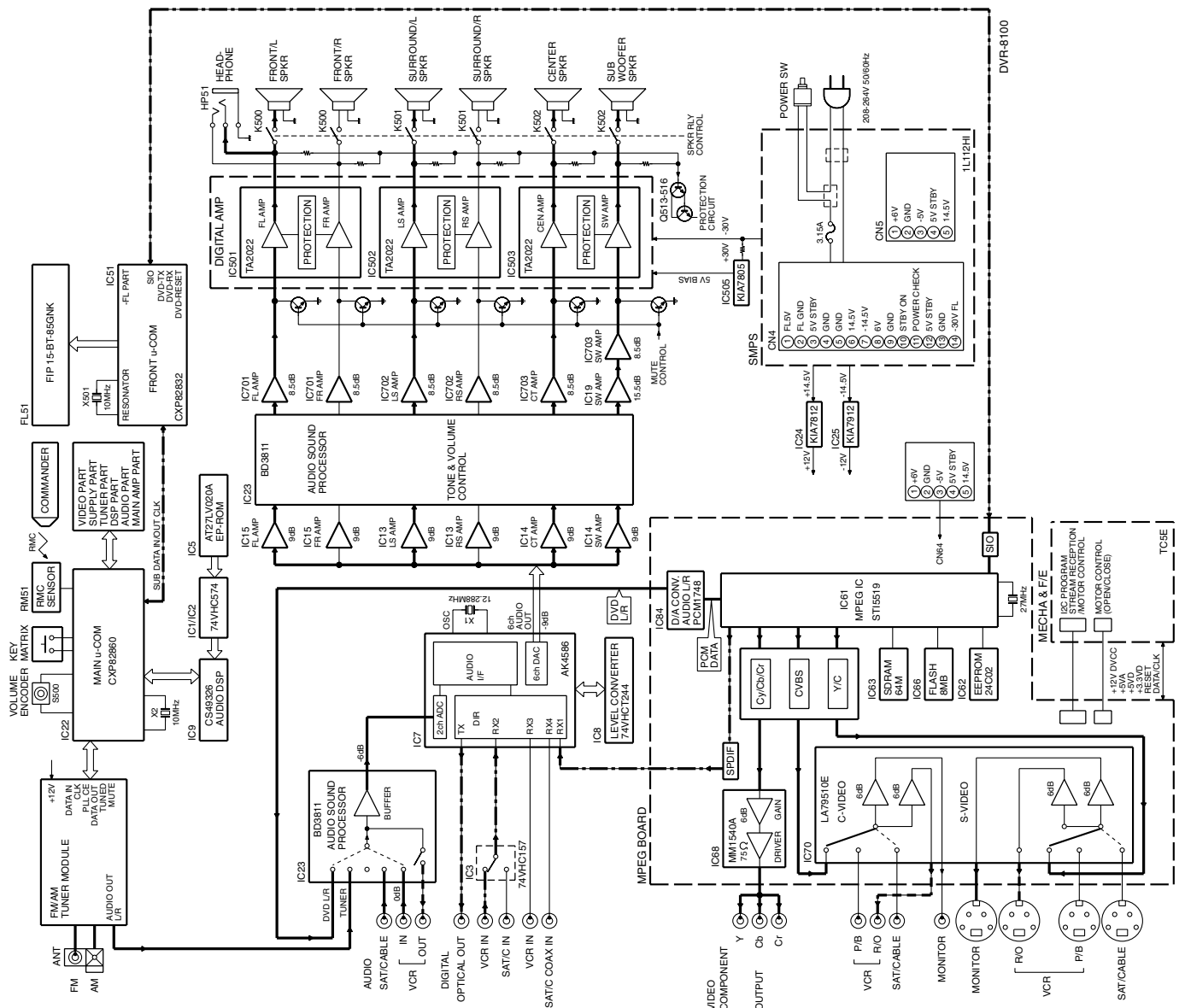
DISASSEMBLY FOR REPAIR

How to open the tray if it does not come out.

1. Insert a flat driver in the drawing through the hole on the loading chassis bottom and pull the lever down.
2. Pull out the tray frontward by hand when it comes just out.



BLOCK DIAGRAM



DVR-8100

CIRCUIT DESCRIPTION

1. Pin Description of MPEG Processor IC (DVD & VIDEO IC61)

Pin No.	Pin Name	I/O	Pin Description
PIOs and communication			
1	PIO2(5) RGB SEL(BLANK)	I/O	RGB sel (blank). unused
2	PIO2(6) VIDEO MUTE	I/O	Video mute control.
3	PIO2(7) 16: 9 INDICATOR	I/O	16 : 9 indicator (unused).
6	PIO3(0) SCART H (TV/AUX)	I/O	Unused.
7	PIO3(1)	I/O	Unused.
8	PIO3(2)	-	CSB (unused).
9	PIO3(3)	-	SDIN (unused).
10	PIO3(4) IR REMOCON	I/O	Unused.
11	PIO3(5)	-	SCLK (unused).
12	PIO3(6)	I/O	Unused.
13	PIO3(7) DVD RESET	I/O	Power- on reset of front-end module.
Front-end			
16	B DATA	I	I2S Data
17	B BCLK	I	I2S Bit clock
18	B FLAG	I	I2S Error flag
19	B SYNC	I/O	I2S Sector / ABS time
Reserved			
20	B WCLK	I/O	Unused.
21	B V4	I/O	Unused.
22	NRSS OUT	I/O	Unused.
23	VDD RGB	-	Supply voltage for RGB (+3.3VA).
24	VSS RGB	-	GND
Video DAC			
25,26,27	B/G/R (OUT)	O	B/G/R signal outputs.
28	V REF RG	I	Reference voltage input for DAC RGB.
29	I REF RG	I	Reference current input for DAC RGB.
30	VDD YCC	-	Supply voltage for YCC (+3.3VA).
31	VSS YCC	-	GND
32~34	Y/C/CV (OUT)	O	Y/C/CV signal outputs.
35	V REF YCC	I	Reference voltage input for DAC YCC.
36	I REF YCC	I	Reference current input for DAC YCC.
PIOs and communication			
39	PIO4(0)HP MUTE	-	Unused.
40	PIO4(1)	-	Unused.
41	PIO4(2)	-	Unused.
42	PIO4(3) DAC RESET	-	Unused.
43	PIO4(4) PLL CS	-	Unused.
44	PIO4(5) DAC CLOCK	O	DAC clock output.
45	PIO4(6) DAC DATA	O	DAC data output.
46	PIO4(7) DAC CS	O	DAC chip select.
Audio DAC			
48	VDD PCM	-	Supply voltage for PCM (+3V3).
49	VSS PCM	-	Ground for PCM.
51	DAC SCLK	O	DAC over sampling clock.
52	DAC PCMOUT0	O	DAC PCM data out 0.
53	DAC PCMOUT1	O	DAC PCM out 1 (unused).
54	DAC PCMOUT2	O	DAC PCM out 2 (unused).
55	DAC PCMCLK	O	DAC PCM clock.
56	DAC LRCLK	O	DAC PCM Left/Right clock.
57	SPDIF OUT	O	Audio digital data output.
Shared memory interface			
58~63	SMI ADR(4~9)	O	SDRAM address bus.
66~69	SMI ADR(3~0)	O	SDRAM address bus.

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Pin Description
70~73	SMI ADR(10~13)	O	SDRAM address bus.
74	SMI CS(0)	O	Chip select bank 0.
75	SMI CS(1)	-	Unused.
76	SMI RAS	O	SDRAM RAS
77	SMI CAS	O	SDRAM CAS
78	SMI WE	O	SDRAM write enable.
79	SMI DQML	O	DQ MASK enable low.
80	SMI DQMU	O	DQ MASK enable up.
82	SMI CLKIN	I	SDRAM clock input.
84~93	SMI DATA(0~9)	I/O	SDRAM data bus.
95	SMI CLKOUT	O	SDRAM clock out.
97~102	SMI DATA(10~15)	I/O	SDRAM data bus.
Reserved			
103	ADC SCLK	I/O	ADC digital audio port clock (unused).
104	ADC LRCLK	I/O	ADC sample rate clock (unused).
105	ADC DATA	I	ADC digital audio data input (unused).
106	ADC PCMCLK	O	Crystal input or master clock input (unused).
JTAG			
109	TRST	I	Test reset from emulator module.
110	TMS	I	Test mode select.
111	TDO	O	Test data out to emulator module.
112	TDI	I	Test data input from emulator module.
113	TCK	I	Test clock input from emulator module.
Timers			
114	PWM2	I/O	Unused.
115	PWM1	I/O	ROM boot option port (voltage low = emulator booting).
116	PWM0	I/O	Unused.
EMI Interface			
117	CPU OE	I/O	Flash ROM output enable.
118	CPU PRO CLK	O	SDRAM clock (unused).
Clock & Reset			
120	PIX CLK	I	27MHz main clock input.
122	VDD PLL	-	Supply voltage for PLL (+3V3).
123	VSS PLL	-	Ground for PLL.
124	RESET	I	Chip reset input.
Interrupt			
125	IRQ(2)	I	Interrupt request 2 from front-end module.
126	IRQ(1)	I	Unused.
127	IRQ(0)	I	Unused.
EMI Interface			
128	CPU BE(0)	O	BYTE 0 Enable
129	CPU BE(1)	O	BYTE 1 Enable
130	CPU RW	O	Unused.
131	CPU WAIT	I	Wait state (connected to ground).
132	CPU CE(3)	O	Flash ROM chip select.
133	CPU CE(2)	O	Flash ROM down-load JIG module select.
134	CPU CE(1)	O	Unused.
135	CPU CE(0)	O	Unused.
138	CPU RAS1	I/O	Unused.
139	CPU CAS0	O	Unused.
140	CPU CAS1	O	Unused.
141~148	CPU DATA(0~7)	I/O	Flash ROM data input/output (0~7).
151~158	CPU DATA(8~15)	I/O	Flash ROM data input/output (8~15).
161~170	CPU ADR(1~10)	O	Flash ROM address (1~10).
173~181	CPU ADR(11~19)	O	Flash ROM address (11~19).

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CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Pin Description
182,183	CPU ADR(20,21)	-	Unused.
PIOs and communication			
186	PIO0(0) T STROBE	I/O	UART0 data
187	PIO0(1) MOD SW	I/O	ATAPI RD
188	PIO0(2)	O	Unused.
189	PIO0(3)	O	Unused.
190	PIO0(4)	O	Unused.
191	PIO0(5)	I	Unused.
192	PIO0(6) SLIDER SENSOR OPEN/CLOSE (DRAWER POSITION)	I/O	Detection port of slider sensor for DVD mechanism.
193	PIO0(7) SLIDER IN (DRAWER CCW/CTRL)	I/O	Control port of slider (IN) for DVD mechanism.
194	PIO1(0) SDA	I/O	SSC0 data (MSTR out / MRST in)
195	PIO1(1) SCL	I/O	SSC0 clock
196	PIO1(2) SLIDER OUT (DRAWER CW CTRL)	I/O	Control port of slider (OUT) for DVD mechanism.
197	PIO1(3) TXD(JIG)	I/O	UART2 TXD
200	PIO1(4) RXD(JIG)	I/O	UART2 RXD
201	PIO1(5) FRONT TXDI	I/O	UART1 TXD
202	TRIGGER IN	I/O	Trigger input from JIG.
203	TRIGGER OUT	I/O	Trigger output from JIG.
204	PIO2(0) H/P	-	Unused.
205	PIO2(1) FRONT RXD	I/O	UART1 RXD
206	PIO2(2)	I	Unused.
207	PIO2(3)	-	Unused.
208	PIO2(4) AUDIO MUTE	O	Audio mute control.
Power supply			
4,47,81,107 136,159,184	VDD3-3	-	3.3V Power supply.
14,37,64,94 119,149,171 198	VDD2-5	-	2.5V Power supply.
5,15,38,50,65 83,96,108,121 137,150,160 172,185,199	VSS	-	GND

2. Pin Description of Main Microcomputer : CXP82860 (X09, IC22)

Pin No.	Pin Name	I/O	Pin Description	Logic	
				H	L
1,2	NC	NC	Unused.		
3	VDD	I	Power supply (+5.0V)		
4	POWER DOWN	I	Detection pin for the power failure.		
5	RDS-CLK	I	RDS clock input.		
6	H/P CHK	I	Detection pin for the headphones.		H/P IN
7	RDS OPTION	I	Setting pin for RDS.	RDS	NO RDS
8	REMOCON	I	Remote controller signal input.		
9	RDS-DATA	I	RDS data input.		
10	NC	NC	Unused.		
11	EEPROM CLK	O	Clock output to EEPROM.		
12,13	ENCODE (1,2)	I	Volume encoder input.		
14	AMP PROTECT	I	Detection pin for the protection.	PROTECTI ON ON	

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Pin Description	Logic	
				H	L
15	SUPPLY PROTECT	I	Unused.		
16	4586 CDTO	I	Data input from level shift (X09, IC8).		
17	AK4586 INT0	I	Error detection when digital input.	ERROR	
18	AK4586 INT1	I	Audio bit validity detection for digital input.	DETECTED	
19	AK4586 OVERLEVEL	I	Clip detection from AK4586 (X09, IC7).	CLIP	
20	AK4586 DZF1	I	Zero detection when digital input.	ZERO	
21	DSP-INTREQ	I	Interruption pin for DSP.		
22	SUB CPU CLK	O	Clock output to sub CPU.		
23	SUB CPU DATA IN	I	Data input from sub CPU.		
24	SUB CPU DATA OUT	O	Data output to sub CPU.		
25	DSP 493xxCLK	O	Communication clock to DSP.		
26	DSP493xxDATA IN	I	Communication data input from DSP.		
27	DSP493xxDATA OUT	O	Communication data output to DSP.		
28	AD REF	AV ref	Power supply (+5.0V)		
29,30	KEY IN (1,2)	I	A/D key inputs.		
31	EEPROM DATA	I/O	EEPROM data input and output.		
32	TUNED	I	Tuned signal input from tuner.		
33	OPT_DET	I	Detection pin for optical input. Optical : 0.71V~2.69V Coax : 0V~0.7V, 2.7V~5.0V		
34	MODEL_OPTION	I	Unused.		
35	PLL-DATA IN/ST CHK	I	Control data for tuner.		
36	STEP-OPTION	I	Setting pin for tuner.		
37	VSS	Avss	GND		
38	RST	I	Reset signal input.		
39	XTAL-IN	I	Crystal oscillator input (10MHz).		
40	XTAL-OUT	O	Crystal oscillator output (10MHz).		
41	VSS	I	GND		
42	NC	NC	Unused.		
43	GND	I	GND		
44	VDD	VDD	Power supply (+5.0V)		
45	VFDP	-	GND		
46	BD3811_DATA	O	Control data output to BD3811 (X09, IC23).		
47	RELAY-F	O	Control pin for front speaker relay.	RELAY ON	
48	BD3811_CLK	O	Clock output to BD3811 (X09, IC23).		
49	BD3811_MUTE	O	Mute control to BD3811 (X09, IC23).		
50	PLL-CE	O	Chip select to PLL IC.		
51	PLL-CLK	O	Clock output to PLL IC.		
52	PLL D OUT	O	Control data output to PLL IC.		
53	AK4586CS	O	AD/DA chip select.		
54	AK4586RST	O	AD/DA reset.		
55~57	VIDEO CTL(1~3)	O	Select signal (1~3) for video selector.		
58,59	VIDEO MUTE (1,2)	O	Mute signal (1,2) for video selector.		
60	AK4586 MST/SLV	O	Unused.		
61	10dB ATT	O	Unused.		
62	A_MUTE	O	Amplifier mute control.		MUTE ON
63	T_MUTE	O	Tuner mute control.	MUTE ON	
64	DSP 493xxRST	O	Reset output to DSP.		
65~67	DSP (A15~A17)	O	Address output to DSP.		
68	STBY LED	O	Control pin for standby LED.	LED ON	
69	RELAY-R	O	Control pin for surround speaker relay.	RELAY ON	
70	PACK CONTROL	O	Mute control to TA2022 (X09, IC500~502).	MUTE ON	MUTE OFF
71	RELAY POWER	O	Control pin to power relay.	POWER ON	
72	SUB RST	O	Reset signal output to sub CPU.		
73	AK4586 CLK	O	Data output to AK4586 (X09, IC7).		

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CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Pin Description	Logic	
				H	L
74	AK4586 CDTI	O	Clock output to AK4586 (X09, IC7).		
75	DSP A BOOT	O	Boot control to DSP.		
76	DSP 493xxCE	O	Chip select to DSP.		
* 77	74AC157SEL	O	Selector control for digital input.		
78~88	NC	NC	Unused.		
89	VDD	I	Power supply (+5.0V)		
90~100	NC	NC	Unused.		

* TC74VHC157F (X09, IC3)

Selector	Pin 1
DVD,SAT	1
VCR,TUNER	0
OTHER	0

3. Sub Microcomputer : CXP82832 (Front IC51)

Pin No.	Pin Name	I/O	Pin Description
1,2	G2,G1	O	Grid signal output for FDP.
3	-	-	Unused.
4	RXD	I	Communication from MPEG (IC61).
5~9	GND	-	GND
10~13	NC	-	Unused.
14	STBYLED	-	Unused.
15	JOG LED	O	Control port of jog LED.
16	DVD RESET	O	DVD reset signal pin.
17	TXD	O	Communication to MPEG (IC61).
18~24	NC	-	Unused.
25	SUB CLK	I	Sub clock input.
26	SUB DATA	I	Sub data input.
27	SUB DATAOUT	O	Sub data output.
28	VREF	-	Reference voltage input.
29~33	NC	-	Unused.
* 34	DVD OPTION	-	Setting pin for DVD region.
35,36	NC	-	Unused.
37	VSS(G)	-	GND
38	RST	I	Reset signal input.
39	EXTAL	I	Connection pin for system clock oscillation crystal.
40	XTAL	O	Connection pin for system clock oscillation crystal.
41,43	GND	-	GND
42	NC	-	Unused.
44	VDD	-	Positive power supply (+5.0V).
45	VFDP	-	Power supply (-30V) for FDP.
46~53	NC	-	Unused.
54~79	P01~P25	O	Segment signal output for FDP.
80~86	NC	-	Unused.
87	G15	O	Grid signal output for FDP.
88	G14	O	Grid signal output for FDP.
89	VDD	-	Positive power supply (+5.0V).
90~100	G13~G03	O	Grid signal output for FDP.

* DVD Option Table

Region	R501
M2,E,T	1.5K
M	3.9K
M3,X	6.8K

CIRCUIT DESCRIPTION

4. Pin Description of IC's

4-1 64 Bit SDRAM : HY57V641620HGT (DVD & VIDEO IC63)

Pin No.	Pin Name	I/O	Pin description
38	CLK	I	The system clock input. all other inputs are registered to the SDRAM on the rising edge of CLK.
37	CKE	-	Controls internal clock signal and when deactivated, the SDRAM will be one of the states among power down, suspend or self refresh.
19	CS	-	Enables or disables all inputs except CLK, CKE, and DQM.
20,21	BA0,BA1	-	Selects bank to be activated during RAS activity. Selects bank to be read/written during CAS activity.
22~26 29~35	A0~A11	-	Row address : RA0~RA11, Column address : CA0~CA7 Auto-precharge flag : A10
16,17,18	WE,CAS,RAS	-	WE, CAS and RAS define the operation.
15,39	LDQM,UDQM	I/O	Controls output buffers in read mode and masks input data in write mode.
2,4,5,7,8,10 11,13,42,44 45,47,48,50 51,53	DQ0~DQ15	I/O	Multiplexed data input/output pin.
1,3,9,14,27 43,49	VCC/VCC Q	-	Power supply for internal circuits and input buffers.
6,12,28,41, 46,52,54	VSS/VSS Q	-	Ground terminal.
36,40	NC	-	Unused.

4-2 HEX Inverter (Single Stage) : M74HCU04 (DVD & VIDEO IC67)

Pin No.	Pin Name	I/O	Pin Description
1,3,5,9, 11,13	A0 to A5	I	Data Inputs
2,4,6,8, 10,12	Q0 to Q5	O	Data Outputs
7	GND	-	Ground
14	VCC	-	Positive Supply Voltage

Truth Table

A	Q
L	H
H	L

4-3 Video Driver : MM1540AF (DVD & VIDEO, IC68)

Pin No.	Pin Name	I/O	Pin Description
1,2	VCC1,2	-	VCC
2,6,9	VIN,VIN (1,2)	I	Video input (Composite or Y)
3	YC MIX	-	YC MIX select (Unused)
4	CIN	I	Croma input (Open)
5	CLP	-	Clamp select (Connected to GND)
7,8	MUTE (1,2)	O	Mute select (Unused)
10	GND	-	GND
11,13	CbIN, CrIN	I	Component input
12	Dual/Single	-	Power select (+5V)
14,15,19, 21,22,24	VEE1, VEE2	-	VEE (-5V)
16,18,20, 23,25,27	CrOUT, CbOUT, YOUT2,YOUT1, COUT,VOUT	O	Video output
23,25,27	YOUT1, COUT,VOUT	O	Video output (Open)
17,26	PS2,PS1	-	Power save (Connected to GND)

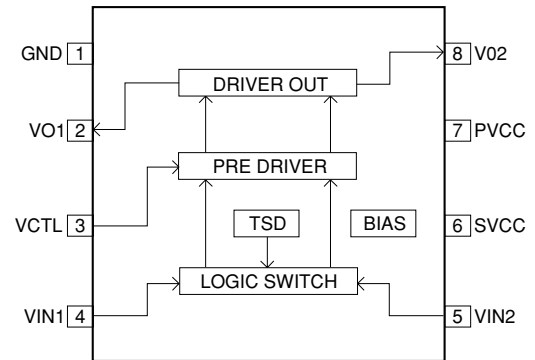
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CIRCUIT DESCRIPTION

4-4 DC Motor Driver : FAN8082(DVD & VIDEO IC69)

Pin No.	Pin Name	I/O	Pin Description
1	GND	-	Ground
2	VO1	O	Output 1
3	VCTL	I	Motor speed control
4	VIN1	I	Input 1
5	VIN2	I	Input 2
6	SVCC	-	Supply voltage (Signal)
7	PVCC	-	Supply voltage (Power)
8	VO2	O	Output 2

Internal Block Diagram



4-5 S-Video & Video Selector : LA79510E (DVD & VIDEO, IC70)

Pin No.	Pin Name	I/O	Pin Description
1,3,5,7,9,11,13,31,32,34,36,38,40,42,44,46,48,49,51,53,55,57,59,61,64	NC	-	Unused.
2	VC1IN	I	Input of C signal for S-video terminal (unused).
4	NFBCG	-	Negative feed-back pin of amplifier (unused).
6	VC2IN	I	Input of C signal from video driver.
8	VC3IN	I	Input of C signal for S-video 1 terminal.
10	VC4IN	I	Input of C signal for S-video 2 terminal.
12	VC5IN	I	Input of C signal for video (unused).
14	VC6IN	I	Unused.
15	GND2	-	GND
16	MUTE	-	Mute time constant changing pin.
17~19	MUTE(3~1)	-	Switching pin of mute.
20	CTL 3	I	Video switch control 3 input.
21	CTL 2	I	Video switch control 2 input.
22	CTL 1	I	Video switch control 1 input.
23	VC02	O	Output of C signal for monitor output.
24	VC01	O	Rec output of C signal for S-video 1terminal.
25	-VCC	-	Negative power supply.
26	VB02	O	Output of Y signal for monitor output.
27	VB01	O	Rec output of Y signal for video 1.
28	-VCC	-	Negative power supply.
29	VA02	O	Monitor output to video 2.
30	VA01	O	REC output to video 1.
33	VCC	-	Positive power supply.
35	VA6	I	Unused.
37	NFB(G)	-	Negative feed-back pin of amplifier (unused).
39	VA5 IN	I	Input of video signal (unused).
41	VA4 IN	I	Input of video signal for video 2.
43	VA3 IN	I	Input of video signal for video 1.
45	VA2 IN	I	Input of CY signal from video driver.
47	VA1	I	Input of video signal for composite (unused).
50	VB1IN	I	Input of Y signal for S-video terminal (unused).
52	NFBGG	-	Negative feed-back pin of amplifier (unused).
54	VB2 IN	I	Input of Y signal from video driver.
56	VB3 IN	I	Input of Y signal for S-video 1terminal.
58	VB4 IN	I	Input of Y signal for S-video 2 terminal.
60	VB5 IN	I	Input of Y signal for video (unused).
62	VB6 IN	I	Unused.
63	VCC4	-	Positive power supply.

CIRCUIT DESCRIPTION

4-6 D/A Converter : PCM1748 (DVD & VIDEO IC64)

Pin No.	Pin Name	I/O	Pin Description
1	BCK	I	Audio data bit clock input.
2	DATA	I	Audio data digital input.
3	LRCK	I	Audio data latch enable input.
4	DGND	-	Digital ground.
5	VDD	-	Digital power supply (+3.3V).
6	VCC	-	Analog power supply (+5V).
7	VOU TL	O	Analog output for L-channel.
8	VOU TR	O	Analog output for R-channel.
9	AGND	-	Analog ground.
10	VCOM	-	Common voltage decoupling.
11	ZEROR	O	Zero flag output for R-channel.
12	ZEROL	O	Zero flag output for L-channel.
13	MD	I	Mode control data input.
14	MC	I	Mode control clock input.
15	ML	I	Mode control latch input.
16	SCK	I	System clock input.

4-7 96kHz 24Bit Multi-channel CODEC with DIR : AK4586 (X09, IC7)

Pin No.	Pin Name	I/O	Pin Description
1	XTO	O	X' tal Output Pin
2	XTI	I	X' tal Input Pin
	EXTCLK	I	External Master Clock Input Pin
3	TVDD	-	Output Buffer Power Supply Pin (+3.3V)
4	DVSS	-	Digital Ground Pin
5	DVDD	-	Digital Power Supply Pin (+5.0V)
6	TX	O	Transmit Channel (through data) Output Pin
7	MCKO	O	Master Clock Output Pin
8	LRCK	I/O	Input/Output Channel Clock Pin
9	BICK	I/O	Audio Serial Data Clock Pin
10	SDTO	O	Audio Serial Data Output Pin
11~13	SDTI (1~3)	I	DAC(1~3) Audio Serial Data Input Pin
14	INT0	O	Interrupt 0 Pin
15	INT1	O	Interrupt 1 Pin
16	CDTO	O	Control Data Output Pin in 4-wire serial control mode
	CAD1	I	Chip Address 1 pin I2C bus control mode
17	CDTI	I	Control Data Input Pin in 4-wire serial control mode
	SDA	I/O	Control Data Input/Output Pin in I2 C bus control mode
18	CCLK	I	Control Data Clock Pin in 4-wire serial control mode
	SCL	I	Control Data Clock Pin in I2C bus control mode
19	CSN	I	Chip Select Pin in 4-wire serial control mode
	CAD0	I	Chip Address 0 pin in I2 C bus control mode
20	DZF2	O	Zero Input Detect 2 Pin
	OVR	O	Analog Input Overflow Detect Pin
21	AVSS	-	Analog Ground Pin
22	AVDD	-	Analog Power Supply Pin (+5.0V)
23	VREFH	I	Positive Voltage Reference Input Pin, AVDD
24	VCOM	O	Common Voltage Output Pin, AVDD/2
25	DZF1	O	Zero Input Detect 1 Pin
26	LOUT3	O	LSch Analog Output Pin
27	ROUT3	O	RSch Analog Output Pin
28	LOUT2	O	Center ch Analog Output Pin
29	ROUT2	O	SWch Analog Output Pin
30	LOUT1	O	FLch Analog Output Pin
31	ROUT1	O	FRch Analog Output Pin

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Pin Description
32	LIN	I	Lch Analog Input Pin
33	RIN	I	Rch Analog Input Pin
34	PVDD	-	PLL Power Supply Pin, 4.5V~5.5V
35	R	-	External Resistor Pin
36	PVSS	-	PLL Ground Pin
37	RX4	I	Receiver channel 4 Pin (Internal biased pin)
38	SLAVE	I	Slave Mode Pin "L" : Master mode or Slave mode, "H" : Slave mode
39	RX3	I	Receiver channel 3 Pin (Internal biased pin)
40	TST	I	Test Pin This pin should be connected to DVSS.
41	RX2	I	Receiver channel 2 Pin (Internal biased pin)
42	I2C	I	Control Mode Select Pin "L" : 4-wire Serial, "H" : I2 C bus
43	RX1	I	Receiver channel 1 Pin (Internal biased pin)
44	PDN	I	Power Down & Reset Pin

4-8 Digital Audio Decoder : CS493263 (X09, IC9)

Pin No.	Pin Name	I/O	Pin Description
1,12,23	VD(1~3)	-	Digital positive supplies. Nominally +2.5V
2,13,24	DGND(1~3)	-	Digital ground.
3	AUDATA3	O	Unused.
4	WR	I/O	Host Write Strobe, Host Data Strobe, External Memory Write Enable or General Purpose Input.
5	RD	I/O	Host Parallel Output Enable, Host parallel R/W, External Memory Output Enable, General Purpose Input.
6	A1	I	Host address bit one or SPI serial control data input.
7	A0	I	Host parallel address bit zero or serial control pin clock.
8~11 14~17	EMA(D7~D0)	I/O	Data bus (7~0).
18	CS	I	Chip select input.
19	SCDI0	I/O	Serial control data input and output.
20	ABOOT	I/O	Control pin interrupt request, automatic boot enable.
21	EXTMEM	I/O	External memory chip select input/output.
22	SDATAN	I	PCM audio data input.
25	SCLKN1	I/O	PCM audio input bit clock.
26	LRCLKN1	I/O	PCM audio input sample rate clock.
27	CMPDAT	I	PCM audio data input.
28	CMPCLK	I/O	PCM audio input bit clock.
29	CMPREQ	I/O	PCM audio input sample rate clock.
30	CLKIN	I	Master clock input.
31	CLKSEL	I	DSP clock select.
32	FLT2	-	Phase locked loop filter.
33	FLT1	-	Phase locked loop filter.
34	VA	-	Analog positive power supply for clock generator. Nominally +2.5V
35	AGND	-	Analog ground for clock generator PLL.
36	RESET	I	Master reset input.
37	DD	I/O	This pin should be pulled up with an external 4.7kΩ resistor.
38	DC	I	This pin should be pulled up with an external 4.7kΩ resistor.
39	AUDATA2	O	Digital audio output 2.
40	AUDATA1	O	Digital audio output 1.
41	AUDATA0	O	Digital audio output 0.
42	LRCLK	I/O	Audio output sample rate clock.
43	SCLK	I/O	Audio output bit clock.
44	MCLK	I/O	Audio master clock.

CIRCUIT DESCRIPTION

4-9 Digital Power Amplifier : TA2022 (X09, IC501~503)

Pin No.	Pin Name	I/O	Pin Description
1,13	VBOOT(2,1)	-	Bootstrap voltages for gate drive of high side MOSFET's.
2	VN10	I	Floating supply input. Normally connected to the output of onboard VN10 buck converter. This voltage must be stable and referenced to VNN.
3	VN10GND	-	Power ground for onboard VN10 generator.
4,12	VPP(1,2)	I	Positive power supply input pins.
5	VN10SW	O	Switching output voltage for onboard VN10 generator (buck converter).
6	NC	-	Not connected internally.
7,10	OUT(2,1)	O	Power amplifier outputs.
8,9	VNN(2,1)	I	Negative power supply input pins.
11	NC	-	Not connected internally.
14	VN10FDBK	-	Feedback for onboard VN10 generator (nominally 11V above VNN).
15,20	AGND	-	Analog ground.
16,21	V5	I	5V power supply input.
17	REF	-	Used to set internal bias current. The pin voltage is typically 1.1V.
18	VNNSENSE	I	Negative supply voltage sense input. This pin is used for both over and under voltage sensing for the VNN supply.
19	VPPSENSE	I	Positive supply voltage sense input. This pin is used for both over and under voltage sensing for the VPP supply.
22,25	OAOUT(1,2)	O	Outputs of input stage ope amplifiers.
23,26	INV(1,2)	I	Inverting inputs of input stage ope amplifier.
24	MUTE	I	Logic input. A logic high puts the amplifier in mute mode.
27	BIASCAP	-	Bandgap reference times two (typically 2.5VDC). Used to set the common mode voltage for the input ope amplifier.
28,29	FBKGND2,FBKOUT2	O	Output voltage differential feedback for channel 2.
30,31	FBKGND1,FBKOUT1	O	Output voltage differential feedback for channel 1.
32	HMUTE	O	Logic output. A logic high indicates both amplifiers are muted, due to the mute pin state, or a fault such as an overcurrent, undervoltage, or overvoltage condition.

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ADJUSTMENT

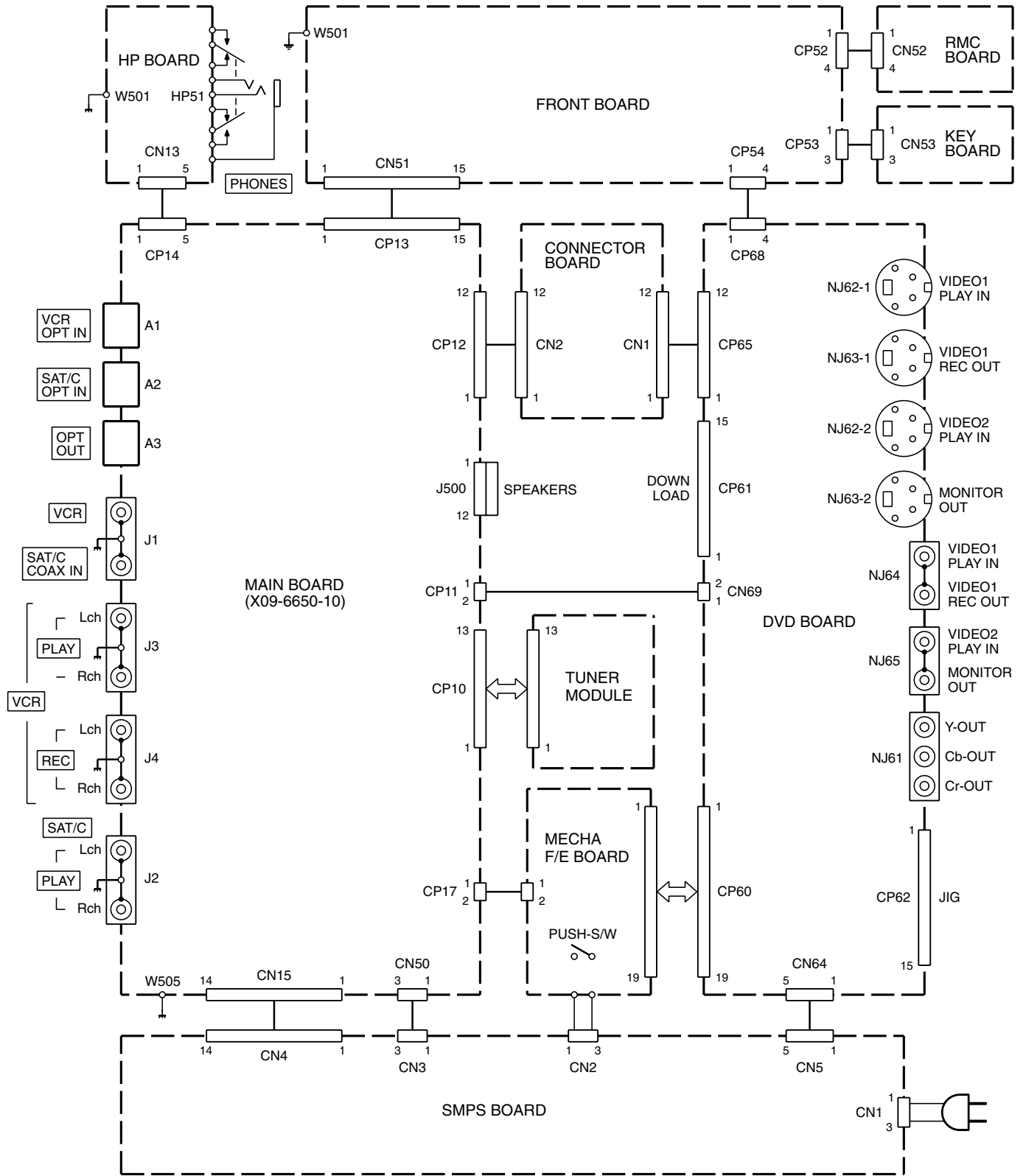
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, the individual switches should be set as following: POWER: ON SELECTOR: EXCEPT TUNER							
1	OFF SET	-	Connect the DC voltmeter to speaker terminal (J500).	VOLUME: 0	*	Less than $\pm 10\text{mV}$ Note: Adjust it as possible as minimum voltage (Approx: $\pm 2\text{mV}$)	

*

Channels	Alignment point	Speaker Terminal(J500) Pin No.
FL	VR1	3 (+), 4 (-)
FR	VR2	11 (+), 12 (-)
LS	VR3	1 (+), 2 (-)
RS	VR4	9 (+), 10 (-)
CENTER	VR5	7 (+), 8 (-)
SW	VR6	5 (+), 6 (-)

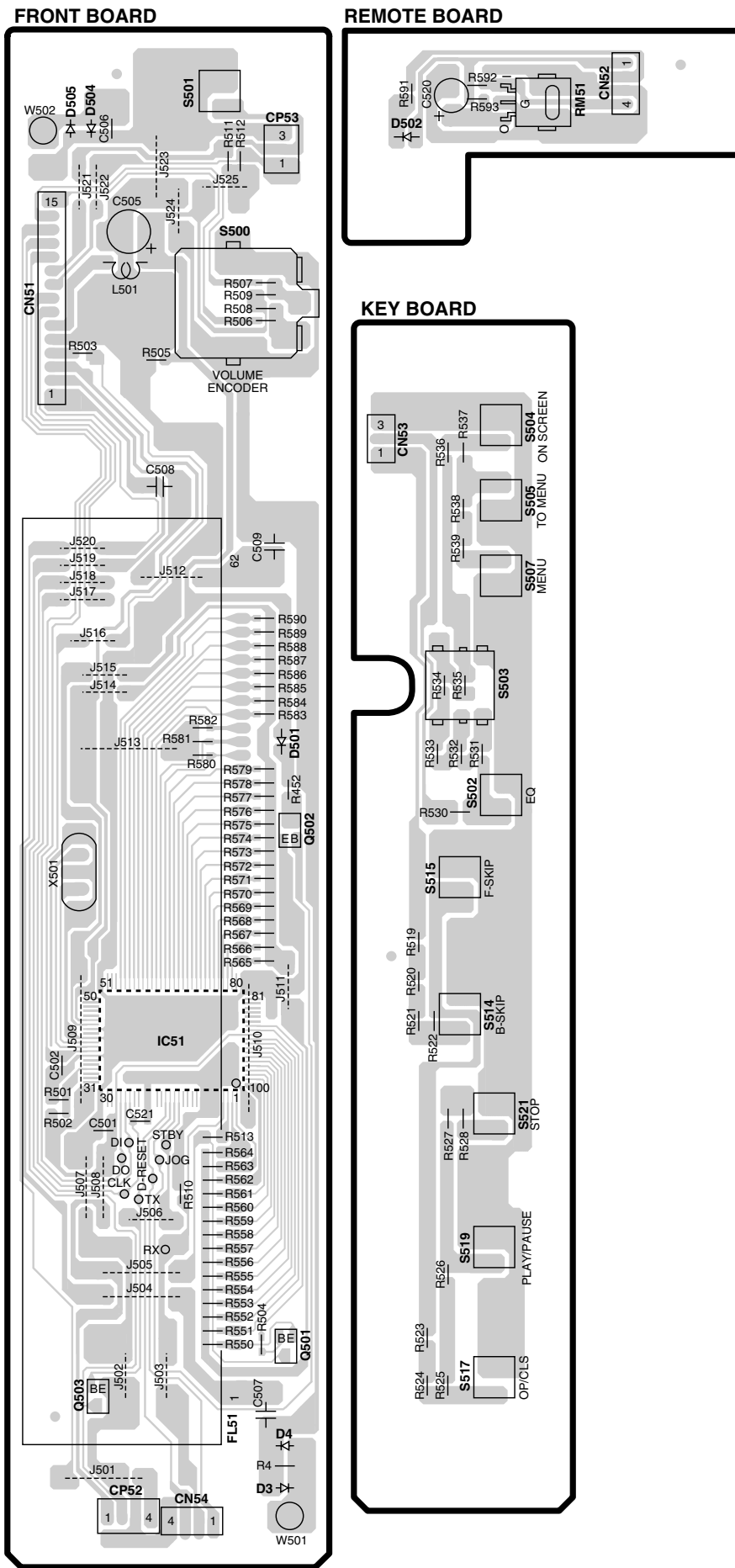
DVR-8100

INTERCONNECTION DIAGRAM



DVR-8100

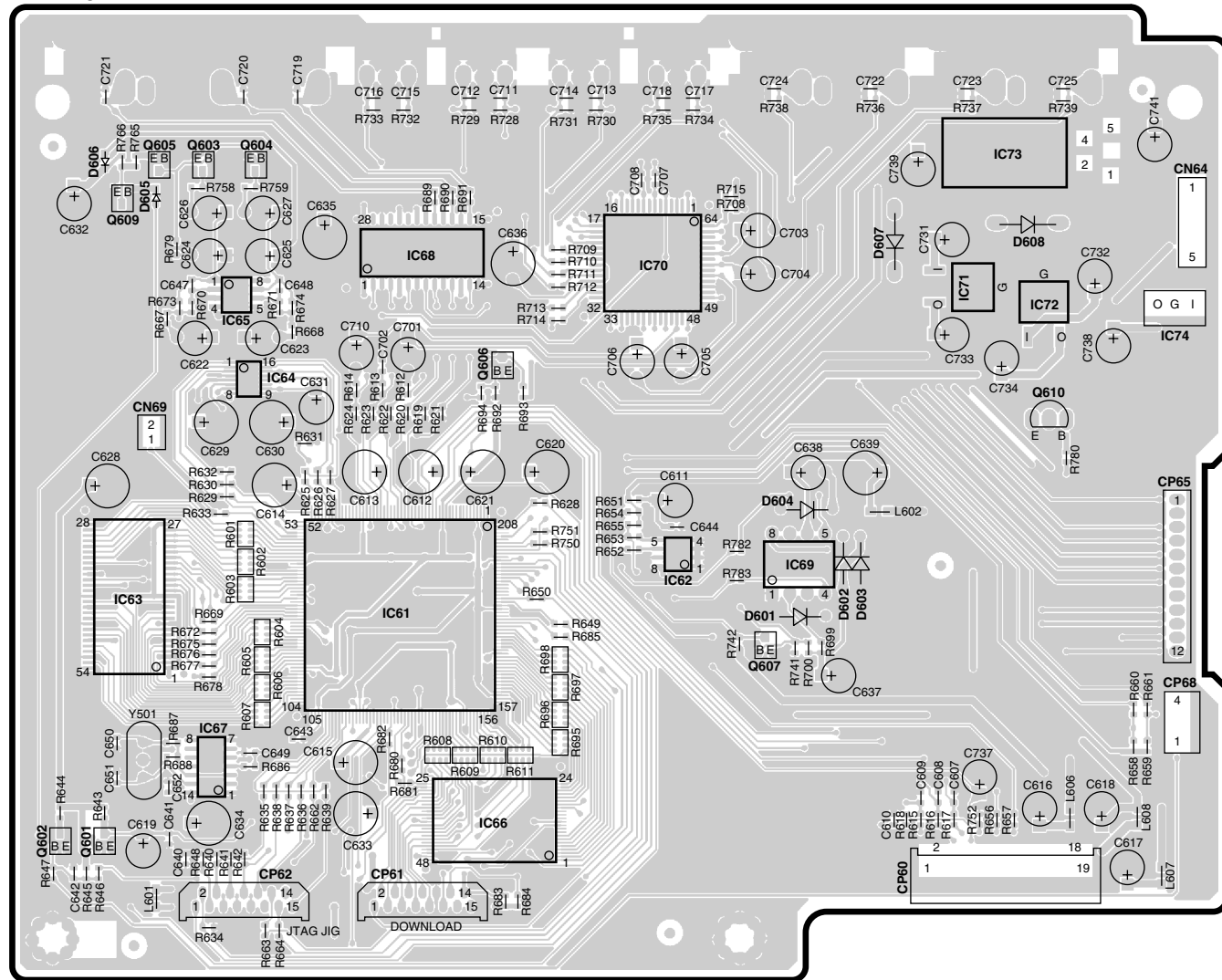
PC BOARD (Component side view)



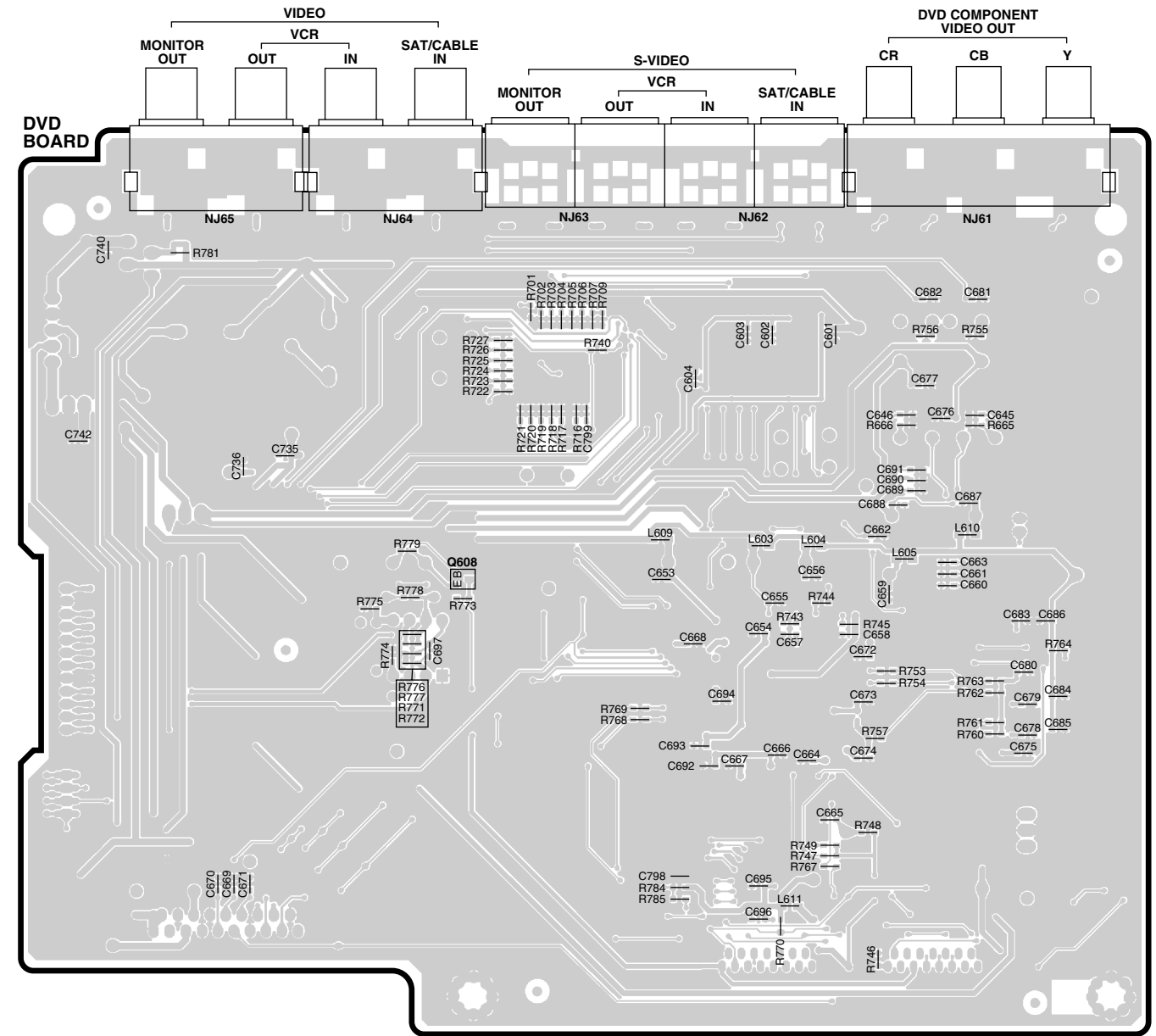
Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD(Component side view)

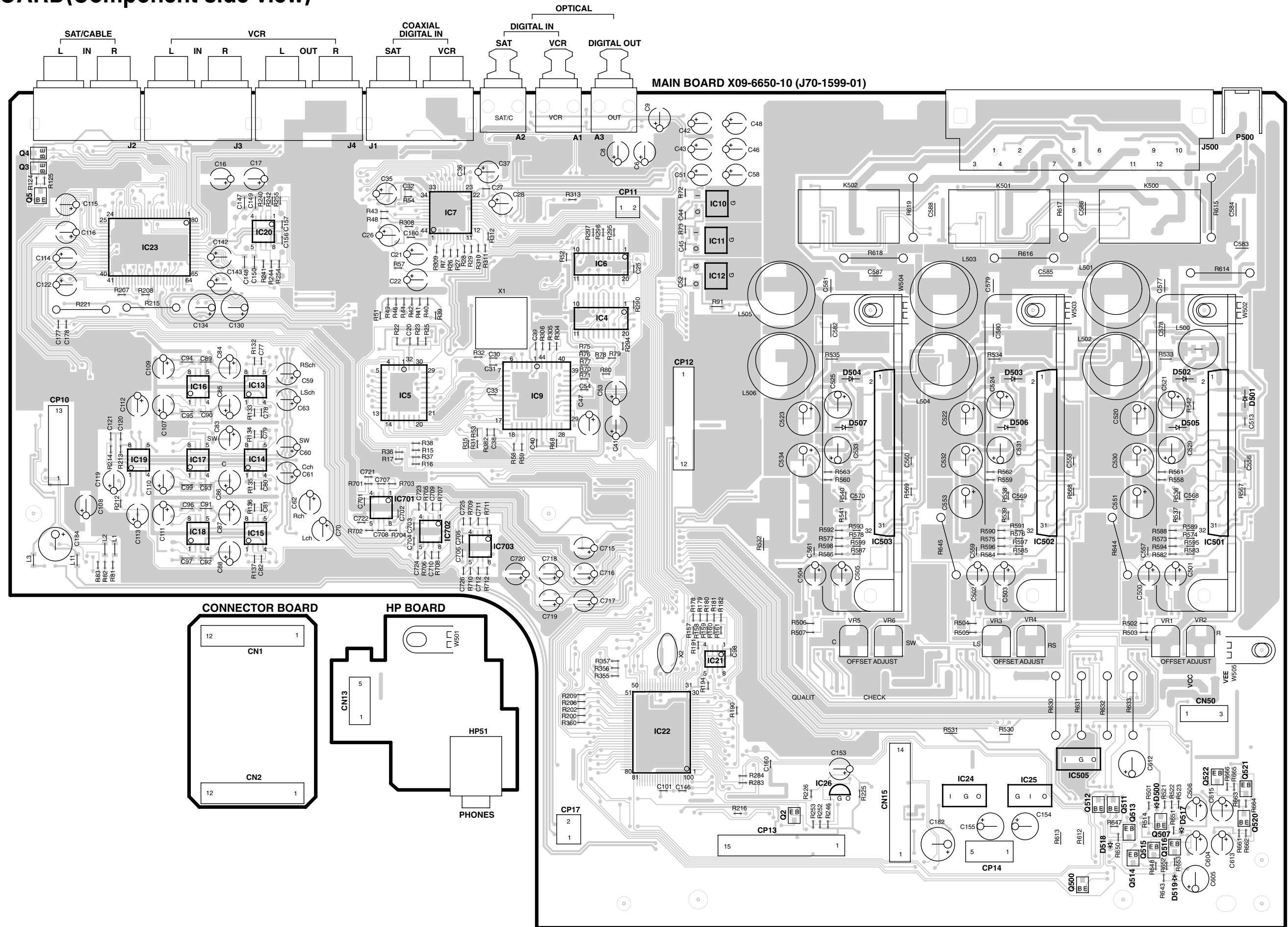
DVD BOARD



DVD BOARD

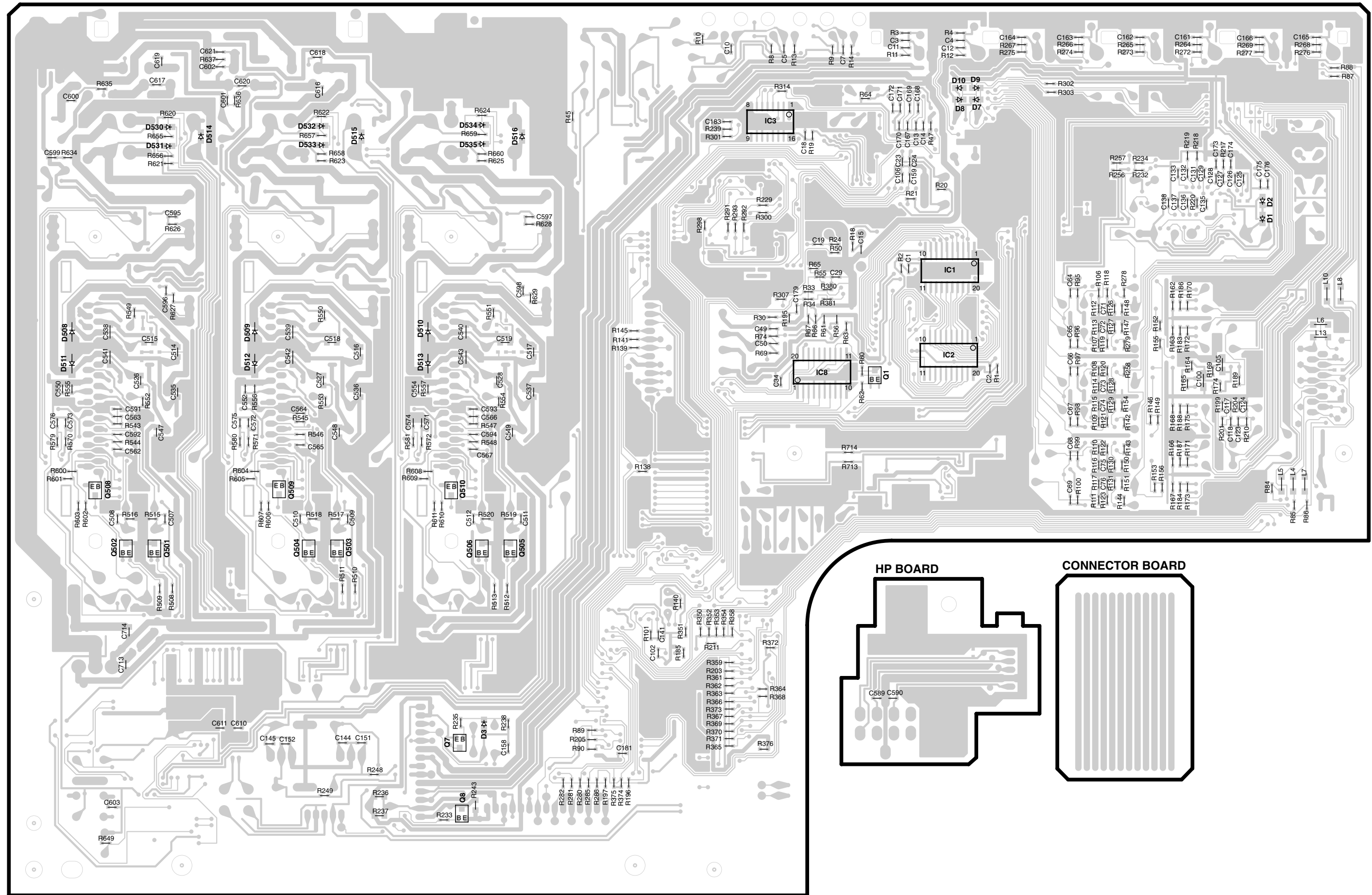


PC BOARD(Component side view)

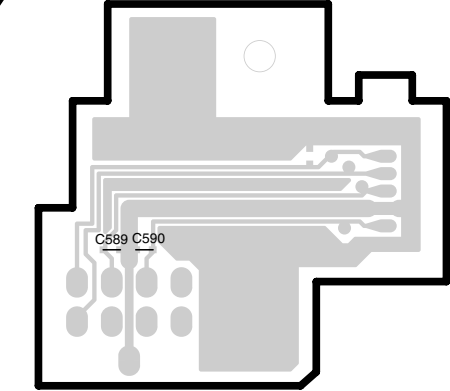


PC BOARD(Component side view)

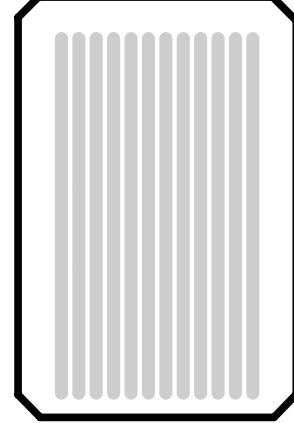
MAIN BOARD X09-6650-10 (J70-1599-01)



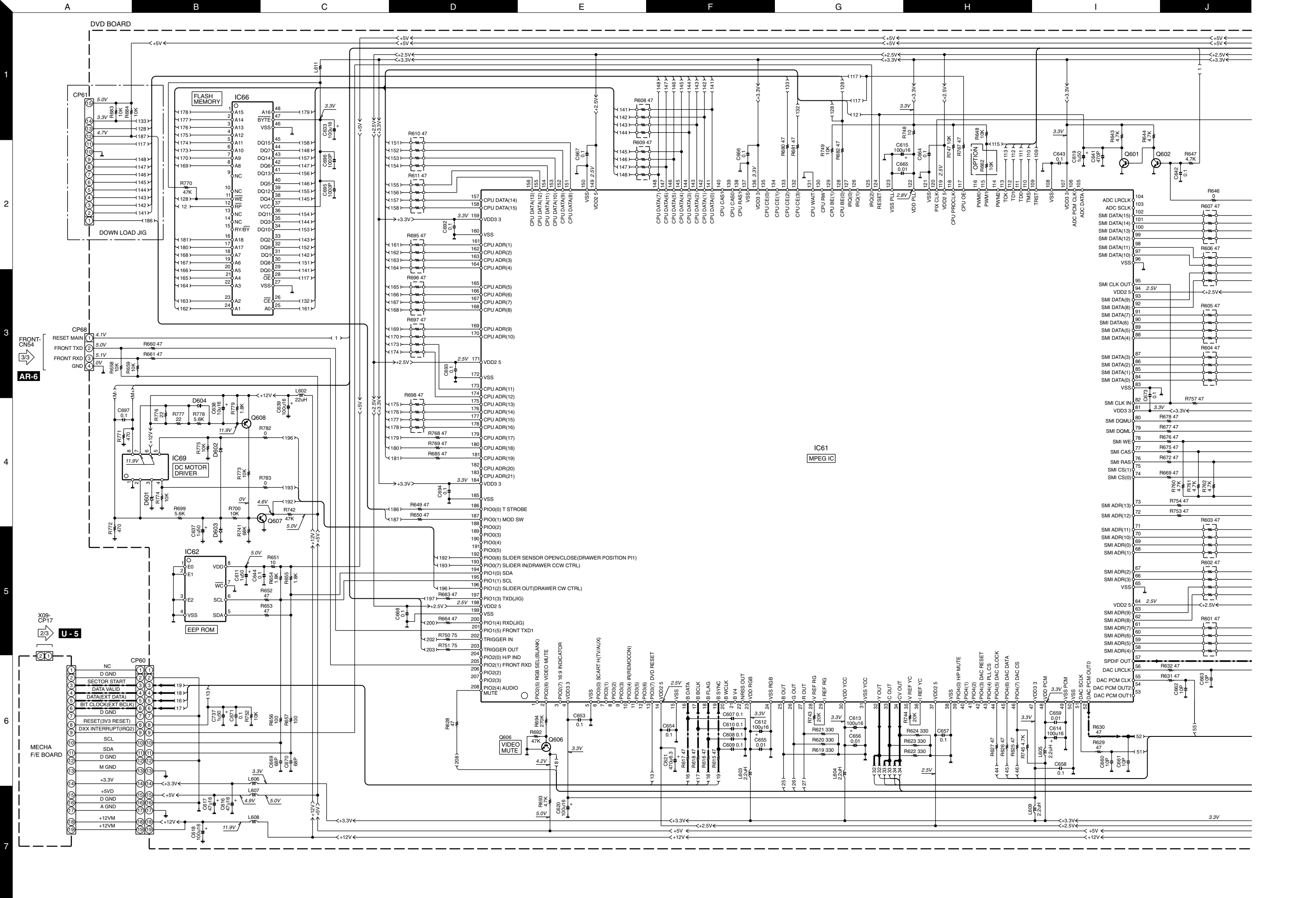
HP BOARD

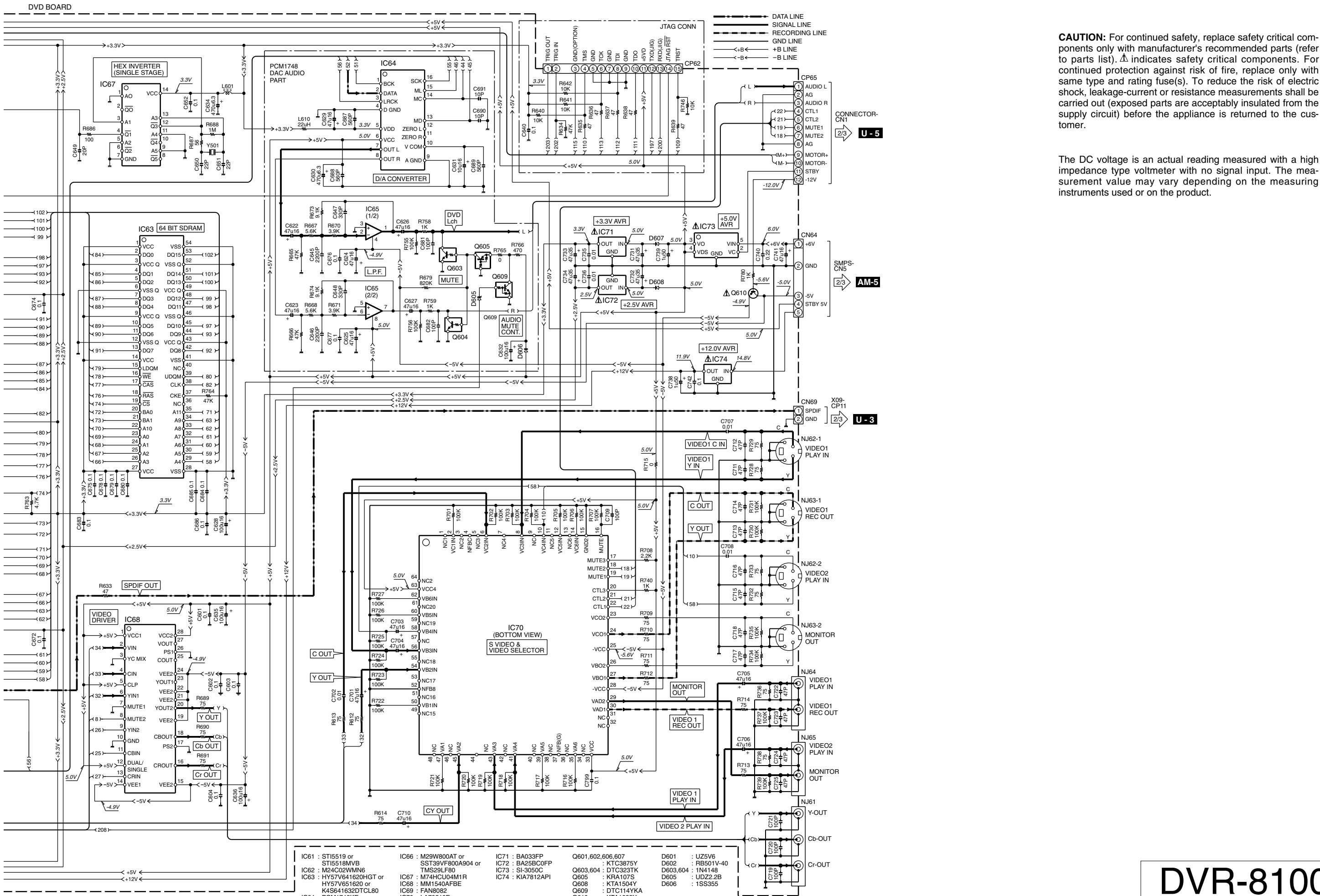


CONNECTOR BOARD



Refer to the schematic diagram for the value of resistors and capacitors.

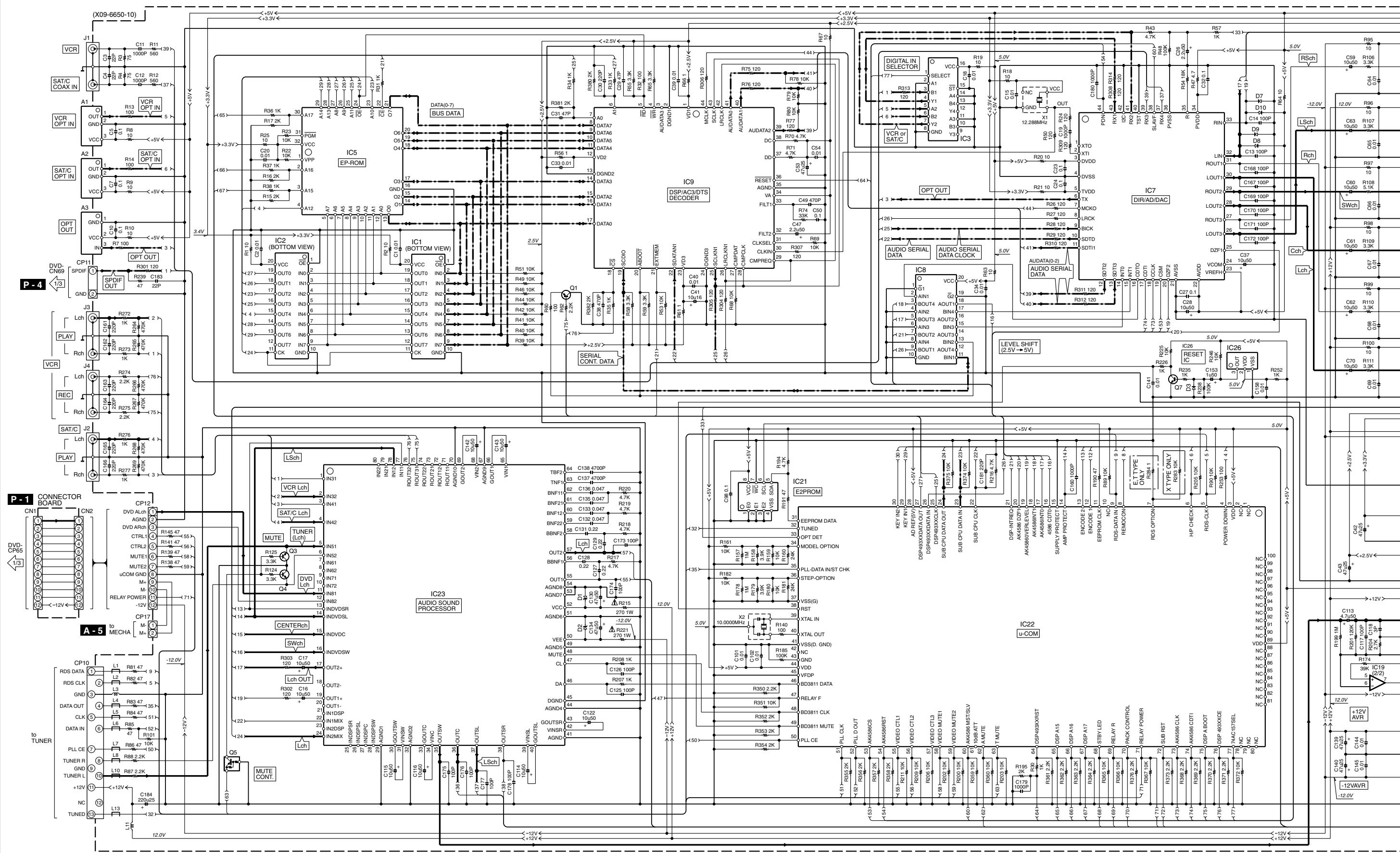




CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

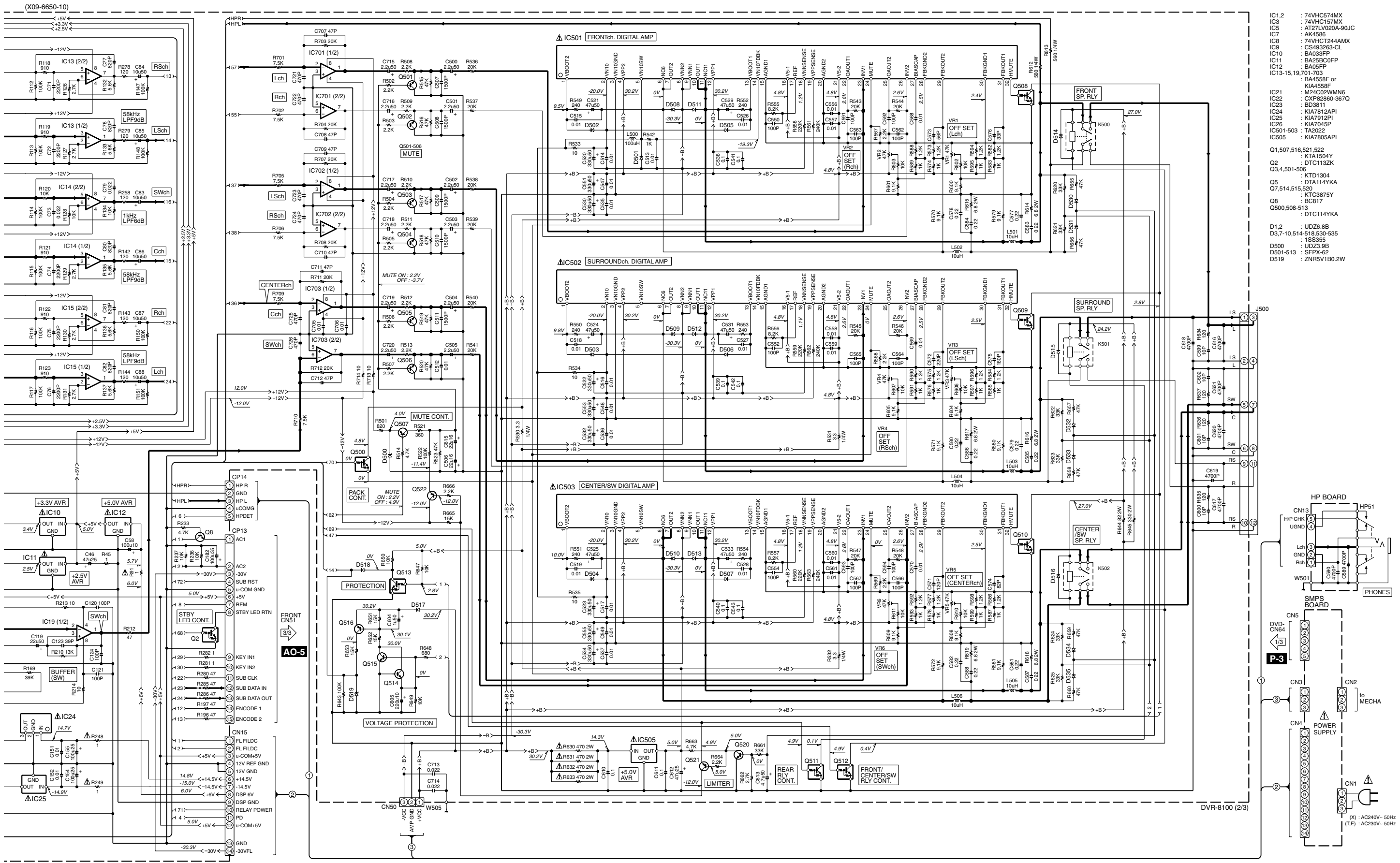
The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

- | | | | |
|---|--|-------------------|--------------------------|
| IC61 : ST15519 or ST15518MVB | IC66 : M29W800AT or S15519VF800A904 or TMS29LF80 | IC71 : BA033FP | Q601,602,606,607 : UZ5V6 |
| IC62 : M24C02/WMN6 | IC67 : M74HC04M1R | IC72 : SI-3050C | D601 : UZ5V6 |
| IC63 : HY57V641620HGT or HY57V651620 or K4S641632DTCL80 | IC68 : MM1540AFBE | IC74 : KIA7812API | D602 : RB301V-40 |
| IC64 : PCM1748KE | IC69 : FAN8082 | | D603,604 : 1N4148 |
| IC65 : BA4560F | IC70 : LA79510E | | D605 : UD22.2B |
| | | | D606 : 1SS355 |



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.



- IC1,2 : 74VHC574MX
- IC3 : 74VHC157MX
- IC5 : AT27LV020A-90JC
- IC7 : AK4586
- IC8 : 74VHC1244AMX
- IC9 : CS493263-CL
- IC10 : BA033FP
- IC11 : BA25BC0FP
- IC12 : BA105FP
- IC13-15,19,701-703 : BA4558F or KIA4558F
- IC21 : M24C02WMN6
- IC22 : CXP82860-3670
- IC23 : BD3811
- IC24 : KIA7812API
- IC25 : KIA7812PI
- IC26 : KIA7045P
- IC501-503 : TA2022
- IC505 : KIA7805API

- Q1,507,516,521,522 : KIA4558F or KIA4558F
- Q2 : DTC1132K
- Q3,4,501-506 : KTD1304
- Q5 : DTA114YKA
- Q7,514,515,520 : KT3875Y
- Q8 : BC817
- Q500,508-513 : DTC114YKA

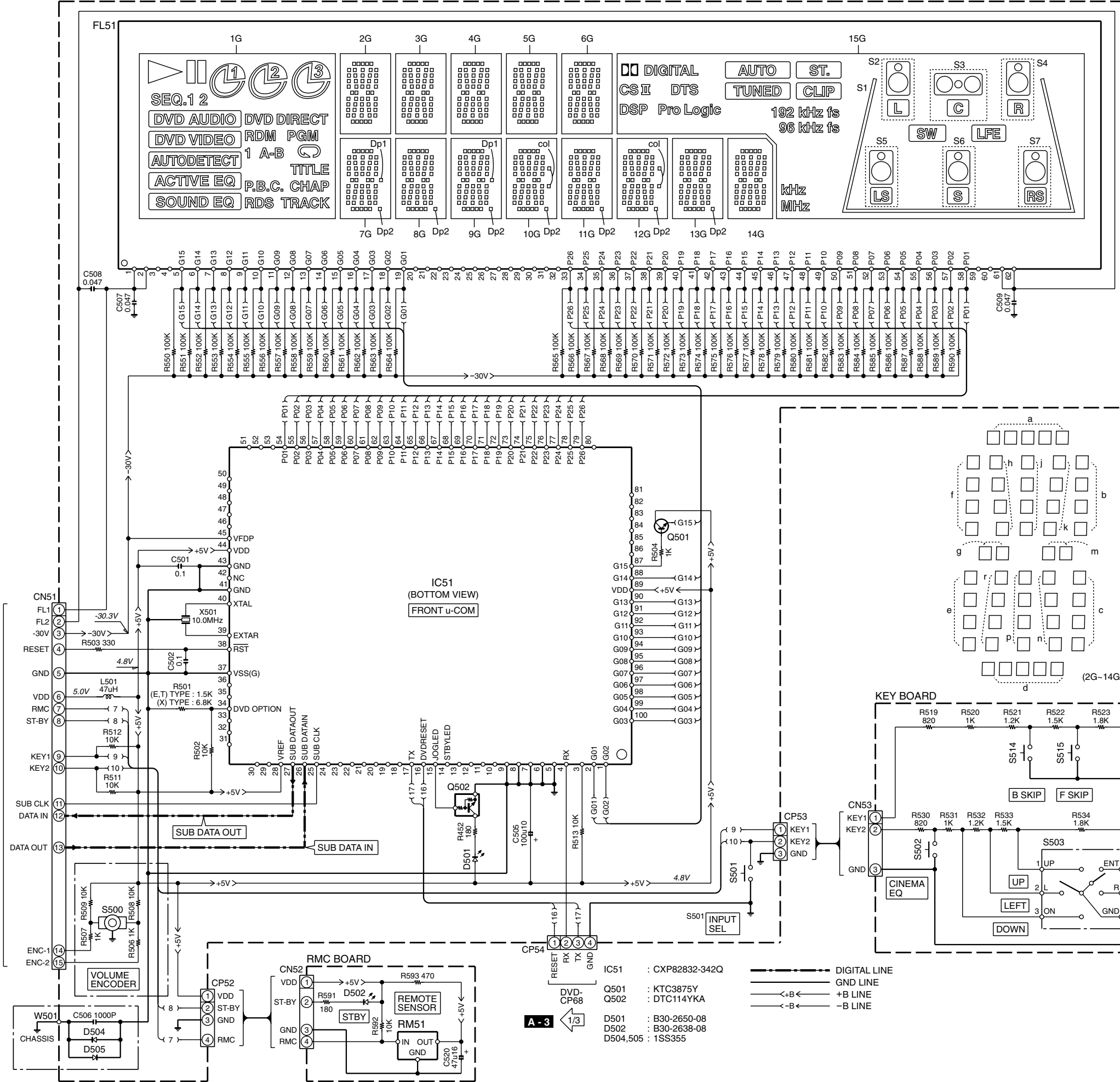
- D1,2 : UD26.8B
- D3,7-10,514-518,530-535 : 1S355
- D500 : UD23.9B
- D501-513 : SFPX-62
- D519 : ZNR5V1B0.2W

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Y39-4512-70

KENWOOD

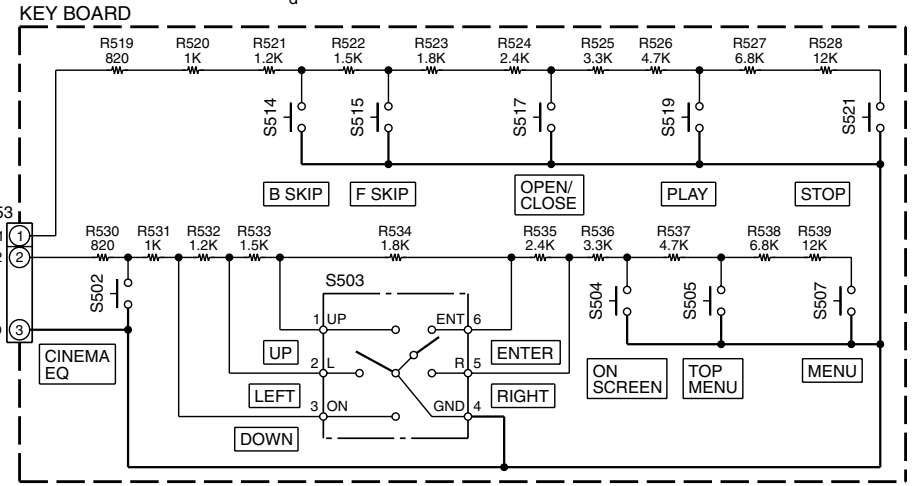
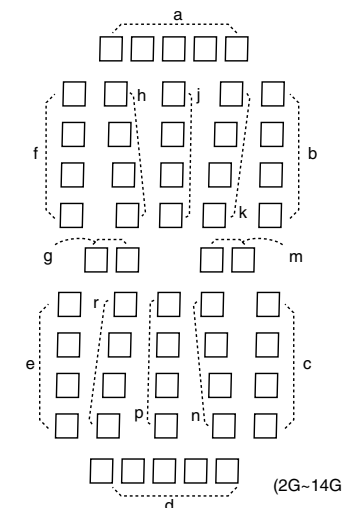
FRONT BOARD



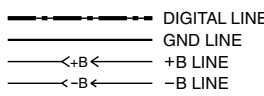
	1G	2G-6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	
P1		a	a	a	a	a	a	a	a	a	a	DSP
P2		(3)	h	h	h	h	h	h	h	h	h	ProLogic
P3		(2)	j	j	j	j	j	j	j	j	j	CS II
P4		(1)	k	k	k	k	k	k	k	k	k	DIGITAL
P5	DVD DIRECT	b	b	b	b	b	b	b	b	b	b	DTS
P6	2	f	f	f	f	f	f	f	f	f	f	192 kHz fs
P7	1 (SEQ.)	m	m	m	m	m	m	m	m	m	m	96 kHz fs
P8	SEQ.	g	g	g	g	g	g	g	g	g	g	TUNED
P9		c	c	c	c	c	c	c	c	c	c	AUTO
P10		e	e	e	e	e	e	e	e	e	e	CLIP
P11	PGM	r	r	r	r	r	r	r	r	r	r	ST.
P12	RDM	p	p	p	p	p	p	p	p	p	p	kHz
P13		n	n	n	n	n	n	n	n	n	n	MHz
P14	B	d	d	d	d	d	d	d	d	d	d	S1
P15	A- (A-B)	-	Dp1	-	Dp1	col	-	col	-	-	-	S5
P16	1	-	Dp2	-	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	S6
P17	TITLE	-	-	-	-	-	-	-	-	-	-	S7
P18	CHAP	-	-	-	-	-	-	-	-	-	-	S2
P19	P.B.C.	-	-	-	-	-	-	-	-	-	-	S3
P20	DVD AUDIO	-	-	-	-	-	-	-	-	-	-	P4
P21	DVD VIDEO	-	-	-	-	-	-	-	-	-	-	SW
P22	AUTODETECT	-	-	-	-	-	-	-	-	-	-	LFE
P23	ACTIVE EQ	-	-	-	-	-	-	-	-	-	-	-
P24	SOUND EQ	-	-	-	-	-	-	-	-	-	-	-
P25	TRACK	-	-	-	-	-	-	-	-	-	-	-
P26	RDS	-	-	-	-	-	-	-	-	-	-	-

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

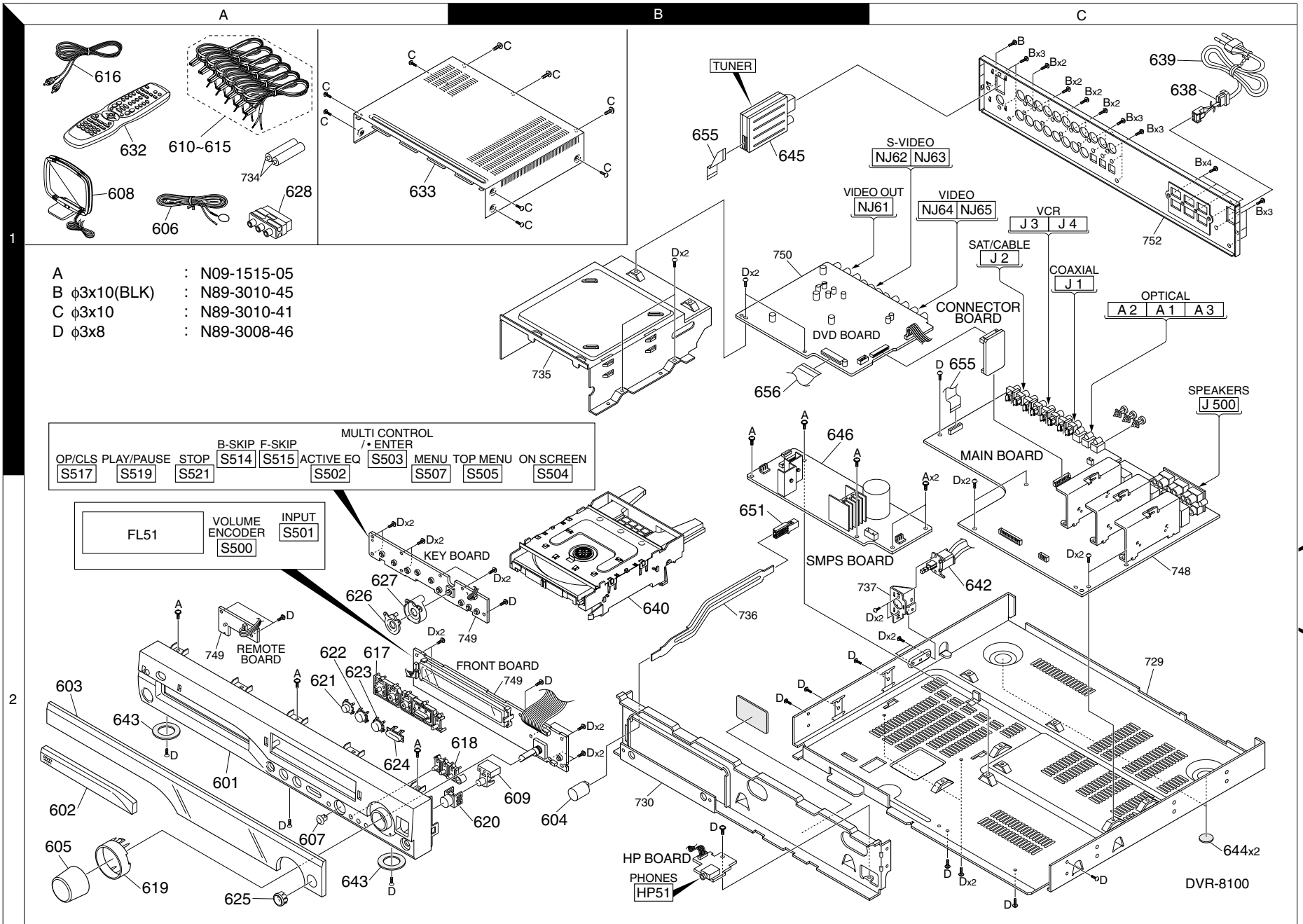
The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.



- IC51 : CXP82832-342Q
- Q501 : KTC3875Y
- Q502 : DTC114YKA
- D501 : B30-2650-08
- D502 : B30-2638-08
- D504,505 : 1SS355



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- A : N09-1515-05
- B ϕ 3x10(BLK) : N89-3010-45
- C ϕ 3x10 : N89-3010-41
- D ϕ 3x8 : N89-3008-46

OP/CLS	PLAY/PAUSE	STOP	B-SKIP	F-SKIP	MULTI CONTROL	/ ENTER	ACTIVE EQ	MENU	TOP MENU	ON SCREEN
S517	S519	S521	S514	S515	S502	S503	S507	S505	S504	S504

FL51	VOLUME ENCODER	INPUT
	S500	S501

EXPLODED VIEW (UNIT)

DVR-8100

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

9

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

10

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
IC5 IC7 IC8 IC9 IC10		*	AT27LV020A-90JC AK4586 74VHCT244AMX CS493263-CL BA033FP	IC-EPROM AT27L 55172540 IC(96KHz 24BIT MULTI-CHANNEL) IC-LOGIC 74VHC 55410610 IC-LOWFREQ CS4 55125380 IC(MOS IC)XD B 55352910		
IC11 IC12 IC13-15 IC13-15 IC19		*	BA25BC0FP BA05FP BA4558F KIA4558F BA4558F	IC-REGPOSFXD B 55421150 IC(ANALOGUE IC) 55352920 IC(OP AMP X2)4 20976940 IC-OPERAMP KIA 20920060 IC(OP AMP X2)4 20976940		
IC19 IC21 IC22 IC23 IC24		*	KIA4558F M24C02WMN6 CXP82860-367Q BD3811 KIA7812API	IC-OPERAMP KIA 20920060 IC-EEPROM M24C 20940740 IC-MICROCONT C 5538624A IC-LOWFREQ BD3 55348300 IC(ANALOGUE IC) 55094390		
IC25 IC26 IC501-503 IC505 IC701-703		*	KIA7912PI KIA7045P TA2022 KIA7805API BA4558F	IC(ANALOGUE IC) 55094440 IC-REGNEGFXD K 55191090 IC-SPECFUNC TA 55348290 IC(VOLTAGE REGULATOR) IC(OP AMP X2)4 20976940		
IC701-703 Q1 Q2 Q3,4 Q5			KIA4558F KTA1504Y DTC113ZK KTD1304 DTA114YKA	IC-OPERAMP KIA 20920060 TR-SLPSWA KTA1 20970480 TR-SSD DTC113Z 10550750 TR-SLPSWA KTD1 55138710 TR-SSD DTA114Y 55133190		
Q7 Q8 Q500 Q501-506 Q507		*	KTC3875Y BC817 DTC114YKA KTD1304 KTA1504Y	TR-SLPSWA KTC3 20970460 TR-SW-SMD B N 55290270 TR-SSD DTC114Y 55133180 TR-SLPSWA KTD1 55138710 TR-SLPSWA KTA1 20970480		
Q508-513 Q514 Q515 Q516 Q520			DTC114YKA KTC3875Y KTC3875Y KTA1504Y KTC3875Y	TR-SSD DTC114Y 55133180 TR-SLPSWA KTC3 20970460 TR-SLPSWA KTC3 20970460 TR-SLPSWA KTA1 20970480 TR-SLPSWA KTC3 20970460		
Q521,522			KTA1504Y	TR-SLPSWA KTA1 20970480		
A1,2 A3	1C 1C		W02-2716-05 W02-2717-05	IC-REMOTE VSR5 55355990 IC-REMOTE VST5 55356010		
FRONT (553344200)						
D501 D502		*	B30-2650-08 B30-2638-08	D-LEM 30B3-41U 55412060 D-LEM L-7104SR 55192130		
C501,502 C505 C506 C507-509 C520			CK73GB1C104K CE04LW1A101M CC73GCH1H102J CK45FB1H473Z CE04LW1C470M	CHIP C 0.10UF K ELECTRO 100UF 10WV CHIP C 1000PF J CERAMIC 0.047UF Z ELECTRO 47UF 16WV		
L501 X501		*	L33-1658-08 L77-2355-08	LF 47U0H +10% 55168840 CRESONATOR 10M 55126140		
R452 R501 R501 R502 R503			RK73GB1J181J RK73GB1J152J RK73GB1J682J RK73GB1J103J RK73GB1J331J	CHIP R 180 J 1/16W CHIP R 1.5K J 1/16W CHIP R 6.8K J 1/16W CHIP R 10K J 1/16W CHIP R 330 J 1/16W	ET X	

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R504 R506,507 R508,509 R511-513 R519			RK73GB1J102J RK73GB1J102J RK73GB1J103J RK73GB1J103J RK73GB1J821J	CHIP R 1.0K J 1/16W CHIP R 1.0K J 1/16W CHIP R 10K J 1/16W CHIP R 10K J 1/16W CHIP R 820 J 1/16W		
R520 R521 R522 R523 R524			RK73GB1J102J RK73GB1J122J RK73GB1J152J RK73GB1J182J RK73GB1J242J	CHIP R 1.0K J 1/16W CHIP R 1.2K J 1/16W CHIP R 1.5K J 1/16W CHIP R 1.8K J 1/16W CHIP R 2.4K J 1/16W		
R525 R526 R527 R528 R529			RK73GB1J332J RK73GB1J472J RK73GB1J682J RK73GB1J123J RK73GB1J183J	CHIP R 3.3K J 1/16W CHIP R 4.7K J 1/16W CHIP R 6.8K J 1/16W CHIP R 12K J 1/16W CHIP R 18K J 1/16W		
R530 R531 R532 R533 R534			RK73GB1J821J RK73GB1J102J RK73GB1J122J RK73GB1J152J RK73GB1J182J	CHIP R 820 J 1/16W CHIP R 1.0K J 1/16W CHIP R 1.2K J 1/16W CHIP R 1.5K J 1/16W CHIP R 1.8K J 1/16W		
R535 R536 R537 R538 R539			RK73GB1J242J RK73GB1J332J RK73GB1J472J RK73GB1J682J RK73GB1J123J	CHIP R 2.4K J 1/16W CHIP R 3.3K J 1/16W CHIP R 4.7K J 1/16W CHIP R 6.8K J 1/16W CHIP R 12K J 1/16W		
R550-590 R591 R592 R593			RK73GB1J104J RK73GB1J181J RK73GB1J103J RK73GB1J471J	CHIP R 100K J 1/16W CHIP R 180 J 1/16W CHIP R 10K J 1/16W CHIP R 470 J 1/16W		
S500 S501,502 S503 S504,505 S507	2A 2A 1A 2B 2A	*	T99-0668-08 S70-0087-08 S70-0104-08 S70-0087-08 S70-0087-08	PR-ROT 10K0 OH 55191680 SWITACT VERTIC 55145270 SWIPUSH VERTIC 55155850 SWITACT VERTIC 55145270 SWITACT VERTIC 55145270		
S514,515 S517 S519 S521	1A 2A 2A 2A		S70-0087-08 S70-0087-08 S70-0087-08 S70-0087-08	SWITACT VERTIC 55145270 SWITACT VERTIC 55145270 SWITACT VERTIC 55145270 SWITACT VERTIC 55145270		
D504,505 FL51 IC51	2A	*	1SS355 15-BT-85GNK CXP82832-342Q	D-SLP 1SS355 20496510 DISPLAY 55348340 IC-MICROCONT C 5538614A		
Q501 Q502 RM51			KTC3875Y DTC114YKA W02-2935-08	TR-SLPSWA KTC3 20970460 TR-SSD DTC114Y 55133180 IC-REMOTE NJL6 55193920		
DVD (55344210)						
C601-604 C607-610 C611 C612-615 C616,617			CK73GB1C104K CK73GB1C104K CE04LW1H010M CE04LW1C101M CE04LW1C470M	CHIP C 0.10UF K CHIP C 0.10UF K ELECTRO 1.0UF 50WV ELECTRO 100UF 16WV ELECTRO 47UF 16WV		
C618 C619 C620 C621			CE04LW1C101M CE04LW1H010M CE04LW1C101M CE04LW0J471M	ELECTRO 100UF 16WV ELECTRO 1.0UF 50WV ELECTRO 100UF 16WV ELECTRO 470UF 6.3WV		

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* New Parts

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Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
R701-707			RK73GB1J104J	CHIP R 100K J 1/16W		
R708			RK73GB1J222J	CHIP R 2.2K J 1/16W		
R709-714			RK73GB1J750J	CHIP R 75 J 1/16W		
R715			RK73GB1J000J	CHIP R 0 J 1/16W		
R716-727			RK73GB1J104J	CHIP R 100K J 1/16W		
R728,729			RK73GB1J750J	CHIP R 75 J 1/16W		
R730,731			RK73GB1J104J	CHIP R 100K J 1/16W		
R732,733			RK73GB1J750J	CHIP R 75 J 1/16W		
R734,735			RK73GB1J104J	CHIP R 100K J 1/16W		
R736			RK73GB1J750J	CHIP R 75 J 1/16W		
R737			RK73GB1J104J	CHIP R 100K J 1/16W		
R738			RK73GB1J750J	CHIP R 75 J 1/16W		
R739			RK73GB1J104J	CHIP R 100K J 1/16W		
R740			RK73GB1J102J	CHIP R 1.0K J 1/16W		
R741			RK73GB1J683J	CHIP R 68K J 1/16W		
R742			RK73GB1J473J	CHIP R 47K J 1/16W		
R743			RK73FB2A2002F	CHIP R 20.0K F 1/10W		
R744			RK73FB2A2002F	CHIP R 20.0K F 1/10W		
R745			RK73GB1J472J	CHIP R 4.7K J 1/16W		
R746,747			RK73GB1J103J	CHIP R 10K J 1/16W		
R748			RK73GB1J100J	CHIP R 10 J 1/16W		
R749			RK73GB1J103J	CHIP R 10K J 1/16W		
R750,751			RK73GB1J750J	CHIP R 75 J 1/16W		
R752			RK73GB1J103J	CHIP R 10K J 1/16W		
R753,754			RK73GB1J470J	CHIP R 47 J 1/16W		
R755,756			RK73GB1J104J	CHIP R 100K J 1/16W		
R757			RK73GB1J470J	CHIP R 47 J 1/16W		
R758,759			RK73GB1J102J	CHIP R 1.0K J 1/16W		
R760-763			RK73GB1J472J	CHIP R 4.7K J 1/16W		
R764			RK73GB1J473J	CHIP R 47K J 1/16W		
R765			RK73GB1J000J	CHIP R 0 J 1/16W		
R766			RK73GB1J471J	CHIP R 470 J 1/16W		
R767-769			RK73GB1J470J	CHIP R 47 J 1/16W		
R770			RK73GB1J473J	CHIP R 47K J 1/16W		
R771,772			RK73GB1J471J	CHIP R 470 J 1/16W		
R773-775			RK73GB1J103J	CHIP R 10K J 1/16W		
R776,777			RK73GB1J220J	CHIP R 22 J 1/16W		
R778			RK73GB1J562J	CHIP R 5.6K J 1/16W		
R779			RK73GB1J182J	CHIP R 1.8K J 1/16W		
R780			RK73GB1J102J	CHIP R 1.0K J 1/16W		
R782,783			RK73GB1J000J	CHIP R 0 J 1/16W		
D601			UZ5V6	D-ZENER 1N5232 20414280		
D602			RB501V-40	D-SLP RB441Q-4 55165360		
D603,604			1N4148	D-SLP 1N4148 1 70436540		
D605			UDZ2.2B	D-ZENER UDZS 2 55171070		
D606			1SS355	D-SLP 1SS355 3 20496510		
D607,608			-	JUMPER 20441180		
IC61		*	ST15518MVB	IC-VIDEOPROC S 55403940		
IC61			ST15519	IC-VIDEOPROC S 55130350		
IC62			M24C02WMN6	IC-EEPROM M24C 20940740		
IC63			HY57V641620HGT	IC-DRAM 100M0 55236130		
IC63			HY57V651620	IC-DRAM 100M0 55156290		
IC63			KS641632DTCL80	IC-DRAM 100M0 55156420		
IC64			PCM1748KE	IC-CONV PCM174 55156030		

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Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
IC65			BA4560F	IC-OPERAMP BA4 55128990		
IC66			M29W800AT	IC-MEMFLASH M2 55136720		
IC66			SST39VF800A904	IC-MEMFLASH SS 55177660		
IC66			TMS29LF80	IC-MEMFLASH TM 55177670		
IC67			M74HCU04M1R	IC-LOGIC M74HC 55133310		
IC68			MM1540AFBE	IC(75 Ω X2 DRIVER FOR DVD)		
IC69			FAN8082	IC-MOTORCIR FA 55116380		
IC70		*	LA79510E	IC-VIDEOPROC L 55348320		
Δ IC71			BA033FP	IC(MOS IC)XD B 55352910		
Δ IC72		*	BA25BC0FP	IC-REGPOSFXD B 55421150		
Δ IC73			SI-3050C	IC(VOLTAGE REGULATOR)		
Δ IC74			KIA7812API	IC(ANALOGUE IC) 55094390		
Q601,602			KTC3875Y	TR-SLPSWA KTC3 20970460		
Q603,604			DTC323TK	TR-SSD DTC323T 55039430		
Q605			KRA107S	TR-SSD KRA107S 55051260		
Q606,607			KTC3875Y	TR-SLPSWA KTC3 20970460		
Q608			KTA1504Y	TR-SLPSWA KTA1 20970480		
Q609			DTC114YKA	TR-SSD DTC114Y 55133180		
Δ Q610			KTA1023Y	TR-SLPLF KTA10 55211430		

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DVR-8100

SPECIFICATIONS

Main unit

[Amplifier section]

Effective output power during STEREO operation	
1 kHz, 10 % T.H.D. at 6 Ω	75 W + 75 W
Effective output power during SURROUND operation	
Front (1 kHz, 10 % T.H.D. at 6 Ω)	75 W + 75 W
Center (1 kHz, 10 % T.H.D. at 6 Ω)	75 W
Subwoofer (100 Hz, 10 % T.H.D. at 6 Ω)	75 W
Surround (1 kHz, 10 % T.H.D. at 6 Ω)	75 W + 75 W
Input sensitivity / impedance	
VCR / SAT / CABLE	480 mV / 68 k Ω
Output level / impedance	
VCR	480 mV / 1 k Ω

[Tuner section]

FM tuner section	
Tuning frequency range	87.5 MHz ~ 108 MHz
AM tuner section	
Tuning frequency range (for U.K., Europe and Australia)	531 kHz ~ 1,602 kHz
Tuning frequency range (for other countries)	531 kHz ~ 1,602 kHz / 530 kHz ~ 1,610 kHz

[DVD/CD/VIDEO CD player section]

Laser	Semiconductor laser
When playing a DVD :	
Laser wave length	635 ~ 665 nm
Laser power class	Class 2 (IEC)
When playing a CD :	
Laser wave length	770 ~ 810 nm
Laser power class	Class 3A (IEC)
Wow & Flutter	Less than unmeasurable Limit
Video output format	NTSC/PAL

VIDEO OUTPUT

Composite video output level/impedance	1 Vp-p (75Ω)
S-video output	
Y output level/impedance	1 Vp-p (75Ω)
C output level/impedance	
NTSC	0.286 Vp-p (75Ω)
PAL	0.3 Vp-p (75Ω)
Component video output	
Y output level/impedance	1 Vp-p (75Ω)
C _B output level/impedance	0.7 Vp-p (75Ω)
C _R output level/impedance	0.7 Vp-p (75Ω)
Compression format	MPEG1/MPEG2

[DIGITAL AUDIO section]

Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
Input level/impedance/wave length	
Optical	-15 dBm ~ 21 dBm (660 nm ±30 nm)
Coaxial	0.6 Vp-p (75Ω)
Digital output	-15 dBm ~ 21 dBm (Wave length 660 nm)

[General]

Power consumption	75 W (for U.K.) 75 W (for other countries)
Dimensions	W: 400 mm H: 78 mm D: 390 mm
Weight (net)	5.3 kg



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. Sufficient performance may not be possible at very low temperatures (0°C or less).

Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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