

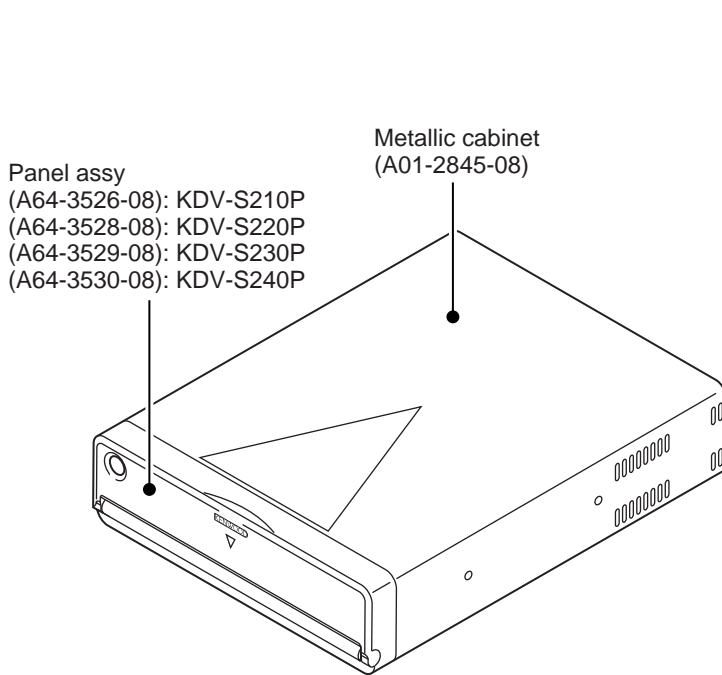
DVD PLAYER

KDV-S210P/S220P /S230P/S240P

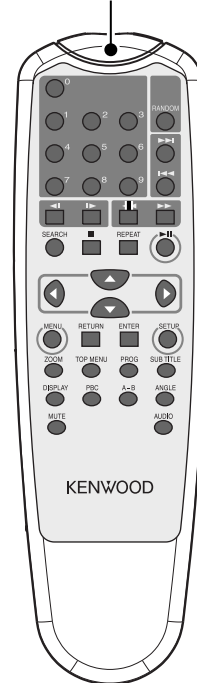
SERVICE MANUAL

KENWOOD

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B53-0171-00 (N) 2703

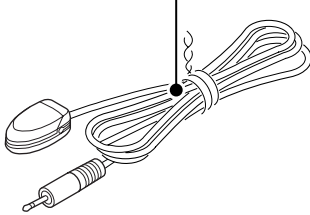


Remote controller assy
(A70-2066-08)

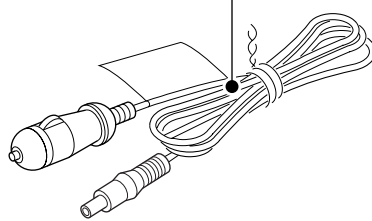


RC-DV500

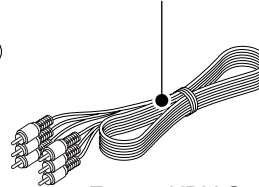
Remote control sensor assy (6m)
(T95-0264-08)



Cord with DC plug (2.4m)
(E03-0405-08)

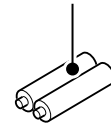


Cord with pinplug (3m)
(E30-6389-08)

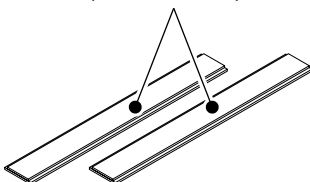


Except KDV-S210P

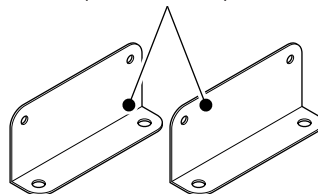
Size AAA battery
(Not supplied)



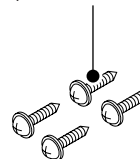
Magic tape
(H30-0514-05) x2



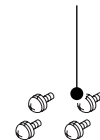
Mounting hardware
(J22-0237-08) x2

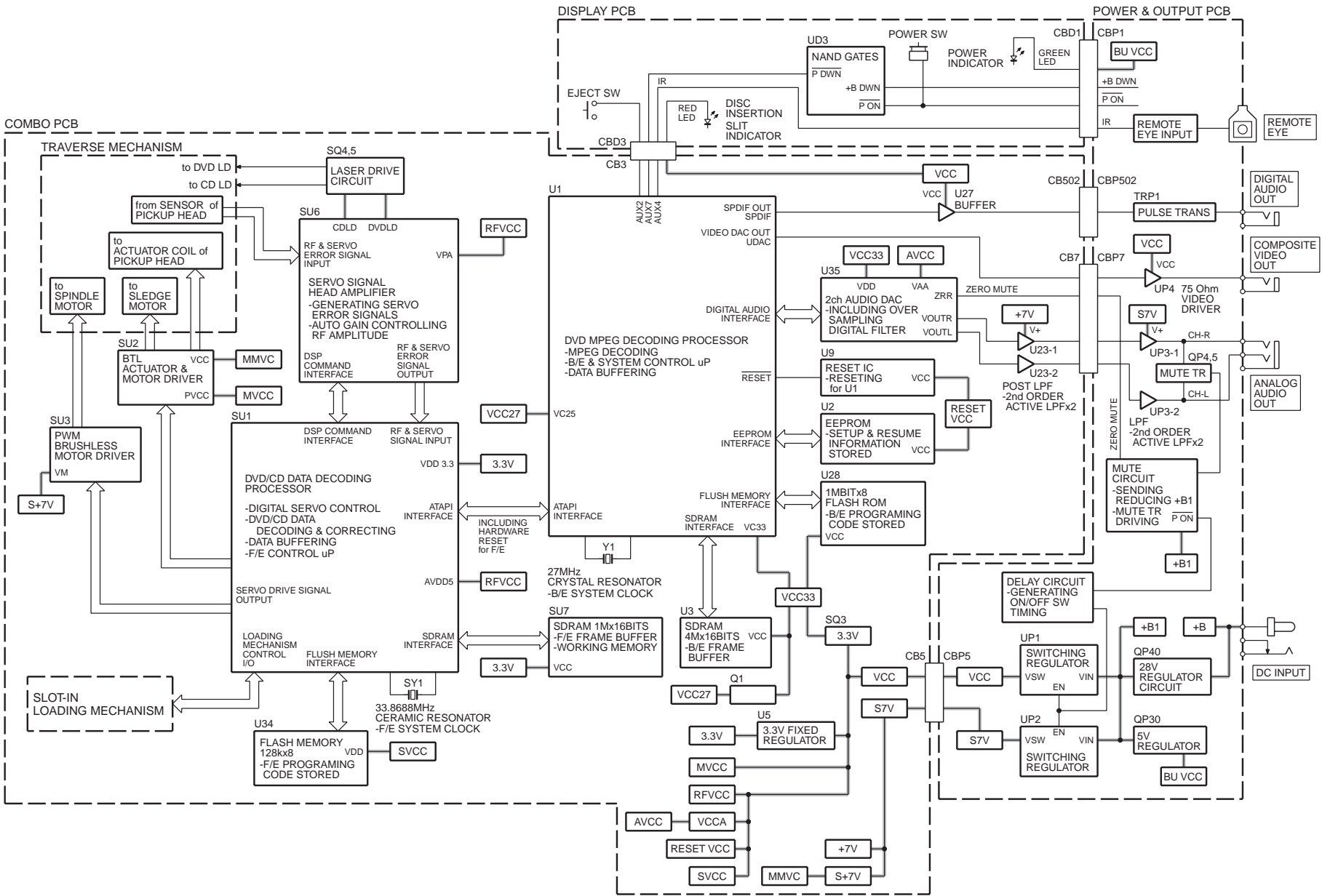


Tapping screw
(N09-6274-08) x4



SEMS
(N09-6273-08) x4





BLOCK DIAGRAM

COMPONENTS DESCRIPTION

● COMBO PCB

Ref. No.	Application / Function	Operation / Condition / Compatibility
U1	MPEG decoding control	DVD MPEG images are decoded.
	Dolby digital decoding control	Outputs of Dolby digital audio are decoded.
	LPCM audio decoding control	LPCM audio of CD and DVD are decoded.
	DVD navigation control	DVD navigation is controlled.
	ATAPI communication control	ATAPI communication is control in order to control F/E.
	Built-in microcomputer for controlling system and B/E system	System as a whole and B/E are controlled. 32bit RISC microcomputer is built-in.
	Built-in video DAC	Video DAC is built-in to output current for composite video output from No. 106 pin.
	Digital audio DAC control output	Audio signals are output from No. 32 (TWS), 33 (TSD0), 39 (MCLK), and 40 (TBCK) pins. Also, DAC system control is conducted using No. 160 (AUX0), 161 (AUX1), and 168 (AUX6) pins.
	Controls for keys and remote control	No. 162 pin is input for EJECT key. When receiving input, it is in L. No. 166 pin is for remote control input. When receiving input, there will be pulse input.
U2	EEPROM for storing system setting information and resume information	EEPROM for storing system setting information and resume information.
U3	Frame buffer memory	Decoding data buffer memory.
	Program memory	Memory for program control.
U5	3.3V regulator	From No. 3 pin, VCC (5V) is input and from No. 2 pin, VCC33 (3.3V) is output.
U9	System reset control	Rising/Falling of VCC (5V) is detected by No. 5 pin, and L-reset output is made from No. 4 pin.
U23	For audio post LPF	CH1-side is Rch and CH2-side Lch. Constitutes a multiple feedback-type active LPF.
U27	SPDIF output, Pulse transformer driver	Inverters are connected in 3-step parallel connection for increased current capacity and output to the pulse transformer.
U28	B/E program memory	Flash memory for storing B/E program memory.
U34	Program memory	Flash memory for storing programs.
U35	Digital audio 2ch DAC	Digital audio signal is input from No. 3 (TWS), 2 (TSD0), 16 (MCLK), and 1 (TBCK) pins. Also, signals for DAC system control are input from No. 15 (AUX0), 14 (AUX1), and 13 (AUX6) pins. Output for Lch analog audio is made from No. 7 pin and that for Rch is made from No. 8 pin.
SU1	DVD/CD digital servo control	Built-in DVD/CD digital servo equalizer and various timing generation circuit.
	DVD/CD data decoding control	Data generation from RF of DVD/CD, error correction and control over scramble analysis and release.
	F/E section built-in system control microcomputer	F/E section 8bit microcomputer for system control.
	ATAPI communication control	ATAPI communication control with B/E.
SU2	Pickup actuator driver	Control signals for focus and tracking actuator signals of the pickup are received by No. 1 and No. 26 pins respectively and currents are output from No. 13 and 14 and No. 15 and 16 pins.
	Feed motor driver	Control signals for the feed motor is received at No.6 pin and currents are output from No. 11 and 12 pins.
	Motor driver for slot loading mechanism	Control signals for slot loading mechanism motor is received at No. 23 pin and currents are output from No. 18 and 17 pins.

COMPONENTS DESCRIPTION

Ref. No.	Application / Function	Operation / Condition / Compatibility
SU3	Spindle motor driver	Timing is controlled by No. 18 pin control signal for the 3-phase brushless spindle motor, using No. 1-6 pins Hall element input signals, while current outputs are made from No 20, 22 and 24 pins.
	Spindle motor rotation detection	Rotation FG output for controlling spindle motor is output from No. 27 pin.
SU6	DVD/CD servo error signal replay amplifier control	Generation of various servo signals from pick up signals.
	Built-in DVD/CD laser APC circuit	Built-in LD current control circuit for DVD/CD.
SU7	Frame buffer memory	Memory for temporarily caching read data of DVD/CD.
	System memory	External microcomputer memory for F/E system control.
SU8	CH1-side Servo reference voltage generation amplifier	CH1-side Signal after dividing VC25 (2.5V) into 2.1V enters the positive phase and output from the output terminal as buffer output.
	CH2-side RFRP (mirror detection signal) generation amplifier	CH2-side RF bottom hold signal and its DC are input to reverse input and positive input respectively for canceling DC fluctuation. These then can be used as mirror signals.
SQ3	3.3V regulator	VCC (5V) is input from No. 3 pin and 3.3V is output from No. 2 pin.
SQ4	Driver for LD-driving for CD	CD's LD current control signals output from SU6 are received at base and the current amount for LD driving is controlled.
SQ5	Driver for LD-driving for DVD	DVD's LD current control signals output from SU6 are received at base and the current amount for LD driving is controlled.

● THERMISTER PCB

Ref. No.	Application / Function	Operation / Condition / Compatibility
UT1	Inverter	Output from UT2 comparator is inverted. Input is made on No. 2 pin and output on No. 4 pin. Active L.
UT2	Comparator	Signal from thermister is inverse input and reference voltage is input to positive-phase input. Output from thermister is compared and output from No. 4 pin. Active H.
QT1	Switching TR	UT1 output is received on the base and output is inverted when it is made. The output is feedback into the positive-phase input at UT2 for containing the fluctuations in outputs.
THT1	Temperature detection thermister for thermal shutdown	Resistance value is low at low temperature and high at high temperature.

● DISPLAY PCB

Ref. No.	Application / Function	Operation / Condition / Compatibility
UD3	Power supply ON/OFF delay circuit NOR gate IC	With +B_DWN of reduced voltage detection circuit and OR of /P_ON signal, /P_DWN signal is generated.

● POWER & OUTPUT PCB

Ref. No.	Application / Function	Operation / Condition / Compatibility
UP1	VCC (+5V) generation switching regulator IC	Power supply is input from No. 2 pin and switching output is made from No. 3 pin. Going via choke coil, it becomes VCC (+5V) power supply output.

COMPONENTS DESCRIPTION

Ref. No.	Application / Function	Operation / Condition / Compatibility
UP2	S7V generation switching regulator IC	Power supply is input from No. 2 pin and switching output is made from No. 3 pin. Going via choke coil, it becomes S7V power supply output.
UP3	Analog audio output LPF amplifier	CH1-side is Rch and CH2-side is Lch. Constitutes non-inverse active LPF composition.
UP4	Composite video output 75Ω driver amplifier IC	Input is made on No. 3 pin and output is made from No 6 pin.
QP1	Mute circuit driving TR	When QP2 is ON, input is made to the emitter. Mute circuit driving power supply is output from the collector.
QP2	Mute circuit switching TR	When this TR comes ON, muting is ON and when it comes OFF, muting is OFF.
QP3	Mute circuit switching TR	This is a TR for switching QP2. Therefore, the logic is inverted and when the TR comes ON, muting is OFF, and when the TR comes OFF, the muting is ON.
QP4	Rch mute TR	When base is H, Rch is muted.
QP5	Lch mute TR	When base is H, Lch is muted.
QP8	Composite video output buffer driver TR	When the input signal comes in on the base, output is made from the emitter.
QP9	Power supply ON/OFF delay circuit SW TR	When this TR is ON, base current of QP21 is shut off. QP21 is OFF and switching power supply is ON.
QP10	Mute circuit switching TR	When Z_MUTE signal in the base of this TR is active, (H on no signal), QP1 is turned ON and the mute circuit is driven.
QP11	Mute circuit switching TR	/P_ON in the base becomes L when the power switch comes ON. Therefore, it is H when the power is OFF. When this happens, QP3 is forced to go OFF and muting is driven.
QP12	Power supply ON/OFF delay circuit SW TR	On the base of this TR, power switch triggered /P_ON signal comes in. When this is L, and QP22 is turned ON, base current of QP20 is shut off. When QP20 is OFF, switching power supply is ON.
QP15	Reduced voltage detection switching TR for resume operation	At the time of reduced +B1, base current is shut off and the circuit goes OFF.
QP20	Power supply ON/OFF delay circuit SW TR	When this TR is ON, switching power supply is OFF.
QP21	Power supply ON/OFF delay circuit SW TR	When this TR is ON, switching power supply is OFF.
QP22	Power supply ON/OFF delay circuit SW TR	When this TR is ON, base current at QP20 is shut off. This means QP20 is OFF and switching power supply is ON.
QP30	BU_VCC (+5V) regulator driving TR	Receives batter power supply (+B1) by the collector and outputs regulation voltage 28V (+B1) from the emitter.
QP40	28V regulator drive TR	Receives battery current (+B) with collector and outputs regulated voltage 28V (+B1) from the emitter. This is used to counter the surge current, and it is normally about +B - +B1 = 1.4V.
QP41	TR for comprising Darlington connection	Along with QP40, constitutes Darlington connection and works to enhance compound hfe.

MICROCOMPUTER'S TERMINAL DESCRIPTION

● B/E Microcomputer : ES6008 (COMBO PCB : U1)

Pin No.	Pin Name	I/O	Application	Processing Operation Description
1	VEE	-	I/O power supply (+3.3V) input	
2~7	LA4~LA9	O	Flash ROM address bus	
8	VSS	-	Digital GND	
9	VCC	-	Core power supply (+2.5V) input	
10~16	LA10~LA16	O	Flash ROM address bus	
17	VSS	-	Digital GND	
18	VEE	-	I/O power supply (+3.3V) input	
19~21	LA17~LA19	O	Flash ROM address bus	
22,23	LA20,LA21	O	Flash ROM address bus	NC
24	/RESET	I	Chip reset input	
25	TDMDX	O	NC	
25	RSEL	I	ROM selection terminal	Selected by 8bit ROM
26	VSS	-	Digital GND	
27	VEE	-	I/O power supply (+3.3V) input	
28	TDMDR	I	NC	
29	TDMCLK	I	NC	
30	TDMSF	I	NC	
31	TDMTSC#	O	NC	
32	TWS	O	Audio frame synchronization output	
32	SEL_PLL2	I	System and DSCK output clock selection [2]	Selected by DCLK x 4
33	TSD0	O	Audio serial data port 0	
33	SEL_PLL0	I	System and DSCK output clock selection [0]	Selected by DCLK x 4
34	VSS	-	Digital GND	
35	VCC	-	Core power supply (+2.5V) input	
36	TSD1	O	Audio serial data port 1	NC
36	SEL_PLL1	I	System and DSCK output clock selection [1]	Selected by DCLK x 4
37,38	TSD2,TSD3	O	Audio serial data port 2,3	NC
39	MCLK	O	Audio master clock	
40	TBCK	O	Audio bit clock output	
41	SPDIF	O	SPDIF output	
41	SEL_PLL3	I	Clock source selection	Selected by crystal oscillator
42	NC	-	NC	
43	VSS	-	Digital GND	
44	VCC	-	Core power supply (+2.5V) input	
45	RSD	I	Audio input serial data	NC
46	RWS	I	Audio input frame synch	NC
47	RBCK	I	Audio input bit clock	NC
48	NC	-	NC	
49	XIN	I	Crystal input	

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
50	XOUT	O	Crystal output	
51	AVEE	-	PLL analog power source (+3.3V) input	
52	VSS	-	Digital GND	
53~58	DMA0~DMA5	O	DRAM address bus [0]~[5]	
59	VEE	-	I/O power supply (+3.3V) input	
60	VSS	-	Digital GND	
61~66	DMA6~DMA11	O	DRAM address bus [6]~[11]	
67	VSS	-	Digital GND	
68	VEE	-	I/O power supply (+3.3V) input	
69	/DCAS	O	DRAM Column address strobe	
70	/DOE	O	DRAM output enable	Not used.
70	DSCK_EN	O	DRAM clock enable	
71	/DWE	O	DRAM write enable	
72	/DRAS	O	DRAM low address strobe	
73,74	DMBS0,DMBS1	O	SDRAM bank select 0,1	
75	VEE	-	I/O power supply (+3.3V) input	
76	VSS	-	Digital GND	
77~82	DB0~DB5	I/O	DRAM data bus [0]~[5]	
83	VCC	-	Core power supply (+2.5V) input	
84	VSS	-	Digital GND	
85~90	DB6~DB11	I/O	DRAM data bus [6]~[11]	
91	VSS	-	Digital GND	
92	VEE	-	I/O power supply (+3.3V) input	
93~96	DB12~DB15	I/O	DRAM data bus [12]~[15]	
97	/DCS1	O	SDRAM chip select [1]	NC
98	VSS	-	Digital GND	
99	VEE	-	I/O power supply (+3.3V) input	
100	/DCS0	O	SDRAM chip select [0]	
101	DQM	O	DATA input/output mask	
102	DSCS	O	SDRAM clock output	
103	VSS	-	Digital GND	
104	VEE	-	I/O power supply (+3.3V) input	
105	DCLK	I	PLL 27MHz clock input	NC
106	YUV0	O	YUV0 pixel output data	Not used.
106	CAMIN2	I	Camera input 2	Not used.
106	UDAC	O	U video DAC output	Output for composite video out
107	YUV1	O	YUV1 pixel output data	Not used.
107	VREF	I	Video DAC reference voltage input	
108	YUV2	O	YUV2 pixel output data	NC
108	CDAC	O	Video DAC output	NC

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
109	YUV3	O	YUV3 pixel output data	Not used.
109	COMP	I	Compensation input	
110	YUV4	O	YUV4 pixel output data	Not used.
110	RSET	I	DAC current adjust input	
111	ADVEE	-	Video DAC analog power supply input	
112	VSS	-	Digital GND	
113	YUV5	O	YUV5 pixel output data	NC
113	YDAC	O	Y video DAC output	NC
114	YUV6	O	YUV6 pixel output data	NC
114	VDAC	O	V video DAC output	NC
115	YUV7	O	YUV7 pixel output data	NC
115	CAMIN3	I	Camera YUV input 3	NC
116	PCLK2XSCN	I/O	27MHz video output pixel clock	NC
116	CAMIN4	I	Camera YUV input 4	NC
117	PCLKQSCN	O	13.5MHz video outout pixel clock	NC
117	CAMIN5	I	Camera YUV input 5	NC
118	/YSYNC	I/O	Vertical synchronization	NC
118	CAMIN6	I	Camera YUV input 6	NC
119	/HSYNC	I/O	Horizontal synchronization	NC
119	CAMIN7	I	Camera YUV input 7	NC
120	VSS	-	Digital GND	
121	VCC	-	Core power supply (+2.5V) input	
122	HD0	I/O	Host data I/O [0]	HD8
122	DCI [0]	I/O	DVD channel data I/O [0]	Not used.
122	EAUX1 [0]	I/O	AUX1 data I/O [0]	Not used.
123	HD1	I/O	Host data I/O [1]	HD9
123	DCI [1]	I/O	DVD channel data I/O [1]	Not used.
123	EAUX1 [1]	I/O	AUX1 data I/O [1]	Not used.
124	HD2	I/O	Host data I/O [2]	HD10
124	DCI [2]	I/O	DVD channel data I/O [2]	Not used.
124	EAUX1 [2]	I/O	AUX1 data I/O [2]	Not used.
125	HD3	I/O	Host data I/O [3]	HD11
125	DCI [3]	I/O	DVD channel data I/O [3]	Not used.
125	EAUX1 [3]	I/O	AUX1 data I/O [3]	Not used.
126	HD4	I/O	Host data I/O [4]	HD12
126	DCI [4]	I/O	DVD channel data I/O [4]	Not used.
126	EAUX1 [4]	I/O	AUX1 data I/O [4]	Not used.
127	HD5	I/O	Host data I/O [5]	HD13
127	DCI [5]	I/O	DVD channel data I/O [5]	Not used.
127	EAUX1 [5]	I/O	AUX1 data I/O [5]	Not used.

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
128	HD6	I/O	Host data I/O [6]	HD14
128	DCI [6]	I/O	DVD channel data I/O [6]	Not used.
128	EAUX1 [6]	I/O	AUX1 data I/O [6]	Not used.
129	VSS	-	Digital GND	
130	VEE	-	I/O power supply (+3.3V) input	
131	HD7	I/O	Host data I/O [7]	HD15
131	DCI [7]	I/O	DVD channel data I/O [7]	Not used.
131	EAUX1 [7]	I/O	AUX1 data I/O [7]	Not used.
131	VFD_DIN	I	VFD data input	Not used.
132	HD8	I/O	Host data I/O [8]	HD0
132	/DCI_FDS	I/O	DVD input sector start	Not used.
132	EAUX2 [0]	I/O	AUX2 data I/O [0]	Not used.
132	VFD_CLK	I	VFD clock input	Not used.
133	HD9	I/O	Host data I/O [9]	HD1
133	EAUX2 [1]	I/O	AUX2 data I/O [1]	Not used.
133	SQSQ	I	Sub code Q data	Not used.
134	HD10	I/O	Host data I/O [10]	HD2
134	EAUX2 [2]	I/O	AUX2 data I/O [2]	Not used.
134	SQSK	I	Sub code Q clock	Not used.
135	HD11	I/O	Host data I/O [11]	HD3
135	EAUX2 [3]	I/O	AUX2 data I/O [3]	Not used.
135	IRQ	O	IRQ output	Not used.
136	HD12	I/O	Host data I/O [12]	HD4
136	EAUX2 [4]	I/O	AUX2 data I/O [4]	Not used.
136	C2PO	I	C2PO error correction flag input from CD-ROM	Not used.
137	HD13	I/O	Host data I/O [13]	HD5
137	EAUX2 [5]	I/O	AUX2 data I/O [5]	Not used.
137	SP	I	16550 UART serial port input	Not used.
138	VSS	-	Digital GND	
139	VCC	-	Core power supply (+2.5V) input	
140	HD14	I/O	Host data I/O [14]	HD6
140	EAUX2 [6]	I/O	AUX2 data I/O [6]	Not used.
140	SQSI	I	Sub code Q synch	Not used.
141	HD15	I/O	Host data I/O [15]	HD7
141	EAUX2 [7]	I/O	AUX2 data I/O [7]	Not used.
141	IR	I	IR remote control input	Not used.
142	/HWRQ	O	Host write request	NC
142	/DCI_REQ	O	DVD control interface request	NC
142	EAUX4 [0]	I/O	AUX4 data I/O 5	NC
143	/HRRQ	O	Host read request	NC

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
143	EAUX4 [1]	I/O	AUX4 data I/O 4	NC
144	HIRQ	I/O	Host interrupt	
144	/DCL_ERR	I/O	DVD channel data error	Not used.
144	EAUX4 [0]	I/O	AUX4 data I/O 0	Not used.
145	/HRST	O	Host reset	
145	EAUX3 [5]	I/O	AUX3 data I/O 5	Not used.
146	HIORDY	I	Host I/O ready	
146	EAUX3 [3]	I/O	AUX3 data I/O 3	Not used.
147	VSS	-	Digital GND	
148	VEE	-	I/O power supply (+3.3V) input	
149	/HWR	I/O	Host write request	
149	DCI_CLK	I/O	DVD channel data clock	Not used.
149	EAUX4 [5]	I/O	AUX4 data I/O 5	Not used.
150	/HRD	O	Host read request	
150	/DCI_ACK	O	DVD channel data valid	Not used.
150	EAUX4 [6]	I/O	AUX4 data I/O 6	Not used.
151	/HIOCS16	I	Device 16-bit data transfer	
151	CAMCLK	I	Camera port pixel clock input	Not used.
151	EAUX3 [4]	I/O	AUX3 data I/O 4	Not used.
152	/HCS1FX	O	Host select 1	
152	EAUX3 [7]	I/O	AUX3 data I/O 7	Not used.
153	/HCS3FX	O	Host select 3	
153	EAUX3 [6]	I/O	AUX3 data I/O 6	Not used.
154	HA0	I/O	Host address bus 0	
154	EAUX4 [2]	I/O	AUX4 data I/O 2	Not used.
155	HA1	I/O	Host address bus 1	
155	EAUX4 [3]	I/O	AUX4 data I/O 3	Not used.
156	VSS	-	Digital GND	
157	VEE	-	I/O power supply (+3.3V) input	
158	HA2	I/O	Host address bus 2	
158	EAUX4 [4]	I/O	AUX4 data I/O 4	Not used.
159	VEE	-	I/O power supply (+3.3V) input	
160,161	AUX0,AUX1	I/O	Accessory port 0,1	NC
162	AUX2	I	Accessory port 2	EJECT key input
162	/IOW	O	I/O write strobe	Not used.
163	VSS	-	Digital GND	
164	VEE	-	I/O power supply (+3.3V) input	
165	AUX3	I/O	Accessory port 3	NC
165	/IOR	O	I/O read strobe	NC
166	AUX4	I	Accessory port 4	IR remote control input

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
167,168	AUX5,AUX6	I/O	Accessory port 5,6	NC
169	AUX7	I	Accessory port 7	Power down detection
170	/LOE	O	Device output enable	
171	VSS	-	Digital GND	
172	VCC	-	Core power supply (+2.5V) input	
173~175	/LCS0~/LCS2	O	Chip select 0~2	NC
176	/LCS3	O	Chip select 3	
177	VSS	-	Digital GND	
178~182	LD0~LD4	I/O	Flash ROM device data bus [0]~[4]	
183	VEE	-	I/O power supply (+3.3V) input	
184	VSS	-	Digital GND	
185~191	LD5~LD11	I/O	Flash ROM device data bus [5]~[11]	
192	VSS	-	Digital GND	
193	VEE	-	I/O power supply (+3.3V) input	
194~197	LD12~LD15	I/O	Flash ROM device data bus [12]~[15]	
198	/LWRL	O	Device low bite write enable	NC
199	/LWRHL	O	Device high bite write enable	NC
200	VSS	-	Digital GND	
201	VEE	-	I/O power supply (+3.3V) input	
202	CAMIN0	I	Camera YUV0	NC
203	CAMIN1	I	Camera YUV1	NC
204~207	LA0~LA3	O	Flash ROM address bus	
208	VSS	-	Digital GND	

● F/E Microcomputer : M5705 (COMBO PCB : SU1)

Pin No.	Pin Name	I/O	Application	Processing Operation Description
1	AVSS_DS	-	Data slicer port analog ground	-
2	XSRFIN	I	Analog RF signal input after passing through equalizer	-
3	XSIPIN	I	Data slicer inverse input	-
4	AVDD5_DS	-	Data slicer port analog +5V power supply	-
5	XSDSSLV	O	Slice level output	-
6	XSRSLINT	I	Analog data slicer reference current setting input	-
7	VDD	-	Digital +3.3V power supply input	-
8	XSAWRC	O	Control putout for widening VCO range	-
9	XSRFGC	O	Loading motor control signal	L : Eject, H : Loading, Vref : Stop
10	XSEFGC	O	NC	-
11	XSFOCUS	O	Focus actuator control DA output	-
12	XSTRACK	O	Tracking actuator control DA output	-
13	XSSLEG	O	Feed motor control DA output	-
14	AVDD5_DA	-	DAC analog +5V power supply input	-

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
15	XSMOTOR	O	Disc motor control DA output	-
16	AVSS_DA	-	DAC analog ground	-
17	XSRFRPLP	I	NC	-
18	XSTELP	I	Tracking error signal AD input after passing through LPF	-
19	XSVREF2	I	2.1V reference voltage input	-
20	XSRFRPLP	I	Mirror signal AD input	-
21	XSTEXI	I	Tracking-zero cross signal AD input	-
22	AVSS_AD	-	ADC analog ground	-
23	XSTEI	I	Tracking error signal AD input	-
24	XSFEI	I	Focus error signal AD input	-
25	XSCEI	I	Center error signal AD input	-
26	AVDD5_AD	-	ADC analog +5V power supply input	-
27	XSSBAD	-	Sub-beam add (SBAD) signal AD input	-
28	GND	-	Digital ground	-
29	XSDFACT	I	Defect detection signal input	-
30	XSCSJ	O	Head amplifier control register chip selection output	-
31	XSCLK	O	Head amplifier control register communication clock output	-
32	XSDATA	I/O	Head amplifier control register communication data input/output	-
33	XSLDC	O	Actuator feed/loading driver mute output	L : Driver mute
34	XSFGIN	I	Disc motor FG signal input	-
35	XSSPDON	O	Disc motor driver mute signal output	L : Driver mute
36~39	XSFLAG3-XSFLAG0	O	Servo control block monitor output	-
40	XMP1_7	I	SLOT_IN_DET sensor input	DISC detection : H
41	XMP1_6	I	HOMESW input	Pick internal circumference detection : L
42	GND	-	Digital ground	-
43	NC	-	-	-
44	XMP1_4	I	OUTSW sensor input	Disc eject : L
45	XMP1_3	I	INSW input	Disc insert : L
46	XFSCSJ	I	Flash memory chip selection output	-
47	XMP1_2	I	LED lighting up output	NC
48	XGPIO2	O	SLDC (Laser SW) output	L : Laser lights up.
49	XMP1_1	I	EJECT SW input	NC
50	XHRSTJ	I	ATAPI HRST input	L : Reset
51	XGPIO1	O	NC	-
52	XGPIO0	O	Disc motor driver SB (short brake) control output	NC
53	XCRSTJ	I	Chip reset input	L : Reset
54	XMPSENJ	O	Flash memory program store enable output	-
55	VDD	-	Digital +3.3V power supply input	-
56	XMALE	O	NC	-
57	XMP1_0	O	Flash memory address path output [16]	-

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
58	VDD	-	Digital +3.3V power supply input	-
59	XOSC1	I	Main clock inverter input	-
60	XOSC2	O	Main clock inverter output	-
61	GND	-	Digital ground	-
62~69	XMD0~XMD7	I/O	Flash memory data bus input/output [0]~[7]	-
70	XMCSJ	I/O	XMP3_1	NC
71	XMRDJ	I/O	XMP3_0	NC
72	XMWRJ	O	Flash memory write strobe output	-
73	XMINT1J	I/O	XMP3_7	NC
74,75	XMA11,XMA10	I/O	Flash memory address bus input/output [11],[10]	-
76	VDD	-	Digital +3.3V power supply input	-
77~86	XMA9~XMA0	I/O	Flash memory address bus input/output [9]~[0]	-
87	XMA12	I/O	Flash memory address bus input/output [12]	-
88	GND	-	Digital ground	-
89~91	XMA13~XMA15	I/O	Flash memory address bus input/output [13]~[15]	-
92	XHDASPJ	I	F/E master/slave switching input	This terminal is not referenced by the firm. It is master-fixed at the firm.
93	XHCS3J	I	ATA control block task file register control input	-
94	XHCS1J	I	ATA command block task file register control input	-
95	XHA2	I	Host address input [2]	-
96	XHA0	I	Host address input [0]	-
97	XHPDIAGJ	I/O	Passod Diagnostics signal input/output	NC
98	XHA1	I	Host address input [1]	-
99	XHCS16J	O	ATAPI 16bits data selection output	-
100	XHINT	O	ATAPI host interrupt request output	-
101	XHDACKJ	I	ATAPI DMA acknowledge input	-
102	XHIORDY	O	ATAPI I/O channel ready output	-
103	XHIORJ	I	ATAPI host I/O read input	-
104	XHIOWJ	I	ATAPI host I/O write input	-
105	XHDRQ	O	DMA request input	-
106	XHD15	I/O	ATAPI host data bus input/output [15]	-
107	XHD0	I/O	ATAPI host data bus input/output [0]	-
108	XHD14	I/O	ATAPI host data bus input/output [14]	-
109	XHD1	I/O	ATAPI host data bus input/output [1]	-
110	GND	-	Digital ground	-
111	XHD13	I/O	ATAPI host data bus input/output [13]	-
112	XHD2	I/O	ATAPI host data bus input/output [2]	-
113	XHD12	I/O	ATAPI host data bus input/output [12]	-
114	XHD3	I/O	ATAPI host data bus input/output [3]	-
115	VDD	-	Digital +3.3V power supply input	-

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
116	XHD11	I/O	ATAPI host data bus input/output [11]	-
117	XHD4	I/O	ATAPI host data bus input/output [4]	-
118	XHD10	I/O	ATAPI host data bus input/output [10]	-
119	XHD5	I/O	ATAPI host data bus input/output [5]	-
120	XHD9	I/O	ATAPI host data bus input/output [9]	-
121	XHD6	I/O	ATAPI host data bus input/output [6]	-
122,123	XHD8,XHD7	I/O	ATAPI host data bus input/output [8],[7]	-
124	XRD15	I/O	SDRAM data bus input/output [15]	-
125	XRD0	I/O	SDRAM data bus input/output [0]	-
126	XRD14	I/O	SDRAM data bus input/output [14]	-
127	XRD1	I/O	SDRAM data bus input/output [1]	-
128	XRD13	I/O	SDRAM data bus input/output [13]	-
129	XRD2	I/O	SDRAM data bus input/output [2]	-
130	GND	-	Digital ground	-
131	XRD12	I/O	SDRAM data bus input/output [12]	-
132	XRD3	I/O	SDRAM data bus input/output [3]	-
133	XRD11	I/O	SDRAM data bus input/output [11]	-
134	XRD4	I/O	SDRAM data bus input/output [4]	-
135	XRD10	I/O	SDRAM data bus input/output [10]	-
136	XRD5	I/O	SDRAM data bus input/output [5]	-
137	XRD9	I/O	SDRAM data bus input/output [9]	-
138	GND	-	Digital ground	-
139	XRD6	I/O	SDRAM data bus input/output [6]	-
140,141	XRD8,XRD7	I/O	SDRAM data bus input/output [8],[7]	-
142	XRWEJ	O	SDRAM write output	-
143	XRSDCLK	O	SDRAM clock output	-
144	XRRASJ	O	SDRAM RAW address output	-
145	XRCASJ	O	SDRAM COLUMN address output	-
146	VDD	-	Digital +3.3V power supply input	-
147	XROEJ	-	SDRAM memory output enable output	-
148,149	XRA9,XRA8	I/O	SDRAM address bus input/output [9],[8]	-
150	VDD	-	Digital +3.3V power supply input	-
151,152	XRA11,XRA10	I/O	SDRAM address bus input/output [11],[10]	-
153	XRA7	I/O	SDRAM address bus input/output [7]	-
154	GND	-	Digital ground	-
155~157	XRA6~XRA4	I/O	SDRAM address bus input/output [6]~[4]	-
158~161	XRA0~XRA3	I/O	SDRAM address bus input/output [0]~[3]	-
162	VDD	-	Digital +3.3V power supply input	-
163	XTPLCK	O	PLCK test output	NC
164	XTSLRF	O	SLRF (slice RF) test output	-

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description
165	GND	-	Digital ground	-
166	XSPDIREF	I	PLL phase detector reference current generation input	-
167	XSFDIRREF	I	PLL frequency detector reference current generation input	-
168	AVDD5_PL	-	Data PLL analog +5V input	-
169	XSPLLFTR2	I	Data PLL loop filter pin #2	-
170	AVSS_PL	-	PLL analog GND	-
171	XSFDO	O	PLL frequency detector charged pump circuit output terminal	-
172	XSFTROPI	I	PLL loop filter OP circuit input terminal	-
173	XSVR_PLL	I	PLL reference voltage input	-
174	XSPDOFTR2	I	PLL phase detector filter pin #1	-
175	XSVREFO	O	PLL reference voltage output	-
176	XSAWRCVCO	I	AWRC VCO input pin	-

TEST MODE

In the test mode, it is possible to confirm on the controlling firm ware version number on each of F/E (disc servo control section) and B/E (system control and MPEG replay) systems.

■ How to use the Test Mode

Turn on power supply (Use the power switch) and immediately after turning power on, use the remote controller to input the following, without inserting a disc.

RETURN



PROGRAM



RANDOM

Each time input is made, the screen shows a hand mark (which means the input is not effective) but continue pressing the keys.

Then, the each firm's version will be display on the bottom two lines of the screen.

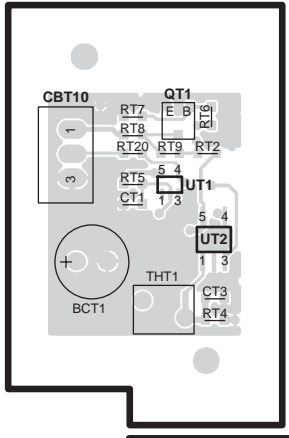
Line 1 : B/E firm version number

Line 2 : F/E firm version number

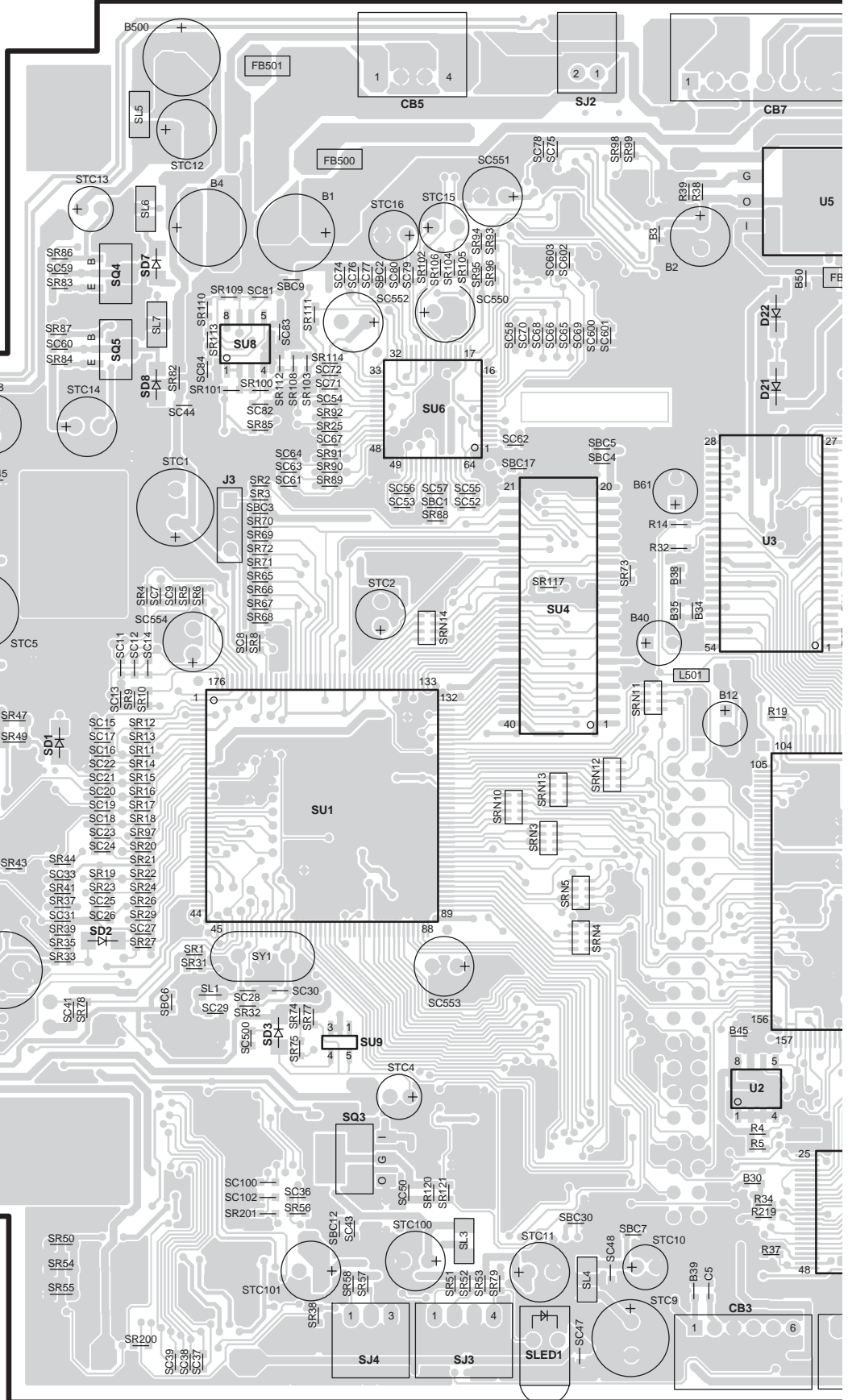
The display will soon disappear. During display, other operations can be conducted.

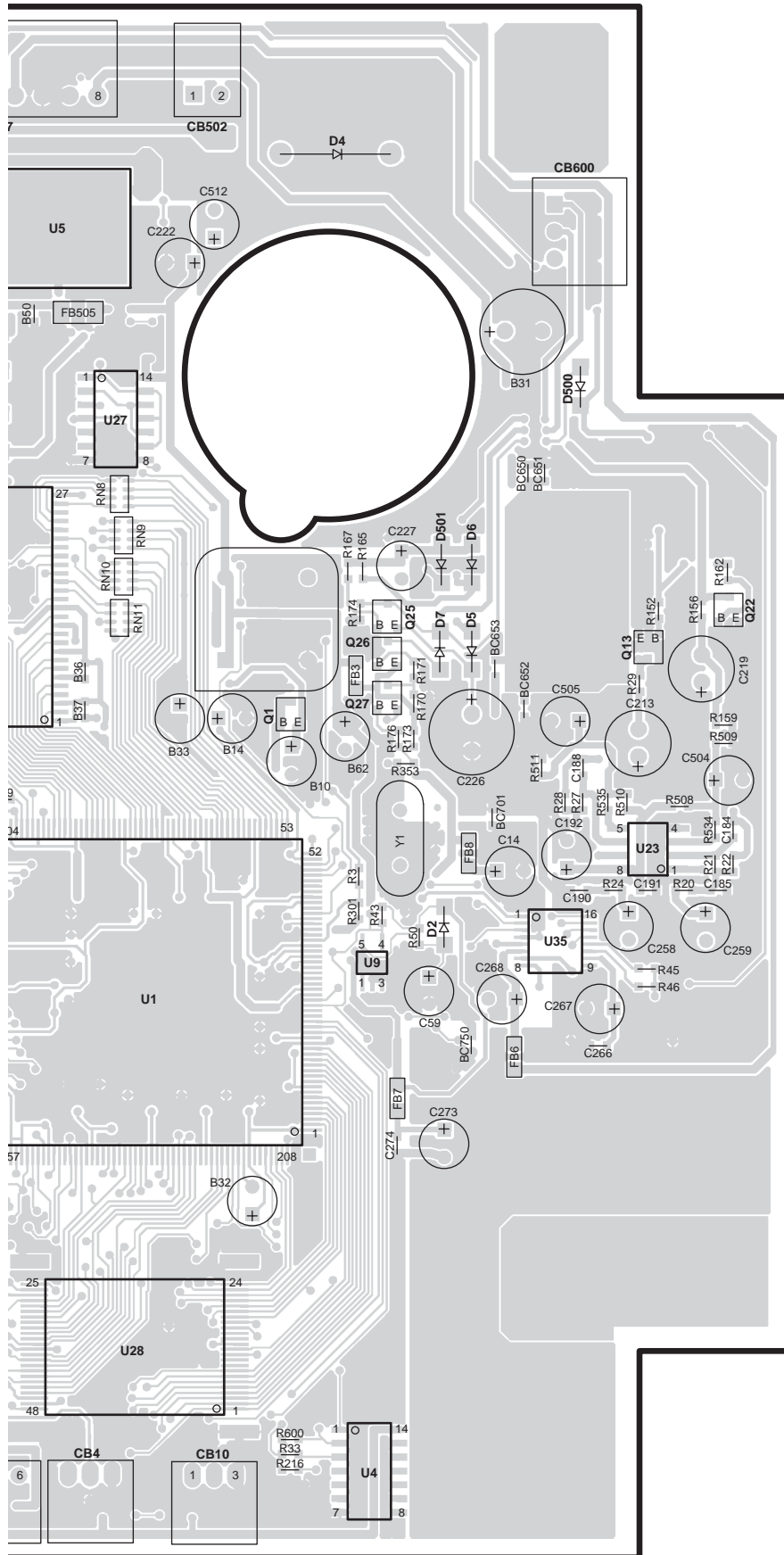
PC BOARD (COMPONENT SIDE VIEW)

THERMISTOR PCB



COMBO PCB





THERMISTER PCB

Ref. No.	Address
UT1	2B
UT2	2B
QT1	2B

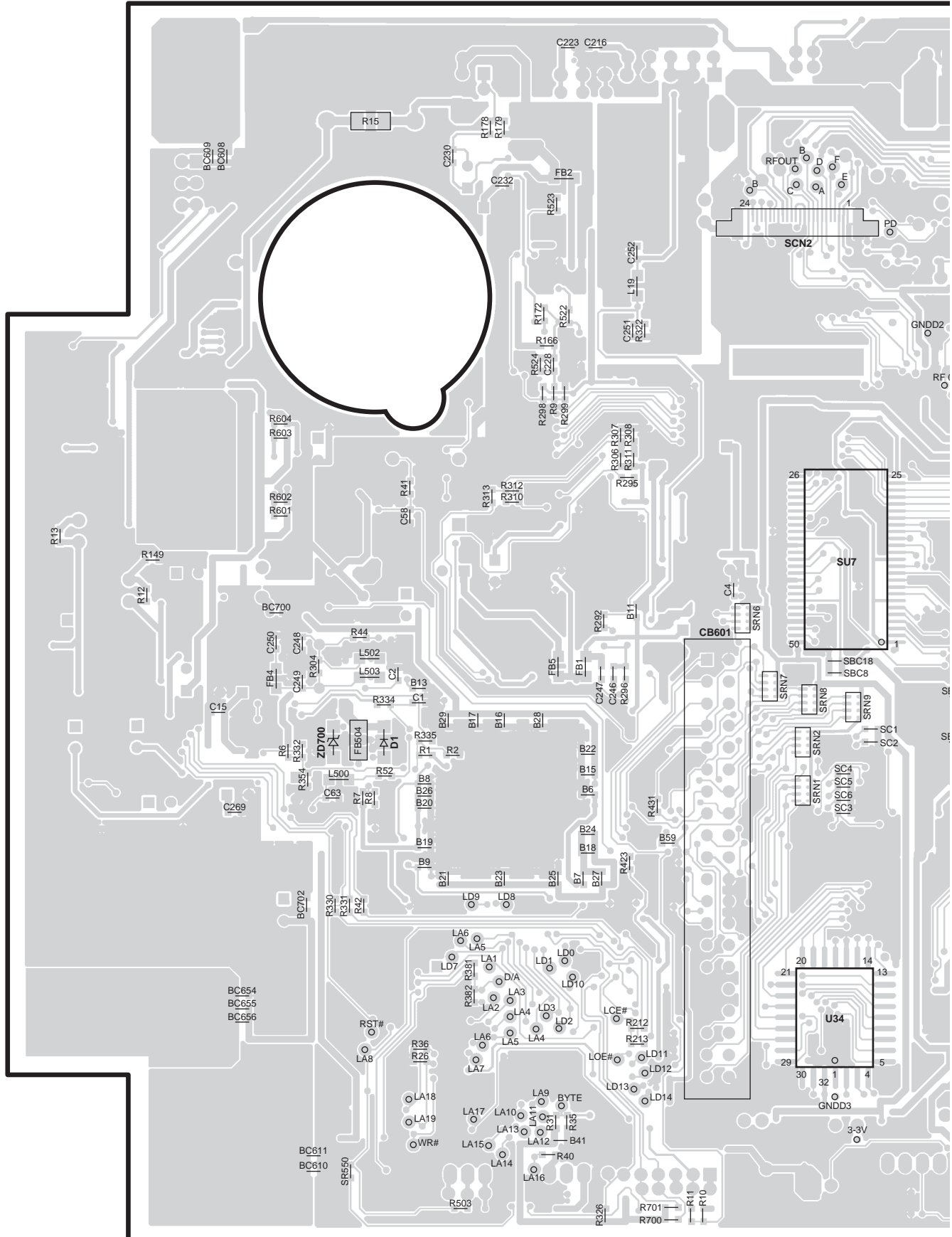
COMBO PCB

Ref. No.	Address
U1	5F
U2	6E
U3	4E
U5	2F
U9	5G
U23	4H
U27	3F
U28	6F
U35	5H
SU1	5C
SU6	3D
SU8	3C
Q1	4F
SQ3	6C
SQ4	2B
SQ5	3B

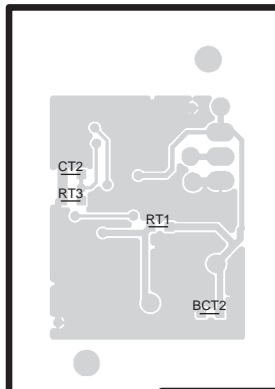
Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (FOIL SIDE VIEW)

COMBO PCB

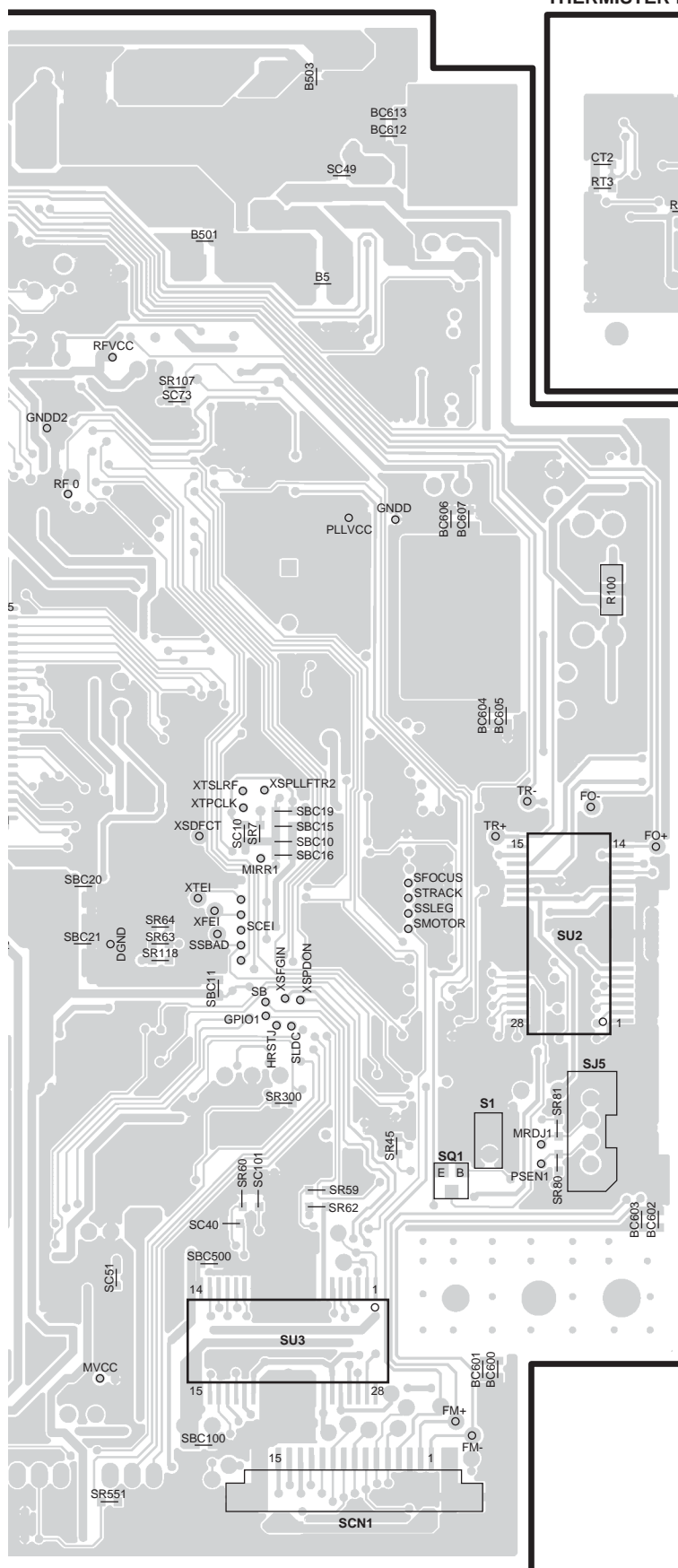


THERMISTER PCB



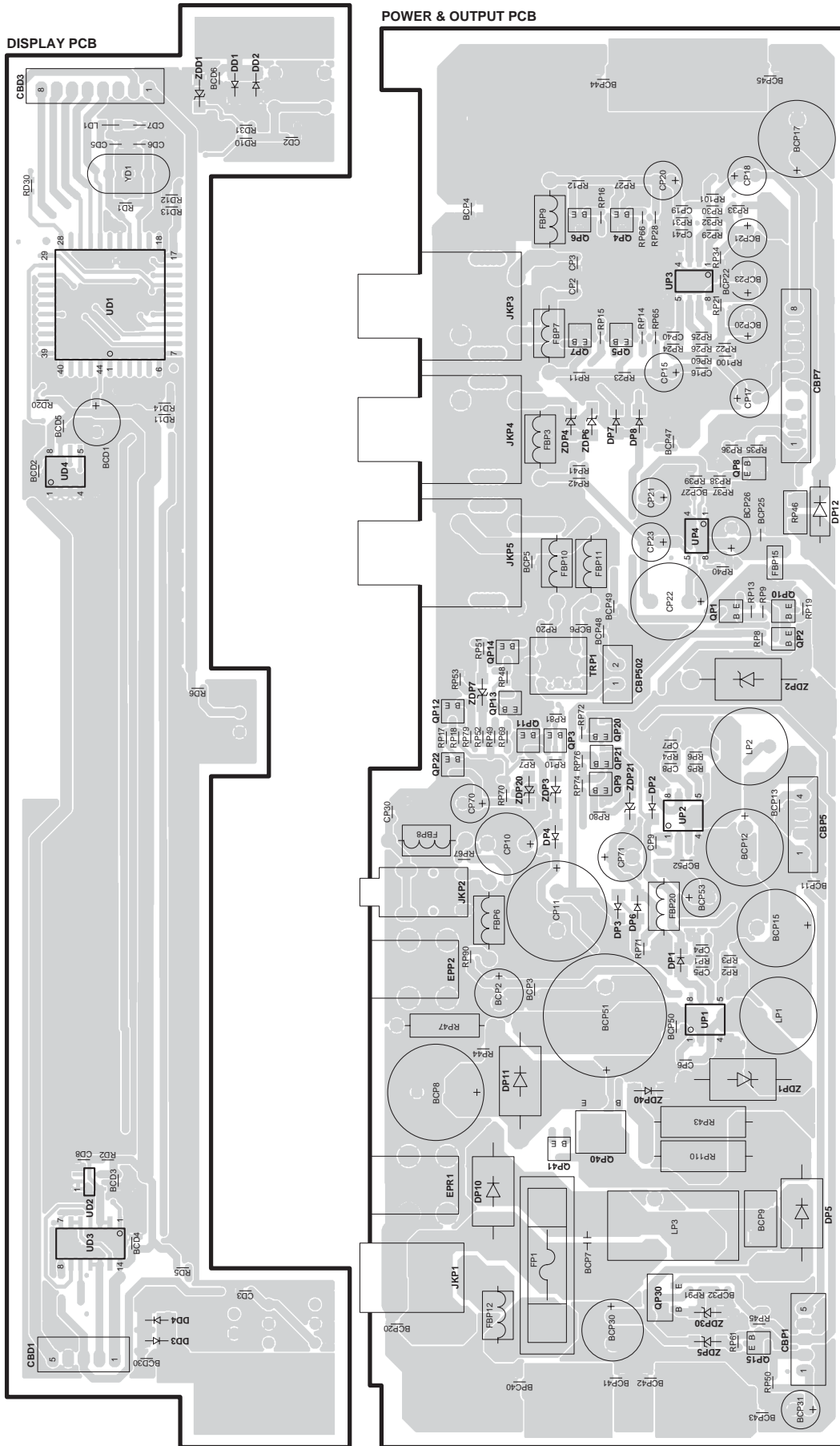
COMBO PCB

Ref. No.	Address
U34	60
SU2	5R
SU3	6Q
SU7	40



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

PC BOARD (COMPONENT SIDE VIEW)



DISPLAY PCB

Ref. No.	Address
UD3	6U

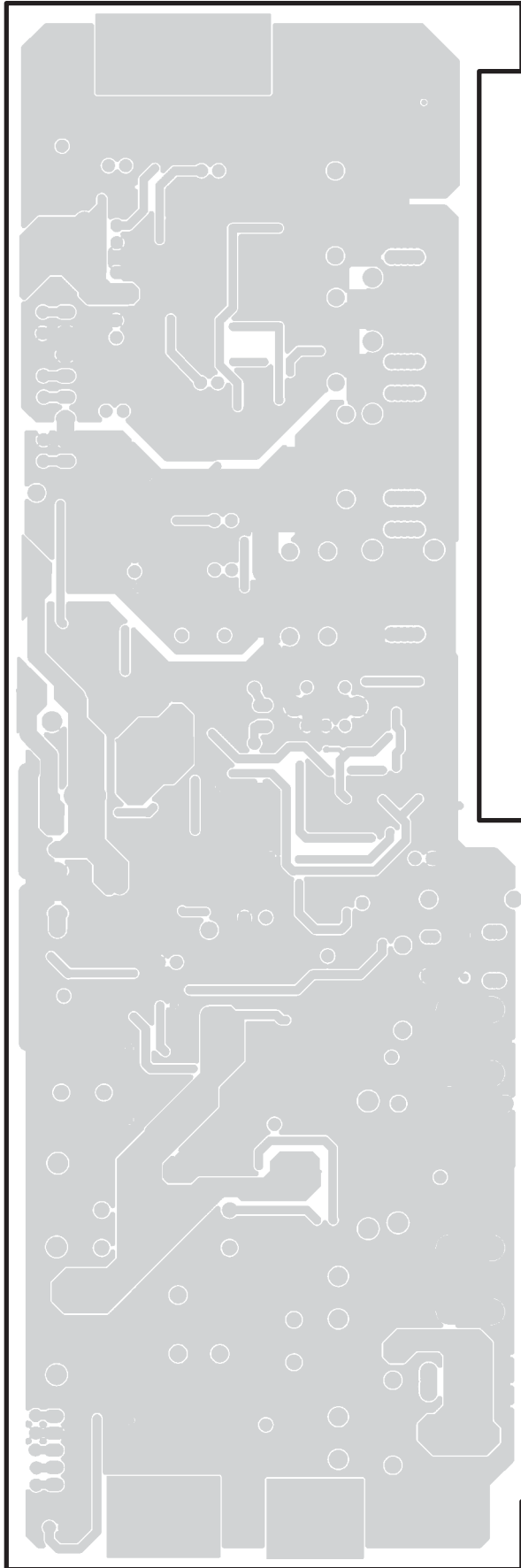
POWER & OUTPUT PCB

Ref. No.	Address
UP1	5X
UP2	5X
UP3	2X
UP4	3X
QP1	4X
QP2	4X
QP3	4W
QP4	2X
QP5	3X
QP8	3X
QP9	4X
QP10	4X
QP11	4W
QP12	4W
QP15	7X
QP20	4X
QP21	4X
QP22	4W
QP30	7X
QP40	6X
QP41	6W

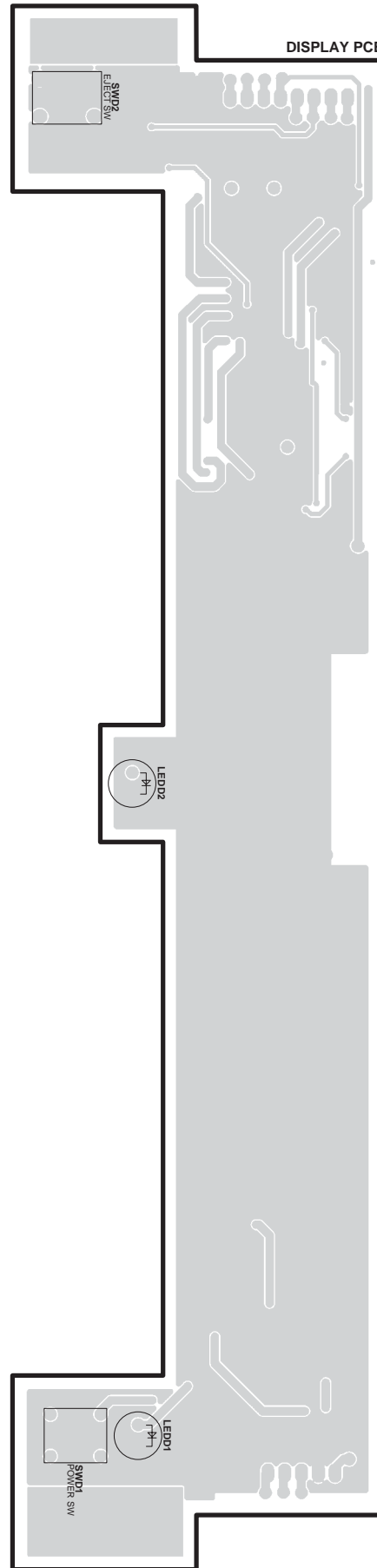
Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (FOIL SIDE VIEW)

POWER & OUTPUT PCB

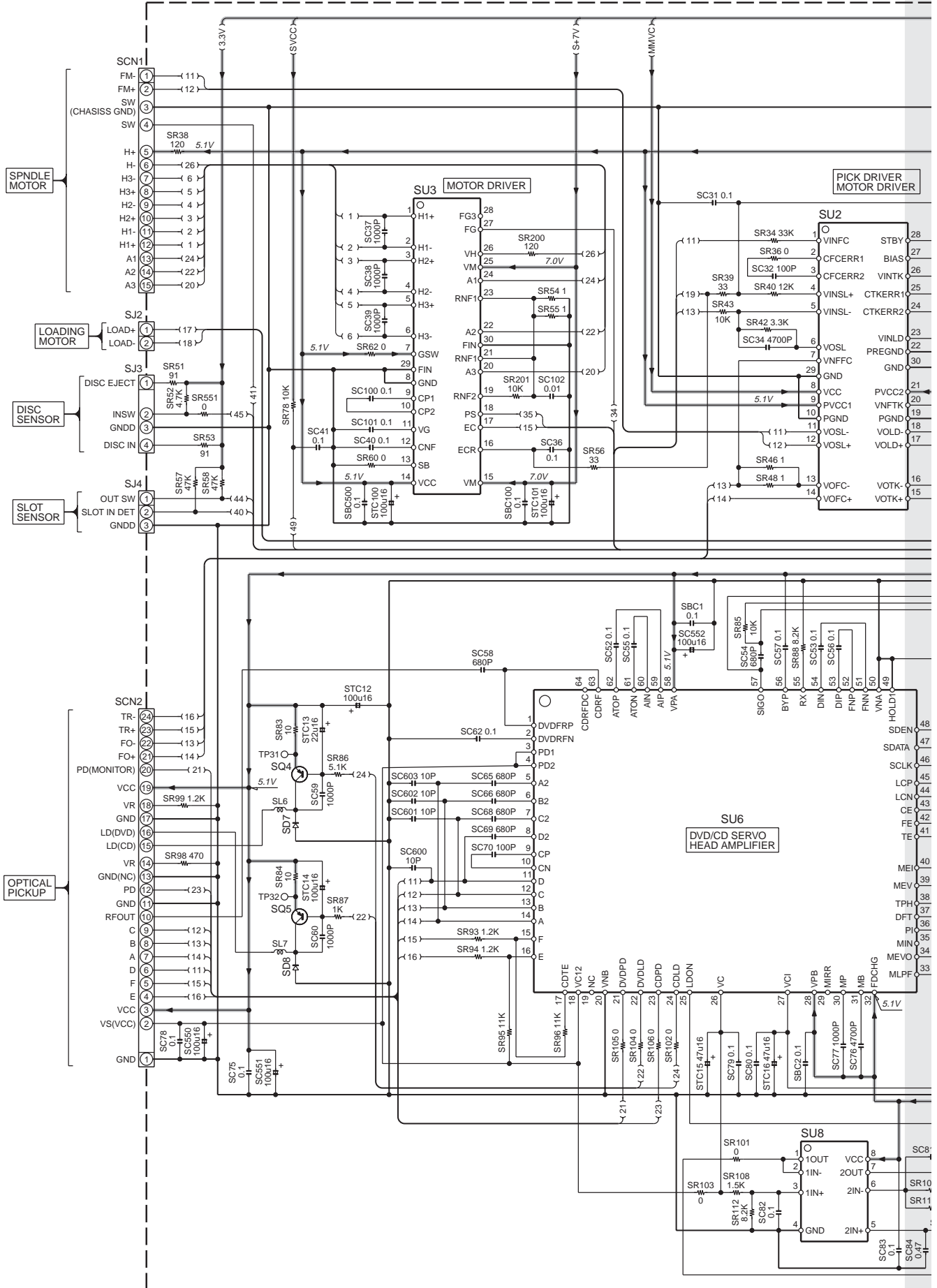


DISPLAY PCB

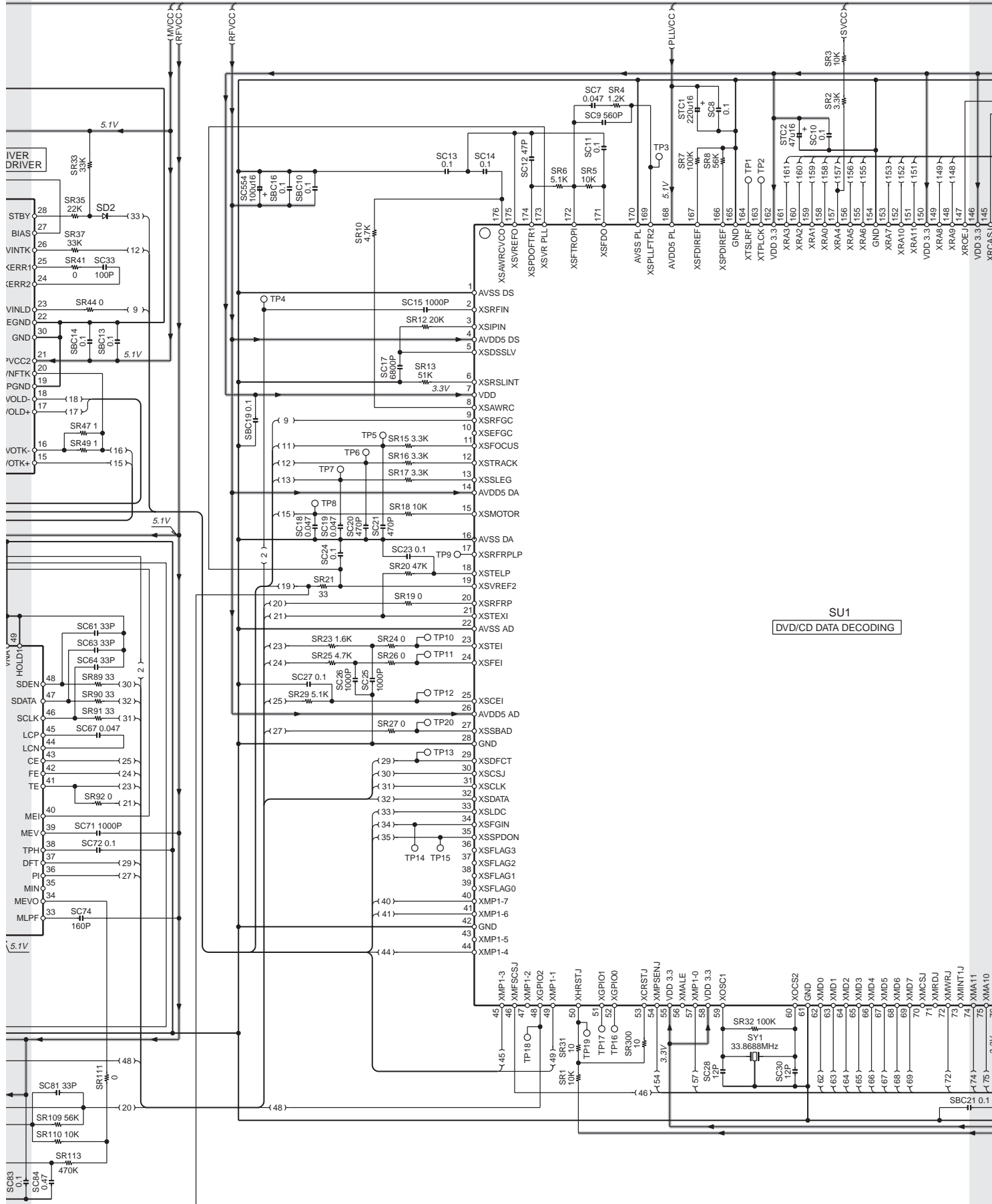


Refer to the schematic diagram for the values of resistors and capacitors.

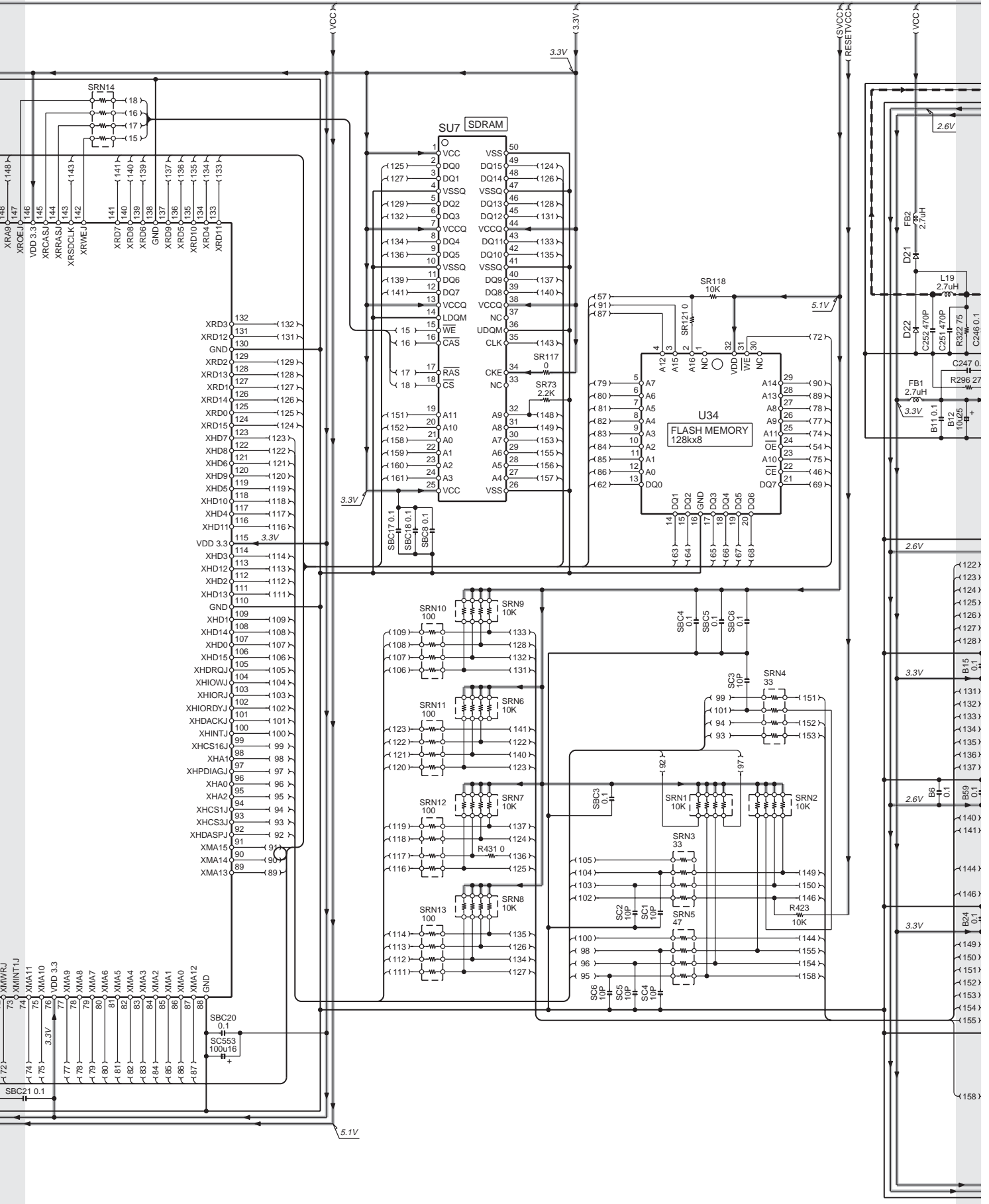
COMBO PCB

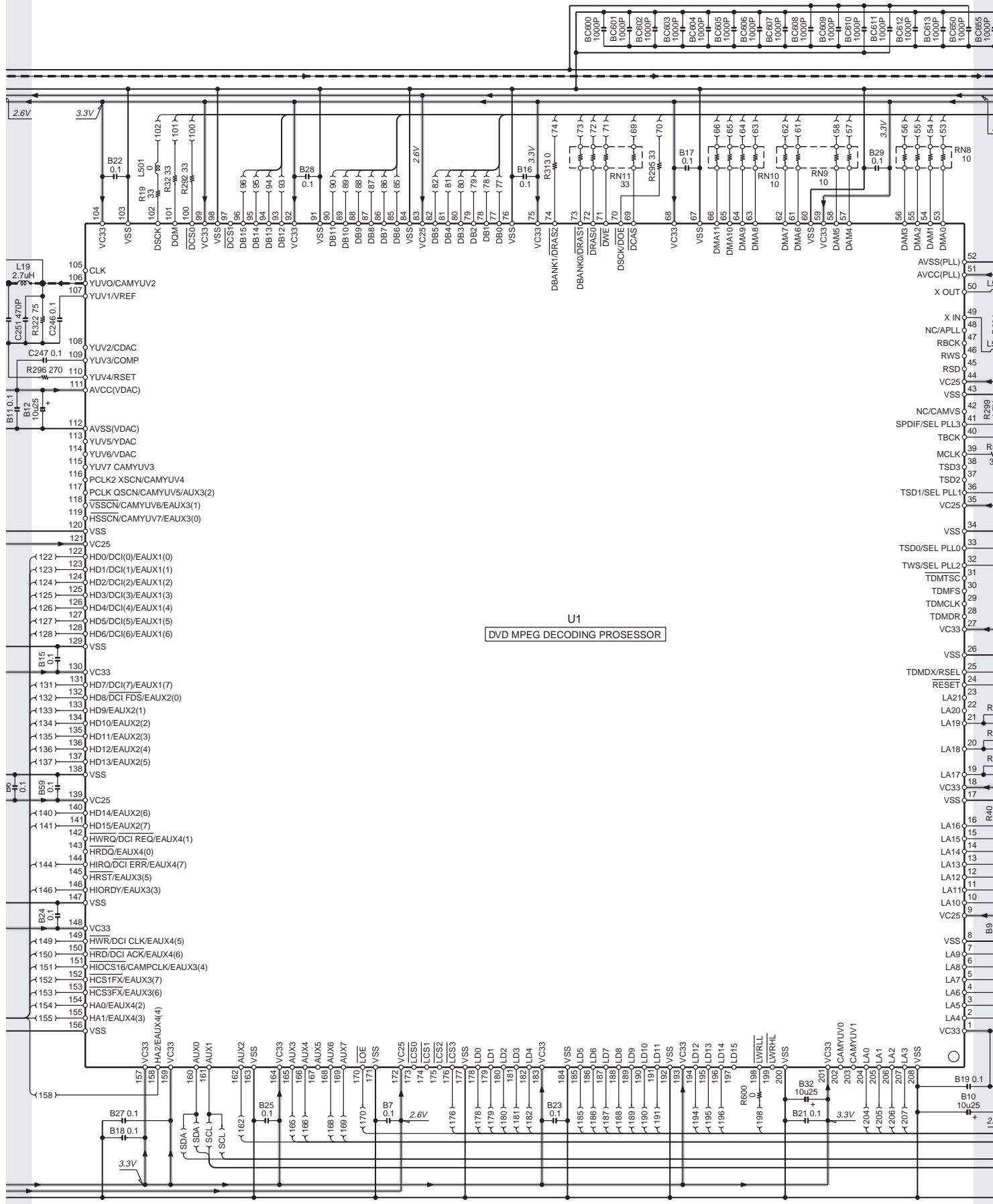


KDV-S210P/S220P /S230P/S240P

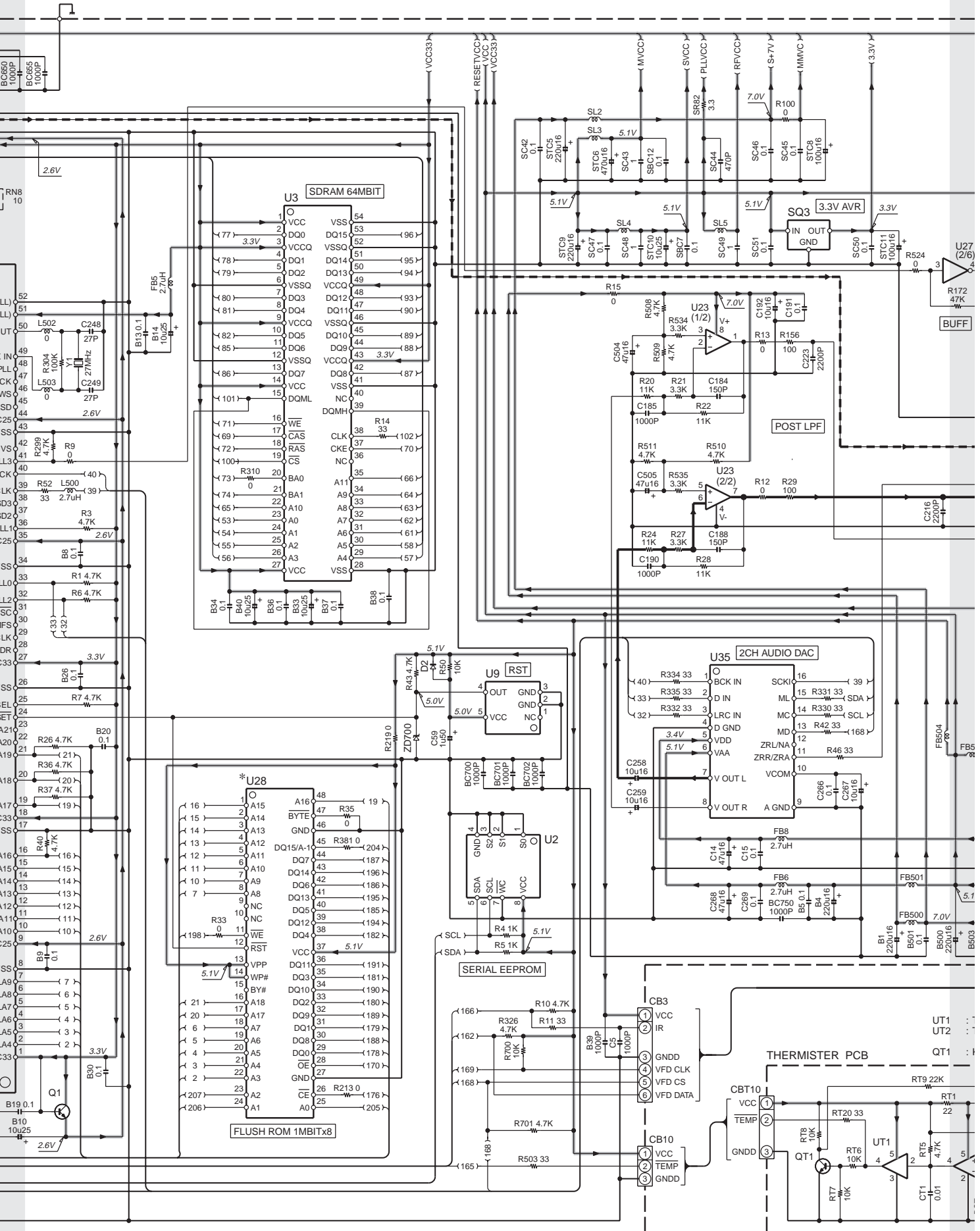


KDV-S210P/S220P /S230P/S240P

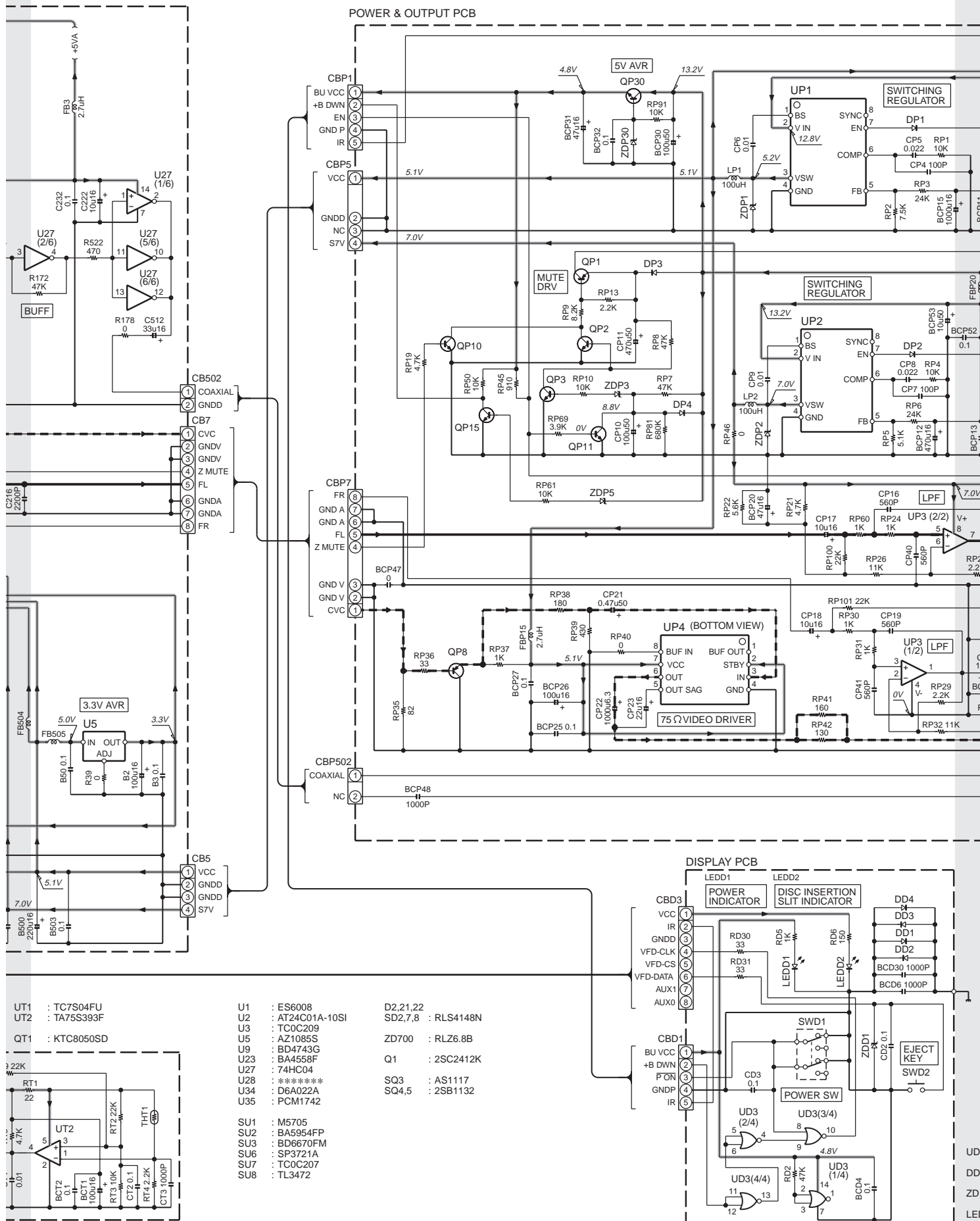




KDV-S210P/S220P
/S230P/S240P

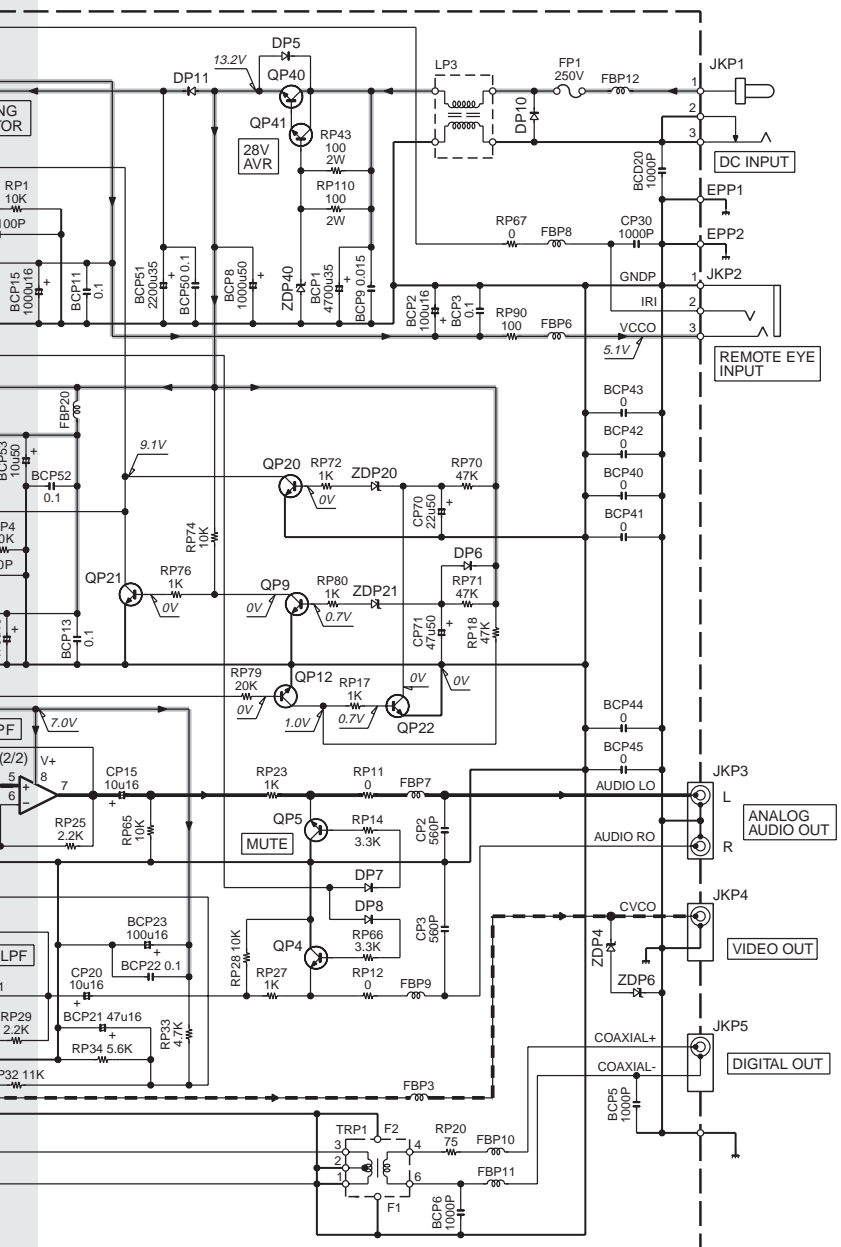


KDV-S210P/S220P /S230P/S240P

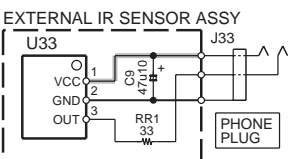
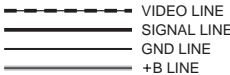


- | | | |
|-----------------|--------------------|--------------------|
| UT1 : TC7S04FU | U1 : ES6008 | D2.21.22 |
| UT2 : TA75S393F | U2 : AT24C01A-10SI | SD2,7,8 : RLS4148N |
| | U3 : TC0C209 | ZD700 : RLZ6.8B |
| QT1 : KTC8050SD | U5 : AZ1085S | Q1 : 2SC2412K |
| | U9 : BD4743G | SQ3 : AS1117 |
| | U23 : BA4558F | SQ4,5 : 2SB1132 |
| | U27 : 74HC04 | |
| | U28 : ***** | |
| | U34 : D6A022A | |
| | U35 : PCM1742 | |
| | SU1 : M5705 | |
| | SU2 : BA5954FP | |
| | SU3 : BD6670FM | |
| | SU6 : SP3721A | |
| | SU7 : TC0C207 | |
| | SU8 : TL3472 | |

KDV-S210P/S220P
/S230P/S240P



- | | |
|------------------------|----------------------|
| UP1,2 : ZA3020 | DP1-4,6-8 : RLS4148N |
| UP3 : BA4558F | DP5,10,11 : 1N5408 |
| UP4 : BD7600FV | |
| QP1 : 2SA1037 | ZDP1,2 : SR560 |
| QP2-5,9,10,12,15,20-22 | ZDP3 : RLZ7.5B |
| | ZDP4,6 : RLZ3.6B |
| QP8 : KTA1504SY | ZDP5 : RLZ8.2B |
| QP11 : 2SD1781K | ZDP20,21 : RLZ5.1B |
| QP30 : 2SD1664 | ZDP30 : RLZ5.6B |
| QP40 : 2SC5161 | ZDP40 : PTZ27B |
| QP41 : 2SC4061K | |



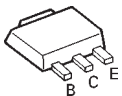
- UD3 : 74HC02
DD1-4 : RLS4148N
ZDD1 : RLZ5.1B
LEDD1 : B30-1552-05
LEDD2 : B30-1544-05

KDV-S210P/S220P/S230P/S240P

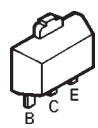
2SC2412K
2SC4061K



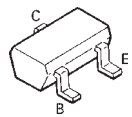
2SB1132



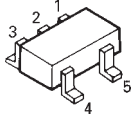
2SD1664



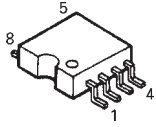
2SA1037K



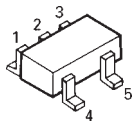
TC7S04FU



BA4558F



TA75S393F



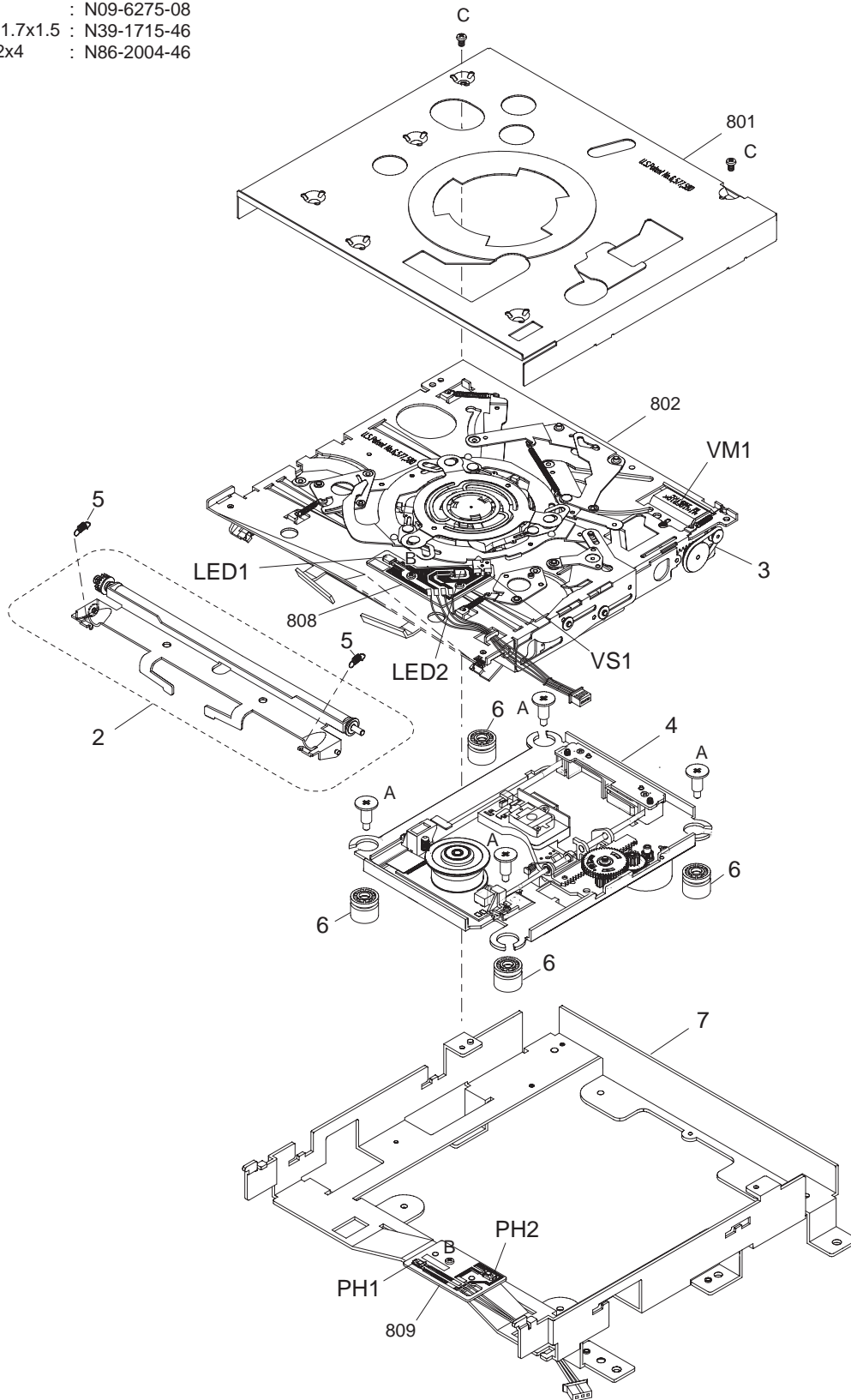
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

⚠ Indicates safety critical components. 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.

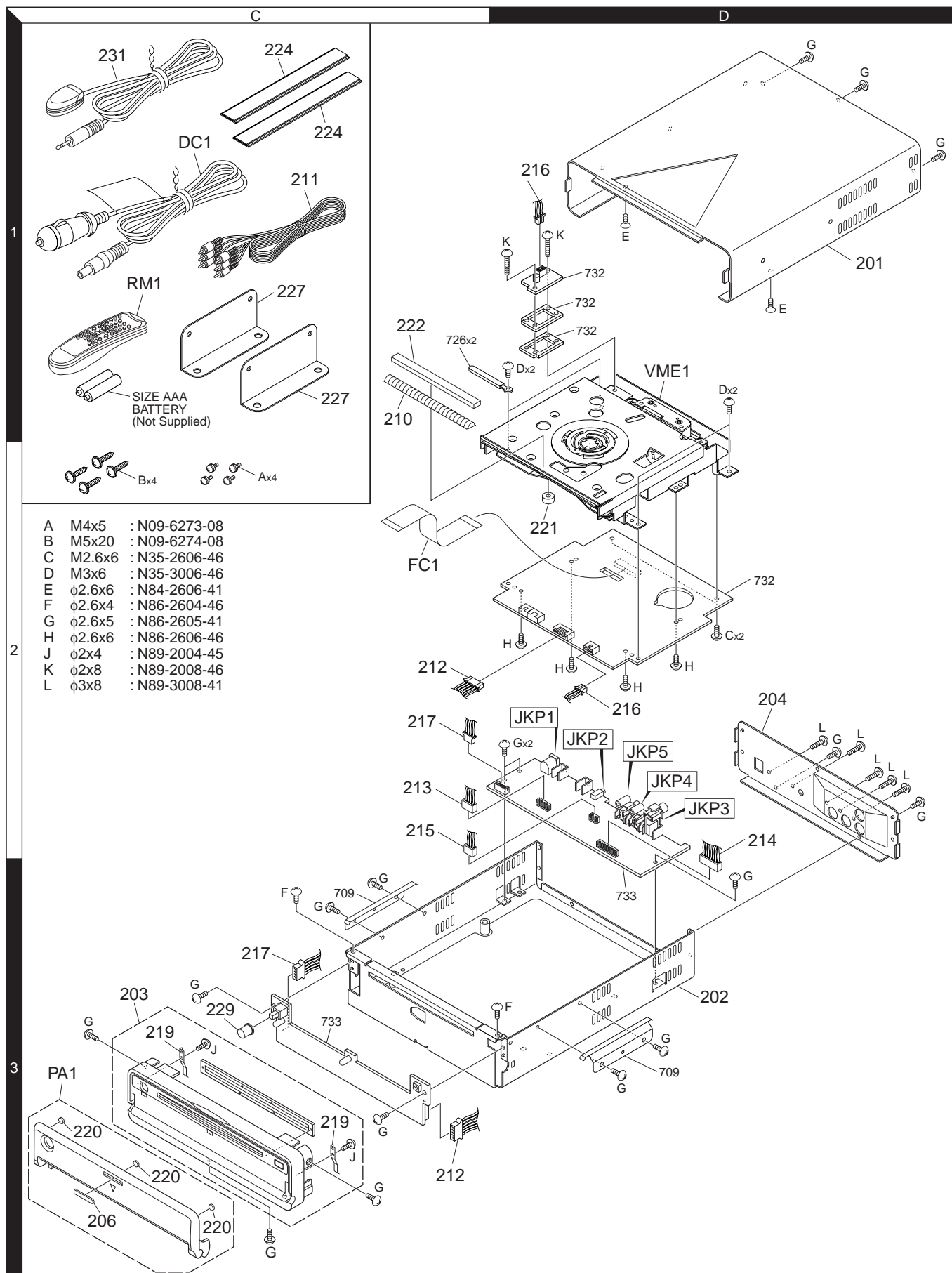
• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

EXPLODED VIEW (DVD MECHANISM)

- A : N09-6275-08
- B M1.7x1.5 : N39-1715-46
- C ϕ 2x4 : N86-2004-46



EXPLODED VIEW (UNIT)



PARTS LIST

* 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.

Ref. No.	Add	New	Parts No.	Description	Destination
KDV-S210P/S220P/S230P/S240P					
201	1D	*	A01-2845-08	METALLIC CABINET	
202	3D	*	A10-5188-08	CHASSIS (BOTTOM CASE)	
203	3C	*	A22-3062-08	SUB PANEL ASSY	
204	2D	*	A84-0376-08	REAR PANEL	
PA1	3C	*	A64-3526-08	PANEL ASSY	K
PA1	3C	*	A64-3528-08	PANEL ASSY	E
PA1	3C	*	A64-3529-08	PANEL ASSY	M
PA1	3C	*	A64-3530-08	PANEL ASSY	R
RM1	1C	*	A70-2066-08	REMOTE CONTROLLER ASS (RC-DV500)	
-		*	B64-2805-00	INSTRUCTI.MANUAL (ENG.FRE.SPA)	K
-		*	B64-2855-00	INSTR.MANUAL (ENG.FRE.SPA.POR)	E
-		*	B64-2855-00	INSTRUCTI.MANUAL (GER.DUT.ITA)	E
-		*	B64-2856-00	INSTRUCTI.MANUAL (ENG.KOR.CRO)	M
-		*	B64-2865-00	INSTRUCTI.MANUAL (ENG.SPA.POR)	R
206	3C	*	B43-1526-08	BADGE	
VME1	1D	*	D40-1199-08	DVD MECHANISM ASSY	
210	1C	*	E29-2030-08	LEAD PLATE	
211	1C	*	E30-6389-08	CORD WITH PINPLUG (3m)	EMR
212	2C	*	E39-0687-08	WIRING HARNESS (6P. 130)	
213	2C	*	E39-0688-08	WIRING HARNESS (4P. 100)	
214	3D	*	E39-0689-08	WIRING HARNESS (8P. 80)	
215	2C	*	E39-0690-08	WIRING HARNESS (2P. 80)	
216	1D	*	E39-0691-08	WIRING HARNESS (3P. 290)	
217	2C	*	E39-0692-08	WIRING HARNESS (5P. 180)	
DC1	1C	*	E03-0405-08	CORD WITH DC PLUG (2.4m)	
FC1	2C	*	E39-0693-08	FLAT CABLE	
219	3C	*	G02-1510-08	FLAT SPRING	
220	3C	*	G13-1285-08	CUSHION	
221	2D	*	G13-1286-08	CUSHION	
222	1C	*	G13-1287-08	CUSHION	
-		*	H10-4907-08	POLYSTYRENE FOAMED FIXTURE	
-		*	H25-0333-04	PROTECTION BAG (120X100X.05)	
-		*	H25-0334-04	PROTECTION BAG (105X250X.05)	
-		*	H25-1132-04	PROTECTION BAG	KMR
-		*	H25-1132-04	PROTECTION BAG (FOR S220P)	E
-		*	H25-1139-04	PROTECTION BAG (50X75X.05)	
-		*	H25-1158-04	PROTECTION BAG (210X350X.05)	
-		*	H54-3182-08	ITEM CARTON CASE	K
-		*	H54-3184-08	ITEM CARTON CASE	E
-		*	H54-3185-08	ITEM CARTON CASE	M
-		*	H54-3196-08	ITEM CARTON CASE	R
224	1C	*	H30-0514-05	MAGIC TAPE (VELCRO)	
227	1C	*	J22-0237-08	MOUNTING HARDWARE (BRACKET)	
229	3C	*	K24-4200-08	KNOB (POWER)	
A	1C	*	N09-6273-08	SEMS (MACHINE SCREW) (M4X5)	
B	1C	*	N09-6274-08	TAPPING SCREW (M5X20)	
C	2D	*	N35-2606-46	BINDING HEAD MACHINE SCREW	
D	1D	*	N35-3006-46	BINDING HEAD MACHINE SCREW	
E	1D	*	N84-2606-41	PAN HEAD TAPTITE SCREW	

Ref. No.	Add	New	Parts No.	Description	Destination
F	3C		N86-2604-46	BINDING HEAD TAPTITE SCREW	
G	1D		N86-2605-41	BINDING HEAD TAPTITE SCREW	
H	2D		N86-2606-46	BINDING HEAD TAPTITE SCREW	
J	3C		N89-2004-45	BINDING HEAD TAPTITE SCREW	
K	1D		N89-2008-46	BINDING HEAD TAPTITE SCREW	
L	2D		N89-3008-41	BINDING HEAD TAPTITE SCREW	
231	1C	*	T95-0264-08	REMOTE CONTOL SENSOR ASSY (6m)	
COMBO PCB / THERMISTER PCB UNIT					
B1			C90-2837-05	ELECTRO 220UF 16WV	
B2			C90-5248-05	ELECTRO 100UF 10WV	
B3			CK73GB1H104K	CHIP C 0.10UF K	
B4			C90-2837-05	ELECTRO 220UF 16WV	
B5-9			CK73GB1H104K	CHIP C 0.10UF K	
B10			C90-5316-05	ELECTRO 10UF 16WV	
B11			CK73GB1H104K	CHIP C 0.10UF K	
B12			C90-5316-05	ELECTRO 10UF 16WV	
B13			CK73GB1H104K	CHIP C 0.10UF K	
B14			C90-5316-05	ELECTRO 10UF 16WV	
B15-30			CK73GB1H104K	CHIP C 0.10UF K	
B32,33			C90-5316-05	ELECTRO 10UF 16WV	
B34			CK73GB1H104K	CHIP C 0.10UF K	
B36-38			CK73GB1H104K	CHIP C 0.10UF K	
B40			C90-5316-05	ELECTRO 10UF 16WV	
B50,59			CK73GB1H104K	CHIP C 0.10UF K	
B500			C90-2837-05	ELECTRO 220UF 16WV	
B501,503			CK73GB1H104K	CHIP C 0.10UF K	
BCT1			C90-2564-05	ELECTRO 100UF 16WV	
BCT2			CK73GB1H104K	CHIP C 0.10UF K	
BC39			CK73GB1H102K	CHIP C 1000PF K	
BC600-613			CK73GB1H102K	CHIP C 1000PF K	
BC650			CK73GB1H102K	CHIP C 1000PF K	
BC655			CK73GB1H102K	CHIP C 1000PF K	
BC700-702			CK73GB1H102K	CHIP C 1000PF K	
BC750			CK73GB1H102K	CHIP C 1000PF K	
C5			CK73GB1H102K	CHIP C 1000PF K	
C14			C90-5291-05	ELECTRO 47UF 16WV	
C15			CK73GB1H104K	CHIP C 0.10UF K	
C59			C90-5308-05	ELECTRO 1.0UF 50WV	
C184			CC73GCH1H151J	CHIP C 150PF J	
C185			CK73GB1H102K	CHIP C 1000PF K	
C188			CC73GCH1H151J	CHIP C 150PF J	
C190			CK73GB1H102K	CHIP C 1000PF K	
C191			CK73GB1H104K	CHIP C 0.10UF K	
C192			C90-5316-05	ELECTRO 10UF 16WV	
C216			CK73GB1H222K	CHIP C 2200PF K	
C222			C90-5316-05	ELECTRO 10UF 16WV	
C223			CK73GB1H222K	CHIP C 2200PF K	
C232			CK73GB1H104K	CHIP C 0.10UF K	
C246,247			CK73GB1H104K	CHIP C 0.10UF K	
C248,249		*	C93-1372-08	CHIP C 27PF C	
C251,252			CC73GCH1H471J	CHIP C 470PF J	
C258,259			C90-5316-05	ELECTRO 10UF 16WV	
C266			CK73GB1H104K	CHIP C 0.10UF K	

K : KDV-S210P E : KDV-S220P M : KDV-S230P R : KDV-S240P
(E : Europe K : North America R : Latin America M : Other Areas)

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PARTS LIST

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COMBO PCB / THERMISTER PCB UNIT

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
C267			C90-5316-05	ELECTRO 10UF 16WV	
C268			C90-5291-05	ELECTRO 47UF 16WV	
C269			CK73GB1H104K	CHIP C 0.10UF K	
C504,505			C90-5291-05	ELECTRO 47UF 16WV	
C512			CE04NW1A330M	ELECTRO 33UF 10WV	
CT1			CK73GB1H103K	CHIP C 0.010UF K	
CT2			CK73GB1H104K	CHIP C 0.10UF K	
CT3			CK73GB1H102K	CHIP C 1000PF K	
SBC1-8			CK73GB1H104K	CHIP C 0.10UF K	
SBC10			CK73GB1H104K	CHIP C 0.10UF K	
SBC12-14			CK73GB1H104K	CHIP C 0.10UF K	
SBC16-21			CK73GB1H104K	CHIP C 0.10UF K	
SBC100			CK73GB1H104K	CHIP C 0.10UF K	
SBC500			CK73GB1H104K	CHIP C 0.10UF K	
SC1-6			CC73GCH1H100C	CHIP C 10PF C	
SC7			CK73GB1H473K	CHIP C 0.047UF K	
SC8			CK73GB1H104K	CHIP C 0.10UF K	
SC9			CK73GB1H561K	CHIP C 560PF K	
SC10,11			CK73GB1H104K	CHIP C 0.10UF K	
SC12			CC73GCH1H470J	CHIP C 47PF J	
SC13,14			CK73GB1H104K	CHIP C 0.10UF K	
SC15			CK73GB1H102K	CHIP C 1000PF K	
SC17			CK73GB1H682K	CHIP C 6800PF K	
SC18,19			CK73GB1H473K	CHIP C 0.047UF K	
SC20,21			CC73GCH1H471J	CHIP C 470PF J	
SC23,24			CK73GB1H104K	CHIP C 0.10UF K	
SC25,26			CK73GB1H102K	CHIP C 1000PF K	
SC27			CK73GB1H104K	CHIP C 0.10UF K	
SC28			CC73GCH1H120G	CHIP C 12PF G	
SC30			CC73GCH1H120G	CHIP C 12PF G	
SC31			CK73GB1H104K	CHIP C 0.10UF K	
SC32,33			CC73GCH1H101J	CHIP C 100PF J	
SC34			CK73GB1H472K	CHIP C 4700PF K	
SC36			CK73GB1H104K	CHIP C 0.10UF K	
SC37-39			CK73GB1H102K	CHIP C 1000PF K	
SC40-42			CK73GB1H104K	CHIP C 0.10UF K	
SC43			CK73GB1A105K	CHIP C 1.0UF K	
SC44			CC73GCH1H471J	CHIP C 470PF J	
SC45-47			CK73GB1H104K	CHIP C 0.10UF K	
SC48,49			CK73GB1A105K	CHIP C 1.0UF K	
SC50-53			CK73GB1H104K	CHIP C 0.10UF K	
SC54			CK73GB1H681K	CHIP C 680PF K	
SC55-57			CK73GB1H104K	CHIP C 0.10UF K	
SC58			CK73GB1H681K	CHIP C 680PF K	
SC59,60			CK73GB1H102K	CHIP C 1000PF K	
SC61			CC73GCH1H330J	CHIP C 33PF J	
SC62			CK73GB1H104K	CHIP C 0.10UF K	
SC63,64			CC73GCH1H330J	CHIP C 33PF J	
SC65,66			CK73GB1H681K	CHIP C 680PF K	
SC67			CK73GB1H473K	CHIP C 0.047UF K	
SC68,69			CK73GB1H681K	CHIP C 680PF K	
SC70			CC73GCH1H101J	CHIP C 100PF J	
SC71			CK73GB1H102K	CHIP C 1000PF K	
SC72			CK73GB1H104K	CHIP C 0.10UF K	
SC74		*	C93-1373-08	CHIP C 160PF J	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
SC75			CK73GB1H104K	CHIP C 0.10UF K	
SC76			CK73GB1H472K	CHIP C 4700PF K	
SC77			CK73GB1H102K	CHIP C 1000PF K	
SC81			CC73GCH1H330J	CHIP C 33PF J	
SC82,83			CK73GB1H104K	CHIP C 0.10UF K	
SC84			CK73GB1A474K	CHIP C 0.47UF K	
SC100,101			CK73GB1H104K	CHIP C 0.10UF K	
SC102			CK73GB1H103K	CHIP C 0.010UF K	
SC550-554			C90-5248-05	ELECTRO 100UF 10WV	
SC600-603			CC73GCH1H100C	CHIP C 10PF C	
SC7880			CK73GB1H104K	CHIP C 0.10UF K	
STC1			C90-2837-05	ELECTRO 220UF 16WV	
STC2			CE04CW0J470M	ELECTRO 47UF 6.3WV	
STC5			C90-2837-05	ELECTRO 220UF 16WV	
STC6			C90-5294-05	ELECTRO 470UF 16WV	
STC8			C90-5248-05	ELECTRO 100UF 10WV	
STC9			C90-2837-05	ELECTRO 220UF 16WV	
STC10			C90-5316-05	ELECTRO 10UF 16WV	
STC11			C90-5248-05	ELECTRO 100UF 10WV	
STC12			C90-5248-05	ELECTRO 100UF 10WV	
STC13			CE04NW1C220M	ELECTRO 22UF 16WV	
STC14			C90-5248-05	ELECTRO 100UF 10WV	
STC15,16			CE04CW0J470M	ELECTRO 47UF 6.3WV	
STC100			C90-5248-05	ELECTRO 100UF 10WV	
STC101			C90-5248-05	ELECTRO 100UF 10WV	
CB3			E40-3264-05	PIN ASSY	
CB5			E40-3301-05	PIN ASSY	
CB7			E40-3305-05	PIN ASSY	
CBT10			E40-3247-05	PIN ASSY	
CB10			E40-3261-05	PIN ASSY	
CB502			E40-3299-05	PIN ASSY	
SCN1			E40-9941-05	FLAT CABLE CONNECTOR	
SCN2			E40-5891-05	FLAT CABLE CONNECTOR	
SJ2			E40-3260-05	PIN ASSY	
SJ3			E40-3262-05	PIN ASSY	
SJ4			E40-3261-05	PIN ASSY	
FB1-3		*	L92-0602-08	CHIP FERRITE	
FB5,6		*	L92-0602-08	CHIP FERRITE	
FB8		*	L92-0602-08	CHIP FERRITE	
FB500,501		*	L92-0603-08	CHIP FERRITE	
FB504,505		*	L92-0603-08	CHIP FERRITE	
L19		*	L92-0602-08	CHIP FERRITE	
L500		*	L92-0602-08	CHIP FERRITE	
SL2-7		*	L92-0603-08	CHIP FERRITE	
SY1		*	L78-1201-08	RESONATOR	
Y1		*	L77-2900-08	CRYSTAL RESONATOR	
L501-503			R92-2052-05	CHIP R 0 OHM J 1/10W	
R1			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R3			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R4,5			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R6,7			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R9			R92-1252-05	CHIP R 0 OHM J 1/16W	
R10			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R11			RK73GB2A330J	CHIP R 33 J 1/10W	

K : KDV-S210P E : KDV-S220P M : KDV-S230P R : KDV-S240P
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COMBO PCB / THERMISTER PCB UNIT

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R12,13			R92-1252-05	CHIP R 0 OHM J 1/16W		RT1			RK73GB2A220J	CHIP R 22 J 1/10W	
R14			RK73GB2A330J	CHIP R 33 J 1/10W		RT2			RK73GB2A223J	CHIP R 22K J 1/10W	
R15			R92-2053-05	CHIP R 0 J 1/8W		RT3			RK73GB2A103J	CHIP R 10K J 1/10W	
R19			RK73GB2A330J	CHIP R 33 J 1/10W		RT4			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R20			RK73GB2A113J	CHIP R 11K J 1/10W		RT5			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R21			RK73GB2A332J	CHIP R 3.3K J 1/10W		RT6-8			RK73GB2A103J	CHIP R 10K J 1/10W	
R22			RK73GB2A113J	CHIP R 11K J 1/10W		RT9			RK73GB2A223J	CHIP R 22K J 1/10W	
R24			RK73GB2A113J	CHIP R 11K J 1/10W		RT20			RK73GB2A330J	CHIP R 33 J 1/10W	
R26			RK73GB2A472J	CHIP R 4.7K J 1/10W		SRN1,2			RK74GB1J103J	CHIP-COM 10K J 1/16W	
R27			RK73GB2A332J	CHIP R 3.3K J 1/10W		SR1			RK73GB2A103J	CHIP R 10K J 1/10W	
R28			RK73GB2A113J	CHIP R 11K J 1/10W		SR2			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R29			RK73GB2A101J	CHIP R 100 J 1/10W		SR3			RK73GB2A103J	CHIP R 10K J 1/10W	
R32			RK73GB2A330J	CHIP R 33 J 1/10W		SR4			RK73GB2A122J	CHIP R 1.2K J 1/10W	
R33			R92-1252-05	CHIP R 0 OHM J 1/16W		SRN5			RK74GB1J470J	CHIP-COM 47 J 1/16W	
R35			R92-1252-05	CHIP R 0 OHM J 1/16W		SR5			RK73GB2A103J	CHIP R 10K J 1/10W	
R36,37			RK73GB2A472J	CHIP R 4.7K J 1/10W		SRN6-9			RK74GB1J103J	CHIP-COM 10K J 1/16W	
R39			R92-1252-05	CHIP R 0 OHM J 1/16W		SR6			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R40			RK73GB2A472J	CHIP R 4.7K J 1/10W		SR7			RK73GB2A104J	CHIP R 100K J 1/10W	
R42			RK73GB2A330J	CHIP R 33 J 1/10W		SR8			RK73GB2A563J	CHIP R 56K J 1/10W	
R43			RK73GB2A472J	CHIP R 4.7K J 1/10W		SRN10-13			RK74GB1J101J	CHIP-COM 100 J 1/16W	
R46			RK73GB2A330J	CHIP R 33 J 1/10W		SR10			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R50			RK73GB2A103J	CHIP R 10K J 1/10W		SR12			RK73GB2A203J	CHIP R 20K J 1/10W	
R52			RK73GB2A330J	CHIP R 33 J 1/10W		SR13			RK73GB2A513J	CHIP R 51K J 1/10W	
R100			R92-2053-05	CHIP R 0 J 1/8W		SR15-17			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R156			RK73GB2A101J	CHIP R 100 J 1/10W		SR18			RK73GB2A103J	CHIP R 10K J 1/10W	
R172			RK73GB2A473J	CHIP R 47K J 1/10W		SR19			R92-1252-05	CHIP R 0 OHM J 1/16W	
R178			R92-1252-05	CHIP R 0 OHM J 1/16W		SR20			RK73GB2A473J	CHIP R 47K J 1/10W	
R213			R92-1252-05	CHIP R 0 OHM J 1/16W		SR21			RK73GB2A330J	CHIP R 33 J 1/10W	
R219			R92-1252-05	CHIP R 0 OHM J 1/16W		SR23			RK73GB2A162J	CHIP R 1.6K J 1/10W	
R292			RK73GB2A330J	CHIP R 33 J 1/10W		SR24			R92-1252-05	CHIP R 0 OHM J 1/16W	
R295			RK73GB2A330J	CHIP R 33 J 1/10W		SR25			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R296			RK73GB2A271J	CHIP R 270 J 1/10W		SR26,27			R92-1252-05	CHIP R 0 OHM J 1/16W	
R299			RK73GB2A472J	CHIP R 4.7K J 1/10W		SR29			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R304			RK73GB2A104J	CHIP R 100K J 1/10W		SR31			RK73GB2A100J	CHIP R 10 J 1/10W	
R310			R92-1252-05	CHIP R 0 OHM J 1/16W		SR32			RK73GB2A104J	CHIP R 100K J 1/10W	
R313			R92-1252-05	CHIP R 0 OHM J 1/16W		SR33,34			RK73GB2A333J	CHIP R 33K J 1/10W	
R322			RK73GB2A750J	CHIP R 75 J 1/10W		SR35			RK73GB2A223J	CHIP R 22K J 1/10W	
R326			RK73GB2A472J	CHIP R 4.7K J 1/10W		SR36			R92-1252-05	CHIP R 0 OHM J 1/16W	
R330-332			RK73GB2A330J	CHIP R 33 J 1/10W		SR37			RK73GB2A333J	CHIP R 33K J 1/10W	
R334,335			RK73GB2A330J	CHIP R 33 J 1/10W		SR38			RK73GB2A121J	CHIP R 120 J 1/10W	
R381			R92-1252-05	CHIP R 0 OHM J 1/16W		SR39			RK73GB2A330J	CHIP R 33 J 1/10W	
R423			RK73GB2A103J	CHIP R 10K J 1/10W		SR40			RK73GB2A123J	CHIP R 12K J 1/10W	
R431			R92-1252-05	CHIP R 0 OHM J 1/16W		SR41			R92-1252-05	CHIP R 0 OHM J 1/16W	
R503			RK73GB2A330J	CHIP R 33 J 1/10W		SR42			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R508-511			RK73GB2A472J	CHIP R 4.7K J 1/10W		SR43			RK73GB2A103J	CHIP R 10K J 1/10W	
R522			RK73GB2A471J	CHIP R 470 J 1/10W		SR44			R92-1252-05	CHIP R 0 OHM J 1/16W	
R524			R92-1252-05	CHIP R 0 OHM J 1/16W		SR46-49			RK73FB2A1R0J	CHIP R 1.0 J 1/10W	
R534,535			RK73GB2A332J	CHIP R 3.3K J 1/10W		SR51			RK73GB2A910J	CHIP R 91 J 1/10W	
R600			R92-1252-05	CHIP R 0 OHM J 1/16W		SR52			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R700			RK73GB2A103J	CHIP R 10K J 1/10W		SR53			RK73GB2A910J	CHIP R 91 J 1/10W	
R701			RK73GB2A472J	CHIP R 4.7K J 1/10W		SR54,55			RK73FB2A1R0J	CHIP R 1.0 J 1/10W	
RN3,4			RK74GB1J330J	CHIP-COM 33 J 1/16W		SR56			RK73GB2A330J	CHIP R 33 J 1/10W	
RN8-10		*	R90-1548-08	MULTIPLE RESISTOR		SR57,58			RK73GB2A473J	CHIP R 47K J 1/10W	
RN11			RK74GB1J330J	CHIP-COM 33 J 1/16W		SR60			R92-1252-05	CHIP R 0 OHM J 1/16W	
RN14			RK74GB1J330J	CHIP-COM 33 J 1/16W		SR62			R92-1252-05	CHIP R 0 OHM J 1/16W	

K : KDV-S210P E : KDV-S220P M : KDV-S230P R : KDV-S240P
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COMBO PCB / THERMISTER PCB UNIT

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
SR73			RK73GB2A222J	CHIP R 2.2K J 1/10W	
SR78			RK73GB2A103J	CHIP R 10K J 1/10W	
SR82			RK73FB2A3R3J	CHIP R 3.3 J 1/10W	
SR83,84			RK73GB2A100J	CHIP R 10 J 1/10W	
SR85			RK73GB2A103J	CHIP R 10K J 1/10W	
SR86			RK73GB2A512J	CHIP R 5.1K J 1/10W	
SR87			RK73GB2A102J	CHIP R 1.0K J 1/10W	
SR88		*	R92-5044-08	CHIP R 8.2K	
SR89-91			RK73GB2A330J	CHIP R 33 J 1/10W	
SR92			R92-1252-05	CHIP R 0 OHM J 1/16W	
SR93,94			RK73GB2A122J	CHIP R 1.2K J 1/10W	
SR95,96			RK73GB2A113J	CHIP R 11K J 1/10W	
SR98			RK73GB2A471J	CHIP R 470 J 1/10W	
SR99			RK73GB2A122J	CHIP R 1.2K J 1/10W	
SR101,106			R92-1252-05	CHIP R 0 OHM J 1/16W	
SR108			RK73GB2A152J	CHIP R 1.5K J 1/10W	
SR109			RK73GB2A563J	CHIP R 56K J 1/10W	
SR110			RK73GB2A103J	CHIP R 10K J 1/10W	
SR111			R92-1252-05	CHIP R 0 OHM J 1/16W	
SR112		*	R92-5044-08	CHIP R 8.2K	
SR113			RK73GB2A474J	CHIP R 470K J 1/10W	
SR117			R92-1252-05	CHIP R 0 OHM J 1/16W	
SR118			RK73GB2A103J	CHIP R 10K J 1/10W	
SR121			R92-1252-05	CHIP R 0 OHM J 1/16W	
SR200			RK73GB2A121J	CHIP R 120 J 1/10W	
SR201			RK73GB2A103J	CHIP R 10K J 1/10W	
SR300			RK73GB2A100J	CHIP R 10 J 1/10W	
SR551			R92-1252-05	CHIP R 0 OHM J 1/16W	
D2		*	RLS4148N	DIODE	
D21,22		*	RLS4148N	DIODE	
Q1			2SC2412K	TRANSISTOR	
QT1		*	KTC8050SD	TRANSISTOR	
SD2		*	RLS4148N	DIODE	
SD7,8		*	RLS4148N	DIODE	
SQ3		*	AS1117	TRANSISTOR	
SQ4,5			2SB1132	TRANSISTOR	
SU1		*	M5705	MICROCONTROLLER IC	
SU2		*	BA5954FP	ANALOGUE IC	
SU3		*	BD6670FM	ANALOGUE IC	
SU6			SP3721A	ANALOGUE IC	
SU7		*	TC0C207	DRAM IC	
SU8		*	TL3472	ANALOGUE IC	
THT1		*	PTFL04BG222Q	THERMISTOR	
U1		*	ES6008	MICROCONTROLLER IC	
U2		*	AT24C01A-10SI	ROM IC	
U3		*	TC0C209	DRAM IC	
U5		*	AZ1085S	TRANSISTOR	
U9		*	BD4743G	ANALOGUE IC	
U23			BA4558F	IC(OP AMP X2)	
U27			74HC04	MOS-IC	
U28		*	*****	CUSTOM IC	
U34		*	D6A022A	CUSTOM IC	
U35			PCM1742	MOS-IC	
UT1			TC7S04FU	MOS-IC	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
UT2			TA75S393F	IC	
ZD700		*	RLZ6.8B	ZENER DIODE	
DISPLAY PCB / POWER & OUTPUT PCB UNIT					
LED1			B30-1552-05	LED	
LED2			B30-1544-05	LED	
BCP1		*	C90-6707-08	ELECTRO 4700UF	35WV
BCP2			C90-2683-05	ELECTRO 100UF	16WV
BCP3			CK73GB1H104K	CHIP C 0.10UF	K
BCD4			CK73GB1H104K	CHIP C 0.10UF	K
BCP5,6			CK73GB1H102K	CHIP C 1000PF	K
BCD6			CK73GB1H102K	CHIP C 1000PF	K
BCP8			C90-5681-05	ELECTRO 1000UF	35WV
BCP9		*	C94-0229-08	CHIP C 0.015UF	Z
BCP11			CK73GB1H104K	CHIP C 0.10UF	K
BCP12			C90-2686-05	ELECTRO 470UF	16WV
BCP13			CK73GB1H104K	CHIP C 0.10UF	K
BCP15			C90-2687-05	ELECTRO 1000UF	16WV
BCD20			CK73GB1H102K	CHIP C 1000PF	K
BCP20,21			C90-2682-05	ELECTRO 47UF	16WV
BCP22			CK73GB1H104K	CHIP C 0.10UF	K
BCP23		*	CE04AW1C101M	LL-ELEC 100UF	16WV
BCP25			CK73GB1H104K	CHIP C 0.10UF	K
BCP26		*	CE04AW1C101M	LL-ELEC 100UF	16WV
BCP27			CK73GB1H104K	CHIP C 0.10UF	K
BCD30			CK73GB1H102K	CHIP C 1000PF	K
BCP30			C90-2725-05	ELECTRO 100UF	50WV
BCP31			C90-2682-05	ELECTRO 47UF	16WV
BCP32			CK73GB1H104K	CHIP C 0.10UF	K
BCP48			CK73GB1H102K	CHIP C 1000PF	K
BCP50			CK73GB1H104K	CHIP C 0.10UF	K
BCP51			C90-2711-05	ELECTRO 2200UF	35WV
BCP52			CK73GB1H104K	CHIP C 0.10UF	K
BCP53			C90-2721-05	ELECTRO 10UF	50WV
CD2,3			CK73GB1H104K	CHIP C 0.10UF	K
CP2,3			CC73GCH1H561J	CHIP C 560PF	J
CP4			CC73GCH1H101J	CHIP C 100PF	J
CP5			CK73GB1H223K	CHIP C 0.022UF	K
CP6			CK73GB1H103K	CHIP C 0.010UF	K
CP7			CC73GCH1H101J	CHIP C 100PF	J
CP8			CK73GB1H223K	CHIP C 0.022UF	K
CP9			CK73GB1H103K	CHIP C 0.010UF	K
CP10			C90-2725-05	ELECTRO 100UF	50WV
CP11		*	C90-5633-05	ELECTRO 470UF	35WV
CP15			C90-2759-05	ELECTRO 10UF	16WV
CP16			CC73GCH1H561J	CHIP C 560PF	J
CP17,18			C90-2759-05	ELECTRO 10UF	16WV
CP19			CC73GCH1H561J	CHIP C 560PF	J
CP20			C90-2759-05	ELECTRO 10UF	16WV
CP21			CE04DW1HR47M	ELECTRO 0.47UF	50WV
CP22			C90-2676-05	ELECTRO 1000UF	10WV
CP23			C90-2680-05	ELECTRO 22UF	16WV
CP30			CK73GB1H102K	CHIP C 1000PF	K
CP40			CC73GCH1H561J	CHIP C 560PF	J
CP41			CC73GCH1H561J	CHIP C 560PF	J

PARTS LIST

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DISPLAY PCB / POWER & OUTPUT PCB UNIT

Ref. No.	Add	New	Parts No.	Description	Destination
CP70			C90-2722-05	ELECTRO 22UF 50WV	
CP71			C90-2724-05	ELECTRO 47UF 50WV	
CBD1			E40-3249-05	PIN ASSY	
CBP1			E40-3249-05	PIN ASSY	
CBD3			E40-3250-05	PIN ASSY	
CBP5			E40-3239-05	PIN ASSY	
CBP7			E40-3243-05	PIN ASSY	
CBP502			E40-3237-05	PIN ASSY	
JKP1		*	E03-0406-08	DC JACK	
JKP2		*	E11-0644-08	MINIATURE PHONE JACK	
JKP3		*	E63-0907-08	PIN JACK	
JKP4		*	E63-0908-08	PIN JACK	
JKP5		*	E63-0909-08	PIN JACK	
FP1			F06-3027-05	FUSE (3A)	
FCL1			J13-0075-05	FUSE CLIP	
FBP3		*	L92-0604-08	FERRITE CORE	
FBP6-12		*	L92-0604-08	FERRITE CORE	
FBP15		*	L92-0602-08	CHIP FERRITE	
FBP20		*	L92-0604-08	FERRITE CORE	
LP1,2		*	L33-2226-08	SMALL FIXED INDUCTOR	
LP3		*	L33-2227-08	CHOKE COIL	
TRP1		*	L13-0502-08	PULSE TRANSFORMER	
BCP40-45			R92-1252-05	CHIP R 0 OHM J 1/16W	
BCP47			R92-1252-05	CHIP R 0 OHM J 1/16W	
RD2			RK73GB2A473J	CHIP R 47K J 1/10W	
RD5			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RD6			RK73GB2A151J	CHIP R 150 J 1/10W	
RD30,31			RK73GB2A330J	CHIP R 33 J 1/10W	
RP1			RK73GB2A103J	CHIP R 10K J 1/10W	
RP2			RK73GB2A752J	CHIP R 7.5K J 1/10W	
RP3			RK73GB2A243J	CHIP R 24K J 1/10W	
RP4			RK73GB2A103J	CHIP R 10K J 1/10W	
RP5			RK73GB2A512J	CHIP R 5.1K J 1/10W	
RP6			RK73GB2A243J	CHIP R 24K J 1/10W	
RP7,8			RK73GB2A473J	CHIP R 47K J 1/10W	
RP9			RK73GB2A822J	CHIP R 8.2K J 1/10W	
RP10			RK73GB2A103J	CHIP R 10K J 1/10W	
RP11,12			R92-1252-05	CHIP R 0 OHM J 1/16W	
RP13			RK73GB2A222J	CHIP R 2.2K J 1/10W	
RP14			RK73GB2A332J	CHIP R 3.3K J 1/10W	
RP17			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP18			RK73GB2A473J	CHIP R 47K J 1/10W	
RP19			RK73GB2A472J	CHIP R 4.7K J 1/10W	
RP20			RK73GB2A750J	CHIP R 75 J 1/10W	
RP21			RK73GB2A472J	CHIP R 4.7K J 1/10W	
RP22			RK73GB2A562J	CHIP R 5.6K J 1/10W	
RP23,24			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP25			RK73GB2A222J	CHIP R 2.2K J 1/10W	
RP26			RK73GB2A113J	CHIP R 11K J 1/10W	
RP27			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP28			RK73GB2A103J	CHIP R 10K J 1/10W	
RP29			RK73GB2A222J	CHIP R 2.2K J 1/10W	

Ref. No.	Add	New	Parts No.	Description	Destination
RP30,31			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP32			RK73GB2A113J	CHIP R 11K J 1/10W	
RP33			RK73GB2A472J	CHIP R 4.7K J 1/10W	
RP34			RK73GB2A562J	CHIP R 5.6K J 1/10W	
RP35			RK73GB2A820J	CHIP R 82 J 1/10W	
RP36			RK73GB2A330J	CHIP R 33 J 1/10W	
RP37			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP38			RK73GB2A181J	CHIP R 180 J 1/10W	
RP39			RK73GB2A431J	CHIP R 430 J 1/10W	
RP40			R92-1252-05	CHIP R 0 OHM J 1/16W	
RP41		*	RK73GB2A161J	CHIP R 160 J 1/10W	
RP42			RK73GB2A131J	CHIP R 130 J 1/10W	
RP43			RS14NB3D101J	METAL RESISTOR 100 2W	
RP45			RK73GB2A911J	CHIP R 910 J 1/10W	
RP46			R92-2053-05	CHIP R 0 J 1/8W	
RP50			RK73GB2A103J	CHIP R 10K J 1/10W	
RP60			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP61			RK73GB2A103J	CHIP R 10K J 1/10W	
RP65			RK73GB2A103J	CHIP R 10K J 1/10W	
RP66			RK73GB2A332J	CHIP R 3.3K J 1/10W	
RP67			R92-1252-05	CHIP R 0 OHM J 1/16W	
RP69			RK73GB2A392J	CHIP R 3.9K J 1/10W	
RP70			RK73GB2A473J	CHIP R 47K J 1/10W	
RP71			RK73GB2A473J	CHIP R 47K J 1/10W	
RP72			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP74			RK73GB2A103J	CHIP R 10K J 1/10W	
RP76			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP79			RK73GB2A203J	CHIP R 20K J 1/10W	
RP80			RK73GB2A102J	CHIP R 1.0K J 1/10W	
RP81			RK73GB2A684J	CHIP R 680K J 1/10W	
RP90			RK73GB2A101J	CHIP R 100 J 1/10W	
RP91			RK73GB2A103J	CHIP R 10K J 1/10W	
RP100			RK73GB2A223J	CHIP R 22K J 1/10W	
RP101			RK73GB2A223J	CHIP R 22K J 1/10W	
RP110			RS14NB3D101J	METAL RESISTOR 100 2W	
SWD1		*	S68-0897-08	PUSH SWITCH	
SWD2		*	S70-0928-08	TACT SWITCH	
DD1-4		*	RLS4148N	DIODE	
DP1-4		*	RLS4148N	DIODE	
DP5		*	1N5408	DIODE	
DP6-8		*	RLS4148N	DIODE	
DP10,11		*	1N5408	DIODE	
QP1			2SA1037K	TRANSISTOR	
QP2-5			2SC2412K	TRANSISTOR	
QP8		*	KTA1504SY	TRANSISTOR	
QP9,10			2SC2412K	TRANSISTOR	
QP11		*	2SD1781K	TRANSISTOR	
QP12			2SC2412K	TRANSISTOR	
QP15			2SC2412K	TRANSISTOR	
QP20-22			2SC2412K	TRANSISTOR	
QP30			2SD1664	TRANSISTOR	
QP40		*	2SC5161	TRANSISTOR	
QP41			2SC4061K	TRANSISTOR	
UD3		*	74HC02	MOS-IC	

K : KDV-S210P E : KDV-S220P M : KDV-S230P R : KDV-S240P
(E : Europe K : North America R : Latin America M : Other Areas)

△ Indicates safety critical components.

PARTS LIST

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DISPLAY PCB / POWER & OUTPUT PCB UNIT

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
UP1,2		*	ZA3020	ANALOGUE IC	
UP3			BA4558F	IC (OP AMP X2)	
UP4		*	BD7600FV	ANALOGUE IC	
ZDD1		*	RLZ5.1B	ZENER DIODE	
ZDP1,2		*	SR560	ZENER DIODE	
ZDP3			RLZ7.5B	ZENER DIODE	
ZDP4			RLZ3.6B	ZENER DIODE	
ZDP5		*	RLZ8.2B	ZENER DIODE	
ZDP6			RLZ3.6B	ZENER DIODE	
ZDP20,21		*	RLZ5.1B	ZENER DIODE	
ZDP30		*	RLZ5.6B	ZENER DIODE	
ZDP40		*	PTZ27B	ZENER DIODE	
DVD MECHANISM ASSY (D40-1199-08)					
LED1,2	2A		GL4800	LED	
2	2A		D14-0829-08	ROLLER ASSY	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
3	1B		D16-0804-08	LOADING BELT-L	
4	2B	*	D40-1200-08	TRAVERS ASSY	
5	2A		G01-4359-08	SPRING (ROLLER)	
6	2A	*	J02-1209-08	INSULATOR (DAMPER)	
7	3A	*	J22-0265-08	MOUNTING HARDWARE ASSY (BASE)	
A	2A	*	N09-6275-08	STEPPED SCREW	
B	2A		N39-1715-46	SCREW	
C	1A		N86-2004-46	SCREW	
VS1	2B		S64-0065-08	SWITCH	
VM1	2B		T42-1148-08	MOTOR ASSY (LO)	
PH1,2	3A		PT4800BC	PHOTO TRANSISTOR	

K : KDV-S210P E : KDV-S220P M : KDV-S230P R : KDV-S240P
(E : Europe K : North America R : Latin America M : Other Areas)

△ Indicates safety critical components.

SPECIFICATIONS

DVD Section

D/A Converter 8 Level $\Delta\Sigma$, 24bit
Wow & Flutter Below Measurable Limit
Frequency Response 17Hz~44kHz (DVD 96kHz Sampling)
Total Harmonic Distortion (1kHz) 0.02%
Signal to Noise Ratio 106dB
Dynamic range 90dB
MP3 Decode Compliant with MPEG-1/2 Audio Layer-3
DISC Format DVD-VIDEO/VIDEO-CD/CD-DA/MP3

Output

Composite Video Output Level 1Vp-p (75 Ω)

Audio 2ch Output Level 1.2V/10k Ω (DVD/CD)
Coaxial Digital Audio Interface Output Level 0.5V/75 Ω

General

Operating Voltage 14.4V (11V~16V)
Current Consumption 2A
Dimensions (W x H x D) 194 x 54 x 245 (mm)
Weight 1.85kg

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

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