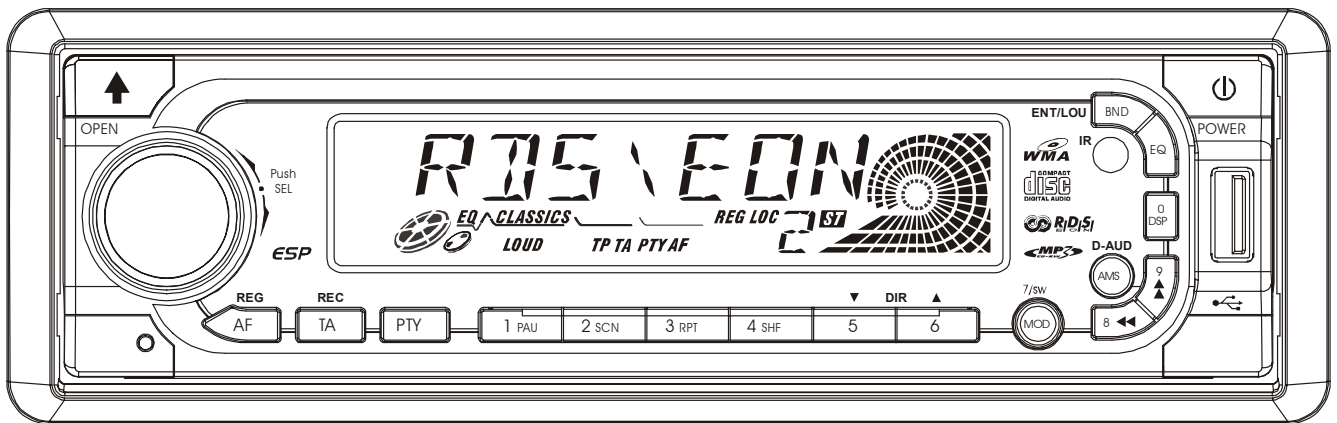


AKAI

Service Manual

PLL SYNTHESIZER STEREO RADIO WITH
COMPACT DISC PLAYER DIGITAL



MODEL: ACR-24MPU

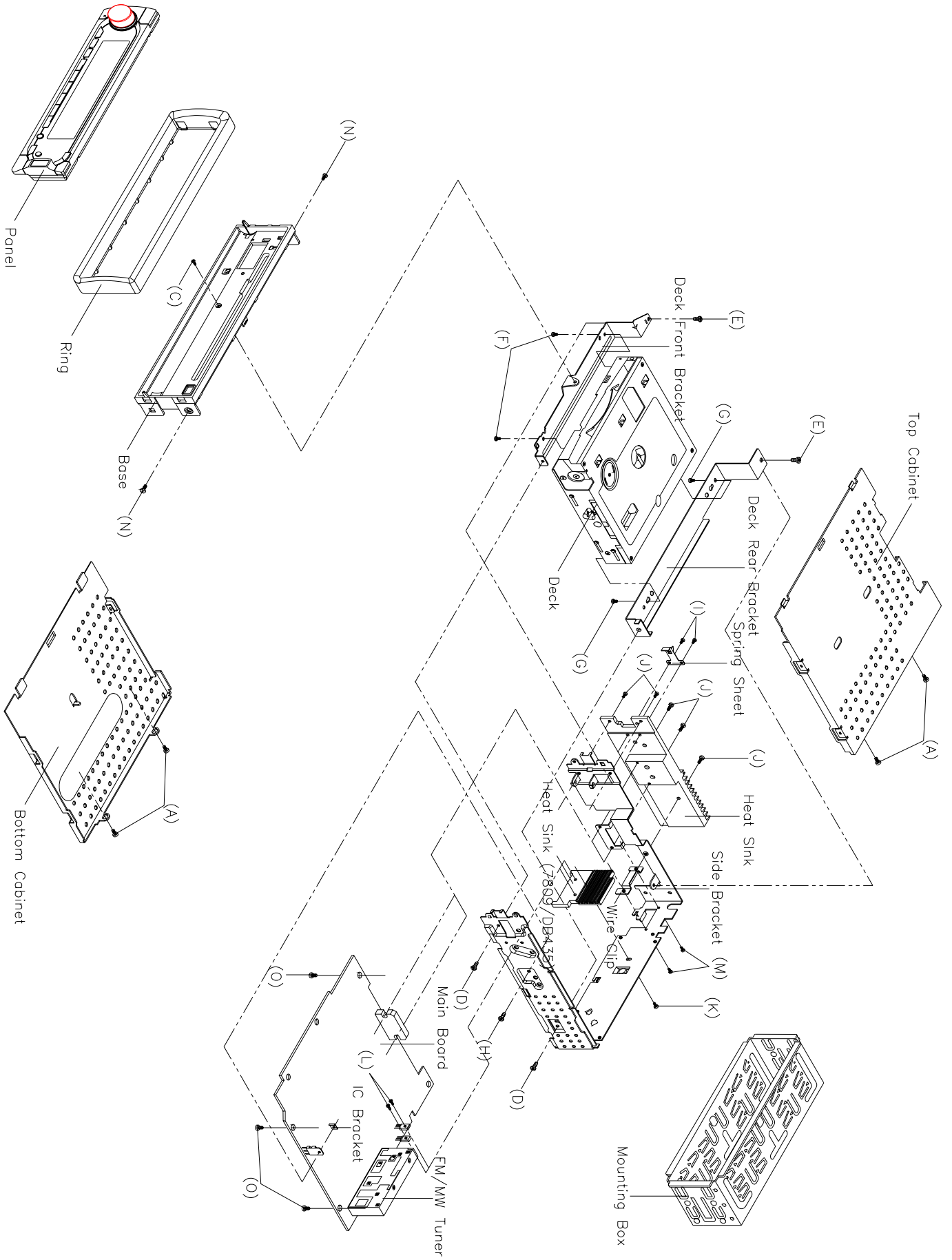
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DISASSEMBLY INSTRUCTIONS

1. Using the unlock key that came with the unit or a similar tool, unlock the Mounting Box and remove toward the rear of the unit.
2. Remove two screws (A) located on the rear of the top cabinet then remove the Top Cabinet.
3. Remove two screws (B) located on the rear of the bottom cabinet then remove the Bottom Cabinet.
4. Take out the Front Panel and the Ring.
Remove the screws (C) from on the front side of the Base.
5. Remove two screws (D) from on the right side of the side bracket.
Remove two screws (E) from on the left side of the side bracket.
6. Remove two screws (F) from under the deck front bracket then remove the Deck Front Bracket.
Remove two screws (G) from under the deck rear bracket then remove the Deck Rear Bracket and the Deck.
7. Remove the screw (H) from on the right side of the side bracket then remove the IC Bracket.
8. Remove two screws (I) from on the left side of the heat sink then remove the Spring Sheet.
9. Remove three screws (J) from on the left side of the heat sink then remove the Heat Sink.
10. Remove the screw (K) from on the back of the side bracket and remove two screws (L) from on the main board then remove the Heat Sink (7809/DB435).
10. Remove two screws (M) from on the back of the side bracket then remove Wire Clip.
11. Remove two screws (N) from each side of the base then remove the Base.
12. Remove three screws (O) from under the main board then remove the Side Bracket and the Main Board.

DISASSEMBLY DIAGRAM



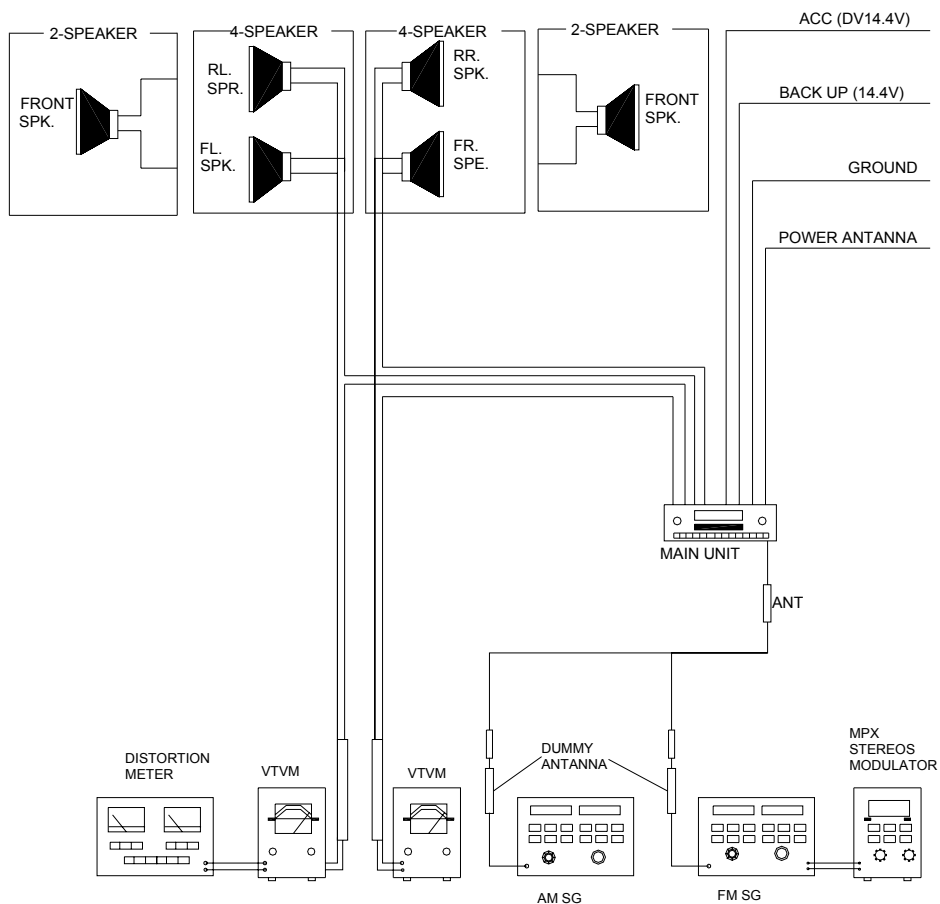
OPERATION CHECK

GENERAL SPECIFICATIONS OF SIGNAL

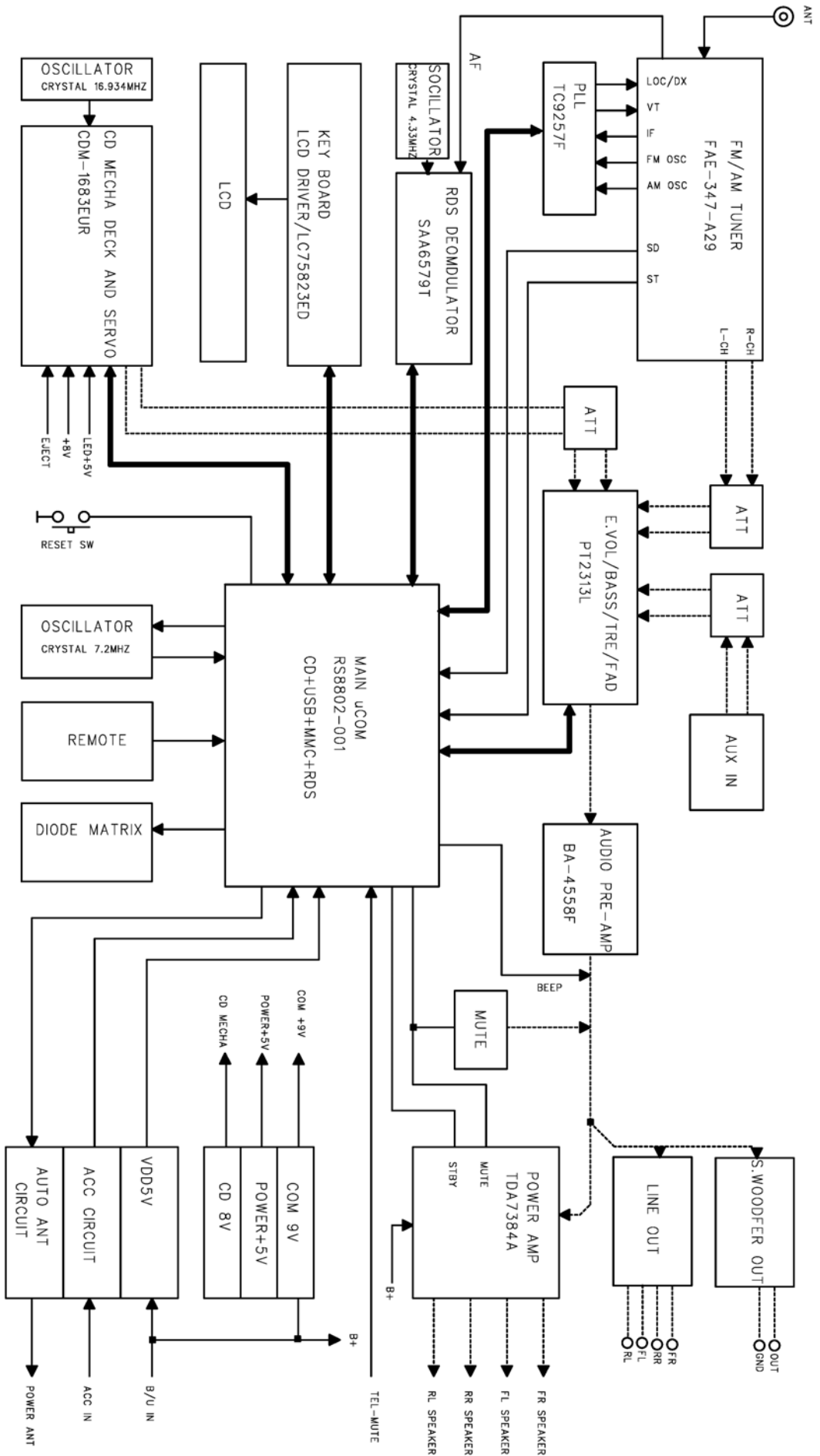
Standard frequency	FM	98.1 MHz (87.5, 108 MHz)
	MW	1000 kHz (522, 1620 kHz)
	LW	200 kHz (144, 288 kHz)
Signal output	FM	1mV
	MW	5 mV
	LW	5 mV
Modulation	MW	400 Hz 30% MOD.
	FM Stereo	1 kHz 75kHz DEV.
		46% for L only or R only pilot level 8%
AF output level	FM/MW/LW	
Power source voltage	DC 14.0V (Backup voltage is the same as this)	
AF load impedance	4 ohm pure resistance	
Balance	Center position of level	
Tone	Center position	

The signal strength read in this section is voltage on the antenna.

Test Diagram

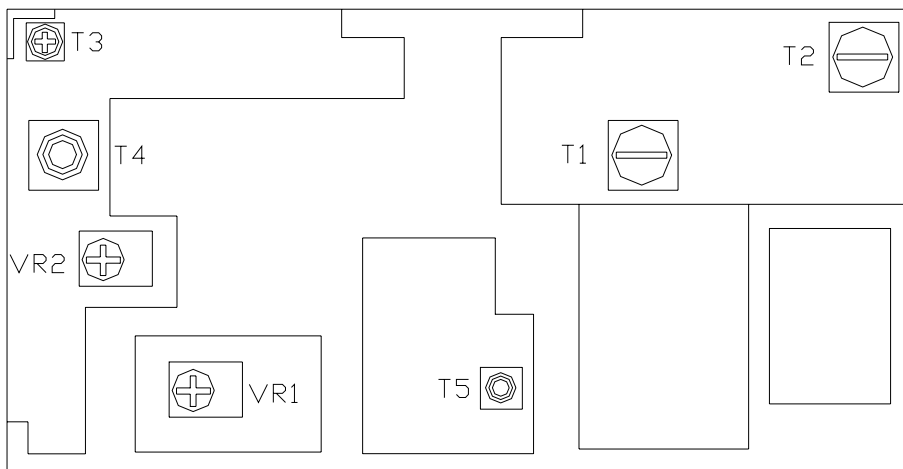


BLOCK DIAGRAM



ALIGNMENT LOCATIONS

FM TUNER BOARD



ALIGNMENT PROCEDURES

FM ADJUSTMENT

Equipment Required

- AM IF/RF signal generator
- Solid-state voltmeter (SSVM)
- Regulated DC power supply
- 2-CH voltmeter
- Distortion meter

FM Alignment Using FM Signal Generator

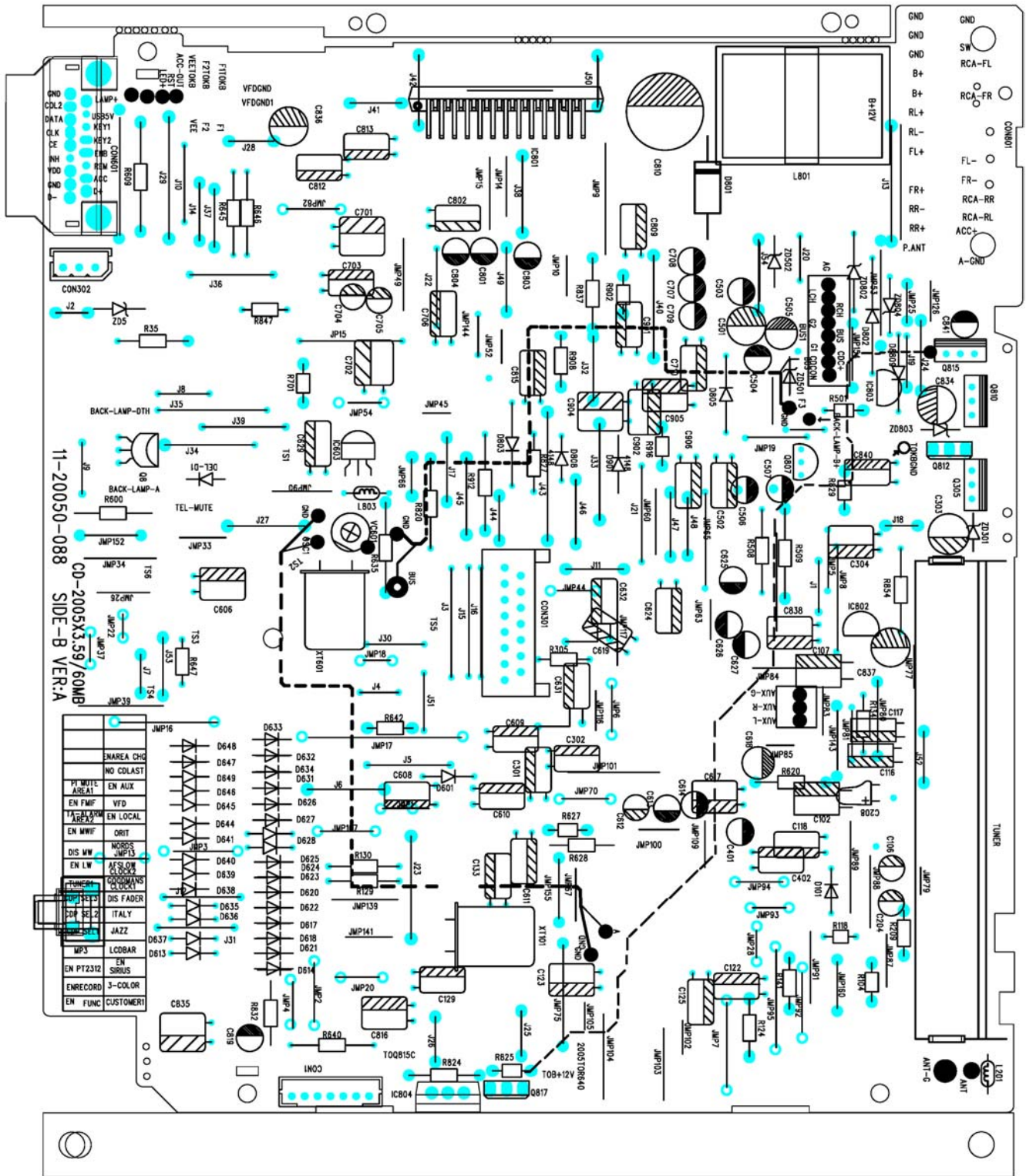
Note: Press the radio power switch to on the radio. Signal generator output must be kept as low as possible to avoid overload and clipping.

Step	Generator Coupling	Generator	Display Setting	Adjustment	Remarks
Stereo Separation	Signal Generator to antenna receptacle	98.1 MHz Int. 1 kHz Dev. 75 kHz L+R = 90 % pilot = 10 %	98.1 MHz	VR1	Adjust AF output power at maximum separating more than 30 dB
FM SNC Adjustment	98.1 MHz Dev. 75 kHz L+R=90 % Int. 1 kHz 60dB μ V output	98.1 MHz @ 40 dB μ	98.1 MHz	VR2	Stereo Separation 25 dB (\pm 5 dB)
Stop Sens.	Signal Generator to antenna receptacle	98.1 MHz Mod. 1kHz Dev 75kHz	98.1 MHz	VR3	Adjust AF to stop station.

Note: The tuner module is well-adjust and adjustment is not recommended.

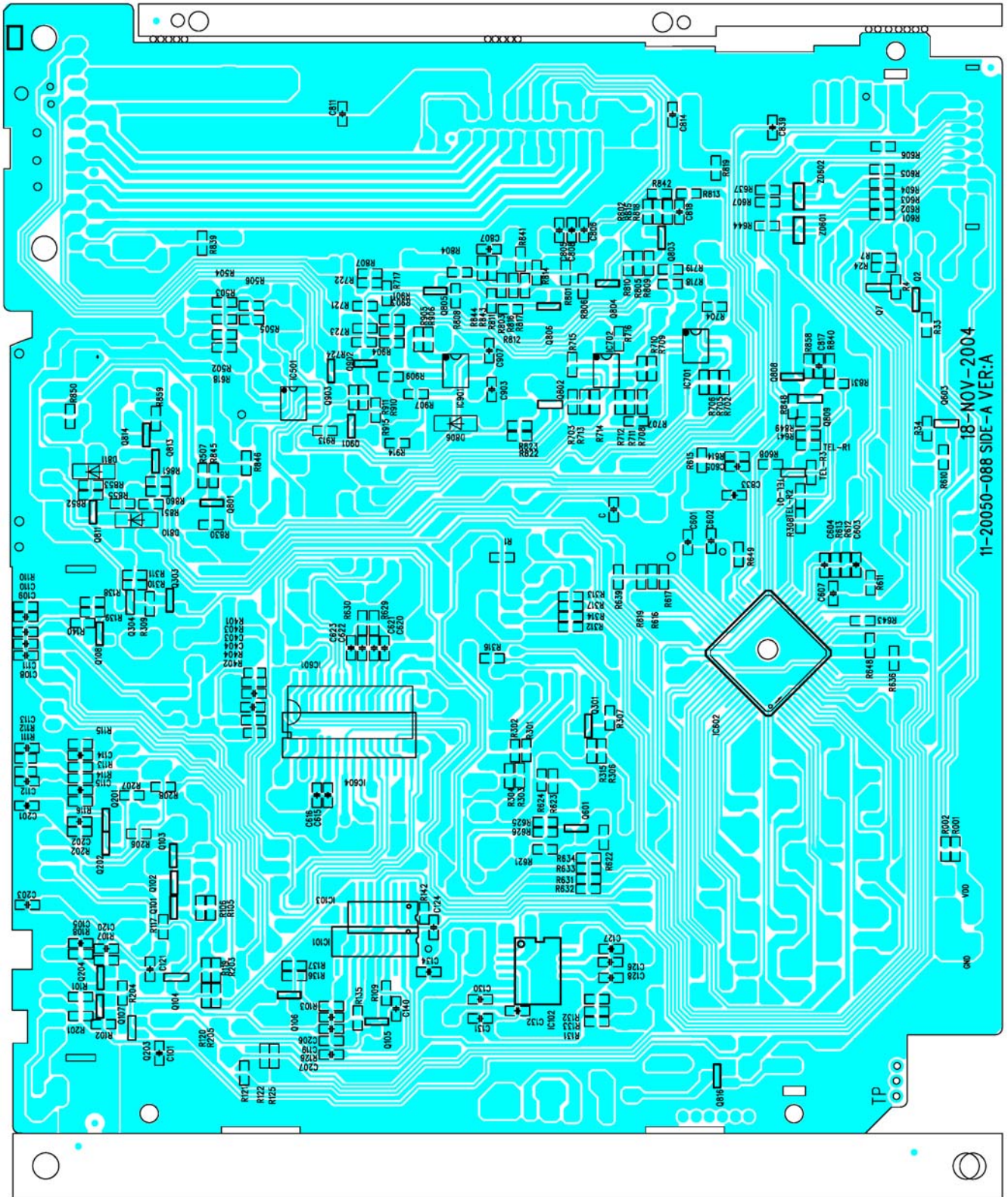
PRINTED CIRCUIT BOARDS

MAIN BOARD



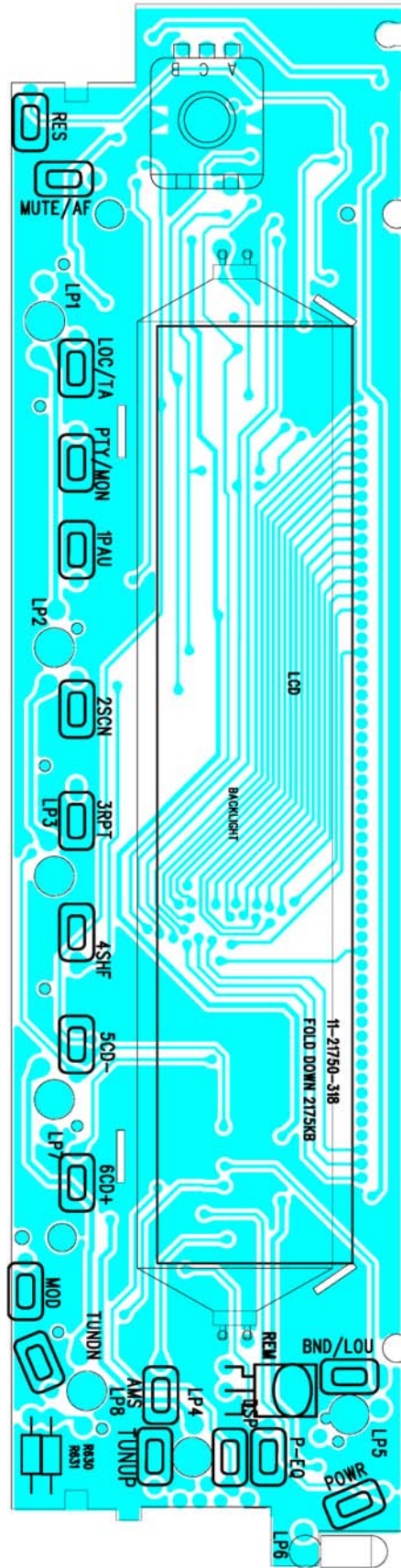
TOP VIEW

MAIN BOARD



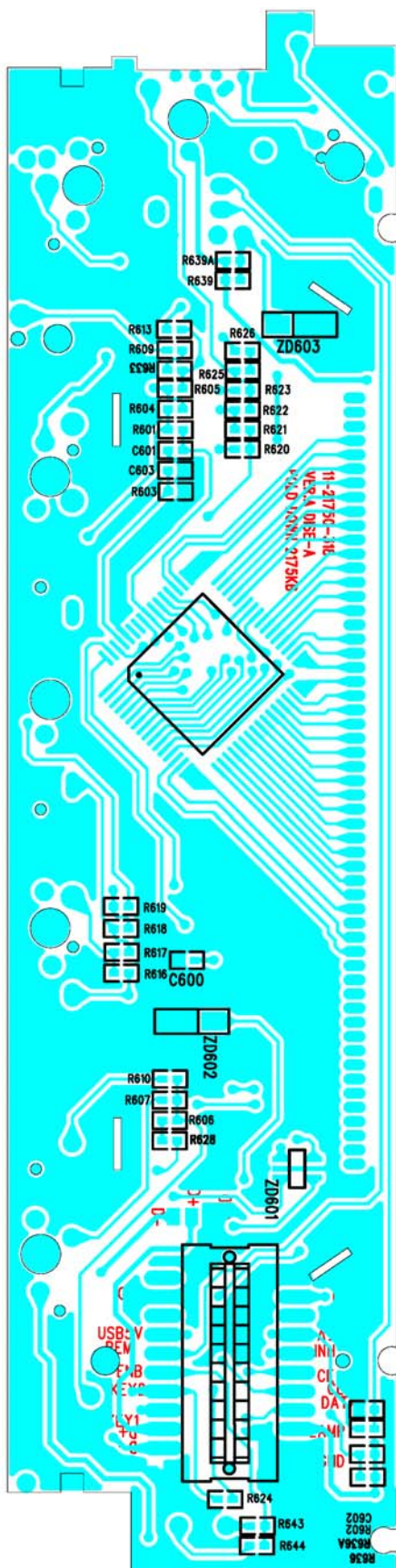
BOTTOM VIEW

KEY BOARD



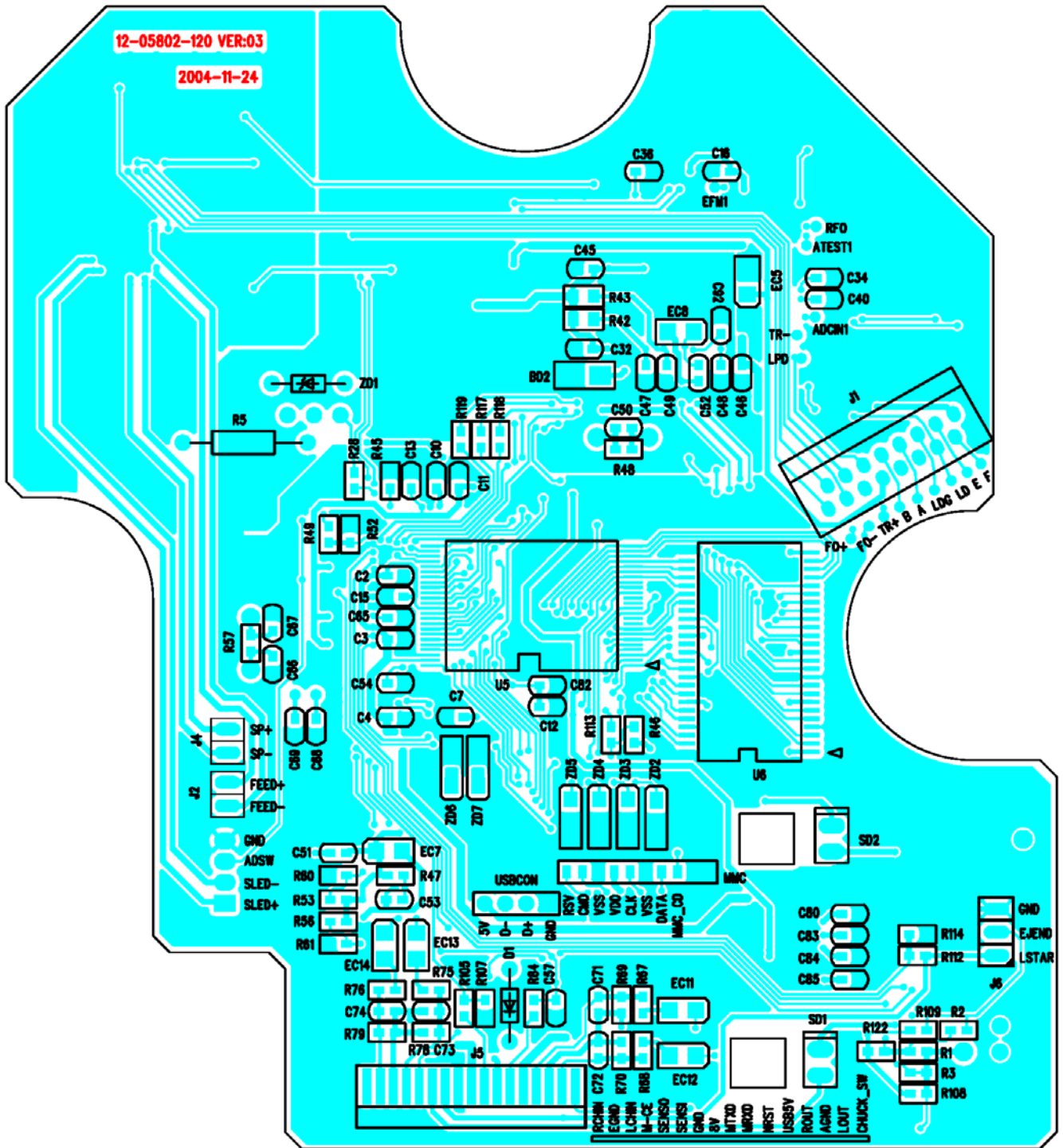
TOP VIEW

KEY BOARD



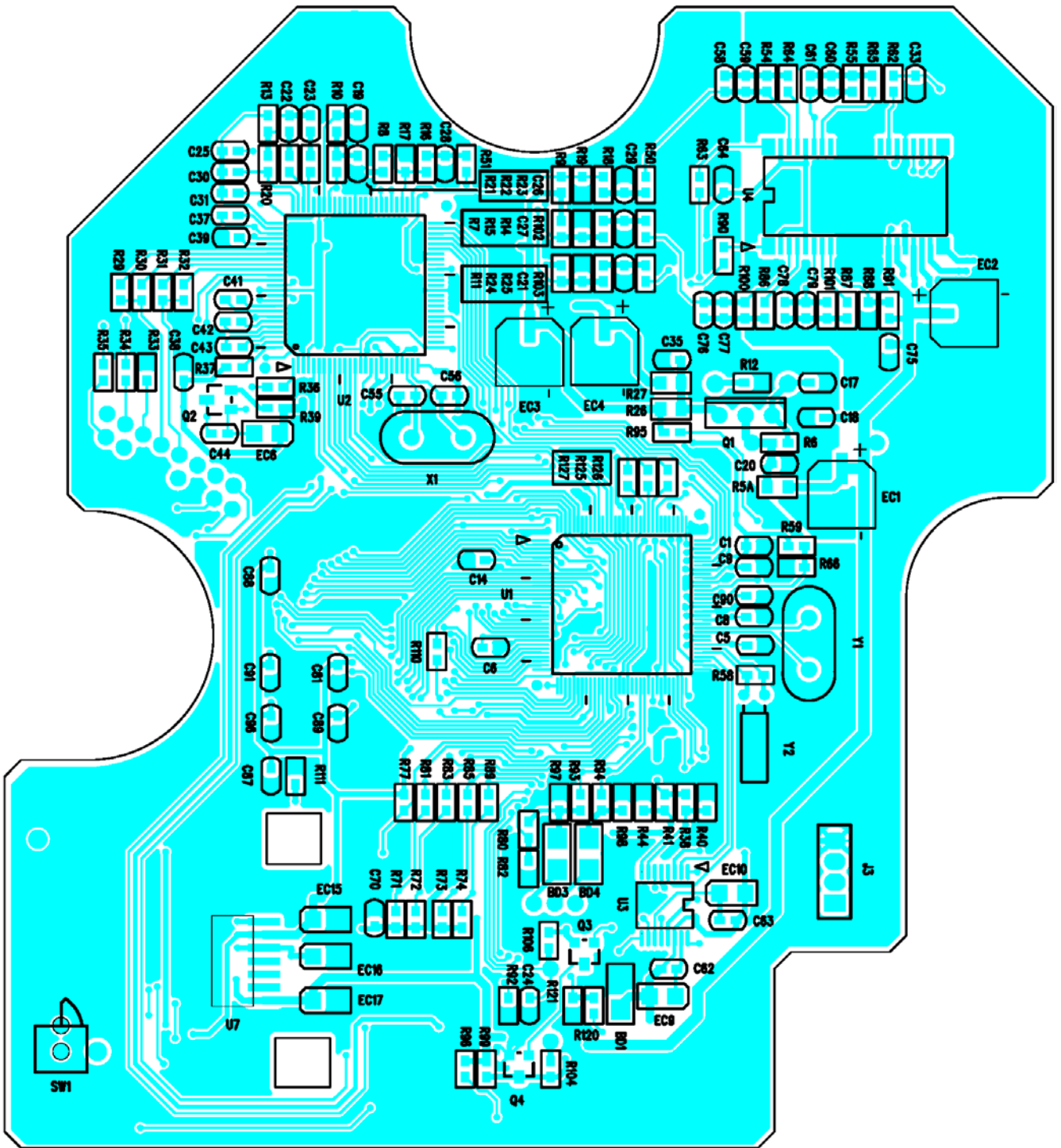
BOTTOM VIEW

CD SERVO BOARD



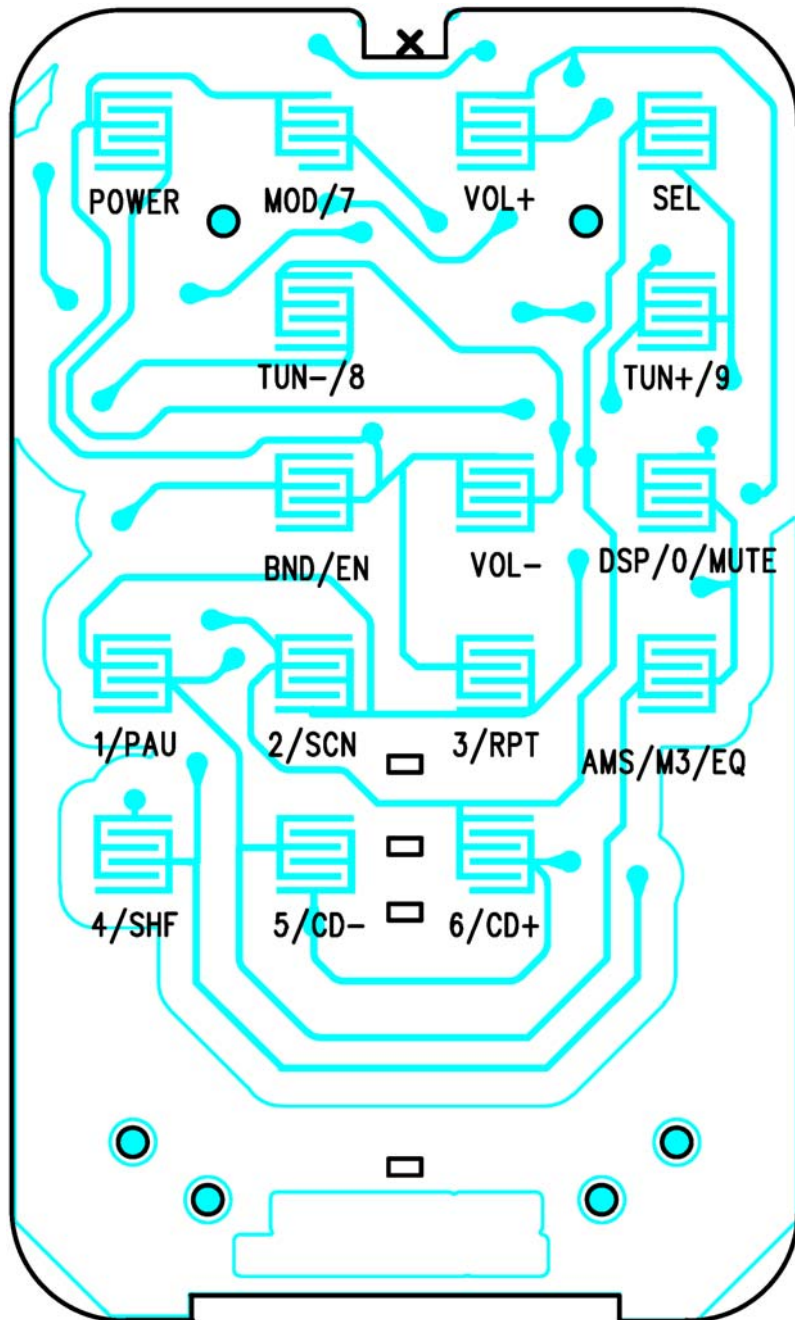
TOP VIEW

CD SERVO BOARD

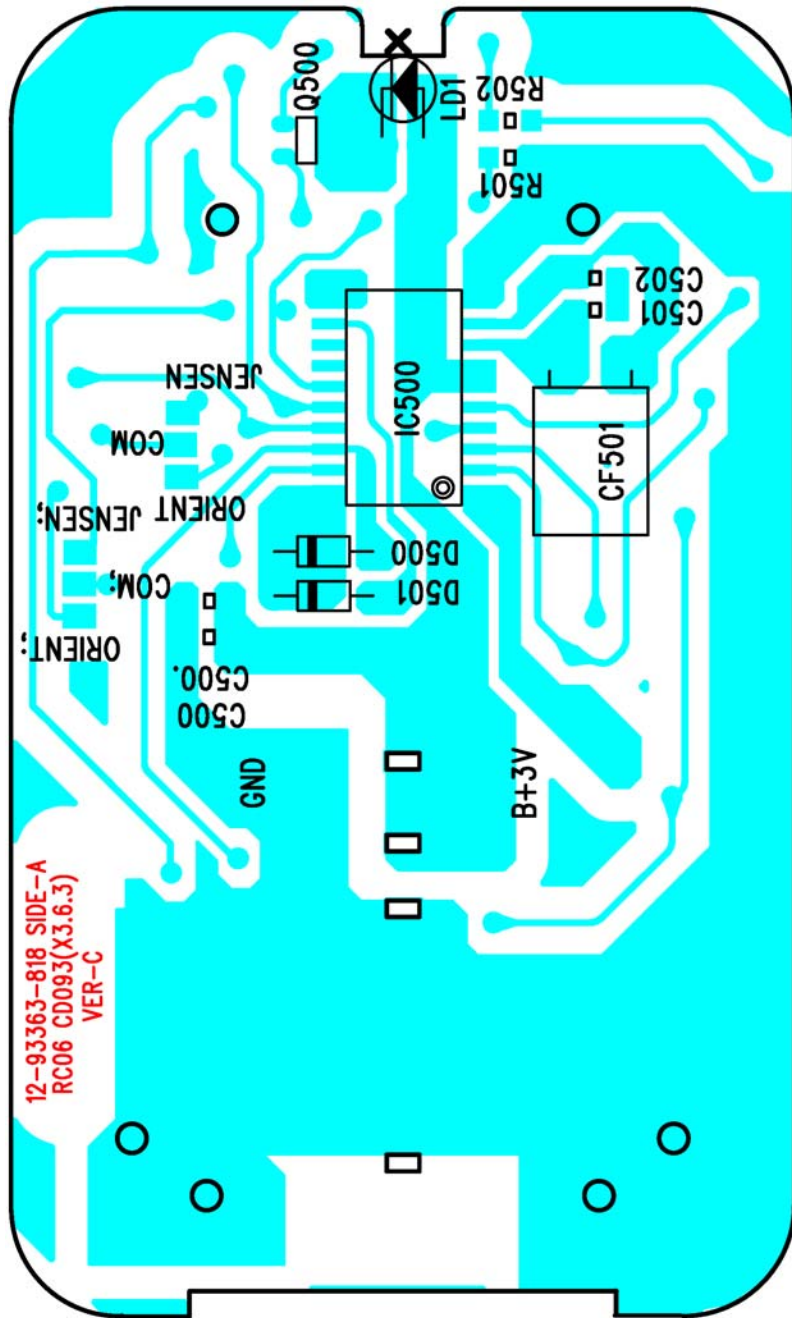


BOTTOM VIEW

REMOTE BOARD

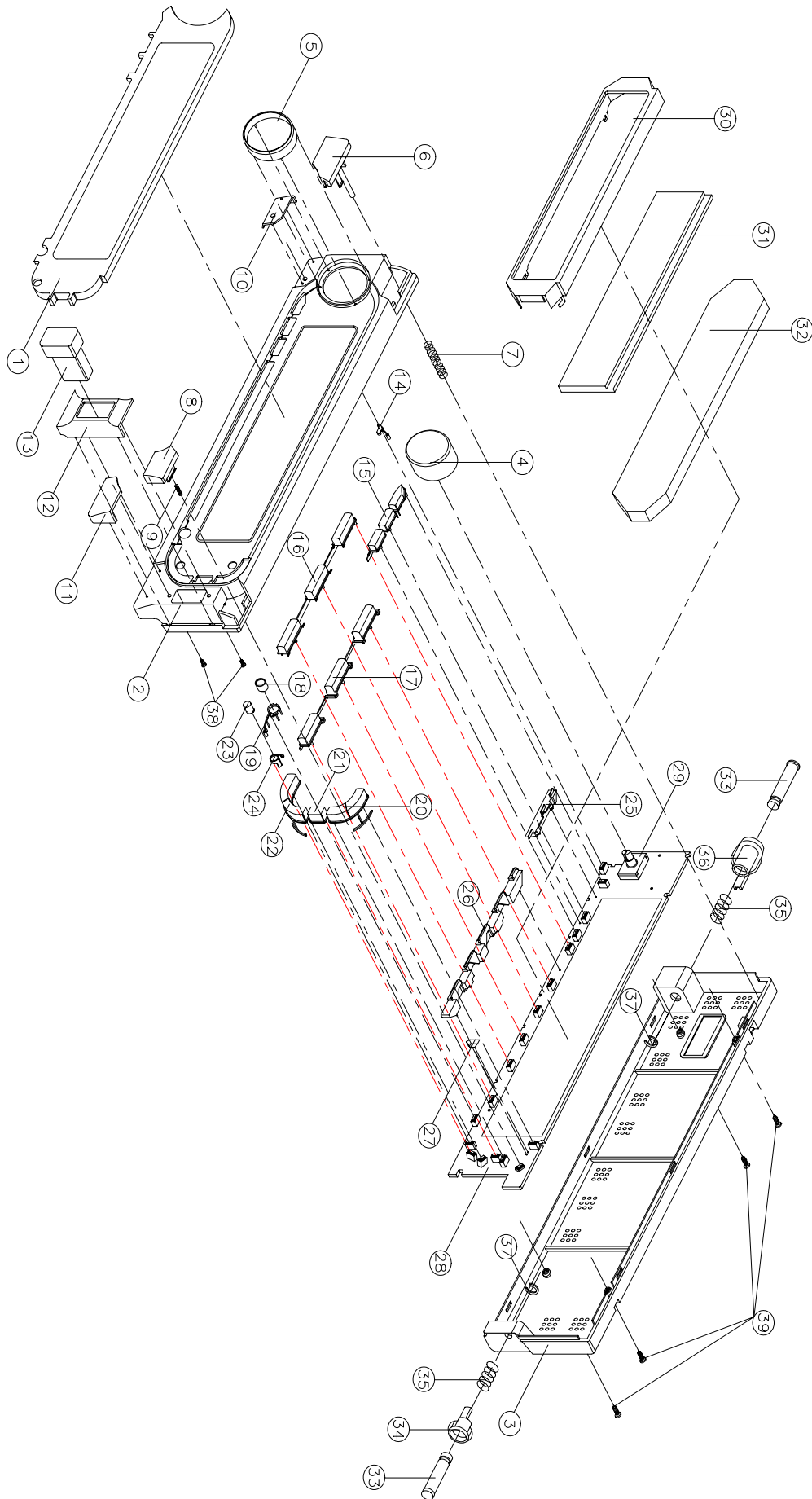


REMOTE BOARD



PANEL

EXPLODED VIEW



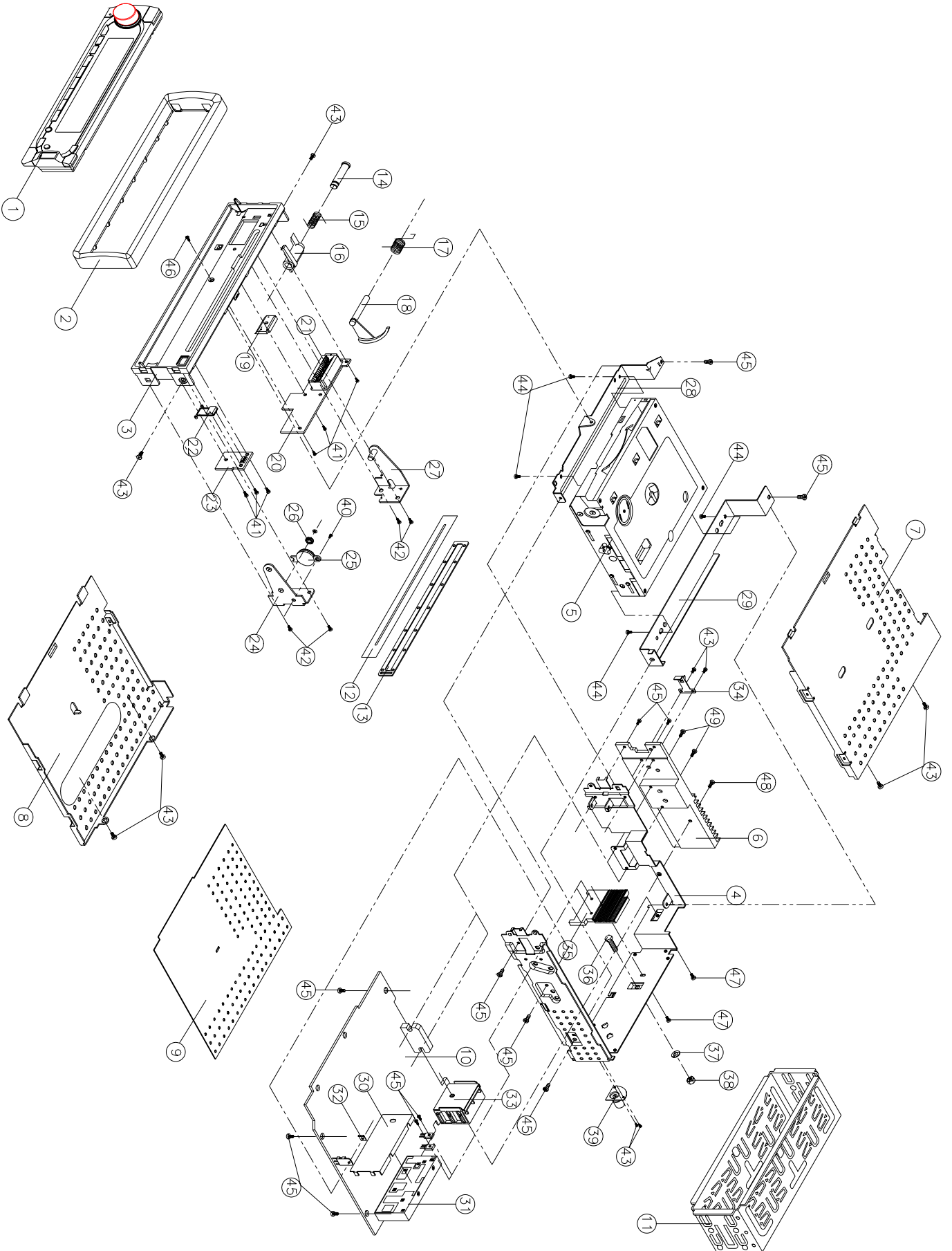
EXPLODED VIEW PARTS LIST

PANEL

Ref. No.	Description	RS Part No.	Mfr's Part No.
1	Lens; (OPC0000/PMS422C) LCD W/RM X60.16		53-J2122-35Y
2	Panel –F (OP2001/White) LCD X60.16 “USB”		51-J2121-31B
3	Panel Bottom (F)		51-J2137-00
4	VOL Knob (E. Silver)		52-J2130-90E
5	Round Decoration (E-Silver)		52-J2131-90E
6	Open Key (L-Up) (OP0000)		52-J2147-30
7	RE Knob Spring		36-11852-00
8	Power Knob (L-Up) (OPC0000)		52-J2135-01
9	RE Slide Spring		36-11851-00
10	Decoration 01 (OPC0000)		52-J2133-30
11	Decoration 02 (OPC0000)		52-J2136-30
12	Decoration With USB (S. OPC0000)		52-J2141-31W
13	USB Cover (Grey)		52-J2063-01
14	SET Knob (OPC0000)		52-J2134-30
15	AF/TA/PTY Key (L-Up) (OPC0000)		52-J2124-01
16	1PAU/3RPT/5 Key (L-Up) (OPC0000)		52-J2125-01
17	2SCN/4SHF/6 Key (L-Up) (OPC0000)		52-J2126-01
18	MD Key (Crystal/Purple PMS2572C)		52-C2536-51P
19	Adaptor 01		52-J2138-00
20	BND/EQ Key (L-Up) (OPC0000)		52-J2129-01
21	0 DSP Key (L-Up) (OPC0000)		52-J2128-01
22	8TUNE SKIP/9TUNE SKIP Key (L-Up) (OPC0000)		52-J2127-01
23	AMS Key (Crystal/Purple PMS2572C) 2175		52-C2537-52P
24	Adaptor 02		52-J2140-00
25	B-Light 01		52-J2142-00
26	B-Light 02		52-J2143-00
27	B-Light 03		52-J2145-00
28	Key Board		11-21750-318
29	CD115 ROTATE ENCODER VOL		18-00115-00
30	LCD Cover		39-E2104-01
31	CD-158USB LCD TN NGE Color Black Mack PIN		27-01581-01Y
32	LED B.L. QB02002-09 23.5X99 WHT		02-A1560-09
33	Axis Post		34-24601-00
34	Right Side Block		52-E2128-00
35	Contact Spring		36-78008-00
36	Left Side Block		52-E2129-00
37	E-Ring Ø1.5X4X0.4 MM		35-00001-00
38	Screw Ø1.7X4 PH/ST		40-11704-00
39	Screw Ø2X8 BA/ST Black		40-12008-21

EXPLODED VIEW

CABINET



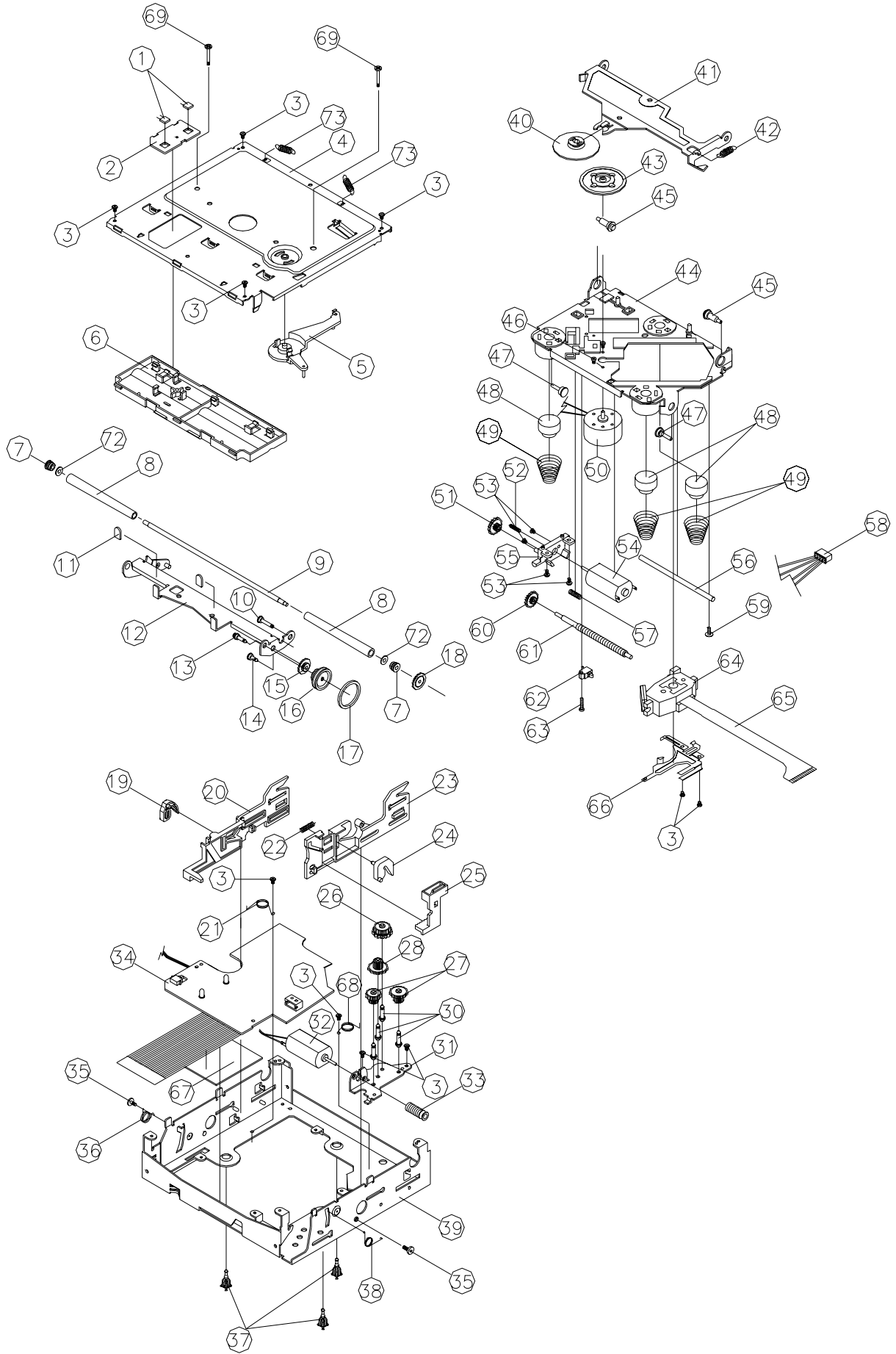
EXPLODED VIEW PARTS LIST

CABINET

Ref. No.	Description	RS Part No.	Mfr's Part No.
1	Panel		
2	Ring (S. OP2001)		51-G2121-30G
3	Base (PC)		51-E2124-00P
4	Side Bracket (CD200/Wire)		61-E2005-04
5	CD MECH. CDM-1683EUK W/O Bracket (143A)		94-01683-11
6	Heat Sink (For Wire)		61-E2006-00
7	Top Cabinet		61-B0105-01
8	Bottom Cabinet (For Wire)		61-B0114-01
9	Main Fiber		35-B0101-00
10	Main Board		11-20050-089
11	Mounting Box (072)		61-07211-03
12	Shade		81-69005-02
13	CD Windows Sheet		43-E2001-00
14	Hook Shaft		34-D2101-00
15	Hook Spring		36-E2101-00
16	Hook		52-E2127-00
17	Push Out Spring		36-E2102-00
18	Panel Pole		52-E2126-00
19	Base Back Light		52-H2152-00W
20	Front Board		11-21740-348
21	20PIN Socket		25-F0217-20
22	EJ Knob (L-Up) (S. OPC0000) (L-Up)		52-E2134-01
23	Eject Board		11-21740-348
24	Right Bracket		39-E2101-01
25	Damper Gear Ass'y /19-24 T/Q		93-12246-01
26	Middle Gear (F)		52-E2130-00
27	Left Bracket		39-E2102-01
28	Deck Front Bracket		39-E2105-00
29	Deck Rear Bracket		39-B0101-00
30	MITSUMI TUNER FAE-347-A29		29-00347-02
31	FM Cover		39-D0507-00
32	IC Bracket (7805)		39-B0115-00
33	Spring Sheet		39-B0102-00
34	Heat Sink (7809/DB435) W/O Shaft		39-B0113-01
35	Wire Clip 1.0MM		39-B1415-00
36	Screw Ø5X18 HH		40-05018-04
37	Spring Washer M5		35-50001-00
38	Hexagon Nut M5		35-40005-00
39	Screw Ø2X3 CH/MA Black		40-12003-09H
40	Screw Ø2X4 BH/MS Black		40-12004-21

Ref. No.	Description	RS Part No.	Mfr's Part No.
41	Screw Ø2X6 PA/ST Black		40-12006-20
42	Screw Ø2.6X4 BH/MS		40-02604-01
43	Screw Ø2.6X5 BH/TAPTITE		40-02605-03
44	Screw Ø2.6X6 BH/MS		40-02606-01
45	Screw Ø2.6X6 PH/MS Black		40-02606-20
46	Screw Ø2.6X8 BH/MS		40-02608-01
47	Screw Ø2.6X10 BH/MS		40-02610-01
48	Screw M2.6X20 PH/MS		40-02620-00

EXPLODED VIEW (DECK)



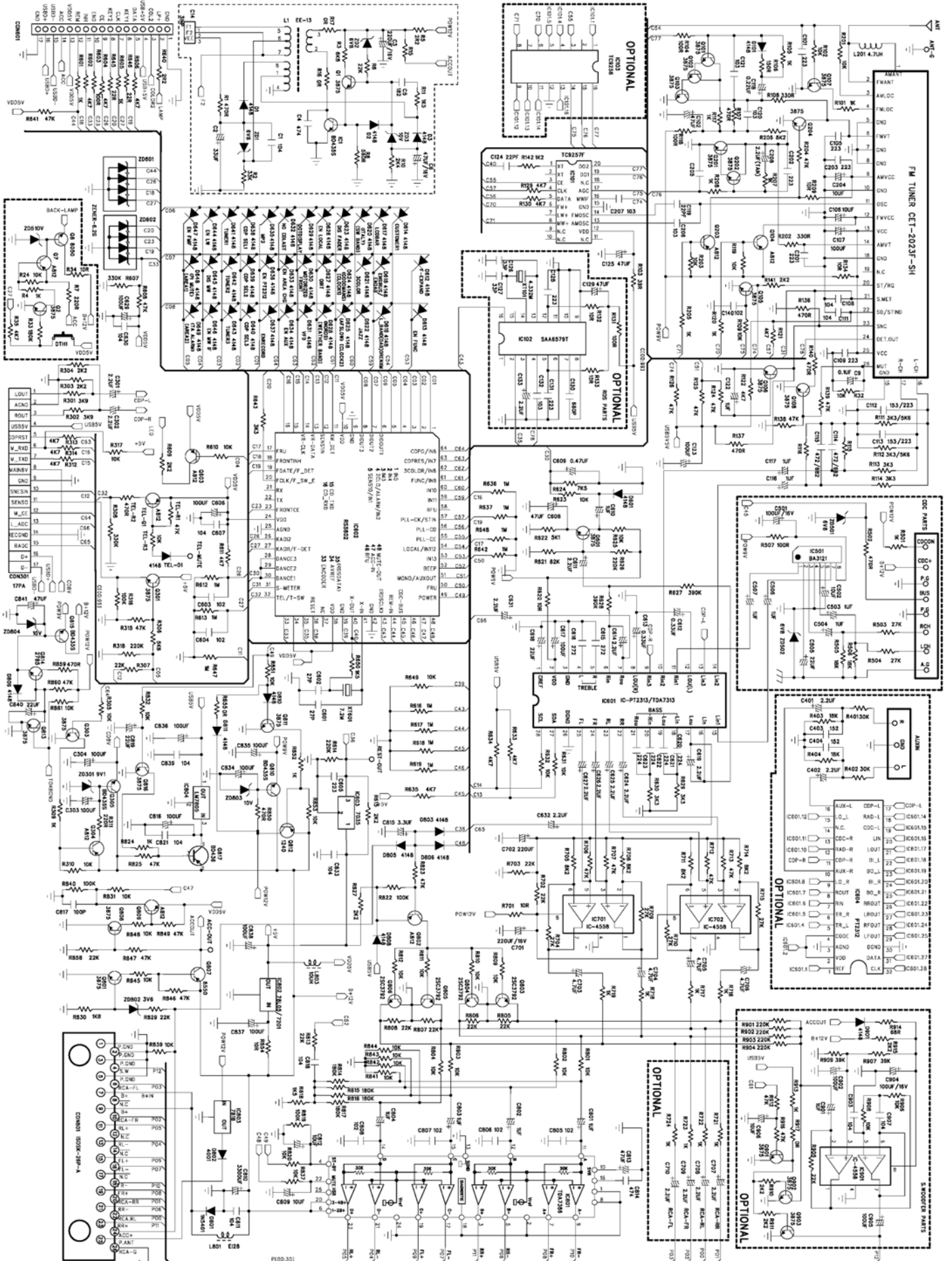
EXPLODED VIEW PARTS LIST (DECK)

Ref. No.	Description	Parts No.	Q'ty
1	SENSOR	ST-23G	2
2	SENSOR PCB	FR	1
3	SCREW	CA/H 0" TT 2*3	12
4	COVER-UPPER	SECC T1.0	1
5	LEVER DISC	POM (F20-03)	1
6	GUIDE UP	POM (F20-03)	1
7	BUSHING ROLLER	POM (F20-03)	2
8	ROLLER DISC	SLICON	2
9	SHAFT ROLLER	SUS 303	1
10	PIN ROLLER	SUM24L-NI (PLATE)	1
11	PVC CAP	PVC	2
12	B/K ROLLER	SECC T1.0	1
13	PIN PULLEY	SUM24L-NI (PLATE)	1
14	PIN IDLE	SUM24L-NI (PLATE)	1
15	GEAR IDLE	POM (F20-03)	1
16	GEAR PULLEY	POM (F20-03)	1
17	BELT PULLEY	CR-WRT	1
18	GEAR ROLLEY	POM (F20-03)	1
19	LOCKER (L)	POM (F20-03)	1
20	CAM (L)	POM (F20-03)	1
21	S/P CAM (L)	SUS304WPB	1
22	S/P RACK	SUS304WPB	1
23	CAM (R)	POM (F20-03)	1
24	LOCKER ®	POM (F20-03)	1
25	GEAR RACK	POM (F20-03)	1
26	GEAR LOAD ©	POM (F20-03)	1
27	GEAR LOAD (D)	POM (F20-03)	1
28	GEAR LOAD (B)	POM (F20-03)	1
29	GEAR LOAD (A)	POM (F20-03)	1
30	PIN LOAD	SUM24L-NI (PLATE)	4
31	B/K GEAR	SECC T1.0	1
32	MOTOR	FF-050SH-11190	1
33	GEAR WORM	POM (F20-03)	1
34	SERVO PCB ASSY	GLASS EPOXY 1.2T	1
35	SPECIAL SCREW	P/H TTS 2*2	4
36	S/P RO (L)	SUS304WPB	1
37	SUPPORT DAMPER	POM (F20-03)	3
38	S/P RO ®	SUS304WPB	1
39	CHASSIS MAIN	SEEC T1.0	1

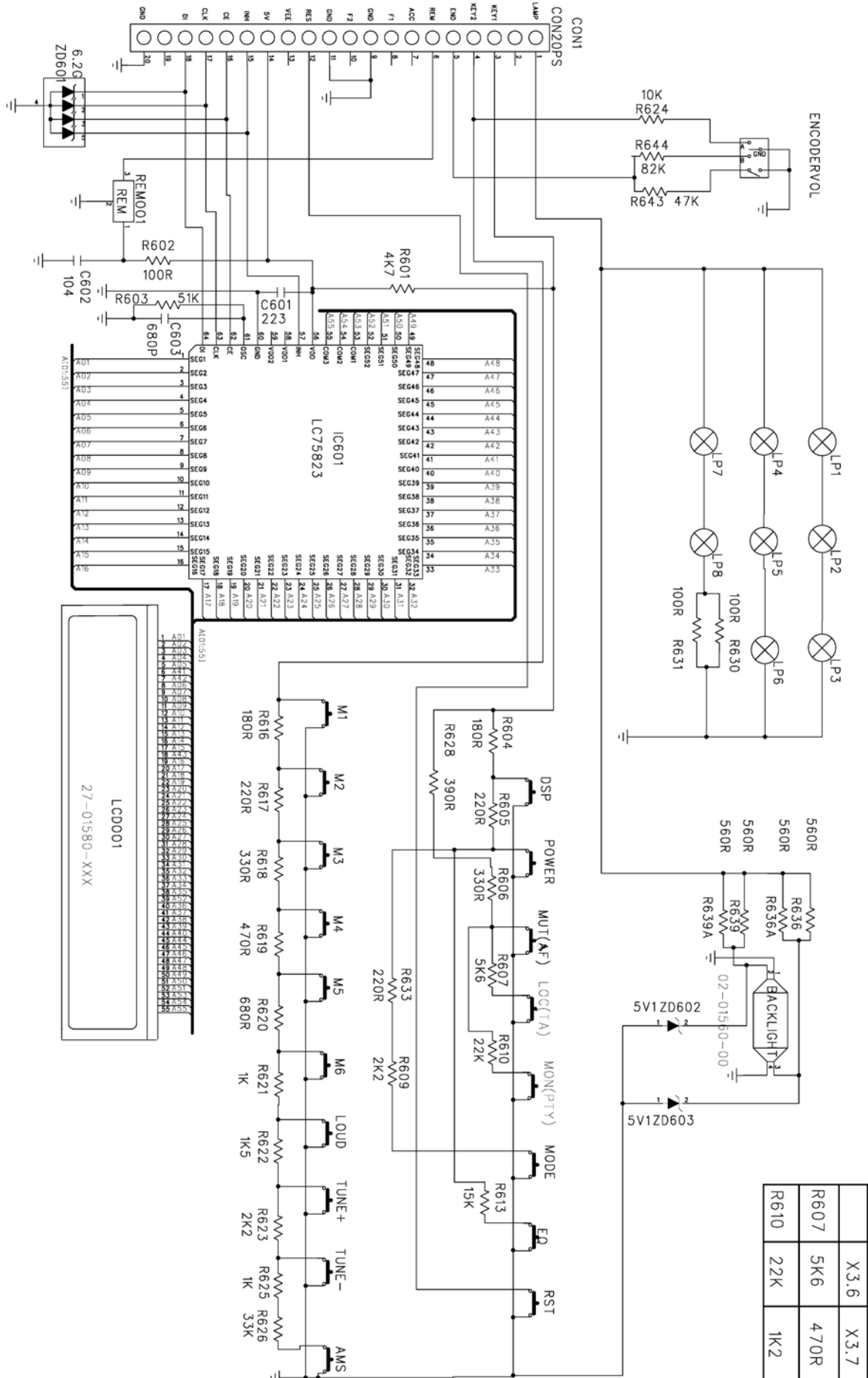
EXPLODED VIEW PARTS LIST - CONTINUED (DECK)

Ref. No.	Description	Parts No.	Q'ty
40	CLAMP DISC	POM (F20-03)	1
41	HOLD CLAMPER	SECC T1.0	1
42	S/P CLAMPER	SUS304WPB	1
43	TURN TABLE	ABS G/F 20%	1
44	BASE PU	POM (F20-03)	1
45	PIN SIDE (A)	SUM24L-NI (PLATE)	2
46	SCREW	CA/H 0" M/S 1.7*2.5	2
47	PIN SIDE (B)	SUM24L-NI(PLATE)	2
48	DAMPER	BUTHYL	1
49	S/P BASE	SUS304WPB	2
50	MOTOR	RF-400CA-12265	1
51	GEAR PU (B)	HYTRELL 5526	1
52	GEAR PU (A)	POM (F20-03)	1
53	SCREW	CA/H 0" M/S 2*2	6
54	MOTOR	FF-050SH-11190	1
55	HOUSING GEAR	POM (F20-03)	1
56	SHAFT PU	KNN11 (PCD18)	1
57	SCREW	R/H (W/W) TTB2*5	1
58	4P CONT WIRE	1007 #28	1
59	SPRING TENSION	SUS304WPB	1
60	GEAR PU ©	POM (F20-03)	1
61	LEAD SCREW	BSBM	1
62	SWITCH	SW-110	1
63	SCREW	B/H TTB1.7*8	1
64	PICK UP	SF-C99	1
65	FPC WIRE	POLY AMIDE	1
66	SPRING PU	SUS T0.2	1
67	FIBER PAPER		1
68	S/P CAM ®	0.55	1
69	TRANSIT SCREW	4.5*18	2
70	INSULATOR COVER	PE	1
71	SWITCH	SW-111	1
72	WASHER PE	PE	2
73	S/P BASE ®	SUS304WPB	2

SCHEMATIC DIAGRAM (MAIN BOARD)

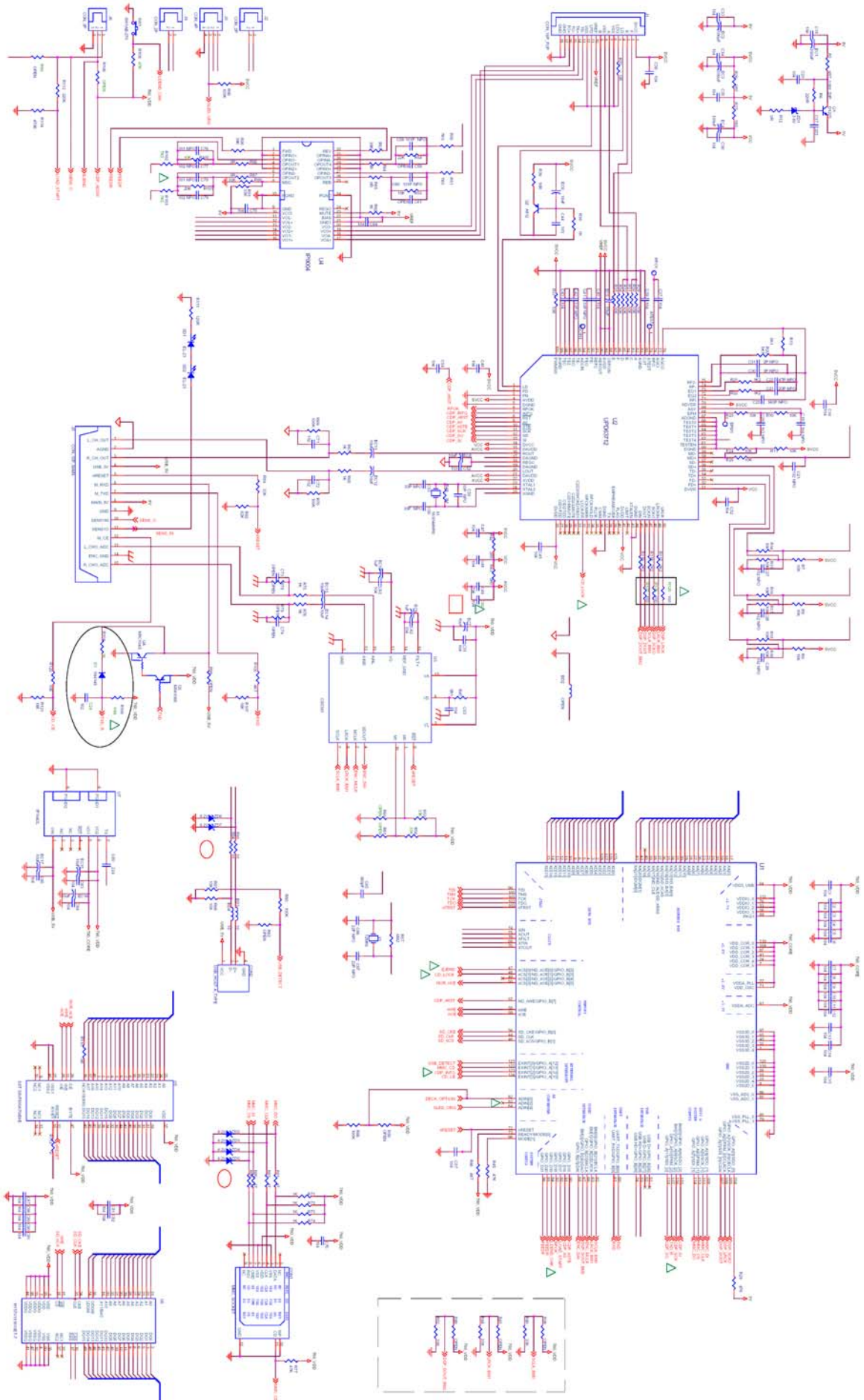


SCHEMATIC DIAGRAM (KEY BOARD)

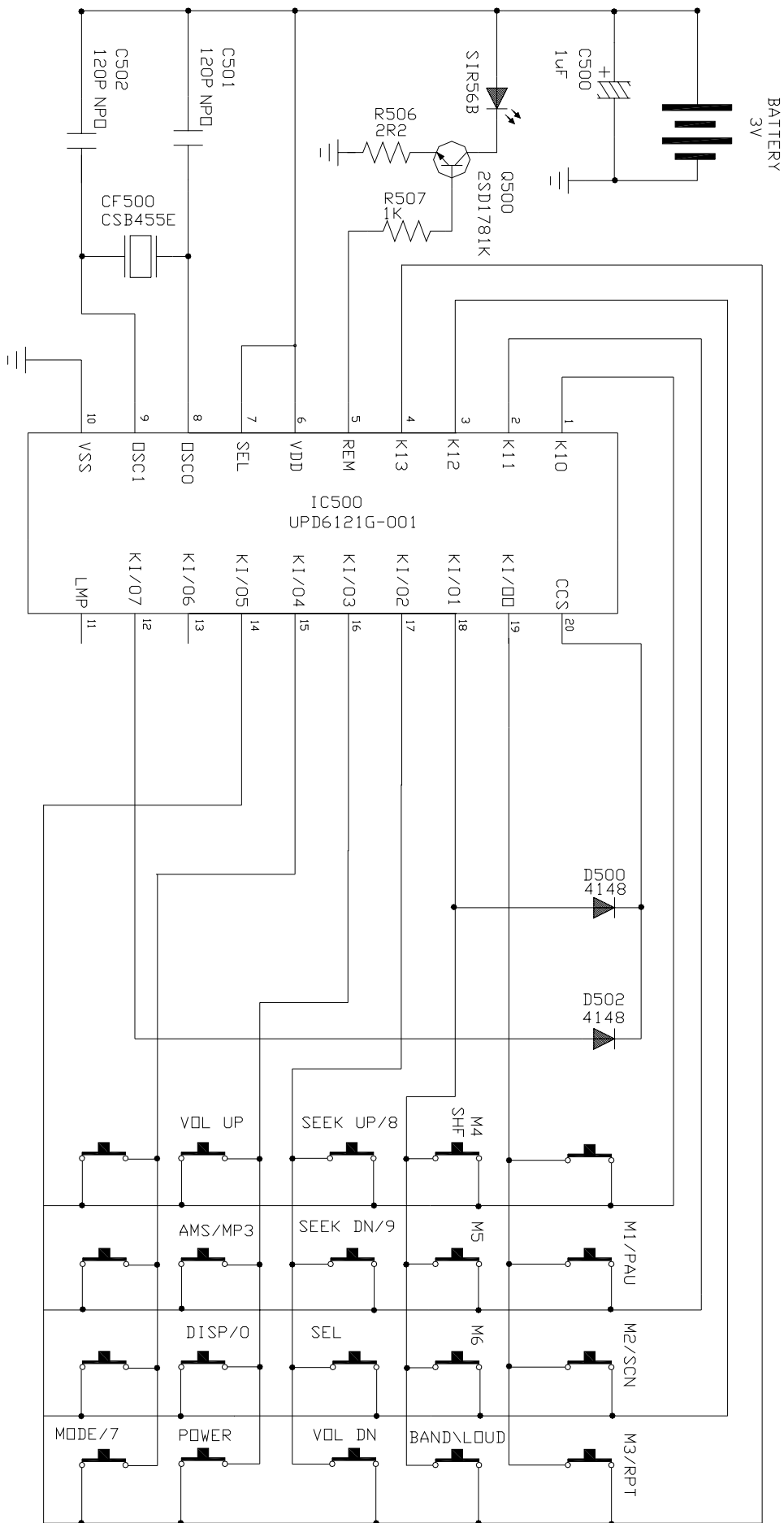


R610	22K	X3.6	X3.7
R607	5K6		470R
R613	15K		1K2

SCHEMATIC DIAGRAM (CD SERVO BOARD)



SCHEMATIC DIAGRAM (REMOTE BOARD)



ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Q'ty
PC BOARD ASSY, MAIN BOARD			
Q801	01-00435-00S	TR. BD435 TO-126 FAIRCHLD	1
Q817	01-00435-00S	TR. BD436 PNP TO-126 SAMSUNG	1
Q104,802/9	01-00812-00	TR. 2SA812	3
Q812	01-01240-00	TRANSISTOR B1240	1
Q105~7,601,801/3~6/8,811/6	01-03875-07	TRANSISTOR 2SC3875G	12
IC802	01-07805-00	IC-REGULATOR 78L05	1
Q807	01-08550-03	TR. 8550C TO-92-B	1
ZD601/2	02-00062-07	E.S.D. DIODE NNCD6.2G (5PIN)	2
D802	02-04001-00	DIODE IN4001	1
D601,617,624/6,641/5/7,803/5/6/9	02-04148-00A	DIODE 1N-4148 AT. (TAPPING)	11
D808,810/1	02-04148-02	DIO CHIP RLS4148 1206 ROHM	3
D801	02-05401-00	DIODE IN5401	1
ZD802	02-50036-00A	ZENER DIODE 3.6V 0.5W AT. $\pm 2\%$	1
ZD803	02-50100-00A	ZENER DIODE 10V 0.5W AT. TAPE $\pm 2\%$	1
IC601	03-02313-00	I.C. PT2313L	1
IC701/2	03-04558-16	I.C. BA-4558F	2
IC602	03-05802-001	CPU RS5802-001 CD+USB+MMC+RDS	1
IC603	03-07035-00	IC KIA7035P	1
IC801	03-07384-00	I.C. TDA7384A (4X40W) "Y"	1
IC804	03-07805-00	REGULATOR L7805CV (GROUND TAP)	1
IC803	03-07818-00	REGULATOR LC-78L18	1
IC101	03-09257-00	I.C. TC-9257F	1
XT601	04-00072-01H	CRYSTAL 702MHZ HC-49U/S 22PF	1
C134,140,603/4,805~8	05-63102-01	CHIP 1000PF $\pm 10\%$ X7R 0603 SMT	8
C207	05-63103-01	CHIP 0.01 μ F $\pm 10\%$ X7R 0603 SMT	1
C108,110/1,607,811/8,833/9	05-63104-01	CHIP 0.1 μ F $\pm 10\%$ X7R 0603 SMT	8
C112/3	05-63153-01	CHIP 0.015 μ F $\pm 10\%$ X7R 0603 SMT	2
C119,124	05-63220-00	CHIP CAP 22PF $\pm 5\%$ NPO 0603 SMT	2
C101/5/9,605,817	05-63223-01	CHIP 0.022 μ F $\pm 10\%$ X7R 0603 SMT	5
C620~3	05-63224-01	CHIP 0.22 μ F $\pm 10\%$ X7R 0603 SMT	4
C601	05-63270-00	CHIP CAP 27PF $\pm 5\%$ NPO 0603 SMT	1
C615/6	05-63272-01	CHIP 2700PF $\pm 10\%$ X7R 0603 SMT	2
C602	05-63300-00	CHIP CAP 30PF $\pm 5\%$ NPO 0603 SMT	1
C814	05-63474-02	CHIP CAP 0.47 μ F $\pm 20\%$ X7R 0603 SMT	1
C107,123,606,617,816,834/8	06-10107-01	E. CAP 100 μ F 10V (\emptyset 5X7MM MINI)	8
C702,835	06-10227-01	E. CAP 220 μ F 10V (\emptyset 6MM MINI)	2
C102,125,608,629,813	06-10476-01	E. CAP 47 μ F 10V (\emptyset 4X7 MINI)	5
C106,809,812	06-16106-01	E. CAP 10 μ F 16V \emptyset 4X7MM	3
C836/7	06-16107-01	E. CAP 100 μ F 16V (\emptyset 6.3X7MM)	2

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Part No.	Description	Q'ty
C618,819	06-16226-01	E. CAP 22 μ F 16V (\emptyset 4X7MM)	2
C701	06-16227-01	E. CAP 220 μ F 16V (\emptyset 6.3X12MM)	1
C810	06-16338-00S	E. CAP 3300 μ F 16V 105°C	1
C116/7,122,610/1,801~4	06-50105-01	E. CAP 1 μ F 50V (\emptyset 4X7 MM)	9
C614/9,624~7,631/2,703~6	06-50225-01	E. CAP 2.2 μ F 50V (\emptyset 4X7 MM)	12
C612/3	06-50334-01	E. CAP 0.33 μ F 50V \emptyset 4X7MM	2
C815	06-50335-01	E. CAP 3.3 μ F 50V (\emptyset 4X7MM)	1
C609	06-50474-01	E. CAP 0.47 μ F 50V \emptyset 4X7MM	1
R640	07-05022-10	RES. 2.2 Ω 1/2W	1
R134,854	07-05100-00	RES. 10 Ω 1/4W	2
R620,701	07-05100-16A	RES. 10 Ω 1/16W (TAPPING)	2
R118	07-05101-16A	RES. 100 Ω 1/16W (TAPPING)	1
R820,832/7	07-05103-16A	RES. 10k Ω 1/16W (TAPPING)	3
R642/7	07-05105-16A	RES. 1M Ω 1/16W (TAPPING)	2
R645/6	07-05220-16A	RES. 22 Ω 1/16W (TAPPING)	2
R827	07-05222-16A	RES. 2.2k Ω 1/16W (TAPPING)	1
R829	07-05223-16A	RES. 22k Ω 1/16W (TAPPING)	1
R627/8	07-05394-16	RES. 390k Ω 1/16W \pm 5%	2
R600	07-05470-16A	RES. 47 Ω 1/16W (TAPPING)	1
R129,130,JMP139	07-05472-16A	RES. 4.7k Ω 1/16W (TAPPING)	3
R124,825,847	07-05473-16A	RES. 47k Ω 1/16W (TAPPING)	3
R1,639,644,855	07-63000-00	CHIP RES. 0 Ω \pm 5% 0603 SMT	4
R103	07-63100-00	CHIP RES. 10 Ω \pm 5% 0603 SMT	1
R603	07-63101-00	CHIP RES. 100 Ω \pm 5% 0603 SMT	1
R101,120,601/5,716~9,852	07-63102-00	CHIP RES. 1k Ω \pm 5% 0603 SMT	9
R102/9,119,623/5,631/2,801~4,823,831/9, 841~5/8,851/3	07-63103-00	CHIP RES. 10k Ω \pm 5% 0603 SMT	22
R819,822	07-63104-00	CHIP RES. 100k Ω \pm 5% 0603 SMT	2
R612/3/6/9,636/7,648	07-63105-00	CHIP RES. 1M Ω \pm 5% 0603 SMT	7
R818	07-63152-00	CHIP RES. 1.5k Ω \pm 5% 0603 SMT	1
R830	07-63182-00	CHIP RES. 1.8k Ω \pm 5% 0603 SMT	1
R814~7	07-63184-00	CHIP RES. 180k Ω \pm 5% 0603 SMT	4
R121,615,633/4	07-63222-00	CHIP RES. 2.2k Ω \pm 5% 0603 SMT	4
R702/3,805~8,813,858	07-63223-00	CHIP RES. 22k Ω \pm 5% 0603 SMT	8
R614,626,649	07-63224-00	CHIP RES. 220k Ω \pm 5% 0603 SMT	3
R704/9,710/5	07-63273-00	CHIP RES. 27k Ω \pm 5% 0603 SMT	4
R108	07-63331-00	CHIP RES. 330 Ω \pm 5% 0603 SMT	1
R113/4,629,630,643	07-63332-00	CHIP RES. 3.3k Ω \pm 5% 0603 SMT	5
R607	07-63334-00	CHIP RES. 330k Ω \pm 5% 0603 SMT	1
R135,140,850	07-63471-00	CHIP RES. 470 Ω \pm 5% 0603 SMT	3
R122,602/4/6,611,840	07-63472-00	CHIP RES. 4.7k Ω \pm 5% 0603 SMT	6

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Part No.	Description	Q'ty
R125/6,608,641,706/7,712/3,823,846/7/9	07-63473-00	CHIP RES. 47kΩ ±5% 0603 SMT	13
R622	07-63512-00	CHIP RES. 5.1k ±5% 0603 SMT	1
R809~12	07-63561-00	CHIP RES. 560Ω ±5% 0603 SMT	4
R624	07-63752-00	CHIP RES. 7.5kΩ ±5% 0603 SMT	1
R716~9	07-63821-00	CHIP RES. 820Ω ±5% 0603 SMT	4
R705/8,711/4	07-63822-00	CHIP RES. 8.2kΩ ±5% 0603 SMT	4
R621	07-63823-00	CHIP RES. 82kΩ ±5% 0603 SMT	1
L803	09-70100-01	MICRO INDUCTOR 10UH AXIAL TYPE	1
JMP102	09-70470-04	M. INDUCTOR AL03T04R7 (AXIAL)	1
MB	11-20050-089	CD200Y (USB) 182X152X1.6MM	1
L801	15-27012-11	RING COIL Ø27X12MM V-TYPE (XC-169-110µH)	1
PC BOARD ASSY, FM TUNER BOARD			
Q101~3,204	01-03875-07	TRANSISTOR 2SC3875G	4
D101	02-04148-00A	DIODE IN-4148 AT. (TAPPING)	1
IC102	03-06579-00	IC SAA-6579T	1
XT101	04-00433-00M.	C. 4.332MHZ HC-49U 30PPM 22PF	1
C120/1,132	05-63103-01	CHIP 0.01µF ±10% X7R 0603 SMT	3
C128,131	05-63223-01	CHIP 0.022µF ±10% X7R 0603 SMT	2
C126	05-63330-00	CHIP CAP 33PF ±5% NPO 0603 SMT	1
C127	05-63470-00	CHIP CAP 47PF ±5% NPO 0603 SMT	1
C130	05-63681-00	CHIP CAP 680PF ±5% NPO 0603 SMT	1
C114/5	05-63682-01	CHIP 6800PF ±10% X7R 0603 SMT	2
	06-10476-03	E. CAP 47µF 10V (6X5)	2
C118	06-50224-02	E. CAP 0.22µF 50V (Ø3X5MM)	1
C133	06-50225-02	E. CAP 2.2µF 50V (4X5)	1
R104	07-05101-16A	RES. 100Ω 1/16W (TAPPING)	1
R141	07-05222-16A	RES. 2.2kΩ 1/16W (TAPPING)	1
R132/3	07-63100-00	CHIP RES 10Ω ±5% 0603 SMT	2
R131	07-63101-00	CHIP RES 100Ω ±5% 0603 SMT	1
R105,117	07-63102-00	CHIP RES 1kΩ ±5% 0603 SMT	2
R106	07-63151-00	CHIP RES 150Ω ±5% 0603 SMT	1
R107	07-63471-00	CHIP RES 470Ω ±5% 0603 SMT	1
R204	07-63473-00	CHIP RES 47kΩ ±5% 0603 SMT	1
R111/2	07-63562-00	CHIP RES 5.6kΩ ±5% 0603 SMT	2
TUNER	29-00347-02	MITSVMI TUNER FAE-347-A29	1
PC BOARD ASSY, AM TUNER BOARD			
Q203	01-00812-00	TR. 2SA812	1
Q201/2	01-03875-07	TRANSISTOR 2SC3875G	2
D641/4/6	02-04148-00A	DIODE IN-4148 AT. (TAPPING)	3
C208	05-16225-00	TAN CAP. 2.2µF 16V	1
C206	05-63103-01	CHIP 0.01µF ±10% X7R 0603 SMT	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Part No.	Description	Q'ty
C201~3	05-63223-01	CHIP 0.022 μ F \pm 10% X7R 0603 SMT	3
C204	06-16106-02E	E. CAP. 10 μ F/16V (4X5MM RC3)	1
R209	07-05100-16A	RES 10 Ω 1/16W (TAPPING)	1
R205/7/8	07-63102-00	CHIP RES 1k Ω \pm 5% 0603 SMT	3
R201/3	07-63103-00	CHIP RES 10k Ω \pm 5% 0603 SMT	2
R202	07-63331-00	CHIP RES 330 Ω \pm 5% 0603 SMT	1
R206	07-63822-00	CHIP RES 8.2k Ω \pm 5% 0603 SMT	1
L201	09-70470-04	M. INDUCTOR AL03TO4R7 (AXIAL)	1
PC BOARD ASSY, KEY BOARD			
ZD601	02-00062-07	E.S.D. DIODE NNCD6.2G (5PIN)	1
	02-A1560-09	LED B.LIGHT QB02002-09 23.5X99 WHT	1
DLP1~8	02-30553-60T	P. LAMP AA 3V 60MA \varnothing 3X5.5 K.T.	8
ZD602/3	02-50051-00A	ZENER DIODE 5.1V 0.5W AT. \pm 2%	2
IC601	03-75823-00	IC LC75823ED	1
C601	05-63223-01	CHIP 0.022 μ F \pm 10% X7R 0603 SMT	1
C603	05-63681-00	CHIP 680PF \pm 5% NPO 0603 SMT	1
R630/1	07-05101-00	RES 100 Ω 1/4W	2
R621/5	07-63102-00	CHIP RES 1k Ω \pm 5% 0603 SMT	2
R624	07-63103-00	CHIP RES 10k Ω \pm 5% 0603 SMT	1
R610 (PTY)	07-63122-00	CHIP RES 1.2k Ω \pm 5% 0603 SMT	1
R622	07-63152-00	CHIP RES 1.5k Ω \pm 5% 0603 SMT	1
R613	07-63153-00	CHIP RES 15k Ω \pm 5% 0603 SMT	1
R604,616	07-63181-00	CHIP RES 180 Ω \pm 5% 0603 SMT	2
R605,617,633	07-63221-00	CHIP RES 220 Ω \pm 5% 0603 SMT	3
R609,623	07-63222-00	CHIP RES 2.2k Ω \pm 5% 0603 SMT	2
R606,618	07-63331-00	CHIP RES 330 Ω \pm 5% 0603 SMT	2
R626	07-63333-00	CHIP RES 33k Ω \pm 5% 0603 SMT	1
R628	07-63391-00	CHIP RES 390 Ω \pm 5% 0603 SM	1
R619,607(TA)	07-63471-00	CHIP RES 470 Ω \pm 5% 0603 SMT	2
R643	07-63473-00	CHIP RES 47k Ω \pm 5% 0603 SMT	1
R603	07-63513-00	HIP RES 51k Ω \pm 5% 0603 SMT	2
R636/A,639/A	07-63561-00	CHIP RES 560 Ω \pm 5% 0603 SM	4
R620	07-63681-00	CHIP RES 680 Ω \pm 5% 0603 SMT	1
R644	07-63823-00	CHIP RES 82k Ω \pm 5% 0603 SMT	1
KB	11-21750-318	CD-F2175 KB LCD D/S 1.2X180X42.5MM	1
USB BOARD	11-21750-338	CD-2175 USB BOARD 1.2X18X7.0MM	1
SW	16-01107-00K	TACT SW. DCT/1101 4.3MM 2 PIN	17
POWER	16-01140-04	TACT SW. KPS-1107SW H=2.5 KIE SMD	1
PC BOARD ASSY, SDK/CD SERVO BOARD			
Q4	01-00103-00	TR. KRC103S	1
Q3	01-00103-01	TR. KEC A103S PNP SOT-23	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Part No.	Description	Q'ty
Q305	01-00435-00S	TR. BD435 NPN TO-126 SAMSUNG	1
Q2,304	01-00812-00	TR. 2SA812	2
Q1	01-01225-13	TRANSISTOR 2SD1225M	1
Q301/3	01-03875-07	TRANSISTOR 2SC3875G	1
SD1,2	02-00144-00	IR LED MIE 144A1MC	2
D1	02-04148-00A	DIODE IN-4148 AT. (TAPPING)	1
ZD1	02-50036-00	ZENER DIODE 3.6V ±5% 0.5W	1
D2~7	02-50062-54	ZENER DIODE SMD 6.2V (LLDS) 1206	6
ZD301	02-50091-00A	ZENER DIODE 9.1V ±5% 0.5W AT.	1
U1	03-00760-00	USB+MMC (SD) DSP TCC760 TQFP-128 TELECHIPS	1
U7	03-01642-00	VOLTAGE LDO REGULATOR IC IP1642L INTERPION	1
U3	03-05341-00	A/D CONVERTER IC CS5341-DZZ CIRRUS LOGIC	1
U4	03-09004-00	IC 5-CH MOTOR DRIVER IP9004 INTERPION	1
U6	03-16161-00	1MX16 SDRAM HU57V161610ET-71 TSOP-50 HYNIX	1
U5	03-39800-00	SST FLASH 39VF 800A-70-4I-EK TSOP-48	1
U2	03-63712-00	IC μPD 637120NEC LQFP100	1
Y1	04-00120-02	CRYSTAL HC-49/US 12MHZ	1
X1	04-00169-00	CRYSTAL HC-49/US 16.9344MHZ	1
EC9,10	05-16105-00	TAN CAP 10UF 16V ±10%	2
EC5~8,11~7	05-16106-10	TAN CAP 10UF 16V ±10% 1206 SMD	11
C31	05-63020-00	CHIP CAP 2PF ±5% NPO 0603 SMT	1
C30	05-63030-00	CHIP CAP 3PF/50V ±5% NPO 0603 SMT	1
C50	05-63100-00	CHIP CAP 10PF ±5% NPO 0603 SMT	1
C58,60,76/8	05-63101-00	CHIP 100PF ±5% NPO 0603 SMT	4
C24,77/9	05-63102-01	CHIP 1000PF ±10% X7R 0603 SMT	3
C26,44,52	05-63103-01	CHIP 0.01μF ±10% X7R 0603 SMT	3
C1~16/8~20,32~40/3/5~9,51/3/4/7,62~4,7 0/5,81~5/7~92	05-63104-01	CHIP 0.1μF ±10% X7R 0603 SMT	54
C21/7~9,71/2	05-63152-01	CHIP 1500PF ±10% X7R 0603 SMT	6
C23	05-63200-00	CHIP CAP 20PF ±5% NPO 0603 SMT	1
C66/7	05-63220-00	CHIP CAP 22PF ±5% NPO 0603 SMT	2
C17	05-63223-01	CHIP 0.022μF ±10% X7R 0603 SMT	1
C80	05-63224-01	CHIP 0.22μF ±10% X7R 0603 SMT	1
C41/2,55/6	05-63330-00	CHIP CAP 33PF ±5% NPO 0603 SMT	4
C65	05-63361-00	CHIP 360PF ±10% 0603 SMT	1
C22	05-63470-00	CHIP CAP 47PF ±5% NPO 0603 SMT	1
C25	05-63561-00	CHIP 560PF ±5% NPO 0603 SMT	1
C303/4	06-10107-02	E. CAP 100μF 10V (6X5) SUPER MINI	2
EC1~4	06-16107-54	E. CAP CHIP 100μF 16V Ø6.3X5.5	4

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Part No.	Description	Q'ty
C301/2	06-50225-02	E. CAP 2.2 μ F 50V (4X5)	2
R5	07-05047-00	RES. 4.7 Ω 1/4W	1
R305	07-05103-16A	RES. 1k Ω 1/16W (TAPPING)	1
R12,33,64/5,86/7,110/3	07-63000-00	CHIP RES 0 Ω 0603 SMT	8
R26/7	07-63015-00	CHIP RES 1.5 Ω 0603 SMT	2
R42/3	07-63030-00	CHIP RES 3.0 Ω \pm 5% 0603 SMT	2
R47	07-63051-00	CHIP RES 5.1 Ω \pm 5% 0603 SMT	1
R39,93/4	07-63100-00	CHIP RES 10 Ω \pm 5% 0603 SMT	3
R125~7	07-63101-00	CHIP RES 100 Ω \pm 5% 0603 SMT	3
R36,62/7/8,71~6,104,309	07-63102-00	CHIP RES 1k Ω \pm 5% 0603 SMT	12
R7~11/4~9,23~5/9~32,88,100,120,310/7	07-63103-00	CHIP RES 10k Ω \pm 5% 0603 SMT	23
R66/9,70,80,95,316	07-63104-00	CHIP RES 100k Ω \pm 5% 0603 SMT	6
R48	07-63105-00	CHIP RES 1M Ω \pm 5% 0603 SMT	1
R106	07-63106-00	CHIP RES 10M Ω \pm 5% 0603 SMT	1
R111	07-63121-00	CHIP RES 120 Ω \pm 5% 0603 SMT	1
R21/2	07-63122-00	CHIP RES 1.2k Ω \pm 5% 0603 SMT	2
R55,97/8	07-63153-00	CHIP RES 15k Ω \pm 5% 0603 SMT	3
R107,121	07-63183-00	CHIP RES 18k Ω \pm 5% 0603 SMT	2
R101	07-63203-00	CHIP RES 20k Ω \pm 5% 0603 SMT	1
R6,311	07-63221-00	CHIP RES 220 Ω \pm 5% 0603 SMT	2
R117~9,303/4	07-63222-00	CHIP RES 2.2k Ω \pm 5% 0603 SMT	5
R307	07-63223-00	CHIP RES 22k Ω \pm 5% 0603 SMT	1
R112	07-63224-00	CHIP RES. 220k Ω \pm 5% 0603 SMT	1
R34/5	07-63303-00	CHIP RES. 30k Ω \pm 5% 0603 SMT	2
R37,40/4,52/3/6,84,91	07-63333-00	CHIP RES 33k Ω \pm 5% 0603 SMT	8
R308	07-63334-00	CHIP RES. 330k Ω \pm 5% 0603 SMT	1
R301/2	07-63392-00	CHIP RES 3.9k Ω \pm 5% 0603 SMT	2
R63,90	07-63393-00	CHIP RES 39k Ω \pm 5% 0603 SMT	2
R81/3/5/9	07-63471-00	CHIP RES 470 Ω \pm 5% 0603 SMT	4
R46,105,312~4	07-63472-00	CHIP RES 4.7k Ω \pm 5% 0603 SMT	5
R28,45,77,108,315	07-63473-00	CHIP RES. 47k Ω \pm 5% 0603 SMT	5
R114	07-63474-00	CHIP RES 470k Ω \pm 5% 0603 SMT	1
R57	07-63475-00	CHIP RES 4.7M Ω \pm 5% 0603 SMT	1
R13,20	07-63512-00	CHIP RES 5.1k Ω \pm 5% 0603 SMT	2
R127	07-63563-00	CHIP RES 56k Ω \pm 5% 0603 SMT	1
R306	07-63562-00	CHIP RES. 5.6k Ω \pm 5% 0603 SMT	1
R50/1,102/3	07-63752-00	CHIP RES. 7.5k Ω \pm 5% 0603 SMT	4
R92	07-63823-00	CHIP RES 82k Ω \pm 5% 0603 SMT	1
BD3,4	09-31601-00	EMIFIL (SMD) BLM319601SG	2

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Part No.	Description	Q'ty
SW1	12-05802-120	PCB CDX3.60.16.4 SERVO D/S 110X101X1.2MM	1
	16-00033-01	MICRO SWITCH MPU10371MLBO (MIC)	1
PC BOARD ASSY, REMOTE BOARD			
Q500	01-01781-18	TR. 2SD178K-R "ROHM"	1
LD901	02-00334-00	INFRARED LED Ø3MM MIE-334A4	1
D500/1	02-04148-00	DIODE IN-4148	2
IC500	03-00101-00	IC S0101 (SGNEC)	1
C500	05-03105-10M	CHIP CAP KC20E1C105M-TS	1
C501/2	05-03121-06	CHIP CAP 120PF (NPO)	2
R501	07-05022-54	CHIP RES. 2.2Ω 1/10W	1
R500	07-05102-54	CHIP RES. 1kΩ 1/10W	1
R601	07-63102-00	CHIP RES. 1kΩ ±5% 0603 SMT	1
R619	07-63105-00	CHIP RES. 1MΩ ±5% 0603 SMT	1
R641	07-63472-00	CHIP RES. 4.7kΩ ±5% 0603 SMT	1
CF501	09-50455-05J	CER RESONATOR ZTB455E	1
	12-93363-818	KB RC06 (093X3.6.3) D/S 1.2X80X48	1
PC BOARD ASSY, LINE OUT SECTION			
C707/8	06-50105-03	E. CAP 1μF 50V (Ø4X5MM)	2
R721/2	07-63102-00	CHIP RES 1kΩ ±5% 0603 SMT	2
RCA	20-20360-08	RCA CABLE WIRE 360MM GREY	1
PC BOARD ASSY, FRONT BOARD			
Q815	01-00435-00S	TR. BD435 NPN TO-126 FAIRCHLD	1
Q603,813/4	01-03875-07	TRANSISTOR 2SC3875G	3
Q1	01-08050-03	TR. 8050C TO-92-B	1
	02-0112-06M	SMD LED S172DNB4-5 0805 BLUE	1
	02-30000-12	LED Ø3MM RED (WIDE ANGLE)	1
	02-30703-40J	PLAMP 3V 40MM 3X7 K.T.	1
ZD804	02-50100-00A	ZENER DIODE 10V 0.5W AT. TAPE ±2%	1
C840	06-16226-01	E. CAP 22μF 16V (Ø4X7MM)	1
C841	06-16476-01	E. CAP 47μF 16V (Ø5X7MM)	1
R2	07-05221-00	RES 220Ω 1/4W	1
R609	07-05222-16A	RES 2.2kΩ 1/16W (TAPPING)	1
R7,610,861	07-63103-00	CHIP RES 10kΩ ±5% 0603 SMT	3
R1	07-63104-00	CHIP RES 100kΩ ±5% 0603 SMT	1
R4,5	07-63222-00	CHIP RES 2.2kΩ ±5% 0603 SMT	2
R3	07-63393-00	CHIP RES 39kΩ ±5% 0603 SMT	1
R859	07-63471-00	CHIP RES 470Ω ±5% 0603 SMT	1
R6	07-63472-00	CHIP RES 4.7kΩ ±5% 0603 SMT	1
	11-21760-348	CDD-F2176 FB/EJ PCB 1.2X81.4X28MM	1
EJ	16-01140-04A	TACT SW KPS-1107SW TAPPING	1
	16-51377-00A	PUSH SW SPPB51 "ALPS"	1

SPECIFICATIONS

T. H. D.....	Less than 0.35%
Signal to Noise Ratio	More than 60 dB
Channel Separation.....	More than 60 dB
Frequency Response	20Hz-20kHz
Stereo Separating (FM)	30 dB (at 1kHz)
Signal to Noise Ratio (FM)	Better than 50 dB
Output Power	4 X 40W
Speaker Output Impedance.....	4 To 8 ohm
Power Source	DC 12V, Negative ground.
Frequency Range	FM 87.5 - 108MHz
.....	MW 522 -1620 kHz
.....	LW 144 -288 kHz
Sensitivity.....	FM 3 μ V (S/N=30dB)
.....	MW 32 dB μ (S/N=20 dB)
.....	LW 35 dB μ (S/N=20 dB)

Specifications are subject to change without notice.