



**AKAI**

**CD/MP3-RECIVER**

Model:  
**ACR-143MP**

**SERVICE MANUAL**

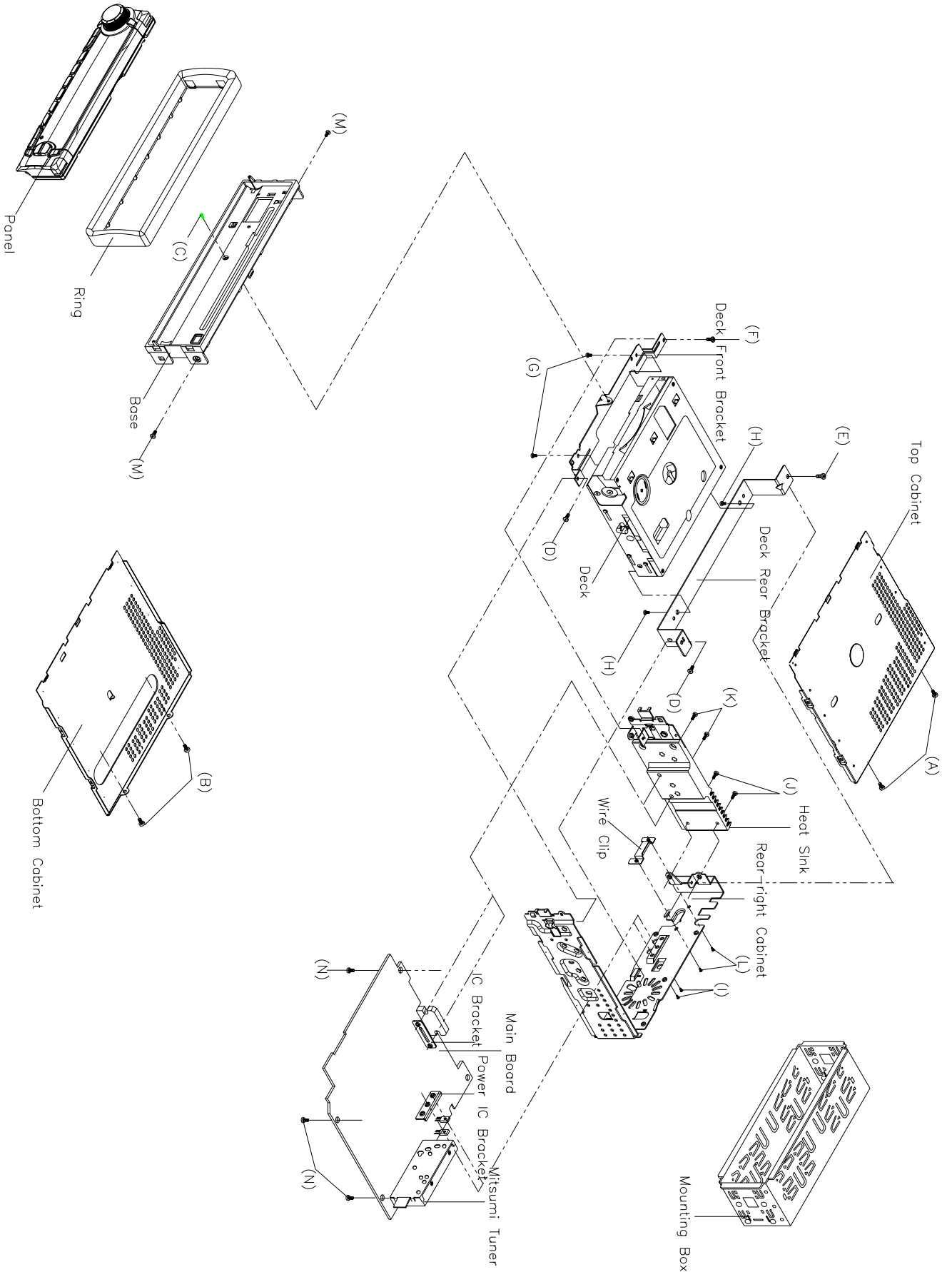
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## DISASSEMBLY INSTRUCTIONS

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 screw (C) from on the front side of the Base.
5. Remove two screws (D) from on the right side of the Rear-right Cabinet.  
Remove the screw (E) from on the left side of the Rear-right Cabinet and the screw (F) on the right side of the heat sink.
6. Remove two screws (G) from under the deck front bracket then remove the Deck Front Bracket.  
Remove two screws (H) from under the deck rear bracket then remove the Deck Rear Bracket and the Deck.
7. Remove two screws (I) from on the back of the Rear-right Cabinet then remove the Power IC Bracket
8. Remove two screws (J) from on the left side of the heat sink.
9. Remove two screws (K) from on the left side of the heat sink then remove the IC Bracket.
10. Remove the screw (L) from on the back of the side bracket then remove Wire Clip.
11. Remove two screws (M) from each side of the base then remove the Base.
12. Remove three screws (N) from under the main board then remove the Heat Sink, Rear-right Cabinet and the Main Board.

# DISASSEMBLY DIAGRAM



# OPERATION CHECK

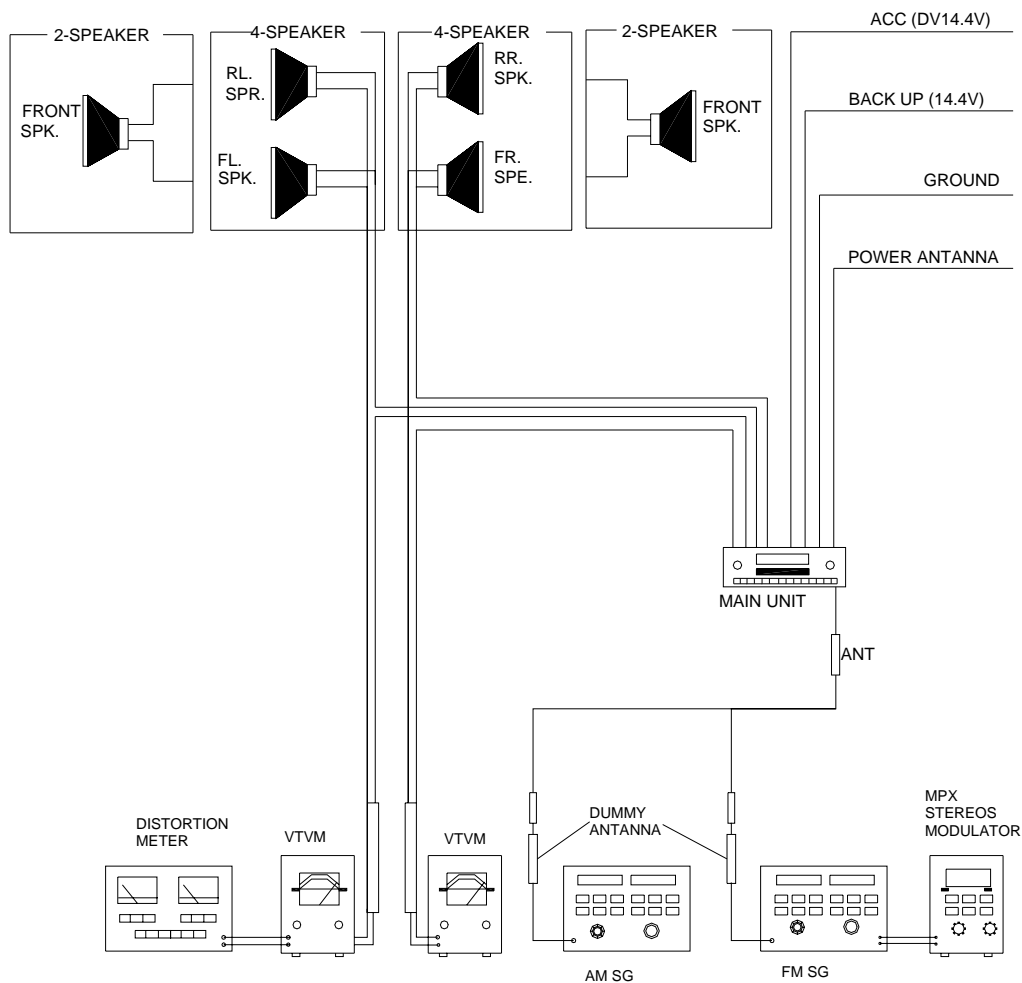
## GENERAL SPECIFICATIONS OF SIGNAL

Standard frequency	FM	98.1 MHz (65.0, 74.0MHz)	(87.5, 107.9 MHz)
	MW	1000 kHz (522, 1620 kHz)	
Signal output	FM	1mV	
	MW	5 mV	
Modulation	MW	400 Hz	30% MOD.
	FM Stereo	1 kHz	75kHz DEV.

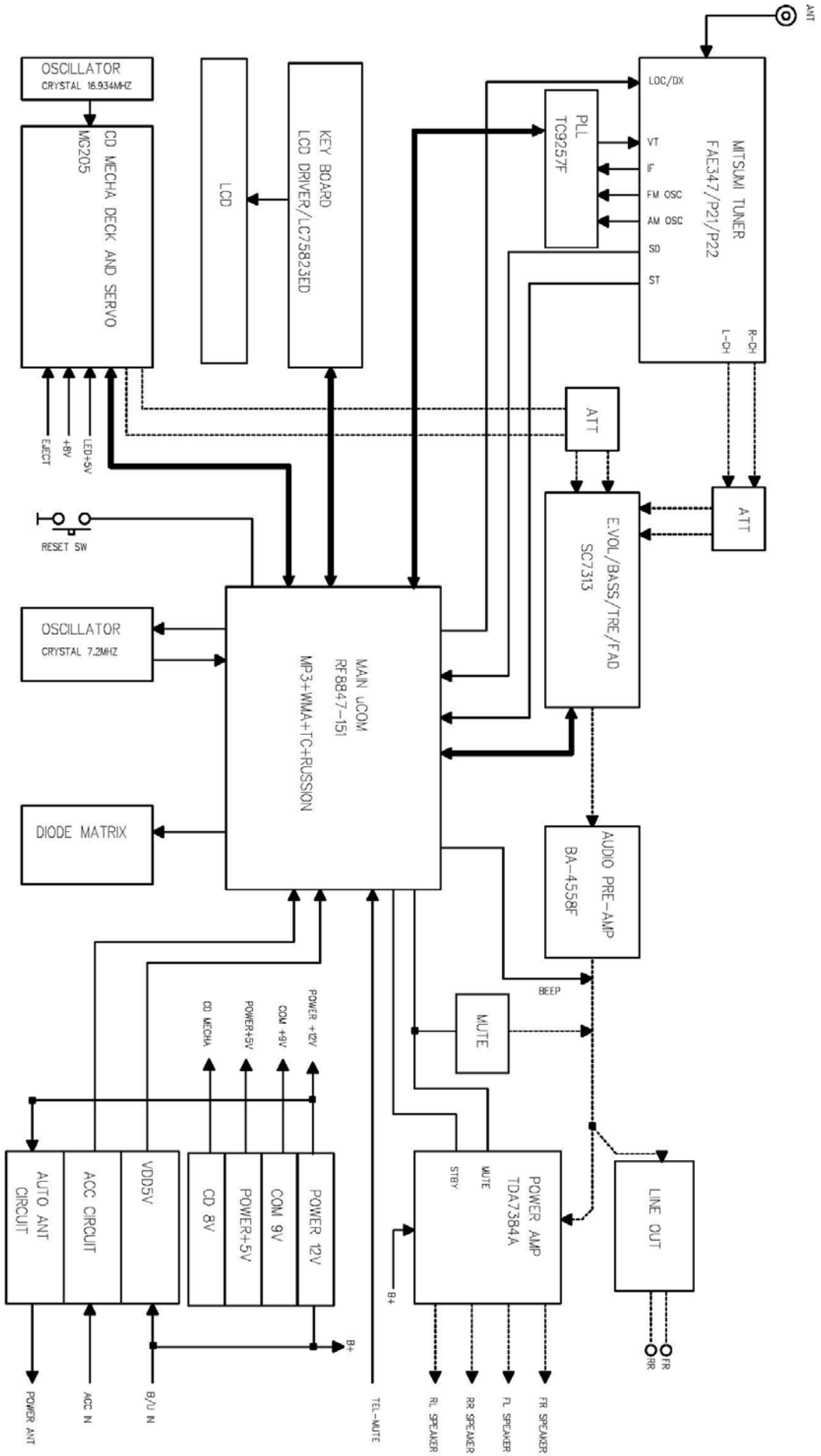
AF output level	FM/MW
Power source voltage	DC 14.0V (Backup voltage is the same as this)
AF load impedance	4 ohm pure resistance
Balance	Center position of level
Tone	Center position

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

**Test Diagram**

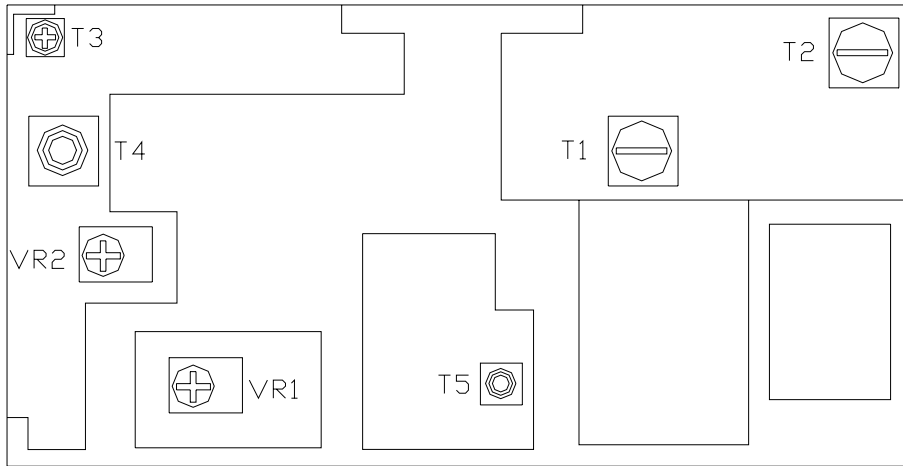
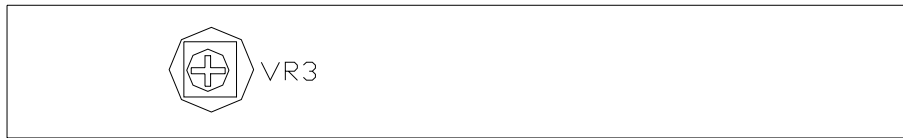


# BLOCK DIAGRAM



# ALIGNMENT LOCATIONS

## MITSUMI TUNER



# 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.

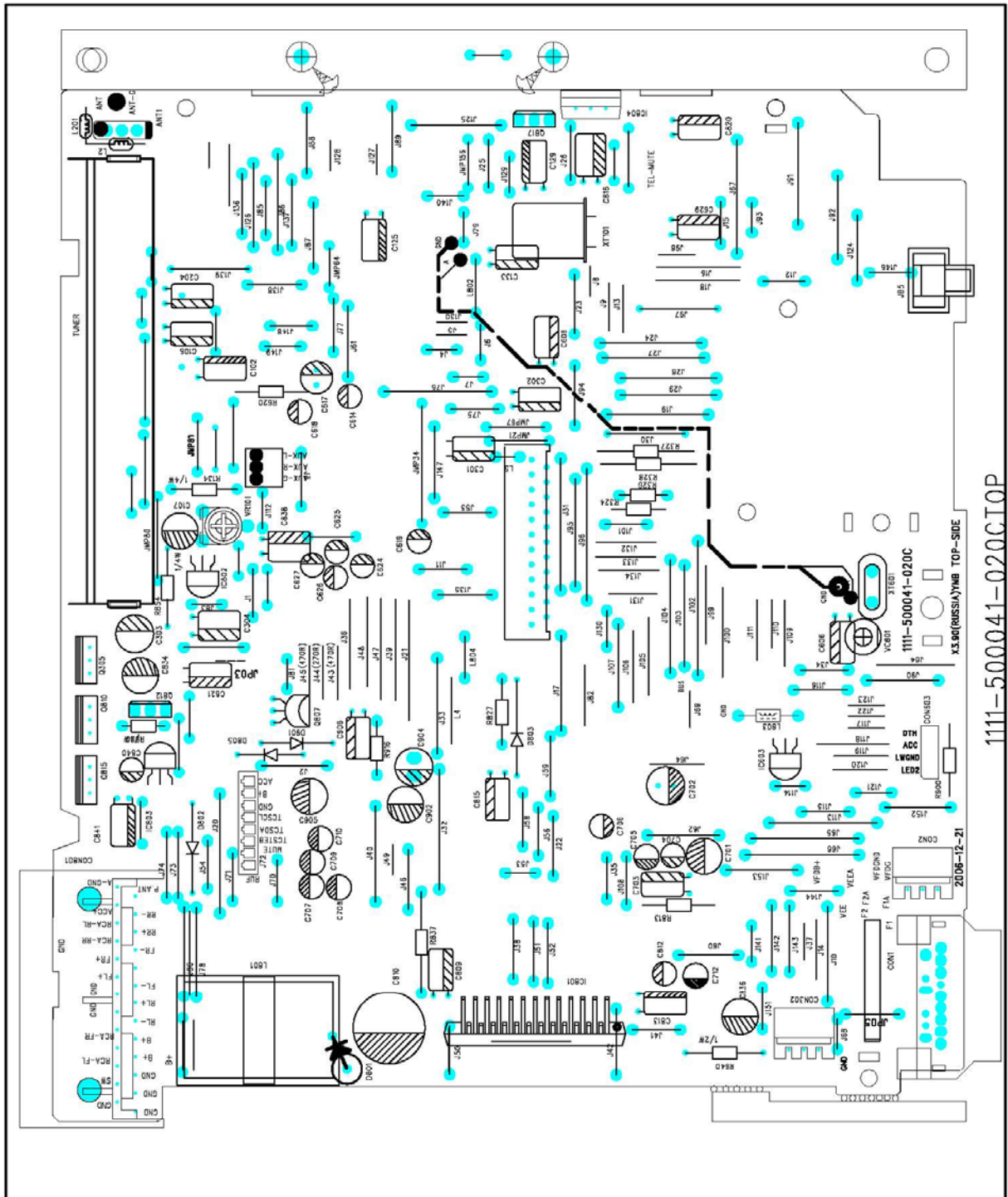
Step	Generator Coupling	Generator	Display Setting	Adjustment	Remarks
<b>Stereo Separation</b>	Signal Generator to antenna receptacle	98.1 MHz Int. 1 kHz Dev. 75 kHz L+R = 90 % pilot = 10 %	98.1 MHz	VR1	Adjust AF output power at maximum separating more than 30 dB
<b>FM SNC Adjustment</b>	98.1 MHz Dev.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



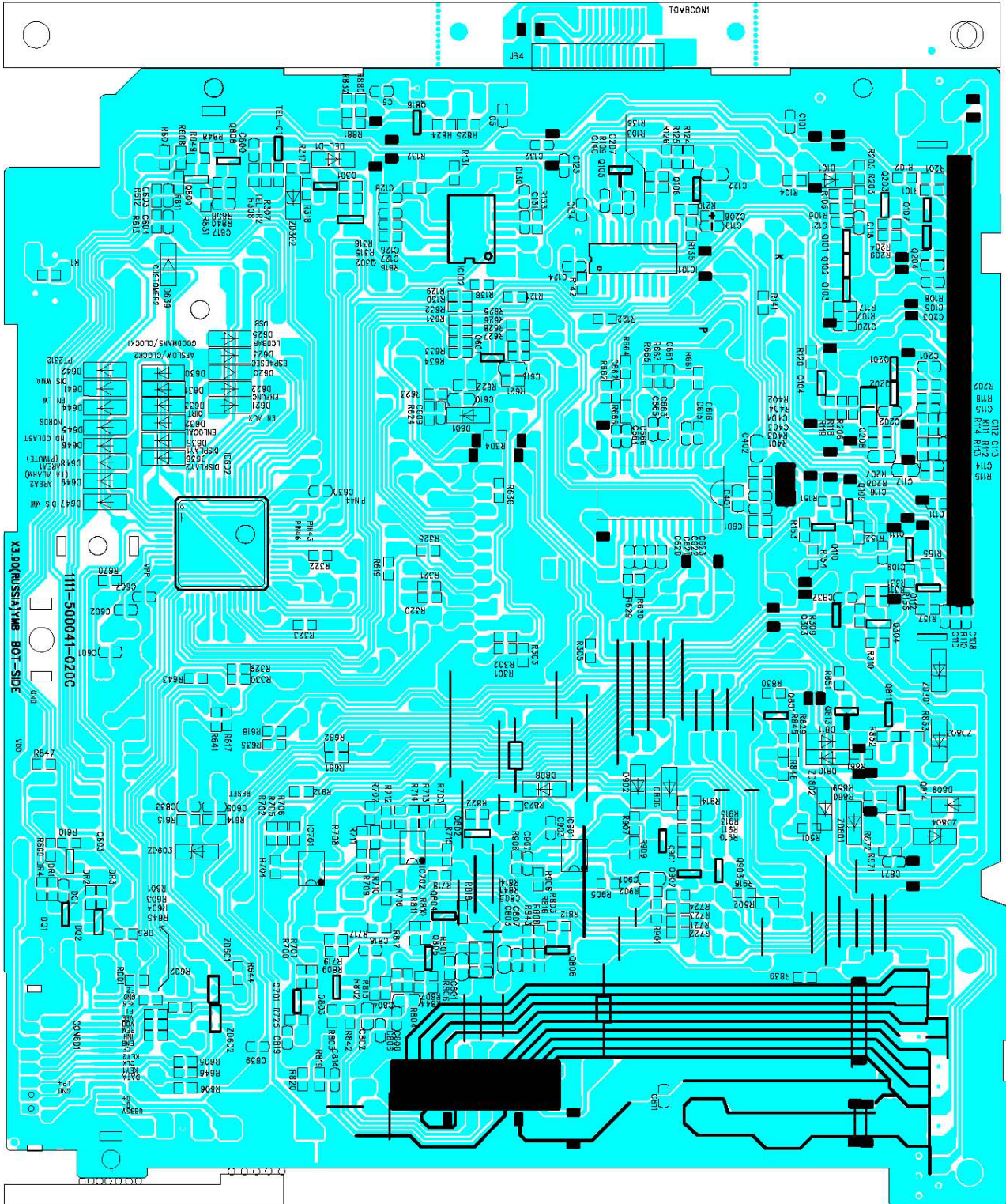
# PRINTED CIRCUIT BOARDS

## MAIN BOARD



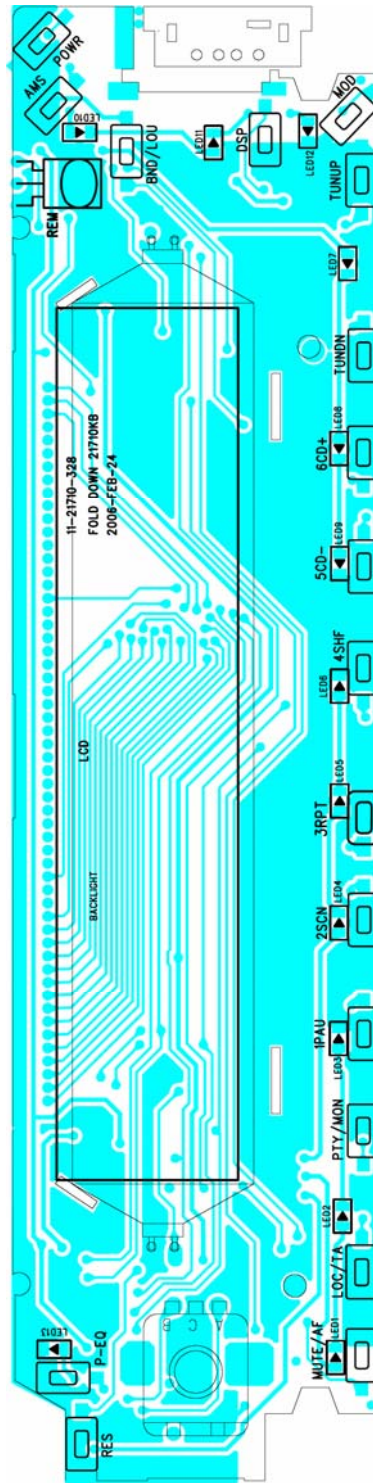
TOP VIEW

# MAIN BOARD



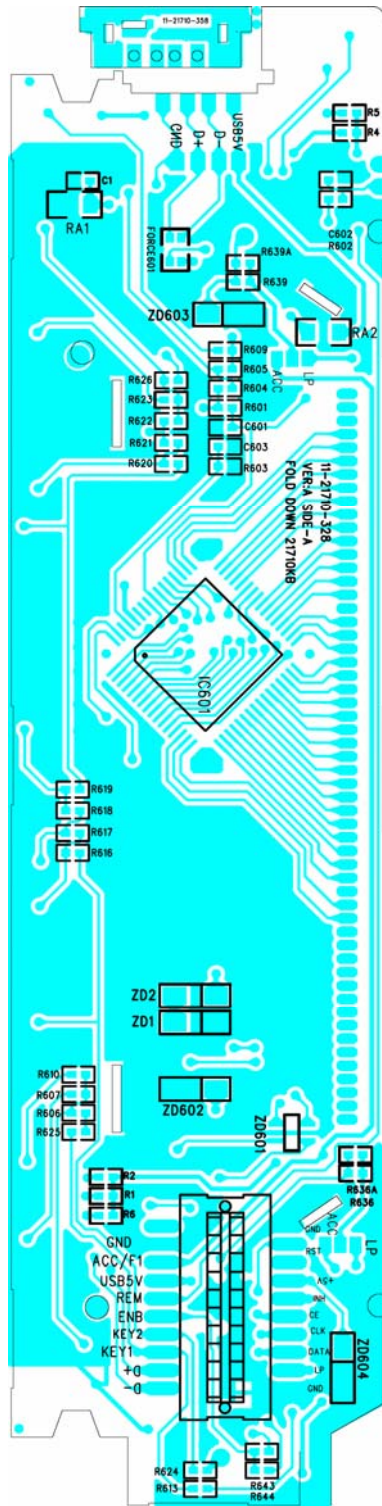
BOTTOM VIEW

# KEY BOARD



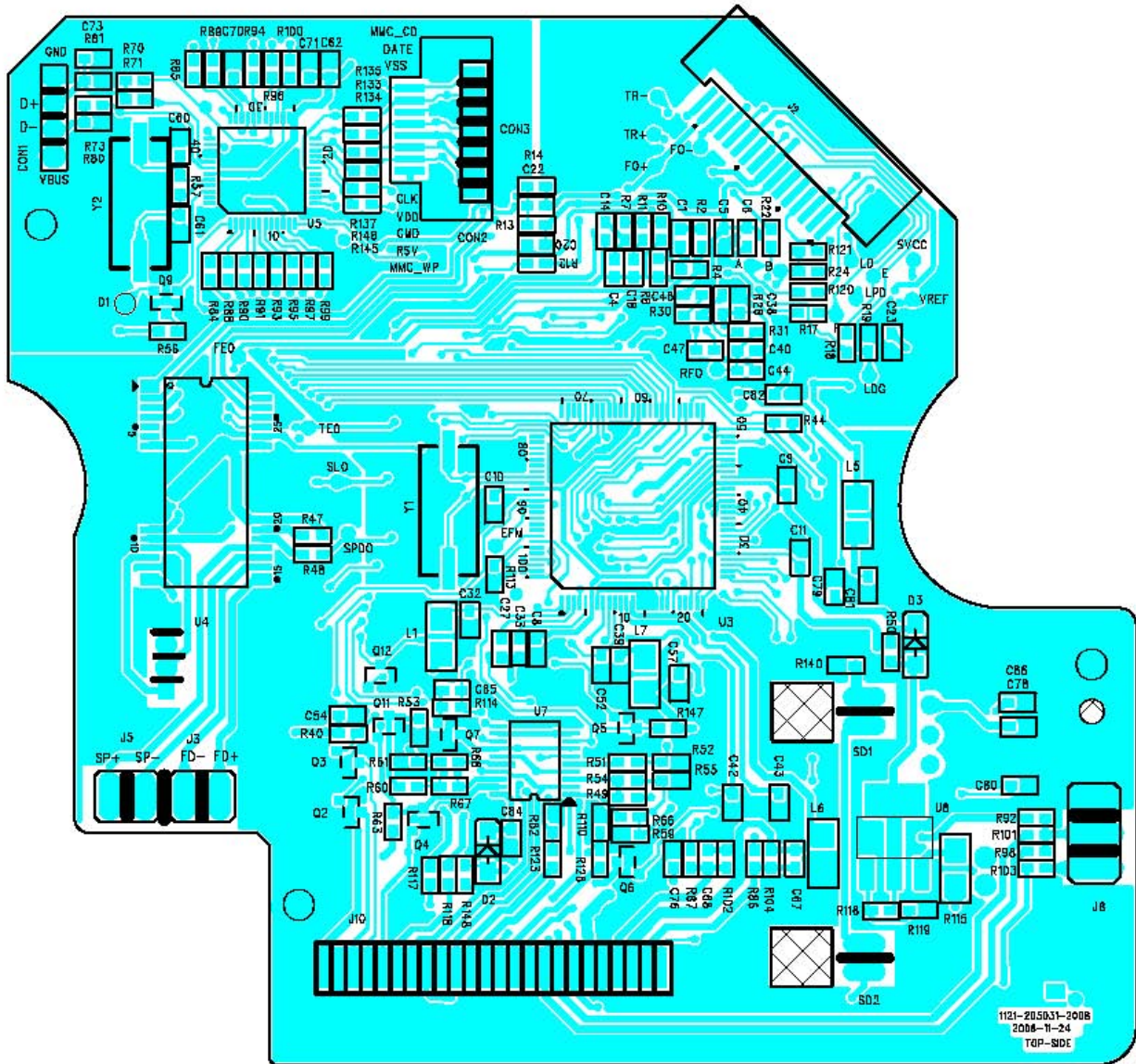
TOP VIEW

# KEY BOARD



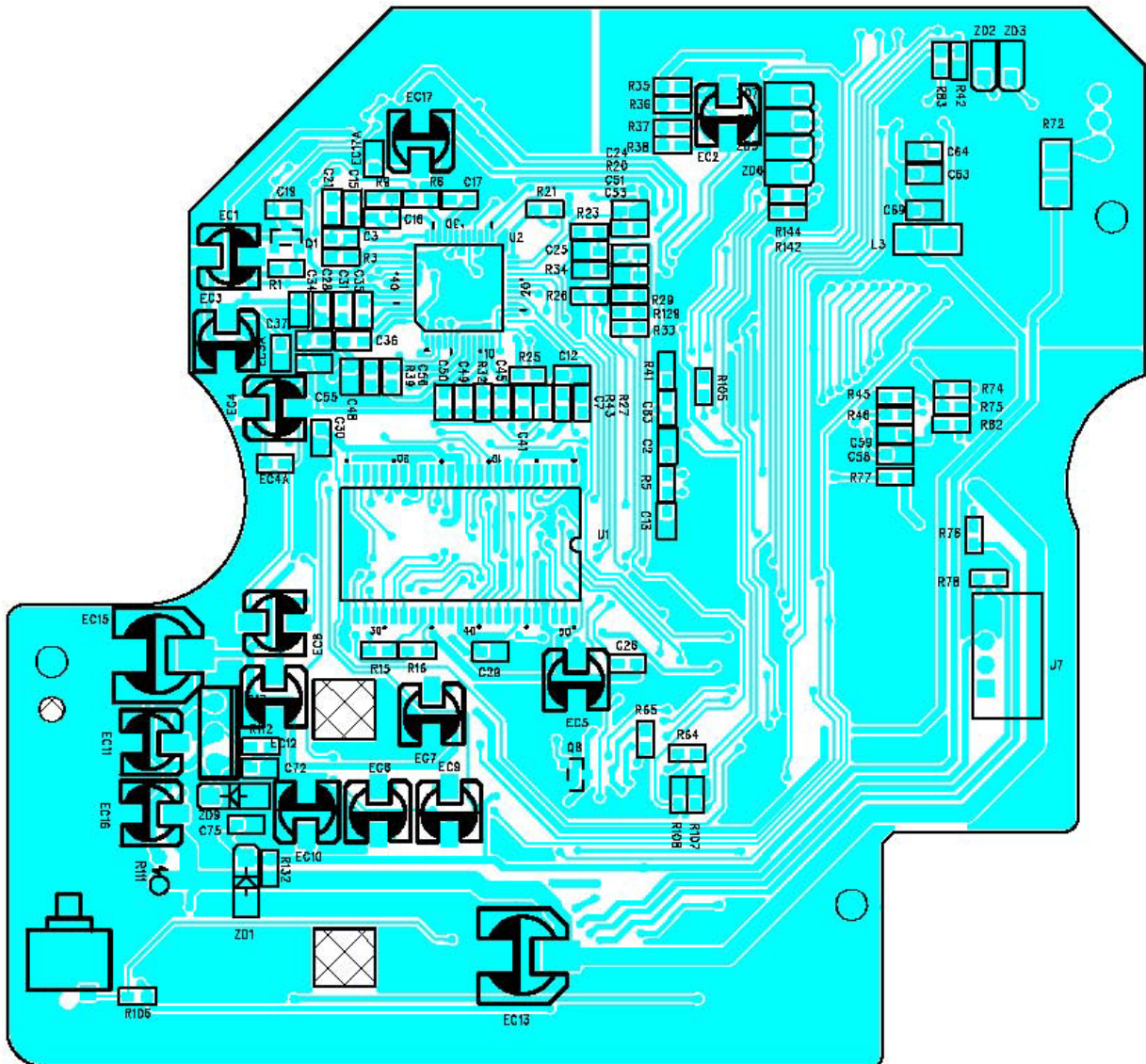
BOTTOM VIEW

# CD SERVO BOARD



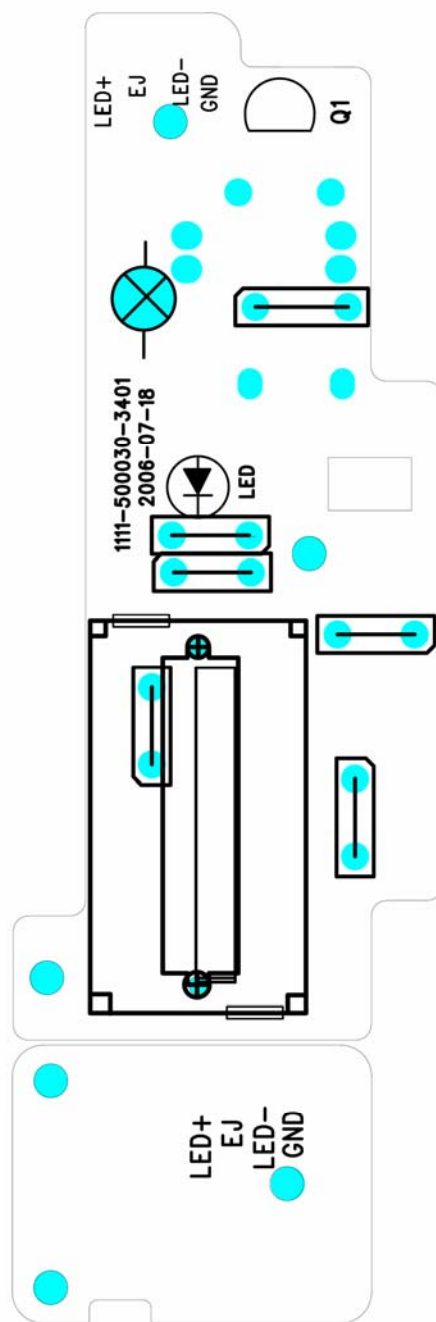
TOP VIEW

# CD SERVO BOARD



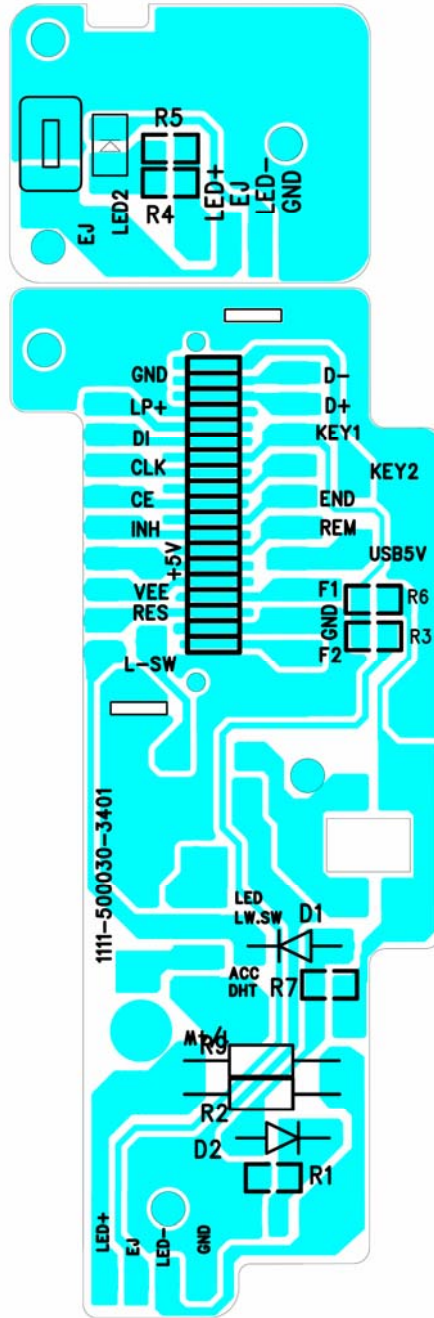
BOTTOM VIEW

# FRONT BOARD



TOP VIEW

# FRONT BOARD

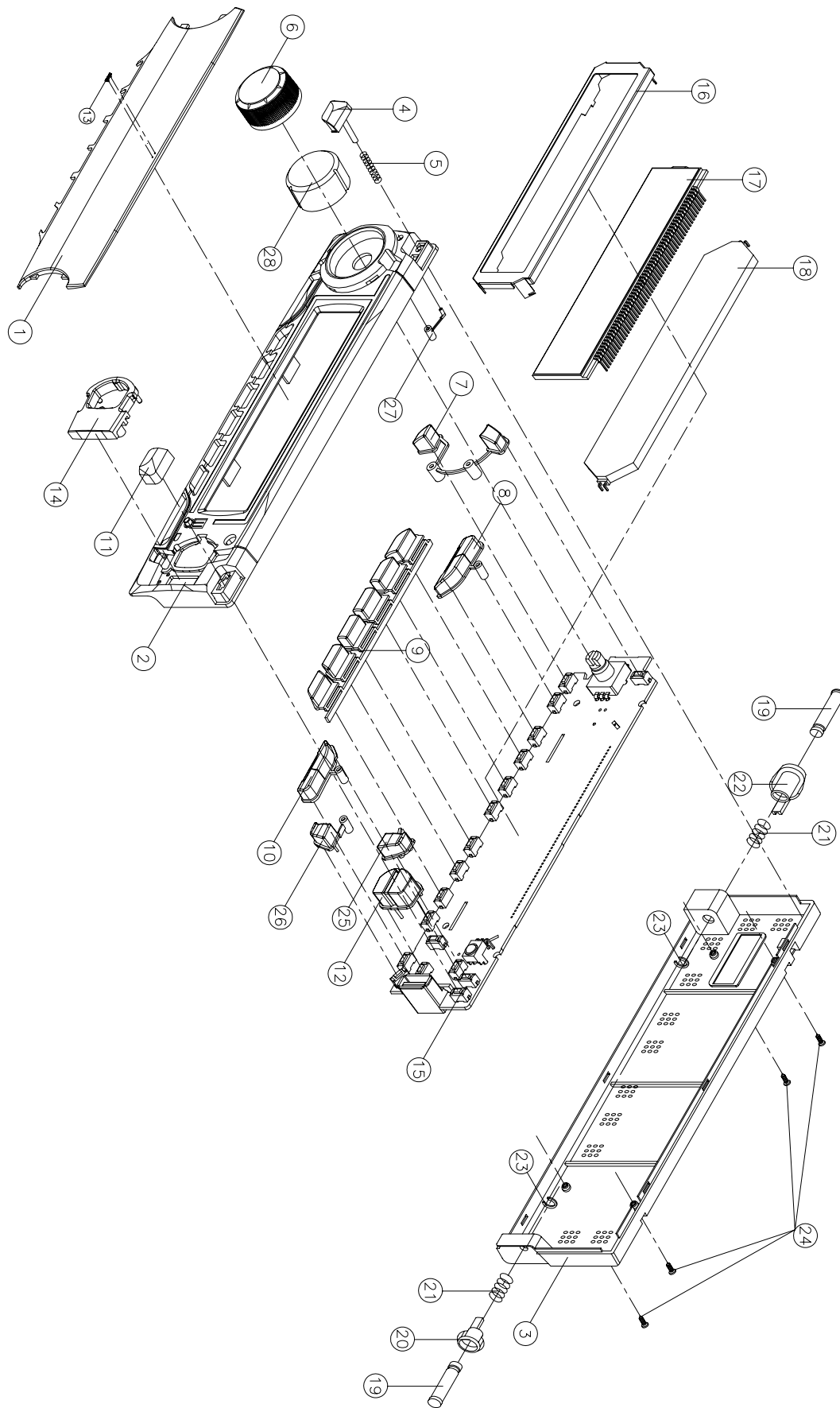


BOTTOM VIEW



# EXPLODED VIEW

## PANEL



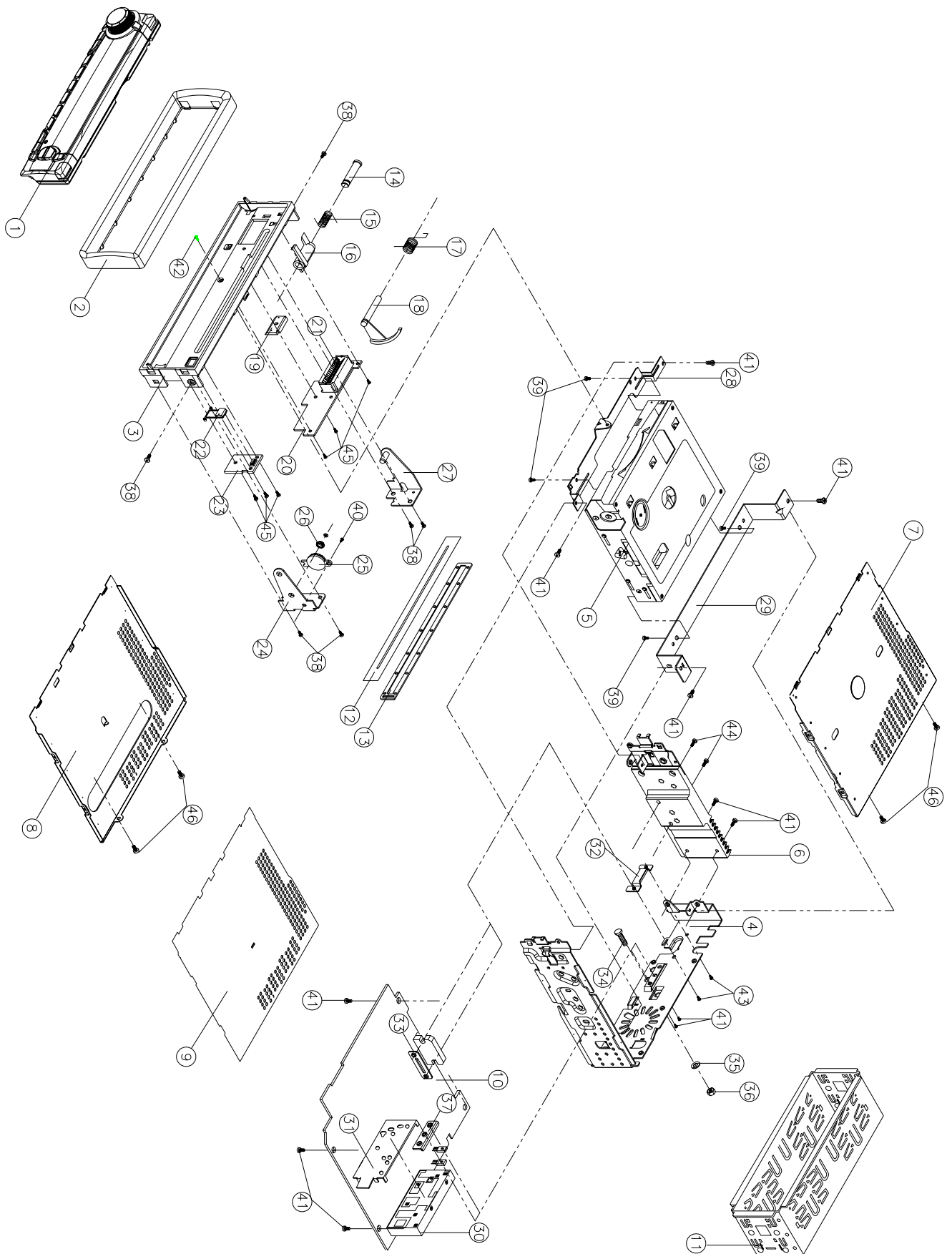
## EXPLODED VIEW PARTS LIST

### PANEL

Ref. No.	Description	RS Part No.	Mfr's Part No.
1	Lens: (L)(CD)X3.82.25;N/IR W/WMA(S.N1202/BLK) (AKAII ACR-143MP)ROHS		5300-NK7137-89Y
2	T. Panel (F)X3.59.16 N/SW (S.N1202/PMS426C) ROHS		5100-NK7121-711
3	Panel Bottom (F)		5100-NK7123-00
4	Open Knob (F) (S.N1202/426C) ROHS		5200-NK7126-81Y
5	Release Spring		3600-065001-00
6	VOL Knob (Electron-Plate -Silver)		5200-NK7128-90E
7	EQ~MUT Knob (L-UP)(S.N1202) ROHS		5200-NK7134-81
8	LOC/MON Knob (L-UP)(S.N1202) ROHS		5200-NK7135-81
9	1PAU~6 Knob (L-UP)(S.N1202) ROHS		5200-NK7136-82
10	8/9 TRK Knob (L-UP)(S.N1202) ROHS		5200-NK7133-81
11	Power Knob (S.N1202/426C) ROHS		5200-NK7127-81Y
12	BAND/MENU/ST/LOC/TITEL Knob (L-UP) (S.N1202) ROHS		5200-NK7131-81
13	AKAI Logo(S.N0000) Silver Hot Stamp ROHS		5200-0G6240-31
14	Decoration (F) W/O USB (S.N1202) ROHS		5200-NK7124-80
15	Key Board		1121-501030-3208
16	LCD Cover ROHS		3900-0E2104-01
17	LCD CD5002TN NEG Black Mask Color Pin 99X25.3MM ROHS		2700-500200-110Y
18	LED B.L QB02002-09 23.5X99 White ROHS		0200-0A1560-09
19	Axis Post ROHS		3400-0-24601-00
20	Right Side Block ROHS		5200-0E2128-00
21	Contact Spring ROHS		3600-078008-00
22	Left Side Block ROHS		5200-0E2129-00
23	E-Ring Ø1.5X4X0.4MM ROHS		3500-000001-00
24	Screw Ø2X8 BA/ST Black ROHS		4000-012008-21
25	AS/PS Knob (L-UP) (S.N1202) ROHS		5200-NK7130-81
26	7MOD Knob (L-UP)(S.N1202) ROHS		5200-NK7132-81
27	RESET Knob (S.N1202) ROHS		5200-NK7129-80
28	LING For VOL Knob ROHS		5200-NK7140-00

# EXPLODED VIEW

## CABINET



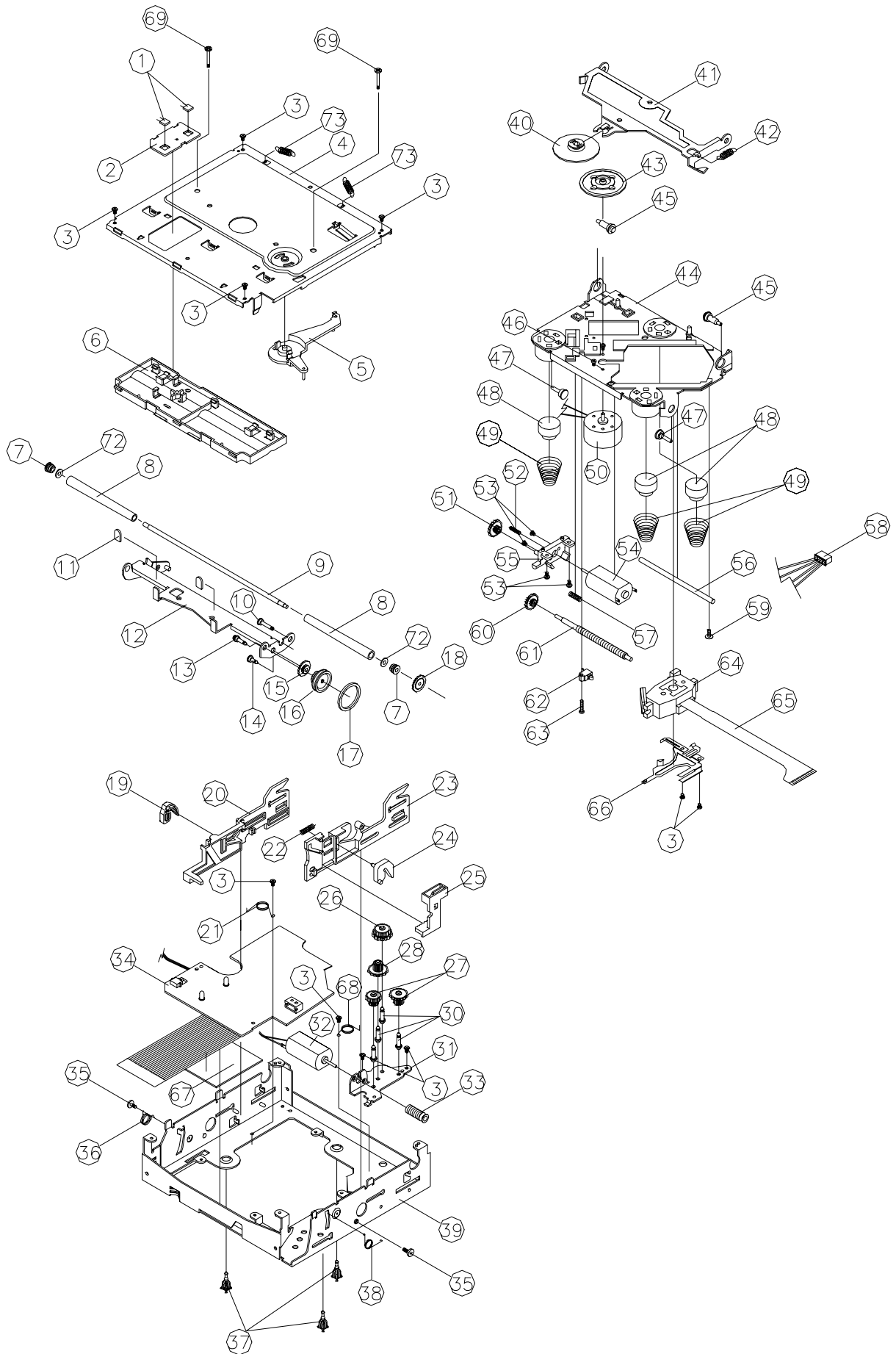
## EXPLODED VIEW PARTS LIST

### CABINET

Ref. No	Description	RS Part No.	Mfr's Part No.
1	Panel		
2	Ring (S.N0000) ROHS		5100-016227-30
3	Base (F) (MMS+SD) ROHS		5100-0E2124-00
4	Rear-right Cabinet W/Spring FOR CD-WIRE ROHS		6100-300003-002
5	CD MECH. MG205 (205) ROHS (9400-022050-01/9700-012265-00X1/9700-011190-00X2)		9400-002050-01
6	Left Cabinet-heat Sink W/Spring ROHS		6100-300004-003
7	Top Cabinet ROHS		6100-300001-000
8	Bottom Cabinet ROHS		6100-300002-000
9	Main Fiber ROHS		3500-300001-000
10	Main Board		1111-500041-020C
11	Mounting Box ROHS		6100-300005-000
12	Shade ROHS		8100-069005-03
13	CD Windows Sheet ROHS		4300-0A3103-00
14	Hook Shaft ROHS		3400-0D2101-00
15	Hook Spring ROHS		3600-0E2101-00
16	Hook ROHS		5200-0E2127-00
17	Push Out Spring ROHS		3600-0E2102-00
18	Panel Pole ROHS		5200-0E2126-00
19	B-Light (F) (White) ROHS		5200-0W2049-00W
20	Front Board		1111-500030-3401
21	Connector Female 20PIN P=2.0MM V-Type East SUN ROHS		2500-0F0217-20A
22	Eject Key (S. N0000) (L-Up) ROHS		5200-NK7138-31
23	Eject Board		1111-500030-3401
24	Right Bracket ROHS		3900-0E2101-01
25	Damper Gear Assy /19-24 T/Q ROHS		9300-012246-01S
26	Middle Gear (F) ROHS		5200-0E2130-00
27	Left Bracket ROHS		3900-0E2102-01
28	Deck Front Bracket ROHS		3910-300001-000
29	Deck Rear Bracket For CD ROHS		3900-300002-000
30	M.FAE347/P21/P22 East Furepe 1 Pack 65-108MHJ ROHS		2900-000347-03
31	Shield Cover (Mitsumi Tuner)(0.045KG) ROHS		3900-0W2001-00
32	Wire Clip 1.0MM ROHS		3900-0B1415-00
33	Power IC BKT ROHS		3900-300006-000
34	Screw Ø5X18 HH ROHS		4000-005018-04
35	Spring Washer M5 ROHS		3500-050001-00
36	Hexagon Nut M5 ROHS		3500-040005-00
37	IC Bracket For Regulntor ROHS		3900-300007-000
38	Screw Ø2.6X4 BH/MS ROHS		4000-002604-01
39	Screw Ø2.6X5 BH/TAPTITE ROHS		4000-002605-03

<b>Ref. No</b>	<b>Description</b>	<b>RS Part No.</b>	<b>Mfr's Part No.</b>
40	Screw Ø2X3 CH/MS Black ROHS		4000-012003-09H
41	Screw Ø2.6X6 BH/MS ROHS		4000-002606-01
42	Screw Ø2.6X6 PH/MS BLACK ROHS		4000-002606-20
43	Screw Ø2.6X8 BH/MS ROHS		4000-002608-01
44	Screw M2.6X20 PH/MS ROHS		4000-002620-00
45	Screw Ø2X4 BH/ST Black ROHS		4000-012004-21
46	Screw Ø2X6 PA/ST (Black) ROHS		4000-012006-20

# EXPLODED VIEW (DECK)



## EXPLODED VIEW PARTS LIST (DECK)

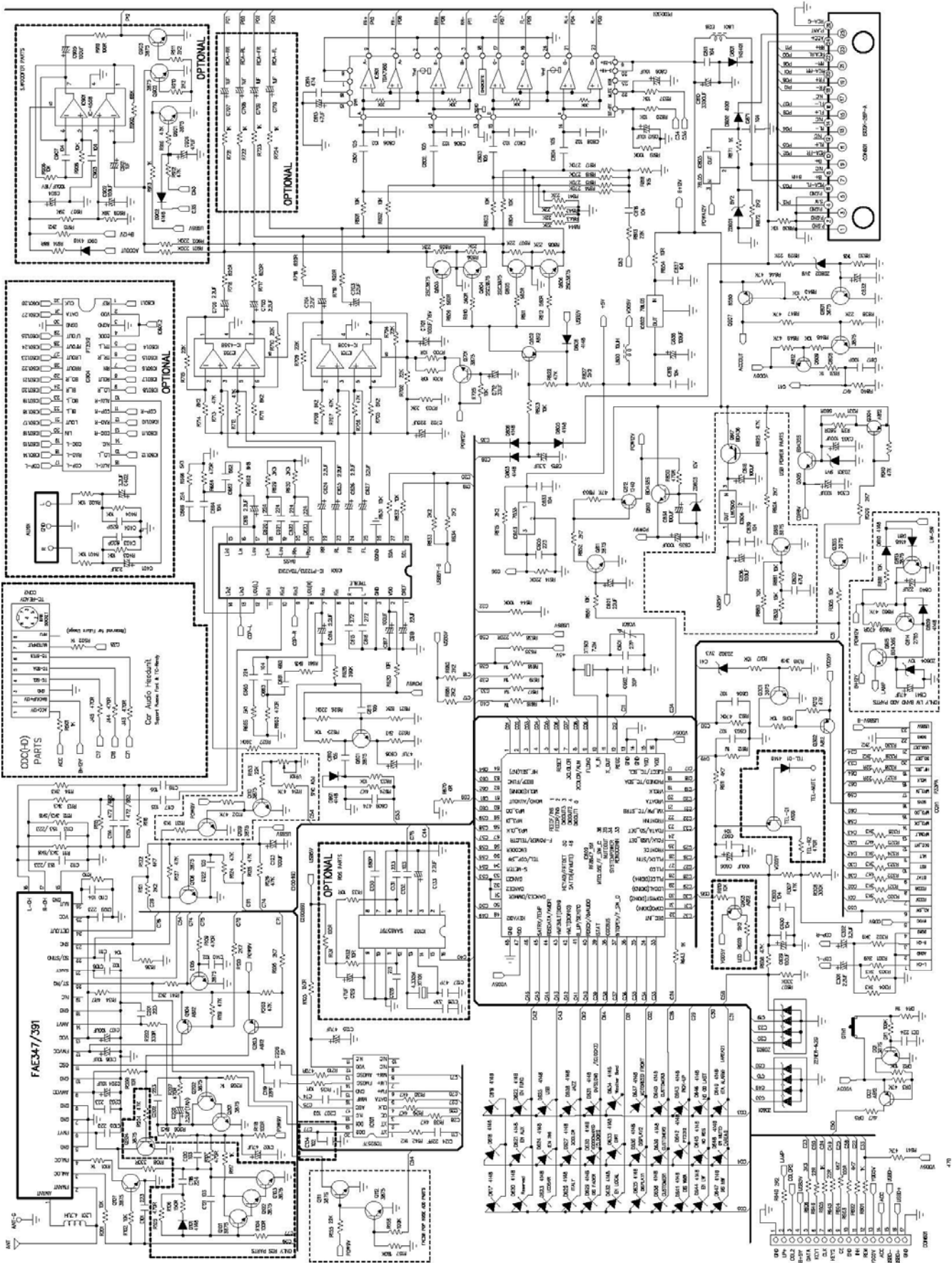
Ref. No.	Description	Parts No.	Q'ty
1	SENSOR	ST-23G	2
2	SENSOR PCB	FR	1
3	SCREW	CA/H 0" TT 2*3	12
4	COVER-UPPER	SECC T1.0	1
5	LEVER DISC	POM (F20-03)	1
6	GUIDE UP	POM (F20-03)	1
7	BUSHING ROLLER	POM (F20-03)	2
8	ROLLER DISC	SLICON	2
9	SHAFT ROLLER	SUS 303	1
10	PIN ROLLER	SUM24L-NI (PLATE)	1
11	PVC CAP	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

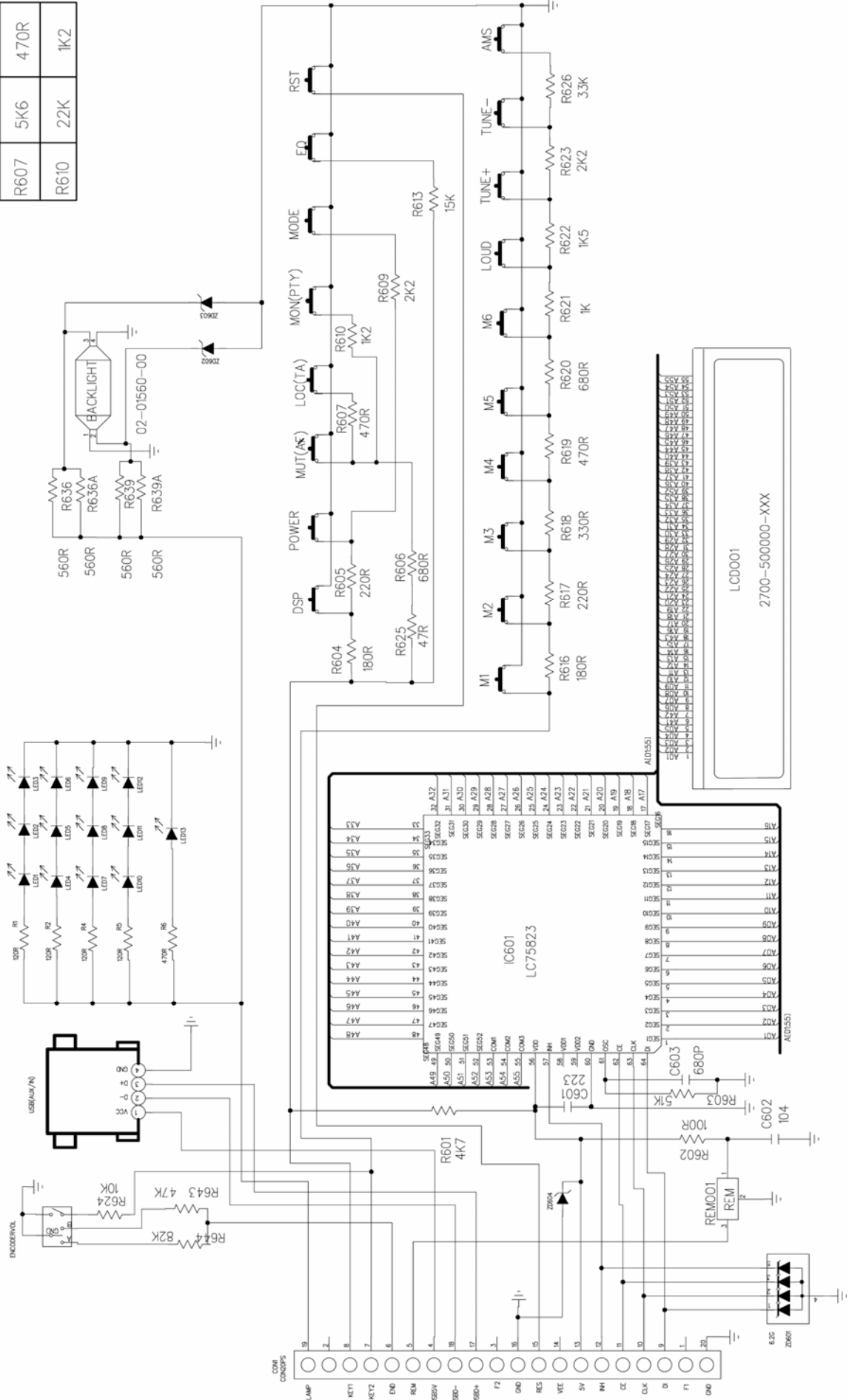


# SCHEMATIC DIAGRAM (MAIN BOARD)

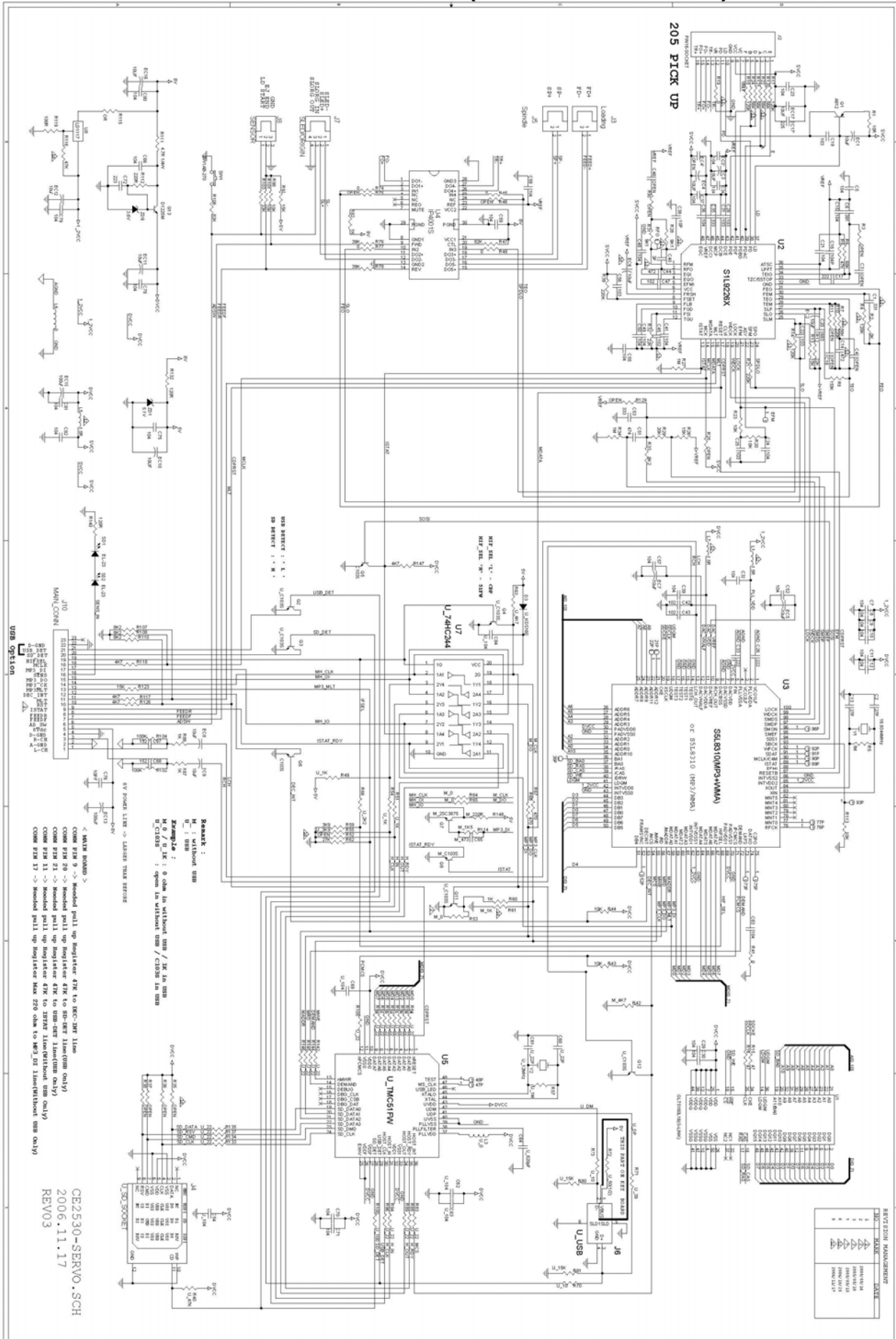


# SCHEMATIC DIAGRAM (KEY BOARD)

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



# SCHEMATIC DIAGRAM (CD SERVO BOARD)



# ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Q'ty
<b>PC BOARD ASSY, MAIN BOARD</b>			
D630,639,625	0200-004148-02	DIODE SMD RLS4148 LL-34 ROHM ROHS	3
IC601	0300-007313-01	IC SC-7313 (SILAN) ROHS	1
IC602	0300-0F8847-151	CPU RF8847-151 MP3+WMA+TC+RUSSION FONT	1
R721/2(RCA)	0700-063102-00	RES SMD 1K $\Omega$ $\pm$ 5% 1/10W 0603 ROHS	2
R704,709,710,715	0700-063273-00	RES SMD 27K $\Omega$ $\pm$ 5% 1/10W 0603 ROHS	4
R303/4	0700-063332-00	RES SMD 3.3K $\Omega$ $\pm$ 5% 1/10W 0603 ROHS	2
	1111-500041-020 C	CD5000 (X3.90 RUSSIA YMB 18.2X152X1.6	1
IC804	0100-007805-00	IC,78L05 TO-92 ROHS	1
IC601	0300-007388-00	IC TDA7388 (4x40W) ST "Y" ROHS	1
C707/8(RCA)	0600-050105-03	E.CAP 1uF 50V $\pm$ 20% $\phi$ 4x5MM ROHS	2
RESET	1600-001138-00	TACT SWITCH FOR DVD248 RESET ROHS	1
RCA	2000-020360-08		1
WIRE ISO	2500-0F2002-00	16P ISO(F) CDDE3002Y(EIA) ROHS	1
TUNER	2900-000347-03	M.FAE347/P21/P22 EAST FUREPE 1 PACK 65-108MHJ ROHS	1
ANT	3200-083210-01	ANT SOCKET W/GND $\phi$ 3MM L=210MM ROHS	1
Q802,809,603,104,302,304,DQ 2	0100-000812-00F	2SA812-G(ROHS)	7
Q105~107,Q601,Q801,803~806 ,808,811,301,303,701,DQ1	0100-003875-07F	TR NPN KTC3875-GR SOT-23 ROHS	15
D601,806,632,808,CPU TO	0200-004148-02	DIODE SMD RLS4148 LL-34 ROHM ROHS	5
ZD302	0200-050033-54	ZENER DIODE SMD 3.3V 0.5W $\pm$ 2% LL-34 ROHS	1
ZD802	0200-050036-02	ZENER DIODE SMD 3.6V 0.5W $\pm$ 2% LL-34 ROHS	1
ZD801	0200-050082-01	ZENER DIODE SMD 8.2V 0.5W LL-34 ROHS	1
ZD301	0200-050091-03	ZENER DIODE SMD 9.1V 0.5W $\pm$ 2% LL-34 ROHS	1
ZD803	0200-050100-02	ZENER DIODE SMD 10V 0.5W $\pm$ 5% LL-34 ROHS	1
IC701,702	0300-004558-26S	IC UTC4558 SOP (SILAN) ROHS	2
IC101	0300-009257-00H	IC SC9257 ROHS	1
C805~808	0500-003102-10	CER.CAP SMD 1000PF 50V $\pm$ 10% 0805 Y5P ROHS	4
C122,610,116,117,611,801~804	0500-003105-10	CER.CAP SMD 1uF 16V +80/-20% Y5V 0805 ROHS	9
C601	0500-003270-05S	CER.CAP SMD 27PF 50V $\pm$ 5% NPO 0805 ROHS	1
C602	0500-003330-05S	CER.CAP SMD 33PF 50V $\pm$ 5% NPO 0805 ROHS	1
C817	0500-063101-00	CER.CAP SMD 100PF 50V $\pm$ 5% NPO 0603 ROHS	1
C603,604,140	0500-063102-01	CER.CAP SMD 1000PF 50V $\pm$ 10% X7R 0603 ROHS	3
C207	0500-063103-01	CER.CAP SMD 0.01uF 50V $\pm$ 10% X7R 0603 ROHS	1
C110,111,607,811,833,819,663, 664,630,600,839,837,818,108,1 23,871	0500-063104-01	CER.CAP SMD 0.1uF 50V $\pm$ 10% X7R 0603 ROHS	16

## ELECTRICAL PARTS LIST-CONTINUED

Ref. No.	Part No.	Description	Q'ty
C119,124	0500-063220-00	CER.CAP SMD 22PF 50V ±5% NPO 0603 ROHS	2
C101,105,109,605	0500-063223-01	CER.CAP SMD 0.022uF 50V ±10% X7R 0603 ROHS	4
C620~623,665,666,DC1	0500-063224-01	CER.CAP SMD 0.22uF 16V ±10% X7R 0603 ROHS	9
C615,616	0500-063272-01	CER.CAP SMD 2700PF 50V ±10% X7R 0603 ROHS	2
C814,609	0500-063474-01	CER.CAP SMD 0.47uF 25V +80/-20% Y5V 0603 ROHS	2
C661,662	0500-063682-01	CER.CAP SMD 6800PF 50V ±10% X7R 0603 ROHS	2
R670,J63,R1	0700-063000-00	RES SMD 0Ω ±5% 1/10W 0603 ROHS	3
R135,R700/1	0700-063100-00	RES SMD 10Ω ±5% 1/10W 0603 ROHS	3
R603,103,118	0700-063101-00	RES SMD 100Ω ±5% 1/10W 0603 ROHS	3
R101,643,831,605,141,871,320~323	0700-063102-00	RES SMD 1KΩ ±5% 1/10W 0603 ROHS	10
R102,623,625,631,632,801~804,839,851,823,845,848,305,317,820,725,610,DR2,316,110,880,881	0700-063103-00	RES SMD 10KΩ ±5% 1/10W 0603 ROHS	24
R819,DR1	0700-063104-00	RES SMD 100KΩ ±5% 1/10W 0603 ROHS	2
R612,R616~619,DR4	0700-063105-00	RES SMD 1M ±5% 1/10W 0603 ROHS	6
R818	0700-063152-00	RES SMD 1.5KΩ ±5% 1/10W 0603 ROHS	1
R830	0700-063182-00	RES SMD 1.8KΩ ±5% 1/10W 0603 ROHS	1
R645,R646,R001	0700-063220-00	RES SMD 22Ω ±5% 1/10W 0603 ROHS	3
R636	0700-063221-00	RES SMD 220Ω ±5% 1/10W 0603 ROHS	1
R615,R633,R634,R121,R142,R872,R681,R682,R329,R330,R325,R609	0700-063222-00	RES SMD 2.2KΩ ±5% 1/10W 0603 ROHS	12
R702,R703,R805~808,R829,R858,R841~844	0700-063223-00	RES SMD 22KΩ ±5% 1/10W 0603 ROHS	12
R614,R626	0700-063224-00	RES SMD 220KΩ ±5% 1/10W 0603 ROHS	2
R814~817	0700-063274-00	RES SMD 270KΩ ±5% 1/10W 0603 ROHS	4
R108	0700-063331-00	RES SMD 330Ω ±5% 1/10W 0603 ROHS	1
R113,R114,R629,R630,R320,R321,R326,R323,R324,R606	0700-063332-00	RES SMD 3.3KΩ ±5% 1/10W 0603 ROHS	10
R607,R308	0700-063334-00	RES SMD 330KΩ ±5% 1/10W 0603 ROHS	2
R318,R301/2	0700-063392-00	RES SMD 3.9KΩ ±5% 1/10W 0603 ROHS	3
R627,R628	0700-063394-00	RES SMD 390KΩ ±5% 1/10W 0603 ROHS	2
R109,R663,R664	0700-063471-00	RES SMD 470Ω ±5% 1/10W 0603 ROHS	3
R122,R602,R604,R611,R840,R129,R130,R138,R624,DR5,852,309,120	0700-063472-00	RES SMD 4.7KΩ ±5% 1/10W 0603 ROHS	16
R125,R126,R608,R706,R707,R712,R713,R846,R822,R124,R137,R849,R847,R307,R641,DR3,853,310,315,119	0700-063473-00	RES SMD 47KΩ ±5% 1/10W 0603 ROHS	21
R613	0700-063474-00	RES SMD 470KΩ ±5% 1/10W 0603 ROHS	1
R622,R665,R666	0700-063512-00	RES SMD 5.1KΩ ±5% 1/10W 0603 ROHS	3
R809~812,R311,R331	0700-063561-00	RES SMD 560Ω ±5% 1/10W 0603 ROHS	6
R661,R662	0700-063682-00	RES SMD 6.8KΩ ±5% 1/10W 0603 ROHS	2
R716~719	0700-063821-00	RES SMD 820Ω ±5% 1/10W 0603 ROHS	4

## ELECTRICAL PARTS LIST-CONTINUED

Ref. No.	Part No.	Description	Q'ty
R705,R708,R711,R714	0700-063822-00	RES SMD 8.2K $\Omega$ $\pm$ 5% 1/10W 0603 ROHS	4
R621	0700-063823-00	RES SMD 82K $\Omega$ $\pm$ 5% 1/10W 0603 ROHS	1
Q810,305	0100-000435-00S	TR NPN BD435S TO-126 FAIRCHLD ROHS	2
Q812	0100-001240-00	TRANSISTOR B1240 ROHS	1
IC802,803	0100-007805-00	IC,78L05 TO-92 ROHS	2
Q807	0100-008550-03	TR PNP SS8550C TO-92-B ROHS	1
D802	0200-004001-00	DIODE IN4001 DO-41 ROHS	1
D803,805	0200-004148-00A	DIODE 1N-4148 DO-35 TAPPING ROHS	2
D801	0200-005401-00	DIODE IN5401 DO-27 ROHS	1
IC603	0300-007035-00	IC KIA7035AP TO-92 ROHS	1
XT601	0400-000072-01H	CRYSTAL OSCILLATOR 7.2MHZ $\pm$ 30PPM HC-49U/S ROHS	1
C606,629,617,303,304,107,838	0600-010107-01	E.CAP 100uF 10V $\pm$ 20% $\S$ 5X7MM ROHS	7
C702	0600-010227-01	E.CAP 220uF 10V $\pm$ 20% $\S$ 6 $\times$ 7MM ROHS	1
C125,C813,C608,C102	0600-010476-03	E.CAP 47uF 10V $\pm$ 20% $\S$ 6 $\times$ 5MM ROHS	4
C809,C812,C106	0600-016106-02	E.CAP 10uF 16V $\pm$ 20% $\S$ 3.5 $\times$ 5MM ROHS	3
C834,C835,C701	0600-016107-02	E.CAP 100uF 16V $\pm$ 20% $\S$ 6 $\times$ 5MM ROHS	3
C618,C821	0600-016226-01	E.CAP 22uF 16V $\pm$ 20% $\S$ 4 $\times$ 7MM ROHS	2
C712	0600-016336-02	E.CAP 33uF 16V $\pm$ 20% $\S$ 6.3 $\times$ 5MM ROHS	1
C810	0600-016338-00S	E.CAP 3300uF 16V $\pm$ 20% $\S$ 13 $\times$ 25MM ROHS	1
C614,619,624~627,703~706,301~302	0600-050225-02	E.CAP 2.2uF 50V $\pm$ 20% $\S$ 4 $\times$ 7MM ROHS	12
C815	0600-050335-02	E.CAP 3.3uF 50V $\pm$ 20% $\S$ 4 $\times$ 5MM ROHS	1
R640	0700-005022-10	RES 2.2 $\Omega$ $\pm$ 5% 1/2W ROHS	1
R134	0700-005047-00	RES 4.7 $\Omega$ $\pm$ 5% 1/4W ROHS	1
R854	0700-005100-00	RES 10 $\Omega$ $\pm$ 5% 1/4W ROHS	1
R620,600	0700-005100-16A	RES 10 $\Omega$ $\pm$ 5% 1/16W (TAPPING) ROHS	2
R837	0700-005103-16A	RES 10K $\Omega$ $\pm$ 5% 1/16W (TAPPING) ROHS	1
R327,328	0700-005220-16A	RES 22 $\Omega$ $\pm$ 5% 1/16W (TAPPING) ROHS	2
R827,324,326	0700-005222-16A	RES 2.2K $\Omega$ $\pm$ 5% 1/16W (TAPPING) ROHS	3
R813	0700-005223-16A	RES 22K $\Omega$ $\pm$ 5% 1/16W (TAPPING) ROHS	1
R850	0700-005471-16A	RES 470 $\Omega$ $\pm$ 5% 1/16W (TAPPING) ROHS	1
L803	0900-070100-01	MICRO INDUCTOR 10UH AXIAL TYPE ROHS	1
L801	1500-027012-11	TOROIDAL COIL XC-169-110uH V-TYPE $\S$ 27 $\times$ 12MM Xin- DeXing ROHS	1
OSC	3100-086120-08	SINGLE SHIELD WIRE 120MM GREY ROHS	1
<b>PC BOARD ASSY, MAIN BOARD FM TUNER SECTION</b>			
D633,(ORIT) 645	0200-004148-02	DIODE SMD RLS4148 LL-34 ROHM ROHS	2
C112,113	0500-063153-01	CER.CAP SMD 0.015uF 50V $\pm$ 10 X7R 0603 ROHS	2
C114,115	0500-063682-01	CER.CAP SMD 6800PF 50V $\pm$ 10% X7R 0603 ROHS	2
R111,112	0700-063562-00	RES SMD 5.6K $\Omega$ $\pm$ 5% 1/10W 0603 ROHS	2
<b>PC BOARD ASSY, MAIN BOARD AM TUNER SECTION</b>			
C206	0500-063050-00	CER.CAP SMD 5PF 50V $\pm$ 5% NPO 0603 ROHS	1
R210	0700-063471-00	RES SMD 470 $\Omega$ $\pm$ 5% 1/10W 0603 ROHS	1
Q203	0100-000812-00F	2SA812-G(ROHS)	1

## ELECTRICAL PARTS LIST-CONTINUED

Ref. No.	Part No.	Description	Q'ty
Q201/2	0100-003875-07F	TR NPN KTC3875-GR SOT-23 ROHS	2
C208	0500-016225-54	TAN CAP SMD 2.2uF 16V ±10% 3.2×1.6×1.6MM ROHS	1
C201~3	0500-063223-01	CER.CAP SMD 0.022uF 50V ±10% X7R 0603 ROHS	3
R209	0700-063100-00	RES SMD 10Ω ±5% 1/10W 0603 ROHS	1
R208	0700-063102-00	RES SMD 1KΩ ±5% 1/10W 0603 ROHS	1
R201	0700-063103-00	RES SMD 10KΩ ±5% 1/10W 0603 ROHS	1
R202	0700-063331-00	RES SMD 330Ω ±5% 1/10W 0603 ROHS	1
R207	0700-063471-00	RES SMD 470Ω ±5% 1/10W 0603 ROHS	1
R205	0700-063472-00	RES SMD 4.7KΩ ±5% 1/10W 0603 ROHS	1
R203	0700-063473-00	RES SMD 47KΩ ±5% 1/10W 0603 ROHS	1
R206	0700-063822-00	RES SMD 8.2KΩ ±5% 1/10W 0603 ROHS	1
C204	0600-016106-02	E.CAP 10uF 16V ±20% ⌀ 3.5×5MM ROHS	1
L201	0900-070470-04	M. INDUCTOR AL03TO4R7 (AXIAL) ROHS	1
<b>PC BOARD ASSY, KEY BOARD</b>			
LED1~13	0200-001112-02J	LED SMD RED WL=100MCD WL=625NM 0805 WENRUN ROHS	13
R613	0700-063153-00	RES SMD 15KΩ ±5% 1/10W 0603 ROHS	1
R610(PTY)	0700-063223-00	RES SMD 22KΩ ±5% 1/10W 0603 ROHS	1
R607(TA)	0700-063562-00	RES SMD 5.6KΩ ±5% 1/10W 0603 ROHS	1
	0200-0A1560-09	LED BACK LIGHT WHITE QB02002-09 112×23.5×3.5MM TIDAL ROHS	1
VOL+/-	1800-000115-00P	VOL ENCODER EC11E15D4MA1 12×11.7×14.5MM POSTEC ROHS	1
	2700-500200-110Y	LCD CD5002TN NEG BLACK MASK COLOR PIN 99X25.3MM RO HS	1
ZD601	0200-000062-07	E.S.D.DIODE SMD NNCD6.2G SOT23-5L ROHS	1
ZD602.ZD603	0200-050051-03	ZENER DIODE 5.1V 0.5W ±5% LL-34 ROHS	2
	0300-075823-00H	IC LC75823ED ROHS	1
C601	0500-063223-01	CER.CAP SMD 0.022uF 50V ±10% X7R 0603 ROHS	1
C603	0500-063681-00	CER.CAP SMD 680PF 50V ±5% NPO 0603 ROHS	1
R621	0700-063102-00	RES SMD 1KΩ ±5% 1/10W 0603 ROHS	1
R624	0700-063103-00	RES SMD 10KΩ ±5% 1/10W 0603 ROHS	1
T622	0700-063152-00	RES SMD 1.5KΩ ±5% 1/10W 0603 ROHS	1
R604,R616	0700-063181-00	RES SMD 180Ω ±5% 1/10W 0603 ROHS	2
R605,R617	0700-063221-00	RES SMD 220Ω ±5% 1/10W 0603 ROHS	2
R623,R609	0700-063222-00	RES SMD 2.2KΩ ±5% 1/10W 0603 ROHS	2
R1~2,4~5	0700-063271-00	RES SMD 270Ω ±5% 1/10W 0603 ROHS	4
R618	0700-063331-00	RES SMD 330Ω ±5% 1/10W 0603 ROHS	1
R626	0700-063333-00	RES SMD 33KΩ ±5% 1/10W 0603 ROHS	1
R625	0700-063470-00	RES SMD 47Ω ±5% 1/10W 0603 ROHS	1
R619,R6	0700-063471-00	RES SMD 470Ω ±5% 1/10W 0603 ROHS	2
R643	0700-063473-00	RES SMD 47KΩ ±5% 1/10W 0603 ROHS	1
R603	0700-063513-00	RES SMD 51KΩ ±5% 1/10W 0603 ROHS	1
R620,R636,R636A,R639,R639A	0700-063681-00	RES SMD 680Ω ±5% 1/10W 0603 ROHS	6
R644	0700-063823-00	RES SMD 82KΩ ±5% 1/10W 0603 ROHS	1

## ELECTRICAL PARTS LIST-CONTINUED

Ref. No.	Part No.	Description	Q'ty
SW RES	1121-501030-3208	CDF5010 KB LCD D/S 1.2X43X183MM	1
	1600-021130-01	TACT SW DT2113CH 250G/4.3 SMD RED D.S	18
	2500-0M0217-20	CONNECTOR SMD MALE 20PIN P=2.0MM H-TYPE EASTSUN ROHS	1
<b>PC BOARD ASSY, SDK/CD SERVO BOARD</b>			
DECK TO MB	2500-009286-18	FFC WIRE(UNILATERAL PLUG)130MM 18PIN P=1.25MM ROHS	1
DECK TO MB	2500-011101-18	SOCKET 18PIN P=1.25 TOP-CONTACT H-TYPE (NEGATIVE- NEEDLE) JingShi ROHS	1
Q5,6,8	0100-000103-00	TR. KEC103S ROHS	3
Q1	0100-000812-00F	2SA812-G(ROHS)	1
Q7	0100-003875-07F	TR NPN KTC3875-GR SOT-23 ROHS	1
ZD9	0200-050036-54	ZENER DIODE SMD 3.6V 0.5W ±5% LL-34 ROHS	1
ZD1	0200-050151-00	ZENER DIODE SMD 5.1V 0.5W LL-34 ROHS	1
U8	0300-001117-00	VOLTAQE REGULATOR LD1117S ROHS	1
U3	0300-008310-01	SAMSUNG MP3 AND WMA DECODER S5L8310 ROHS	1
U2	0300-009226-00K	IC S1L9226 ROHS	1
U4	0300-009259-00S	IC SC9259 (SILAN) ROHS	1
U1	0300-016100-01	SDRAM IS42S16100C1-7TI TSOP-50 ISSI ROHS	1
Y1	0400-000169-01	CRYSTAL 16.9344MHZ±30PPM HC-49U/SM 20PF SM-1225 ROHS	1
C40	0500-063030-00	CER.CAP SMD 3PF 50V ±5% NPO 0603 ROHS	1
C76,38	0500-063100-00	CER.CAP SMD 10PF 50V ±5% NPO 0603 ROHS	2
C42,43,45,C47	0500-063102-01	CER.CAP SMD 1000PF 50V ±10% X7R 0603 ROHS	4
C19,22,25,28,31,56	0500-063103-01	CER.CAP SMD 0.01uF 50V ±10% X7R 0603 ROHS	6
C5,7~12,15,21,23,24,29,30/2/4/6/7/9,41,48~50,52/5,57~59,66,70,71,78~83,38,16,EC3A	0500-063104-01	CER.CAP SMD 0.1uF 50V ±10% X7R 0603 ROHS	39
C67,68	0500-063152-00N	CER.CAP SMD 1500PF 50V ±5% NPO 0603 ROHS	2
C17,26,33	0500-063222-01	CER.CAP SMD 2200PF 50V ±10% X7R 0603 ROHS	3
C72	0500-063223-01	CER.CAP SMD 0.022uF 50V ±10% X7R 0603 ROHS	1
EC17A	0500-063225-00	CER.CAP SMD 2.2uF 10V ±10% X7R 0603 ROHS	1
C2,13	0500-063270-00	CER.CAP SMD 27PF 50V ±5% NPO 0603 ROHS	2
C1	0500-063331-00	CER.CAP SMD 330PF 50V ±5% NPO 0603 ROHS	1
C53,35	0500-063333-01	CER.CAP SMD 0.033uF 50V ±10% X7R 0603 ROHS	2
C6	0500-063391-00	CER.CAP SMD 390PF 50V ±5% NPO 0603 ROHS	1



## ELECTRICAL PARTS LIST-CONTINUED

Ref. No.	Part No.	Description	Q'ty
C14,44	0500-063472-01	CER.CAP SMD 4700PF 50V ±10% X7R 0603 ROHS	2
C65	0500-063473-01	CER.CAP SMD 0.047uF 50V ±10% X7R 0603 ROHS	1
C51	0500-063474-01	CER.CAP SMD 0.47uF 25V +80/-20% Y5V 0603 ROHS	1
C20	0500-063683-01	CER.CAP SMD 0.068uF 50V ±10% X7R 0603 ROHS	1
EC1~5,7~9,16,11,17,EC6	0600-016106-54	E.CAP SMD 10uF ±10% 16V § 4×5.5MM ROHS	12
EC13,15	0600-016107-54	E.CAP SMD 100uF 16V ±10% § 6.3×5.5MM ROHS	2
L6,R115	0700-005000-54	RES SMD 0Ω ±5% 1/10W 0603 ROHS	2
L1,5,7	0700-005015-54	RES SMD 1.5Ω +/-5% 1/10W 0805 ROHS	3
R19,41,45,48,53,64,65,74,77,50,2	0700-063000-00	RES SMD 0Ω ±5% 1/10W 0603 ROHS	11
R1	0700-063100-00	RES SMD 10Ω ±5% 1/10W 0603 ROHS	1
R60,61,82,86,87	0700-063102-00	RES SMD 1KΩ ±5% 1/10W 0603 ROHS	5
R20,23,43,44,98,101,113	0700-063103-00	RES SMD 10KΩ ±5% 1/10W 0603 ROHS	7
R102,104,10	0700-063104-00	RES SMD 100KΩ ±5% 1/10W 0603 ROHS	3
R5,27,34	0700-063105-00	RES SMD 1M ±5% 1/10W 0603 ROHS	3
R119,132,140	0700-063121-00	RES SMD 120Ω ±5% 1/10W 0603 ROHS	3
R4,14,17,18	0700-063124-00	RES SMD 120KΩ ±5% 1/10W 0603 ROHS	4
R114	0700-063152-00	RES SMD 1.5KΩ ±5% 1/10W 0603 ROHS	1
R13,26,92,123	0700-063153-00	RES SMD 15KΩ ±5% 1/10W 0603 ROHS	4
R8	0700-063154-00	RES SMD 150KΩ ±5% 1/10W 0603 ROHS	1
R29	0700-063203-00	RES SMD 20KΩ ±5% 1/10W 0603 ROHS	1
R112/48	0700-063221-00	RES SMD 220Ω ±5% 1/10W 0603 ROHS	2
R32,12	0700-063223-00	RES SMD 22KΩ ±5% 1/10W 0603 ROHS	2
R39,21	0700-063224-00	RES SMD 220KΩ ±5% 1/10W 0603 ROHS	2
R62	0700-063273-00	RES SMD 27KΩ ±5% 1/10W 0603 ROHS	1
R103	0700-063333-00	RES SMD 33KΩ ±5% 1/10W 0603 ROHS	1
R59	0700-063392-00	RES SMD 3.9KΩ ±5% 1/10W 0603 ROHS	1
R76,78	0700-063393-00	RES SMD 39KΩ ±5% 1/10W 0603 ROHS	2
R15,16	0700-063470-00	RES SMD 47Ω ±5% 1/10W 0603 ROHS	2
R67,68	0700-063471-00	RES SMD 470Ω ±5% 1/10W 0603 ROHS	2
R42,117,118,126,147	0700-063472-00	RES SMD 4.7KΩ ±5% 1/10W 0603 ROHS	5
R9,116	0700-063473-00	RES SMD 47KΩ ±5% 1/10W 0603 ROHS	2
R7,22,24,120,121	0700-063563-00	RES SMD 56KΩ ±5% 1/10W 0603 ROHS	5
R6	0700-063683-00	RES SMD 68KΩ ±5% 1/10W 0603 ROHS	1
R33,107,108,110	0700-063822-00	RES SMD 8.2KΩ ±5% 1/10W 0603 ROHS	4
R47,106	0700-063823-00	RES SMD 82KΩ ±5% 1/10W 0603 ROHS	2
R28,31	0700-063912-00	RES SMD 9.1KΩ ±5% 1/10W 0603 ROHS	2
	1121-205031-2008	PCB SAMSUNG USB SERVO(205) 96X89.1X1.2	1
Q3	0100-001858-17	TR 2SD1858-Q ATV ROHM ROHS	1
SD1,2	0200-000144-00	IR LED MIE 144A1MC ROHS	2
R111	0700-005047-00	RES 4.7Ω ±5% 1/4W ROHS	1
SW1	1600-000111-00	SWITCH PUSH LEVER SW-111 8×5.3×3.8MM SHINMEI ROHS	1

## ELECTRICAL PARTS LIST-CONTINUED

Ref. No.	Part No.	Description	Q'ty
J8	2500-000090-03	RAINBOW WIRE 90MM 3PIN AWG30# ROHS	1
J2	2500-001300-16	SOCKET SMD 16PIN P=1.0MM BOTTOM-CONTACT H-TYPE HongDongXing ROHS	1
J7	2500-053015-20E	SOCKET 4PIN CD DECK BoMu ROHS	1
<b>PC BOARD ASSY, FRONT BOARD</b>			
	2500-010050-16	FFC WIRE (WELDABLE) 50MM 16PIN P=1.0MM ROHS	1
	0200-001112-02J	LED SMD RED WL=100MCD WL=625NM 0805 WENRUN ROHS	1
R7	0700-063103-00	RES SMD 10KΩ ±5% 1/10W 0603 ROHS	1
R1	0700-063104-00	RES SMD 100KΩ ±5% 1/10W 0603 ROHS	1
R4,R5	0700-063222-00	RES SMD 2.2KΩ ±5% 1/10W 0603 ROHS	2
R3	0700-063393-00	RES SMD 39KΩ ±5% 1/10W 0603 ROHS	1
R6	0700-063472-00	RES SMD 4.7KΩ ±5% 1/10W 0603 ROHS	1
	1111-500030-3401	CDF5000 FB/EJ PCB 1.2X82.9X28MM	1
EJ	1600-001140-04A	SWITCH TACT SMD KPS-1107SW 6.1×3.7×2.5MM TAPPING ROHS	1
Q1	0100-008050-03	TR NPN SS8050C TO-92-B ROHS	1
	0200-030000-12	LED RED LUM=0.6MCD WL=690NM § 3MM WIDE ANGLE ROHS	1
	0200-030703-40	LAMP 3V 40MA § 3X7MM KEE TAT ROHS	1
R2	0700-005221-00	RES 220Ω ±5% 1/4W ROHS	1
	1600-051377-00K	SWITCH PUSH SPPB51377A(DS-20) 6.3×3×8.5MM KONEX ROHS	1
	2500-0F0217-20A	CONNECTOR FEMALE20PIN P=2.0MM V-TYPE EAST SUN ROHS	1
	3100-070050-02	7X1.05 PVC WIRE 50MM RED ROHS	1
	3100-070050-04	7X1.05 PVC WIRE 50MM YELLOW ROHS	1
	3100-070090-01	7X1.05 PVC WIRE 90MM BROWN ROHS	1
	3100-070090-02	7X1.05 PVC WIRE 90MM RED ROHS	1
	3100-070090-03	7X1.05 PVC WIRE 90MM ORN ROHS	1
	3100-070090-04	7X1.05 PVC WIRE 90MM YELLOW ROHS	1
	8100-011307-06	LAMP COVER § 3X7MM BLUE ROHS	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 65.0 – 74.0MHz (FM 87.5 – 108.0MHz)
.....	MW 530-1710 kHz
Sensitivity.....	FM 3 $\mu$ V (S/N=30dB)
.....	MW 32 dB $\mu$ (S/N=20 dB)

Specifications are subject to change without notice.