

Service
Service

Service Manual

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SPECIFICATIONS

■ General

Power supply:	12V DC(11V-16V) Test voltage 14.4V, negative ground
Maximum power output:	50Wx4 channels
Continuous power output:	25Wx4 channels (4Ω, 10% T.H.D.)
Suitable speaker impedance:	4-8 ohm
Pre-Amp output voltage:	2.0V (CD play mode: 1KHz, 0 dB, 10 KΩ load)
Fuse:	15A
Dimensions(WxHxD)	178x50x162mm
Weight:	1.7kg

■ Components

Mounting collar	1
Machine screws M5x6mm	4
Mounting bolt (50mm)	1
Wire connector	1
Removable face plate case	1
Trim plate	1
L-key	2
Operating instructions	1
Rubber cushion	1
Remote Controls	1

■ FM Stereo Radio

Frequency range:	87.5 - 108.0 MHz (EUROPE mode) 87.5 - 107.9 MHz (USA mode) 65.0 - 74.0 MHz (OIRT mode)
Usable sensitivity:	8 dBμ
quieting sensitivity(S/N=50dB):	12 dBμ
Frequency response:	30Hz-15kHz
Stereo separation:	30dB(1kHz)
Image response ratio:	50dB
IF response ratio:	70dB
Signal/noise ratio	55dB

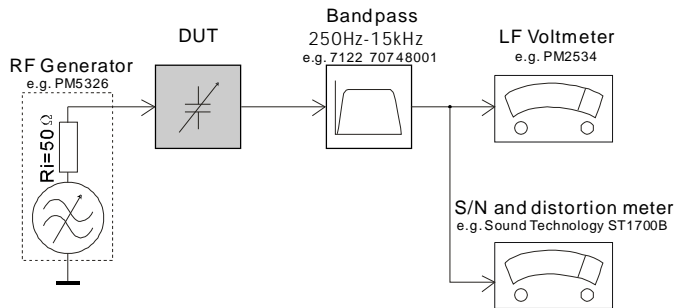
■ Disc Player

System:	Disc digital audio system
Frequency response:	20Hz - 20kHz
Signal/noise ratio:	> 80 dB
Total harmonic distortion:	Less than 0.20%(1 kHz)
Wow and flutter:	Below measurable limits
Channel separation:	> 55 dB

Note: Specifications and design are subject to change without notice for product improvements.

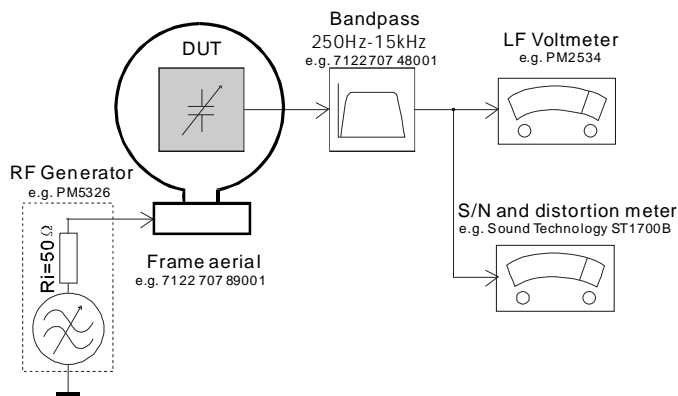
MEASUREMENT SETUP

Tuner FM



Use a bandpass filter to eliminate hum(50Hz,100Hz) and disturbance from the pilotone(19kHz,38kHz).

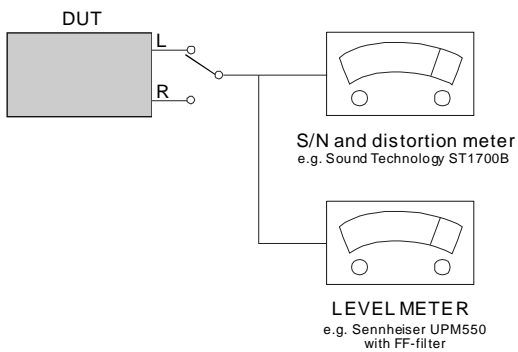
Tuner AM (MW,LW)



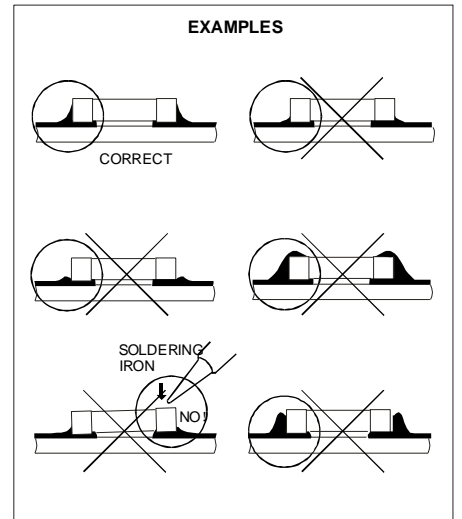
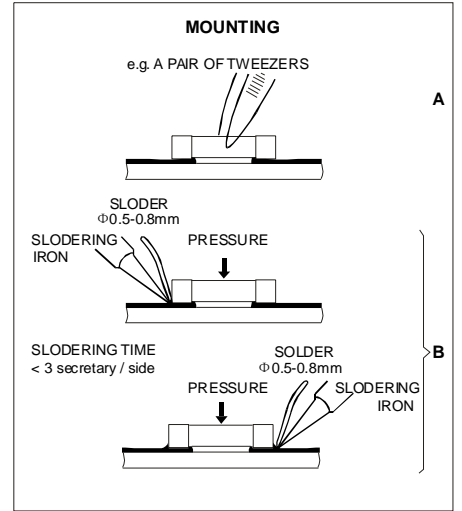
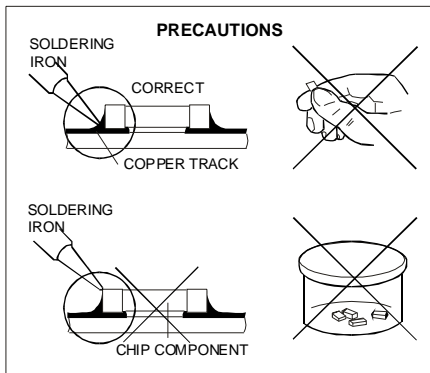
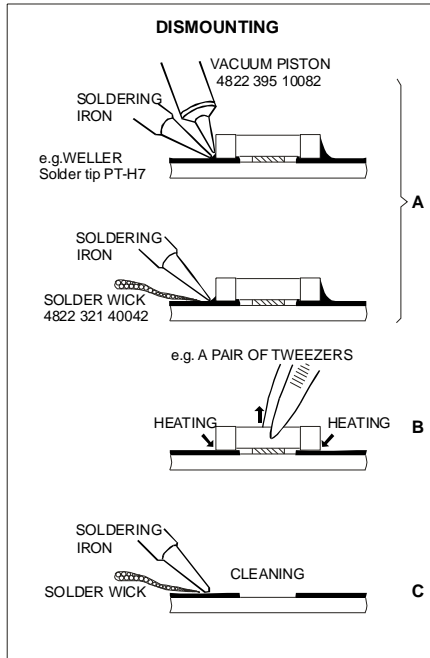
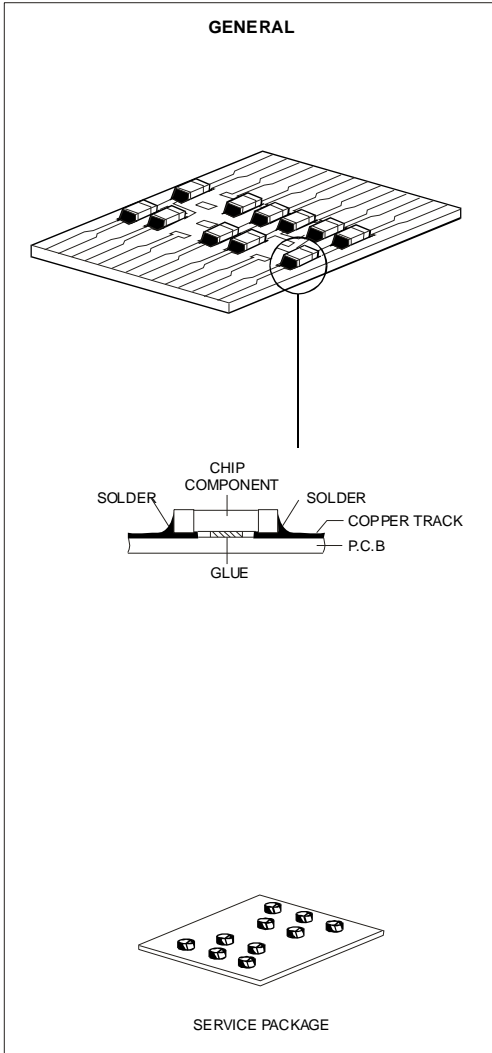
To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage.
Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz,100Hz).

CD

Use Audio Signal Disc SBC429 4822 397 30184
(replaces test disc 3)



HANDLING CHIP COMPONENTS



GB WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD**NL WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques(ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

D WARNING

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen(ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche(ESD).

La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.

Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un bracciale a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

GB ATTENTION

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne."

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

**GB Warning!**

Invisible laser radiation when open.
Avoid direct exposure to beam.

S Varning!

Osynlig laserstrålning när apparaten är öppnad och spärrar är urkopplad. Betrakta ej strålen.

SF Varoitus!

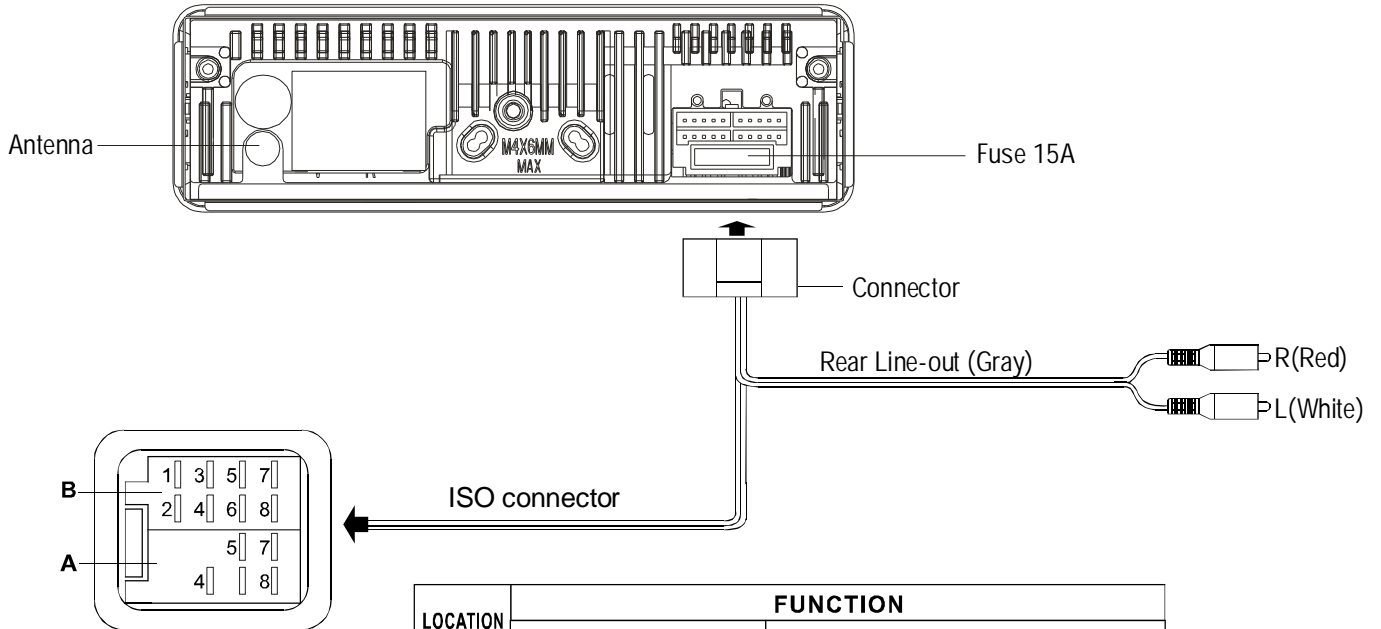
Avatussa laitteessa ja suojalukituksen ohitettaessa olet alltiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

DK Advarsel!

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

PREPARATIONS

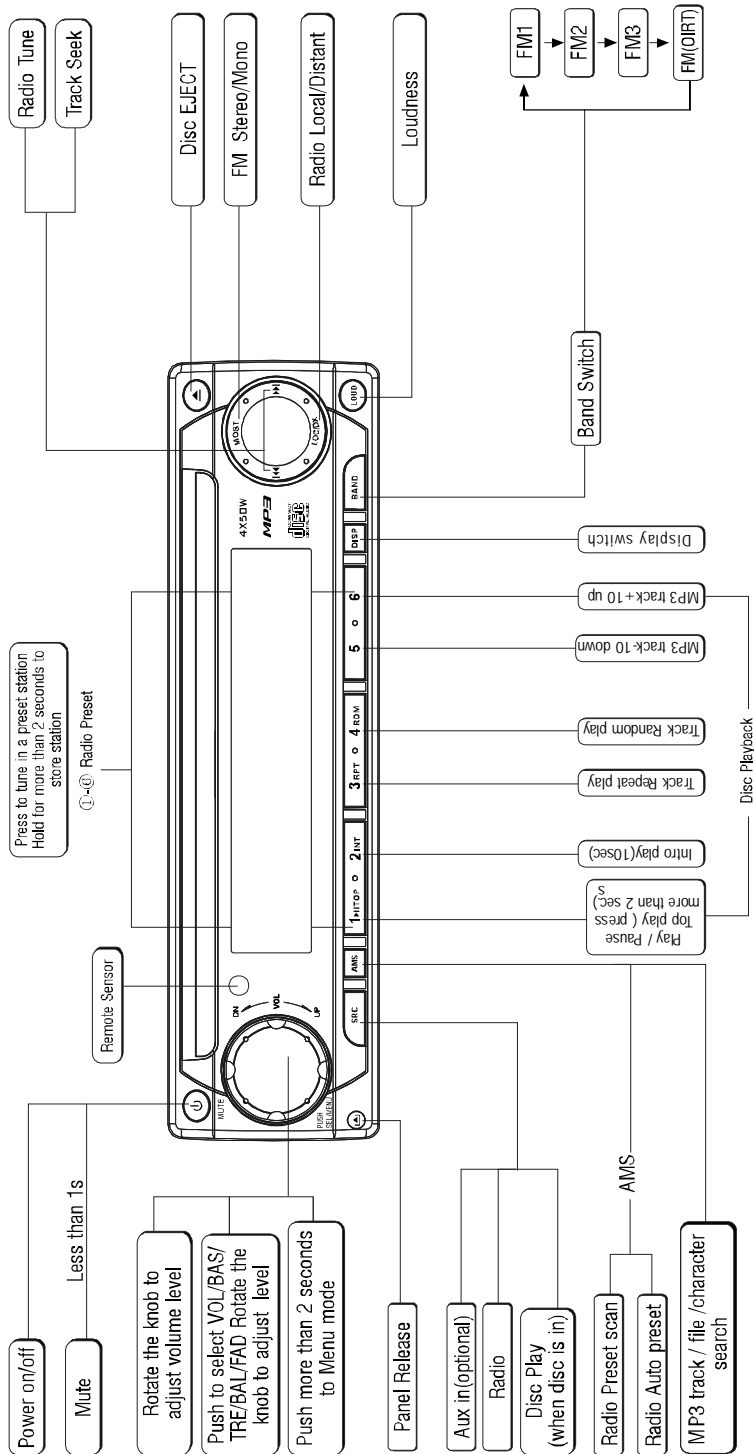
■ Wiring Diagram



LOCATION	FUNCTION	
	A	B
1		Rear Right (+) - Purple
2		Rear Right (-) - Purple / Black Stripe
3		Front Right (+) - Gray
4	ACC+/red	Front Right (-) - Gray / Black Stripe
5	Auto Antenna/blue	Front Left (+) - White
6		Front Left (-) - White / Black Stripe
7	Battery 12V(+)/yellow	Rear Left (+) - Green
8	Ground/black	Rear Left (-) - Green / Black Stripe

CONTROLS

Power on : press any button on the panel except  and  to turn on the unit.

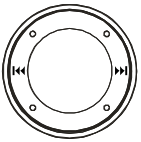


CONTROLS

AMS : Auto Memory Store

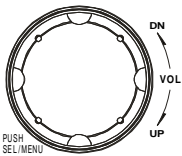
Press briefly to scan the preset station ①-⑥ for 5 seconds each. Hold more than 2 seconds, the 6 strongest available station will be automatically saved in the memory of preset button ①-⑥ .

AMS



Radio : Press briefly either side of the button to tune in the station that you have known its frequency.
Hold it more than 2 seconds, tuning will automatically activate and stop when signals of the next station are received.

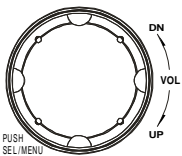
Disc playback : Press briefly either side of the button to go to the next or previous track.
Hold it more than 2 seconds to fast forward or reverse back the track.



SET CLOCK

Press DISP button, time displays. Press again more than 2 seconds, time display blinks.
Rotate the knob clockwise to set hours. Rotate the knob anticlockwise to set minutes.

DISP

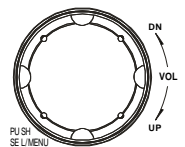


Press the button more than 2 seconds to enter menu mode , then each press changes the mode as follows:
DSP mode → BEEP ON/OFF mode → SEEK 1/2 mode(only in tuner mode) → VOL LAST/ADJ mode

DSP mode: Rotate the knob to choose DSP sound effect:

POP → ROCK → CLASSIC → FLAT → DSP OFF

BEEP ON/OFF mode: Rotate the knob to choose button beep sound on or off.



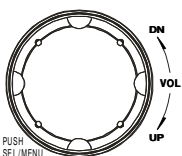
SEEK 1/2 mode: Rotate the knob to choose radio seek mode 1 or 2 .

SEEK 1: searching station will stop when next station is received.

SEEK 2: searching station will stop when ►► or ◀◀ button is released and next station is received.

SEEK 1

SEEK 2



VOL LAST / ADJUST MODE

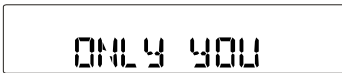
Press knob to choose VOL LAST : the turn-on volume level is the volume level of latest power off.

Rotate knob to choose VOL ADJ,
then rotate the knob to set the turn-on volume level .

VOL LAST

VOL ADJ

MP3 PLAYBACK

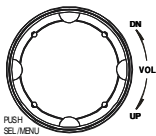


While playing MP3 disc, the folder/file name and ID3 TAG (Song title, Album and Artist) can scroll entirely across the LCD.

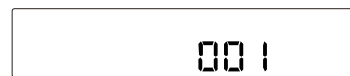
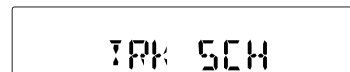
Elapsed playing time & Track number → Folder name & number → File name & number → Song title → Album title → Artist name



MP3 Track search



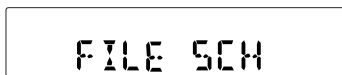
Press AMS button to select "TRACK SCH" mode.
 Press SEL button and LCD display will show "001".
 IF your desired track number is less than 100,
 Rotate the knob to select the first digit and press SEL button once again
 And rotate the knob to set the tenth digit of the track number.
 Press SEL button again more than 0.5 seconds to play the track.
 IF your desired track number is more than 100,
 Rotate the knob to select the first digit and press SEL button to confirm,
 Rotate the knob to select the tenth digit and press SEL button to confirm,
 Rotate the knob to select the hundredth digit and press SEL button play
 the track.



* If the track number you enter is beyond the maximum file number, last song will be played.

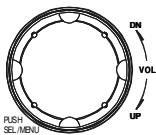
MP3 File search

Press AMS button twice to select "FILE SCH" mode.
 Press SEL button to enter.
 Rotate the knob to select folder.



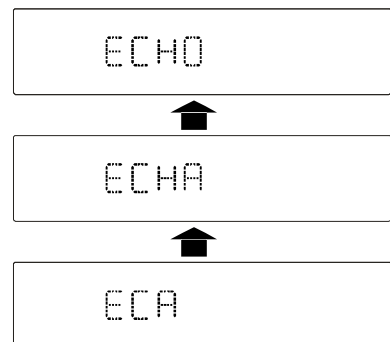
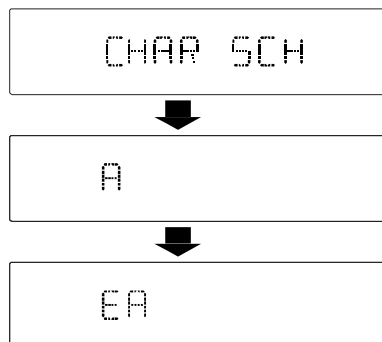
IF you just want to play songs of this folder, press SEL button more than 0.5 seconds to play the first track of the folder.
 IF you want to play desired track of the folder, press SEL button and rotate the knob to select the track you want.
 Press SEL button again to play the track.

MP3 CHARACTER SEARCH



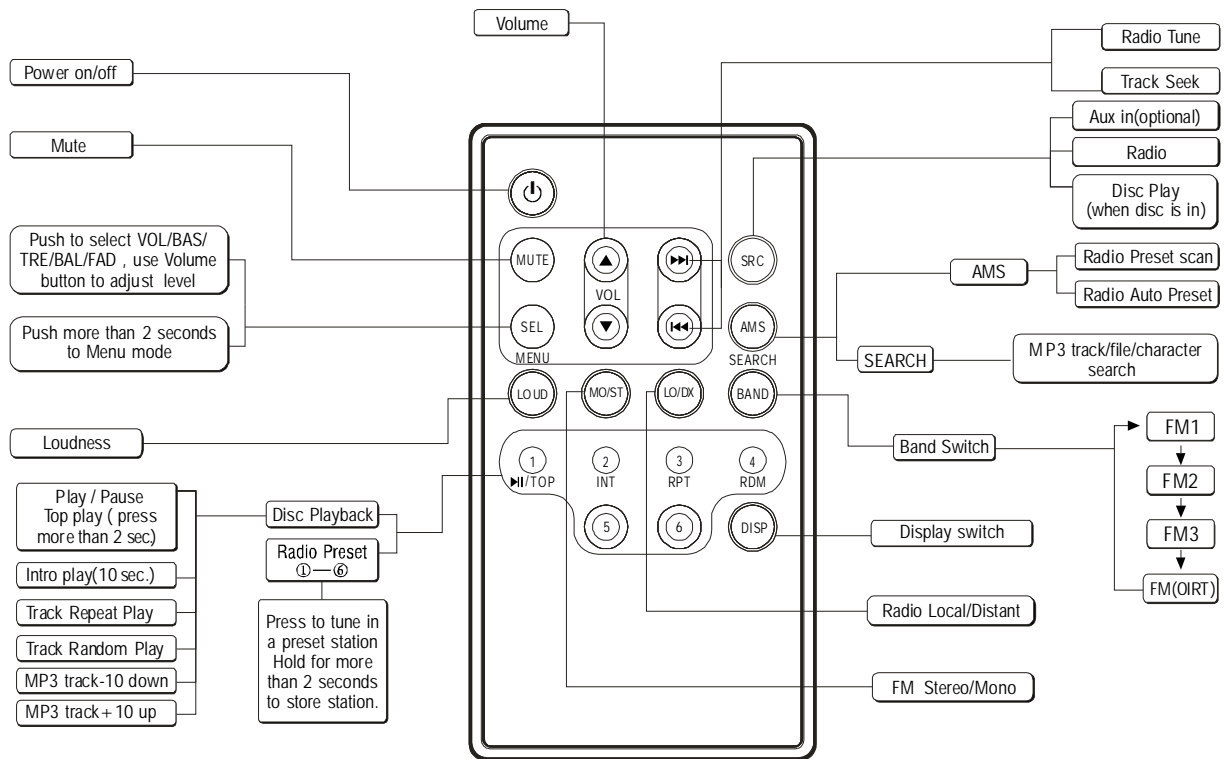
Press AMS button three times to select "CHAR SCH" mode.
 Press SEL button and "A" displayed.
 If you press SEL button more than 0.5 seconds. the track which first character of its name is "A" will be played.
 Rotate the knob to select the 1st character of the desired track name and press SEL button to confirm.
 Then "A" flashes at the next place, select 2nd and other character of the desired track name as steps above.
 Press SEL more than 0.5 seconds to play the track of the select name.

Example :to search character "ECHO".



REMOTE CONTROLS

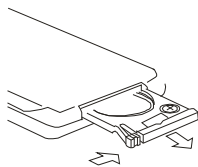
Power On : Press any button on the remote control to turn on the unit.



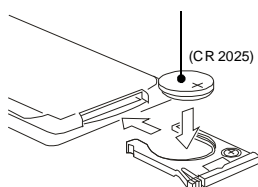
Replacing the lithium battery of remote control unit.

* When the operation range of the card remote control becomes short or no Properly, replace the lithium battery with a new one. Make sure the battery polarity replacement is correct.

1. Pull out the battery holder while pressing the stopper.



2. Insert the button-type lithium battery with the (+) mark facing upward. Insert the battery holder into the remote control.



WARNINGS:

- Store the battery in place where children cannot reach. If a child accidentally swallows the battery, consult a doctor immediately.
- Do not recharge, short, disassemble or heat the battery or dispose it in a fire.
- Doing any of these things may cause the battery to give off heat, crack or start a fire.
- Do not leave the battery with other metallic materials. Doing this may cause the battery to give off heat, crack or start a fire.
- When throwing away or saving the battery, wrap it in tape and insulate; otherwise, the battery may start to give off heat, crack or start a fire.
- Do not poke the battery with tweezers or similar tools. Doing this may cause the battery to give off heat, crack or start a fire.

MAINTENANCE AND TROUBLESHOOTING

Maintenance

Clearing disc

When a disc becomes dirty clean it with a cleaning cloth.
Wipe the disc from the center out.

Cleaning the disc lens

After prolonged use, dirt or dust may accumulate at the lens. To ensure good playback quality, clean the disc with Philips CD lens Cleaner or any commercially available cleaner. Follow the instructions supplied with cleaner.

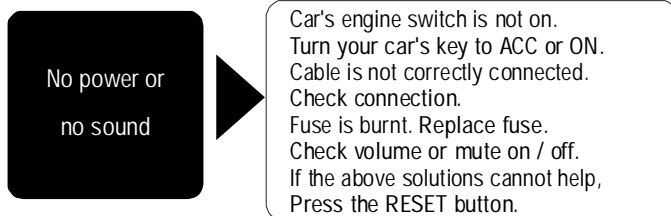
Cleaning the heads and the Tape Parts

To ensure good playback quality, clean the heads (A), the capstan (B), and pressure roller (C) after every 50 hours of tape operation. Use a cotton swab slightly moistened with cleaning fluid or alcohol. You can also clean the heads by playing a cleaning tape once.

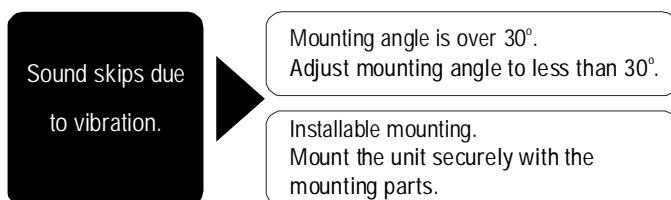
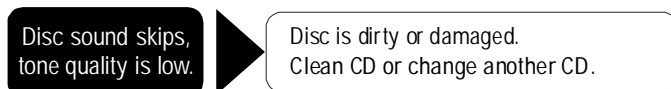
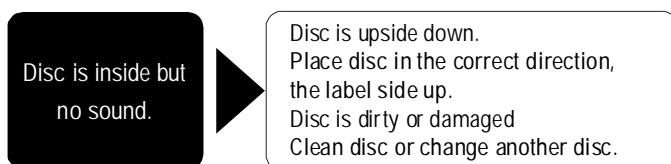
Troubleshooting

If you suspect something is wrong, immediately switch power off. Immediately stop using it and call the store where you purchased it. Never try to repair the unit yourself because it is dangerous to do so.

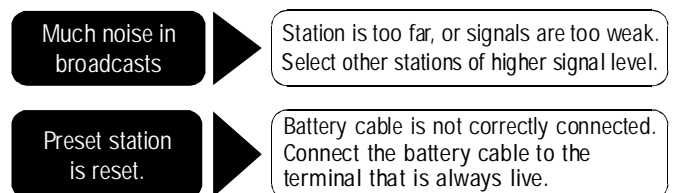
General



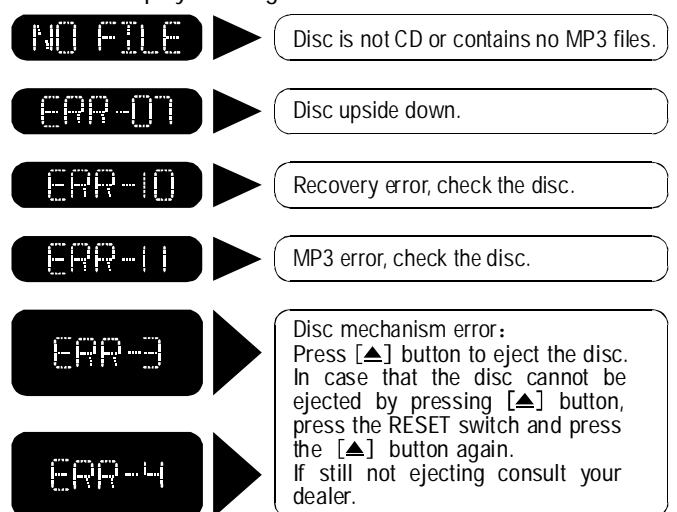
Disc



Radio



Error Display Messages



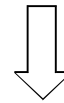
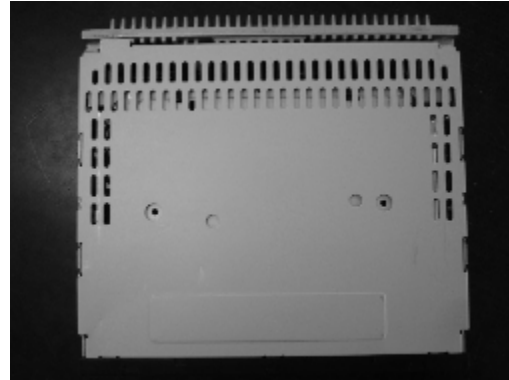
DISMANTLING INSTRUCTIONS

2-1

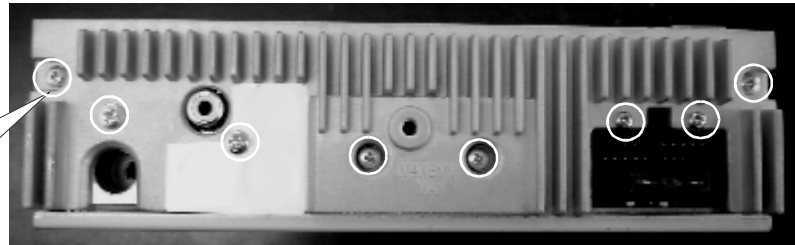
1 Pull out the short sheet from main set.



2 Remove top and bottom covers.



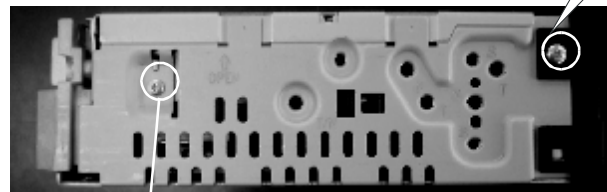
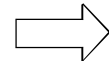
Loosen 8 pcs screw to remove heatsink & Top Cover & Bottom Cover.



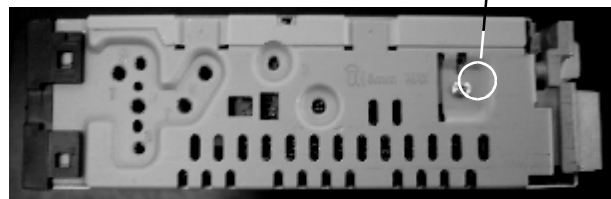
3 Loosen 4 pcs screw to remove Front Cabinet.



Remove 1 pcs screw from Front Cabinet.



Remove 2 pcs screw to dismantle the deck.



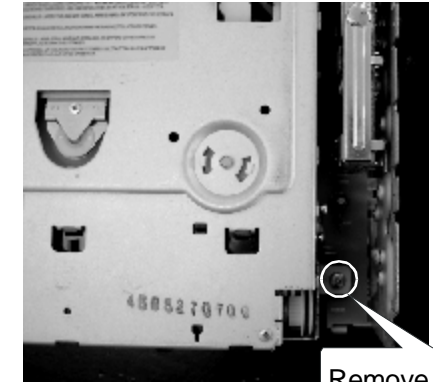
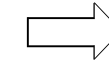
Remove 1 pcs screw on the left side of Front Cabinet.

4 Remove CD loader

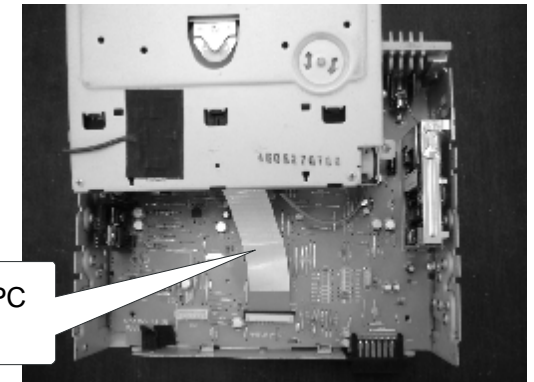
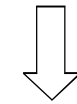
2-1



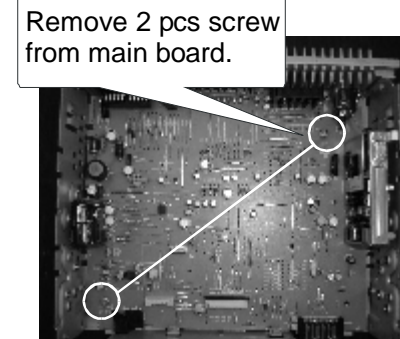
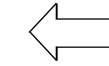
Remove 2 pcs screw from metal side.



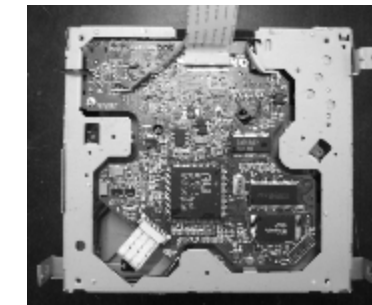
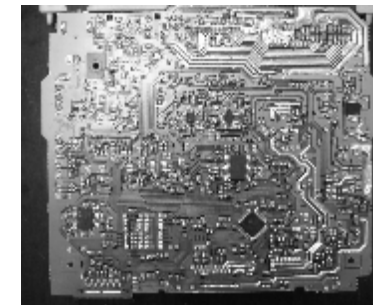
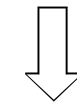
Remove 1 pcs screw from metal side.



Pull out FPC wire.



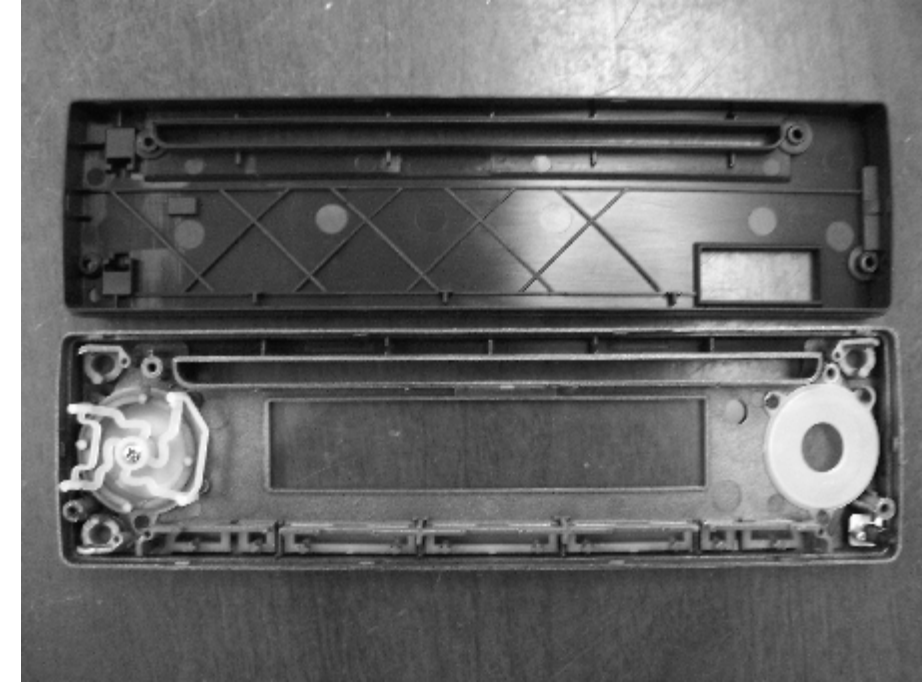
Remove 2 pcs screw from main board.



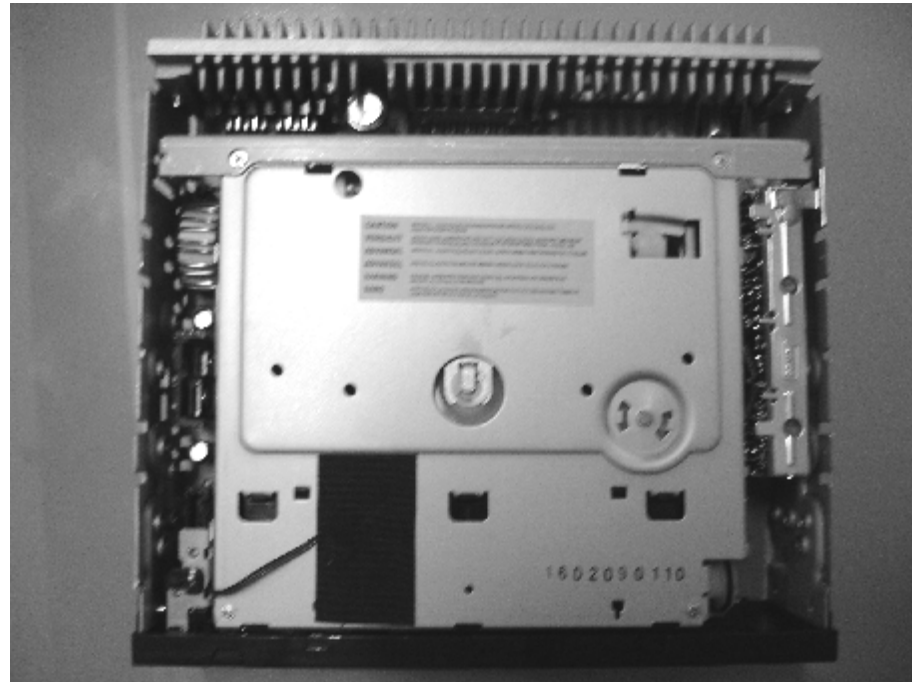
DISMANTLING INSTRUCTIONS



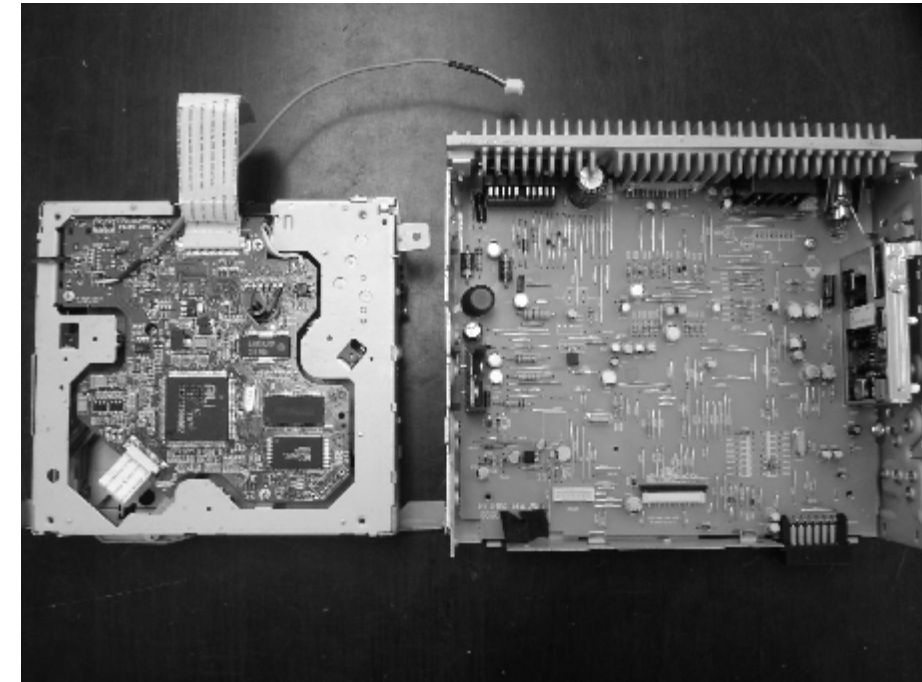
Service Position A



Service Position C

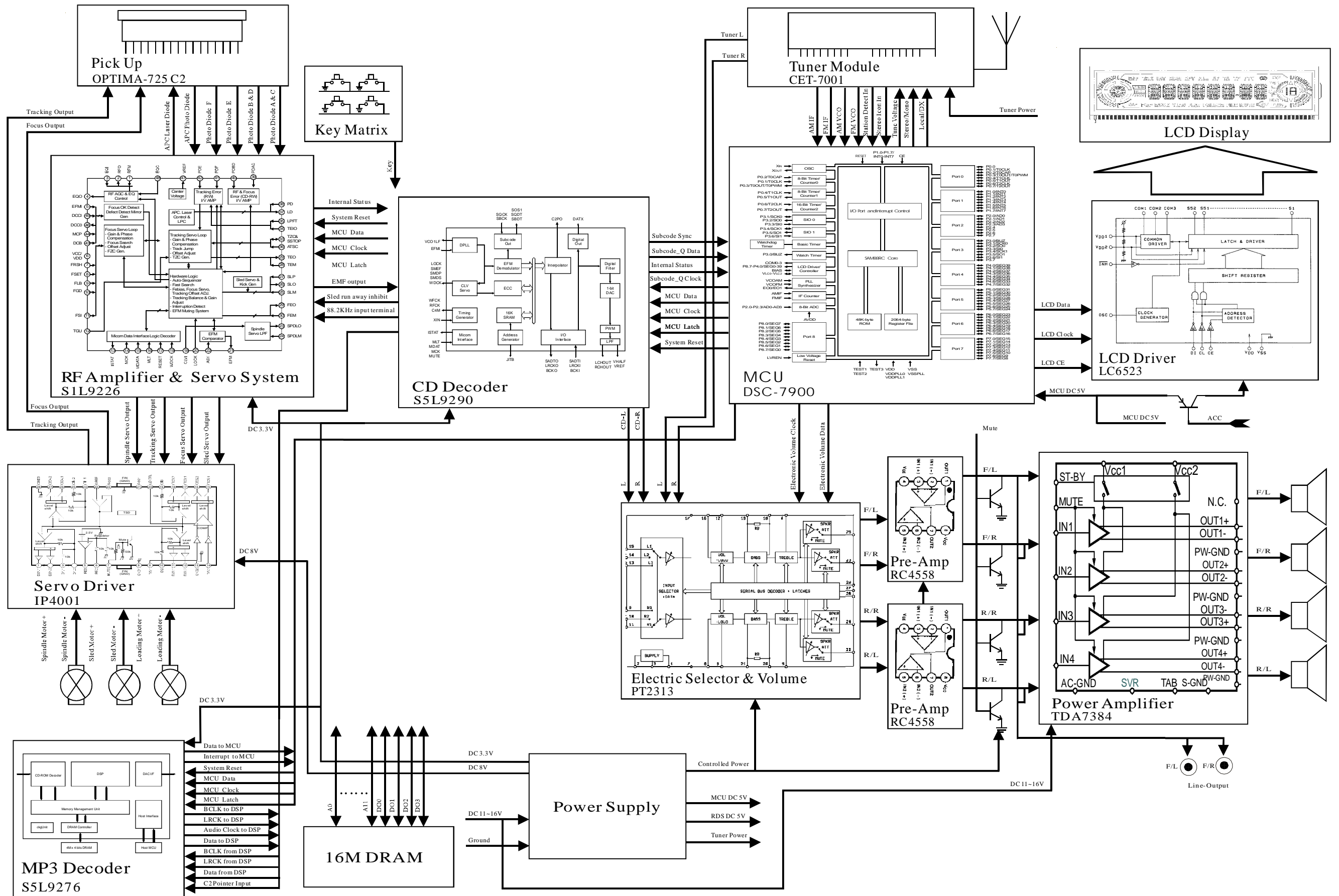


Service Position B

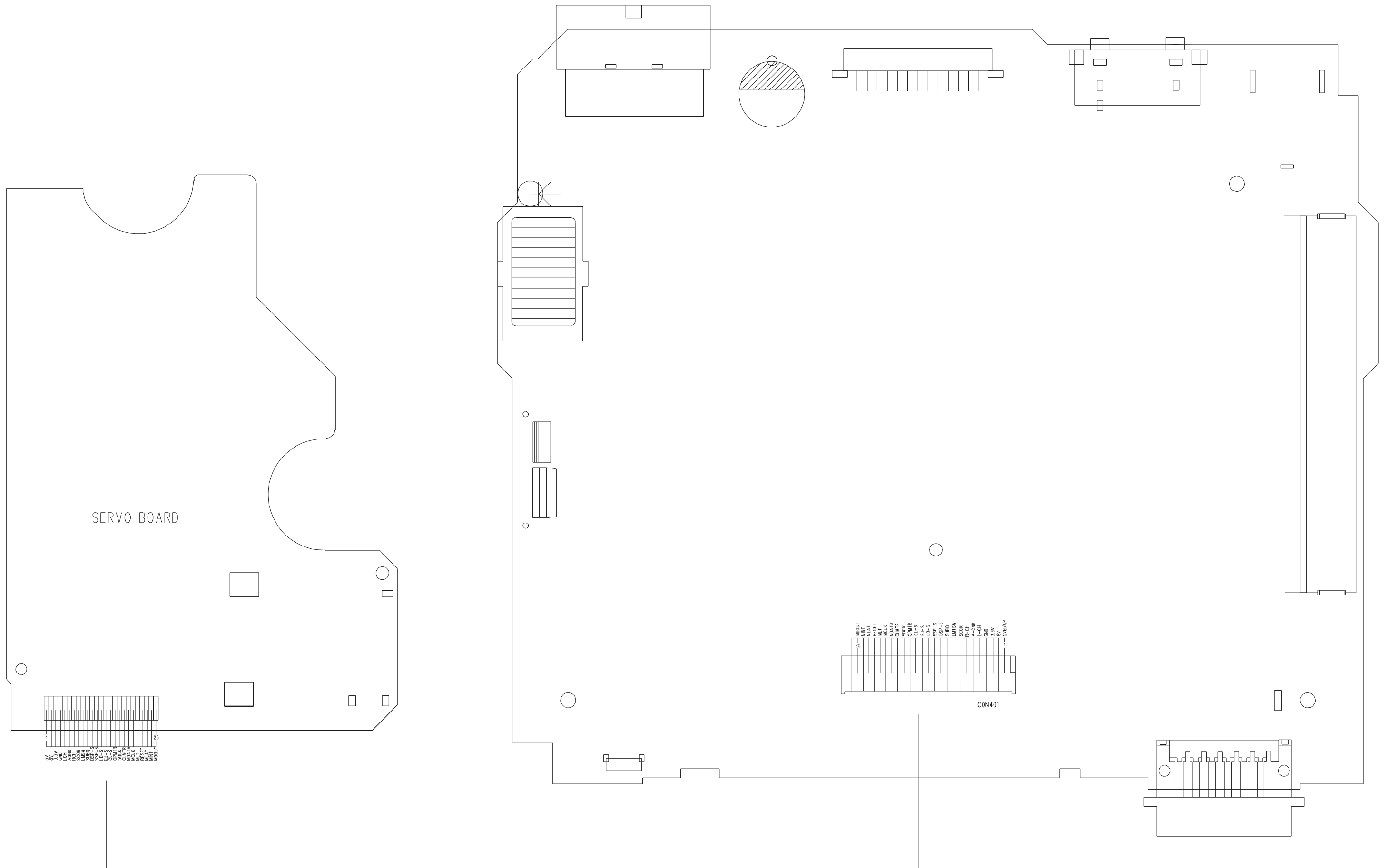


Service Position D

SET BLOCK DIAGRAM



WIRING DIAGRAM

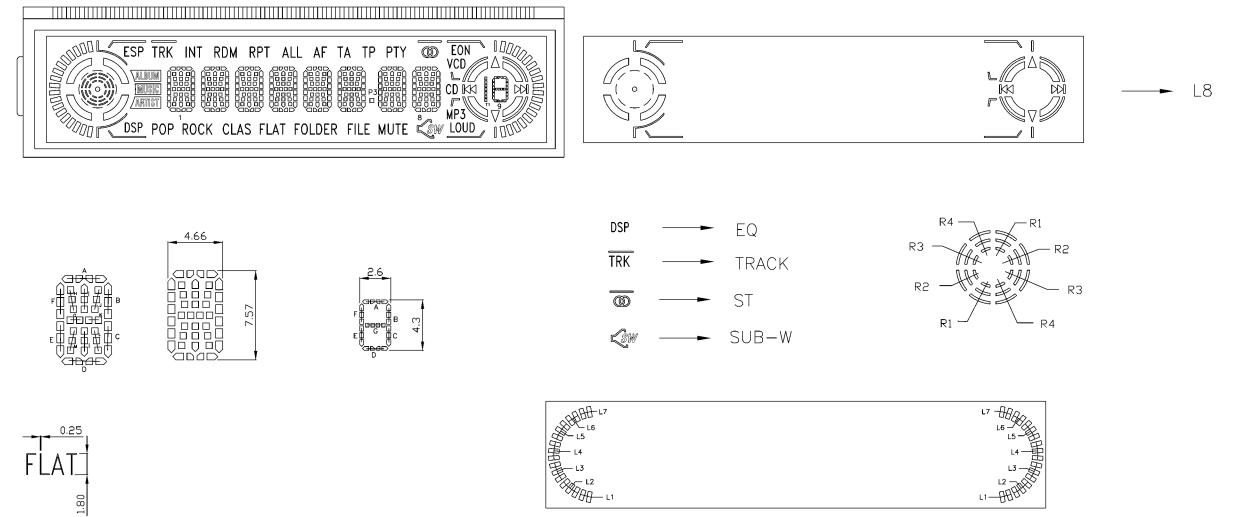


KEY BOARD

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LCD PIN CONNECTION

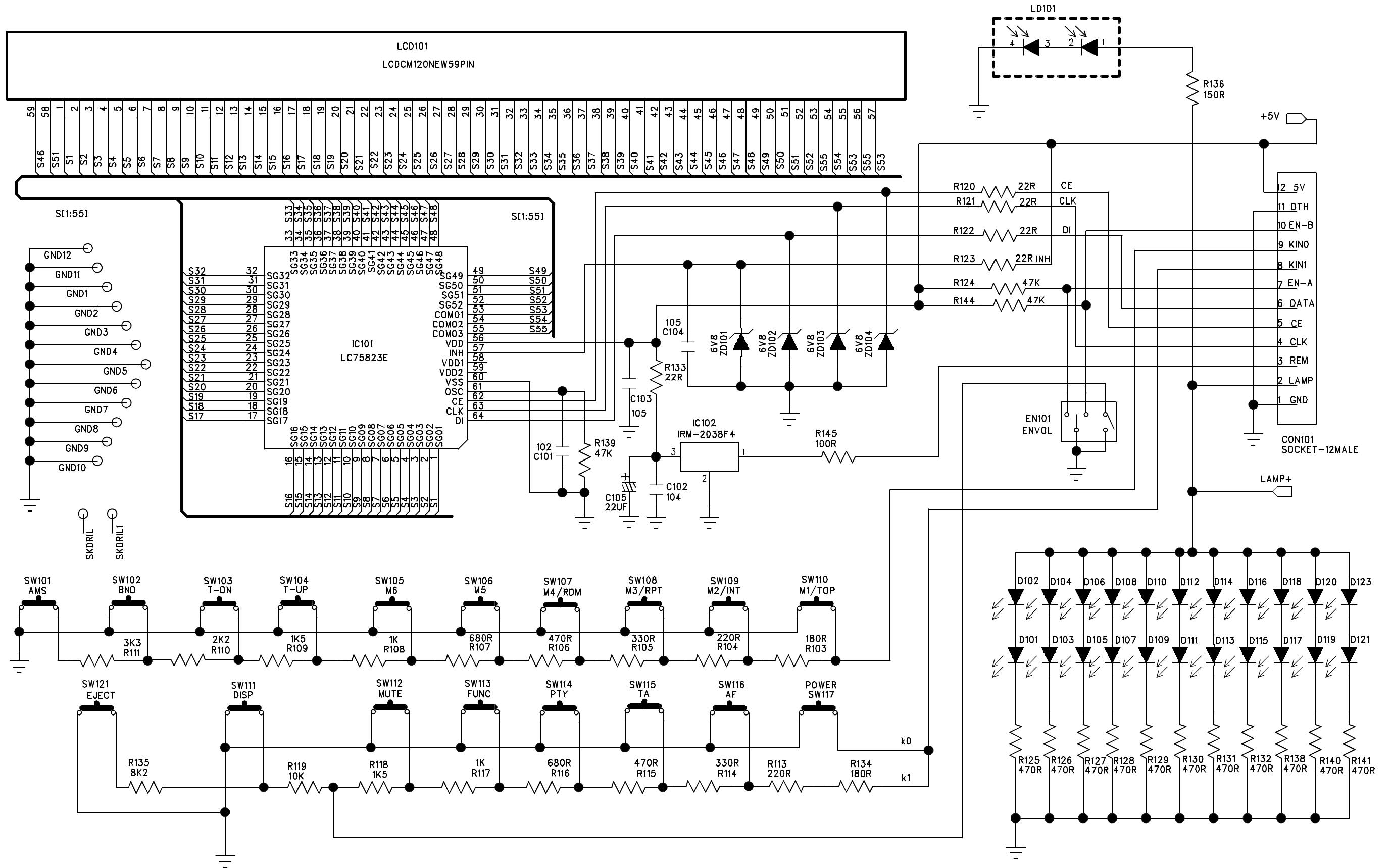


PIN SEGMENT DISPLAY

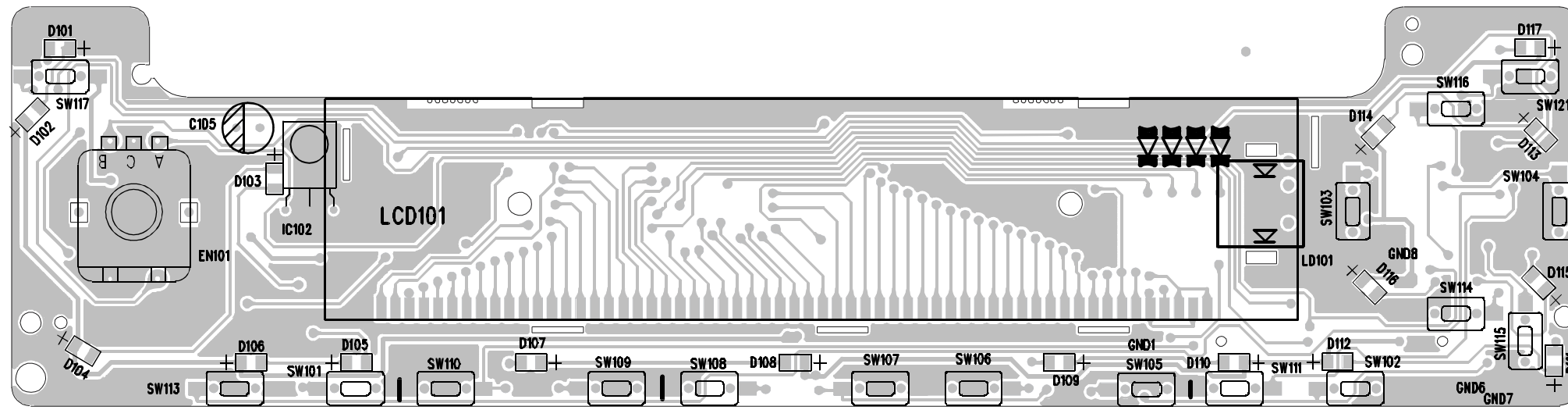
PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
COM1	CLAS	L8	R1	1E	1M	1D	1L	R3	2E	2M	2D	2L	MUTE	3E	3M	3D	3L	VCD	4E	4M	4D	4L	ALL	5E	5M	5D	5L	RPT	6E	6M
COM2	/	/	R4	1G	1I	1K	1C	R2	2G	2I	2K	2C	INT	3G	3I	3K	3C	TRACK	4G	4I	4K	4C	RDM	5G	5I	5K	5C	MP3	6G	6I
COM3	/	ESP	1F	1H	1A	1J	1B	2F	2H	2A	2J	2B	3F	3H	3A	3J	3B	4F	4H	4A	4J	4B	5F	5H	5A	5J	5B	6F	6H	6A

PIN	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
COM1	6D	6L	FOLDER	7E	7M	7D	7L	FILE	8E	8M	8D	8L	LOUD	PTY	EQN	EQ	FLAT	CLAS	9A	9B	L6	L3	L8	/	COM1	/	/	COM1	/
COM2	6K	6C	MUSIC	7G	7I	7K	7C	ALBUM	8G	8I	8K	8C	ARTIST	AF	TA	POP	--	9F	9G	9C	L5	L2	SUB-W	/	/	COM2	/	/	/
COM3	6J	6B	7F	7H	7A	7J	7B	8F	8H	8A	8J	8B	ST	P3	TP	TI	ROCK	9E	9D	L7	L4	L1	ESP	CD	/	/	COM3	/	COM3

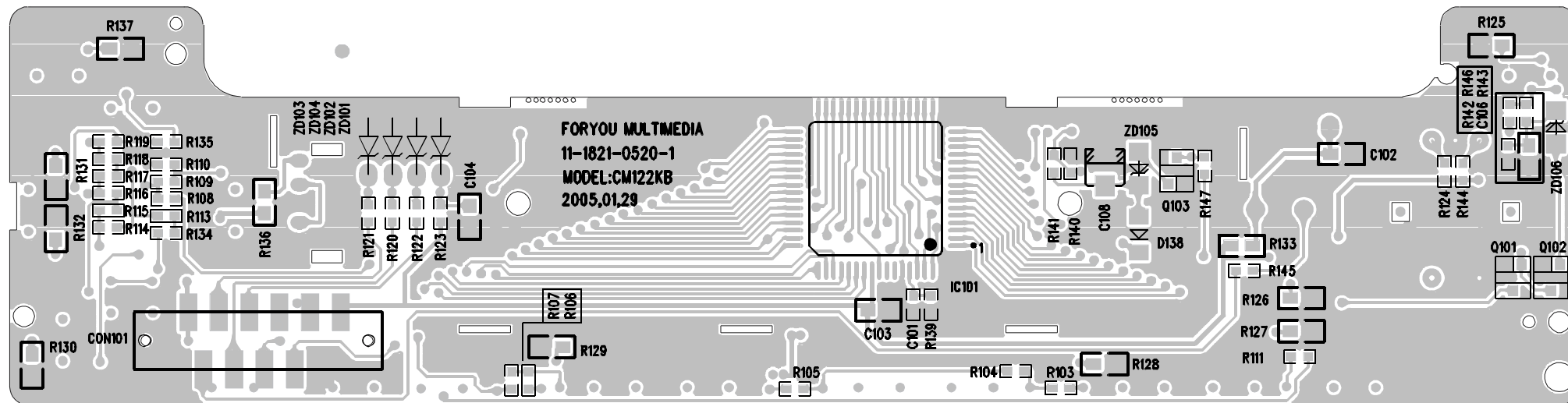
KEY BOARD - CIRCUIT DIAGRAM



KEY BOARD - LAYOUT DIAGRAM TOP VIEW



KEY BOARD - LAYOUT DIAGRAM BOTTOM VIEW



ELECTRICAL PARTS LIST - KEY BOARD

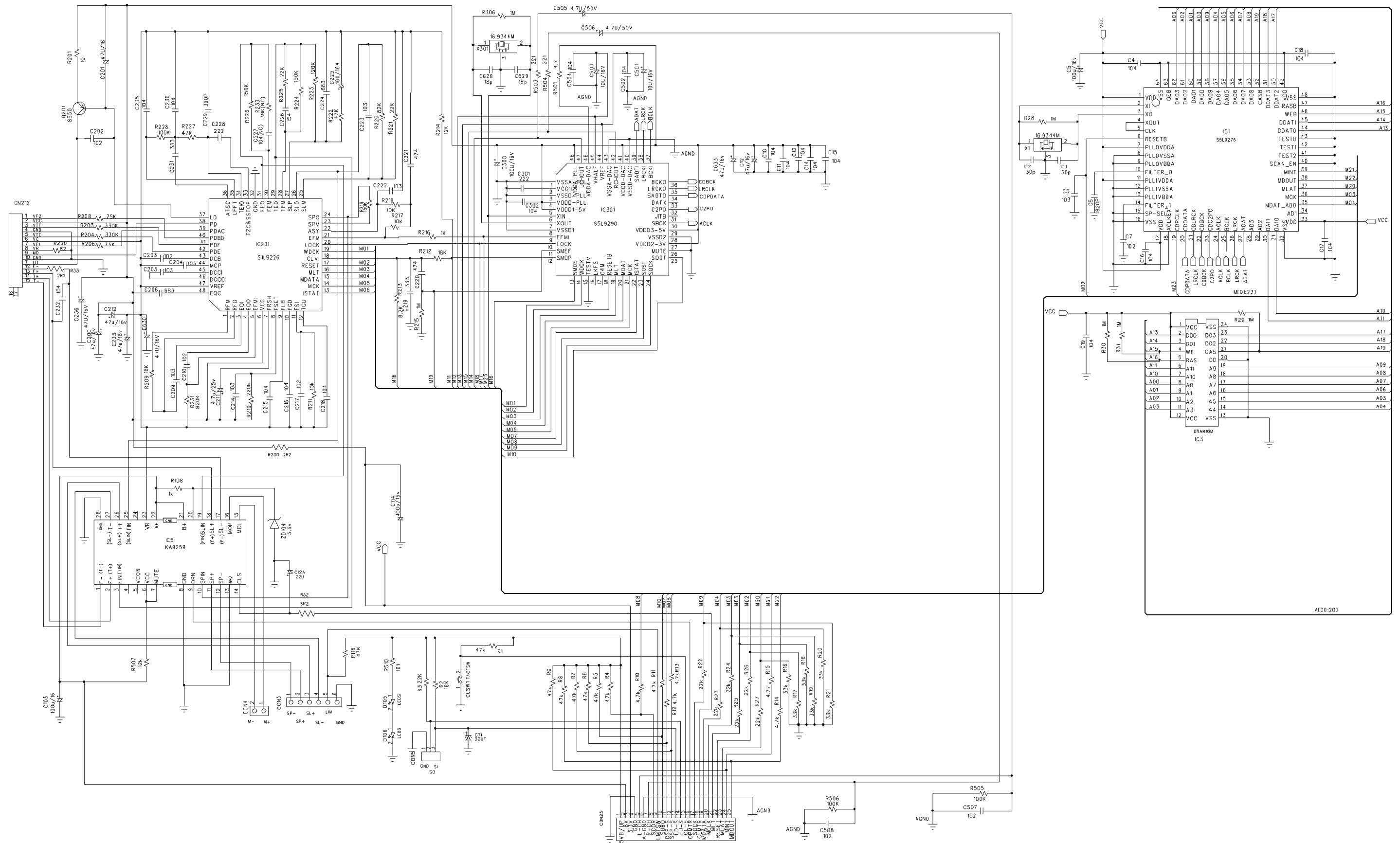
Part NO.	Description	QTY	Location
82-CM122-KB00-A	CM122 SMT KB	1	
11-1821-0520-B	PCB CM122 KB D/S 1.2MM	1	
11-0102-1022-0	RMF 1K Ω 1/16W \pm 5% SMT 0603	2	R108,R117
11-0102-1521-0	RMF 1K5 Ω 1/16W \pm 5% SMT 0603	2	R109,R118
11-0102-2222-0	RMF 2K2 Ω 1/16W \pm 5% SMT 0603	1	R110
11-0102-3322-0	RMF 3K3 Ω 1/16W \pm 5% SMT 0603	1	R111
11-0102-8222-0	RMF 8K2 Ω 1/16W \pm 5% SMT 0603	1	R135
11-0102-1032-0	RMF 10K Ω 1/16W \pm 5% SMT 0603	2	R119,R146
11-0102-2231-0	RMF 22K Ω 1/16W \pm 5% SMT 0603	1	R123
11-0102-2202-0	RMF 22 Ω 1/16W \pm 5% SMT 0603	4	R121,R122,R120,R133
11-0102-4732-0	RMF 47K Ω 1/16W \pm 5% SMT 0603	4	R139,R124,R144,R141
11-0102-1012-0	RMF 100 Ω 1/16W \pm 5% SMT 0603	1	R145
11-0102-1811-0	RMF 180 Ω 1/16W \pm 5% SMT 0603	2	R103,R134
11-0102-2211-0	RMF 220 Ω 1/16W \pm 5% SMT 0603	2	R104,R113
11-0102-2721-0	RMF 2K7 Ω 1/16W \pm 5% SMT 0603	1	R147
11-0102-3311-0	RMF 330 Ω 1/16W \pm 5% SMT 0603	2	R105,R114
11-0102-4711-0	RMF 470 Ω 1/16W \pm 5% SMT 0603	2	R106,R115
11-0102-5121-0	RMF 5K1 Ω 1/16W \pm 5% SMT 0603	1	R140
11-0102-6811-0	RMF 680 Ω 1/16W \pm 5% SMT 0603	2	R107,R116
11-0102-3342-0	RMF 330K Ω 1/16W \pm 5% SMT 0603	1	R143
11-0102-6841-0	RMF 680K Ω 1/16W \pm 5% SMT 0603	1	R142
11-0103-1022-0	RMF 1K Ω 1/10W \pm 5% SMT 0805	1	R137
11-0103-1512-0	RMF 150 Ω 1/10W \pm 5% SMT 0805	1	R136
11-0103-4711-0	RMF 470 Ω 1/10W \pm 5% SMT 0805	8	R125,R126,R127,R128,R129, R130,R131,R132
11-0202-1021-0	CC1000PF/50V \pm 10% 0603(X7R)	1	C101
11-0203-1041-0	CC0.1 μ F/16V +80% -20% 0805	1	C102
11-0203-1051-0	CC 1 μ F/25V -80% +20% SMT 0805	3	C103,C104,C106
11-0241-2261-0	CT 22 μ F/6.3V \pm 20% SMT 3216	1	C108
11-0406-0005-A	LED 2.2V 10MA GREEN SMT 0603	17	D101~D117
11-0411-0008-A	DIODE IN4148 SMT 1/2W	1	D138
11-0431-0331-A	ZENER DIODE 3.3V \pm 5% 1/2W 1206	2	ZD105,ZD106
11-0501-0001-A	TR DTC343TK(SMT SOT-23)	3	Q101~Q103
11-0901-0065-A	IC PT6523 LCD DRIVE	1	IC101
11-2011-0025-0	TACT SW 250GF 4.3MM(SMT)CHIFENG	17	SW101~SW111,SW113~SW117, SW121
11-0181-0010-A	ECB12(7X5)(PV)S17	1	
11-0406-0008-A	LED 3.5V 20MA WHITE	2	LD101~102
11-0224-2261-0	CE 22 μ F/16V \pm 20% 4X5 105 $^{\circ}$ C	1	C105
11-0421-0001-B	REMOTE-CRM HEADER	1	

SERVO BOARD

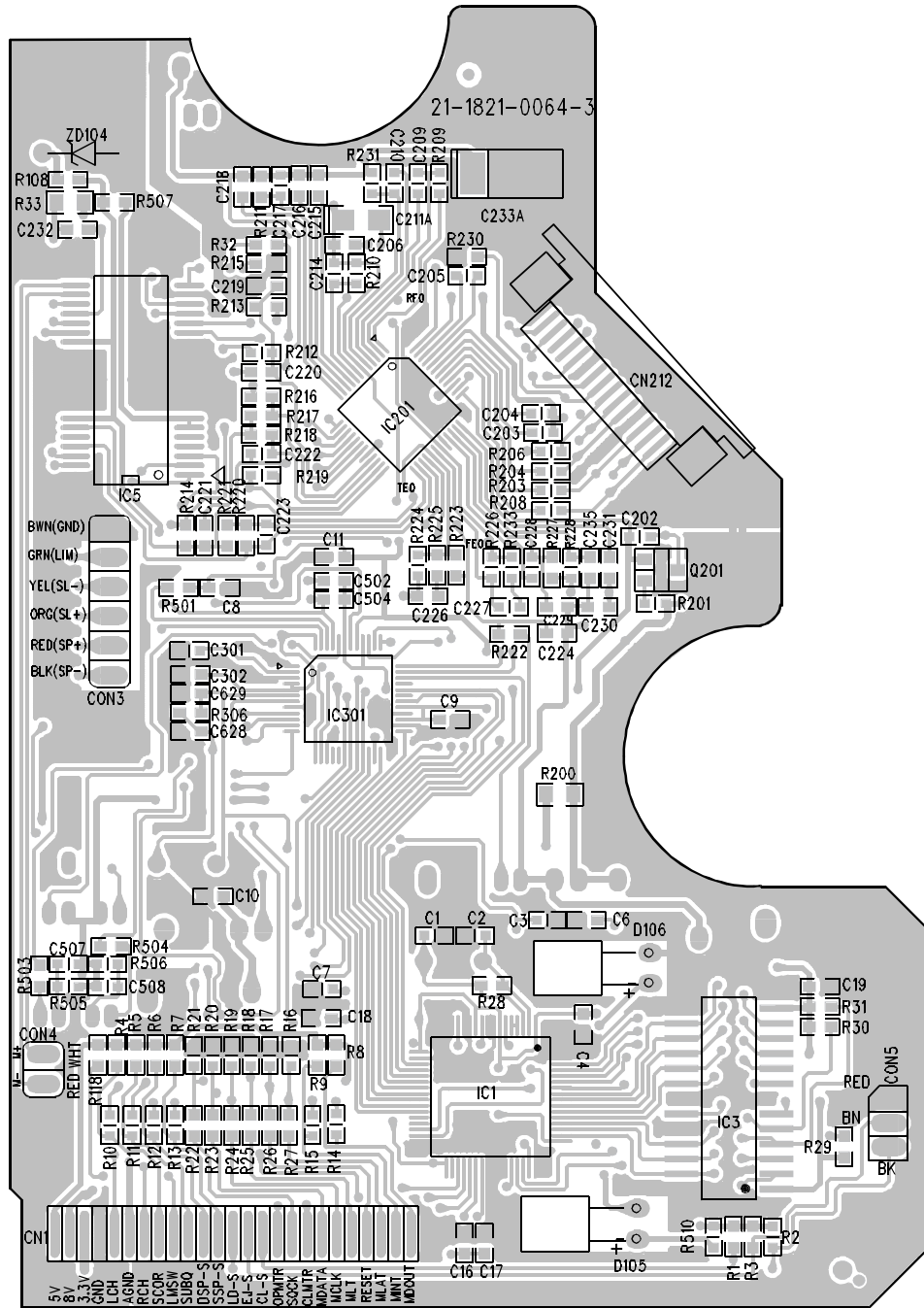
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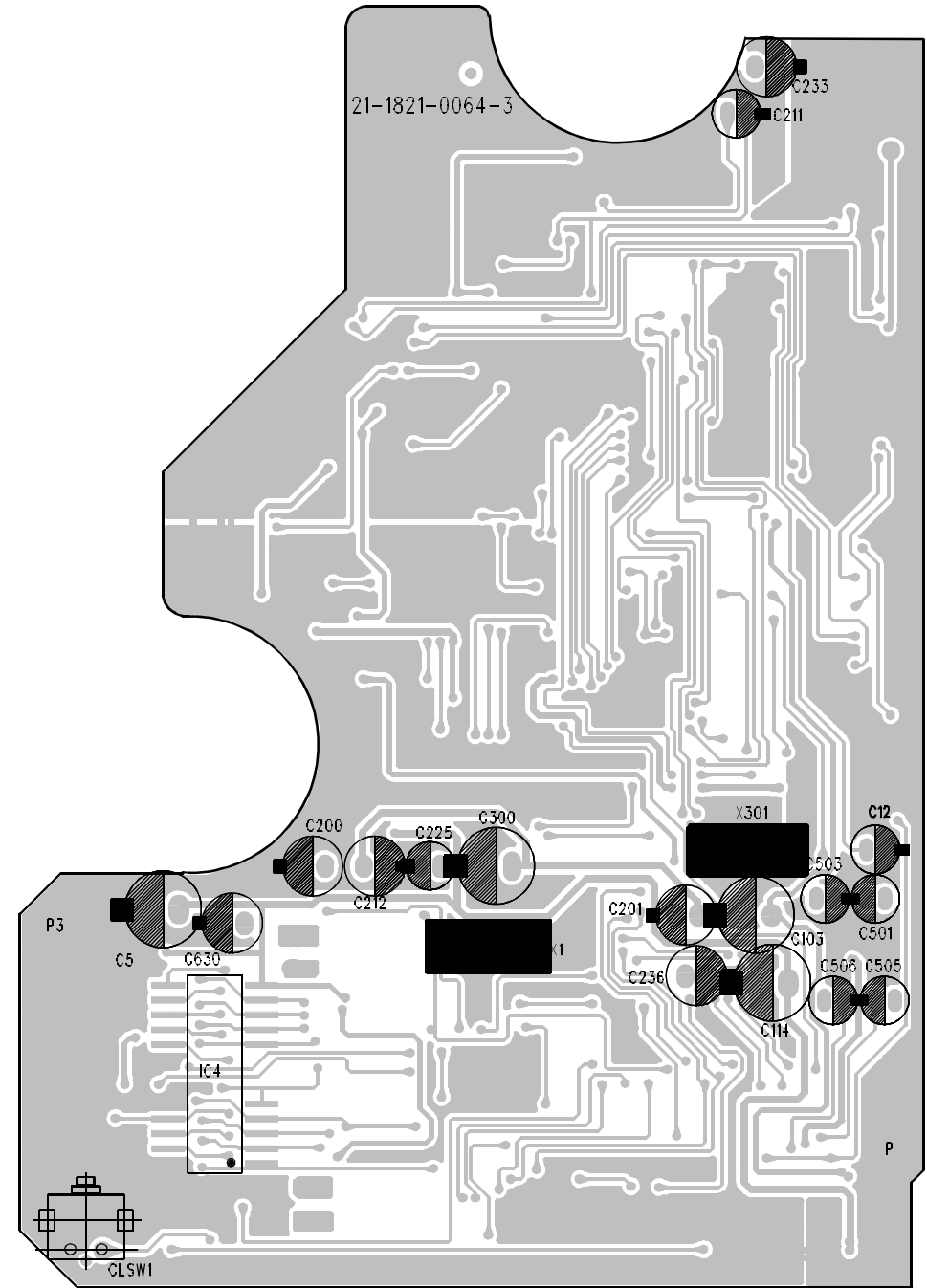
SERVO BOARD - CIRCUIT DIAGRAM



SERVO BOARD - LAYOUT DIAGRAM TOP VIEW



SERVO BOARD - LAYOUT DIAGRAM BOTTOM VIEW



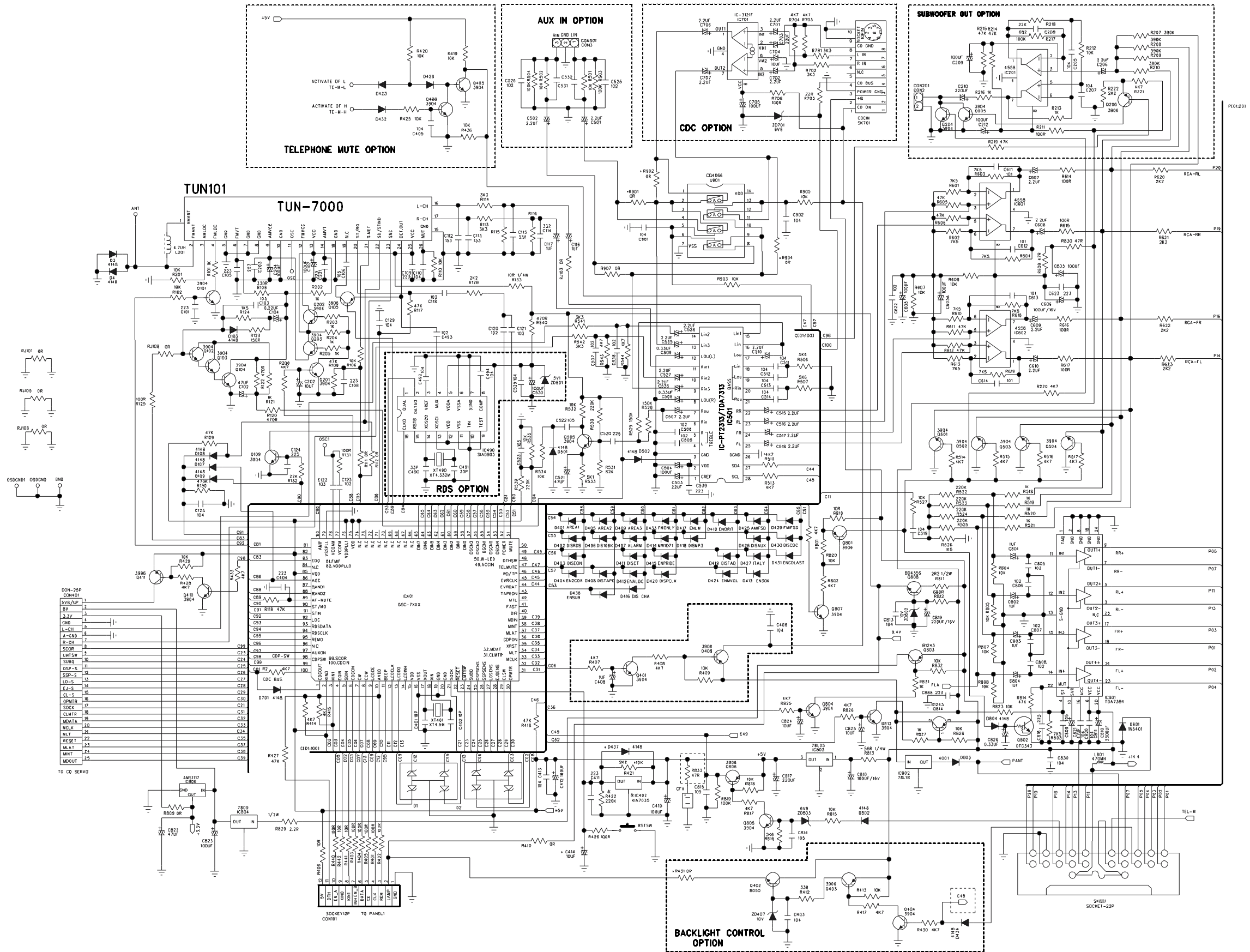
ELECTRICAL PARTS LIST - SERVO BOARD

Part NO.	Description	QTY	Location	Part NO.	Description	QTY	Location
82-CM110-SB01-A	CM110 SMT SB	1		11-0224-4752-0	CE 4.7 μ F/50V \pm 20% 4X5 105° C	3	C505,C506,C211
11-0102-1002-0	RMF 10 Ω 1/16W \pm 5% SMT 0603	1	R201	11-0224-4767-0	CE 47 μ F/16V \pm 20% 5X5 105° C	6	C200,C233,C212,C630,C201,C236
11-0102-1012-0	RMF 100 Ω 1/16W \pm 5% SMT 0603	1	R510	11-0406-0011-0	PHOTOTRANSISTOR IR928-6C	2	D105.D106
11-0102-1022-0	RMF 1K Ω 1/16W \pm 5% SMT 0603	2	R216,R108	11-0431-0561-A	ZENER DIODE 5.6V 1/2W	1	ZD104
11-0102-1032-0	RMF 10K Ω 1/16W \pm 5% SMT 0603	2	R217,R218	11-1500-0004-A	XT 16.9344MHZ (-20° C~+70° C)	1	X1
11-0102-1042-0	RMF 100K Ω 1/16W \pm 5% SMT 0603	3	R228,R505,R506	11-2011-0005-A	CD DETECTOR CDX100	1	CLSW1
11-0102-1051-0	RMF 1M Ω 1/16W \pm 5% SMT 0603	5	R215,R28~31	16-0100-0013-0	25PIN FFC 1.25MM L=100MM	1	CN1
11-0102-1231-0	RMF 12K Ω 1/16W \pm 5% SMT 0603	2	R214,R507				
11-0102-1242-0	RMF 120K Ω 1/16W \pm 5% SMT 0603	1	R223				
11-0102-1542-0	RMF 150K Ω 1/16W \pm 5% SMT 0603	4	R224,R219,R226,R220				
11-0102-1832-0	RMF 18K Ω 1/16W \pm 5% SMT 0603	3	R212,R2,R211				
11-0102-2211-0	RMF 220 Ω 1/16W \pm 5% SMT 0603	2	R503,R504				
11-0102-2231-0	RMF 22K Ω 1/16W \pm 5% SMT 0603	14	R221,R22~27,R3,R5~9,R225				
11-0102-2241-0	RMF 220K Ω 1/16W \pm 5% SMT 0603	1	R210				
11-0102-3332-0	RMF 33K Ω 1/16W \pm 5% SMT 0603	6	R16~21				
11-0102-4722-0	RMF 4K7 Ω 1/16W \pm 5% SMT 0603	6	R10~15				
11-0102-4732-0	RMF 47K Ω 1/16W \pm 5% SMT 0603	5	R227,R222,R1,R4,R118				
11-0102-4R71-0	RMF 4 Ω 7 1/16W \pm 5% SMT 0603	1	R501				
11-0102-7531-0	RMF 75K Ω 1/16W \pm 5% SMT 0603	2	R206,R208				
11-0102-8201-0	RMF 82 Ω 1/16W \pm 5% SMT 0603	1	R230				
11-0102-8222-0	RMF 8K2 Ω 1/16W \pm 5% SMT 0603	2	R213,R32				
11-0102-8241-0	RMF 820K Ω 1/16W \pm 5% SMT 0603	1	R231				
11-0103-2R21-0	RMF 2R2 Ω 1/10W \pm 5% SMT 0805	2	R200,R33				
11-0202-1021-0	CC1000PF/50V \pm 10% 0603(X7R)	6	C7,C202,C210,C217,C507,C508				
11-0202-1032-0	CC0.01 μ F/50V \pm 20% 0603	8	C204,C205,C209,C214,C222,C223,C3,C203				
11-0202-1042-0	CC0.1 μ F/16V +80% -20% 0603	18	C4,C16~19,C215,C216,C218,C230,C235,C302, C504,C502,C232,C8,C9,C10,C11				
11-0202-1541-0	CC0.15 μ F/50V+80% -20% 0603	1	C226				
11-0202-2222-0	CC2200PF/50V \pm 10% 0603(X7R)	2	C228,C301				
11-0202-3301-0	CC33PF/50V \pm 5% SMT 0603	2	C1,C2				
11-0202-3332-0	CC0.033 μ F/50V \pm 20% SMT 0603	2	C231,C219				
11-0202-3911-0	CC 390PF/50V \pm 10% SMT 0603	1	C229				
11-0202-4741-0	CC0.47 μ F/25V -80% +20% 0603	2	C220,C221				
11-0202-6832-0	CC 0.068 μ F/50V \pm 20% SMT 0603	2	C206,C224				
11-0202-8211-0	CC 820PF/50V \pm 10% SMT 0603	1	C6				
11-0501-0010-0	TR S8550 SMT SOT-23	1	Q201				
11-0901-0002-A	IC DRAM 4MX4 TSOP 3.3V	1	IC3				
11-0901-0003-A	IC.S1L9226	1	IC201				
11-0901-0132-A	IC IP4001D	1	IC5				
11-0901-0005-A	IC S5L9276	1	IC1				
11-0901-0006-A	IC.S5L9290	1	IC301				
11-1821-0064-D	PCB SB D/S 110X68X1.2MM SHINWA	1					
11-3111-0004-A	15PIN FPC SOCKET PITCH=1.0MM	1	CN212				
11-0102-3342-0	RMF 330K Ω 1/16W \pm 5% SMT 0603	2	R203,R204				
11-0102-1532-0	RMF 15K Ω 1/16W \pm 5% SMT 0603	1	R209				
15-0900-0017-1	LASER WARNING LABEL FOR CMV100	1	TO CD DECK CDX100				
13-1507-0003-0	SPONGE FOR FPC FOR 206	1	TO SERVO BOARD				
21-3501-0008-C	CD DECK CL-C01FY6 SHINWA	1					
14-1254-2004-0	PW,COLOR ZINC, PTS, SCREW	4	SB TO DECK				
11-0224-1067-0	CE 10 μ F/16V \pm 20% 4X5 105° C	3	C225.C501,C503				
11-0224-1077-0	CE 100 μ F/16V \pm 20% 6.3X5 105° C	4	C5,C300,C103,C114				

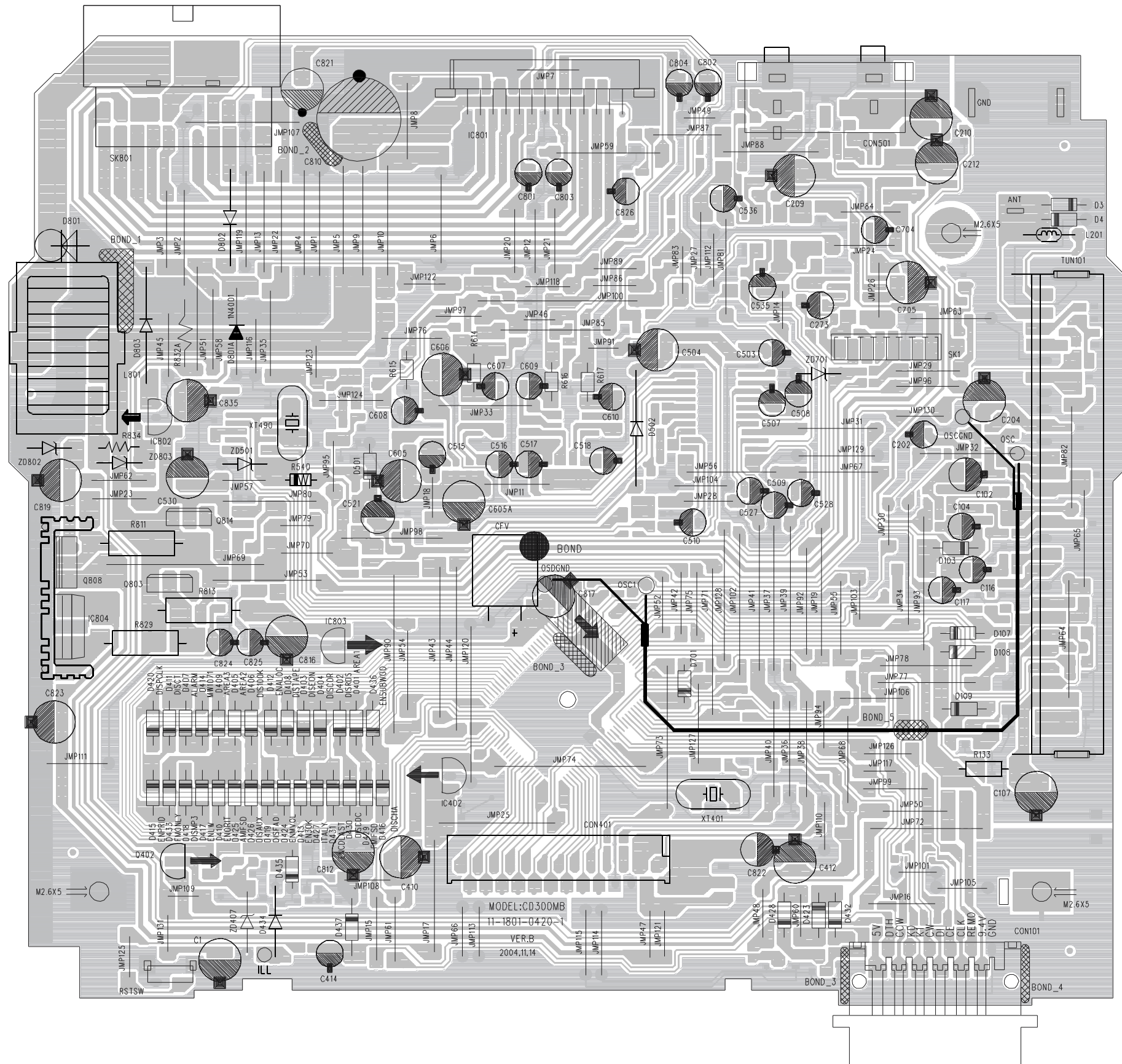
MAIN BOARD

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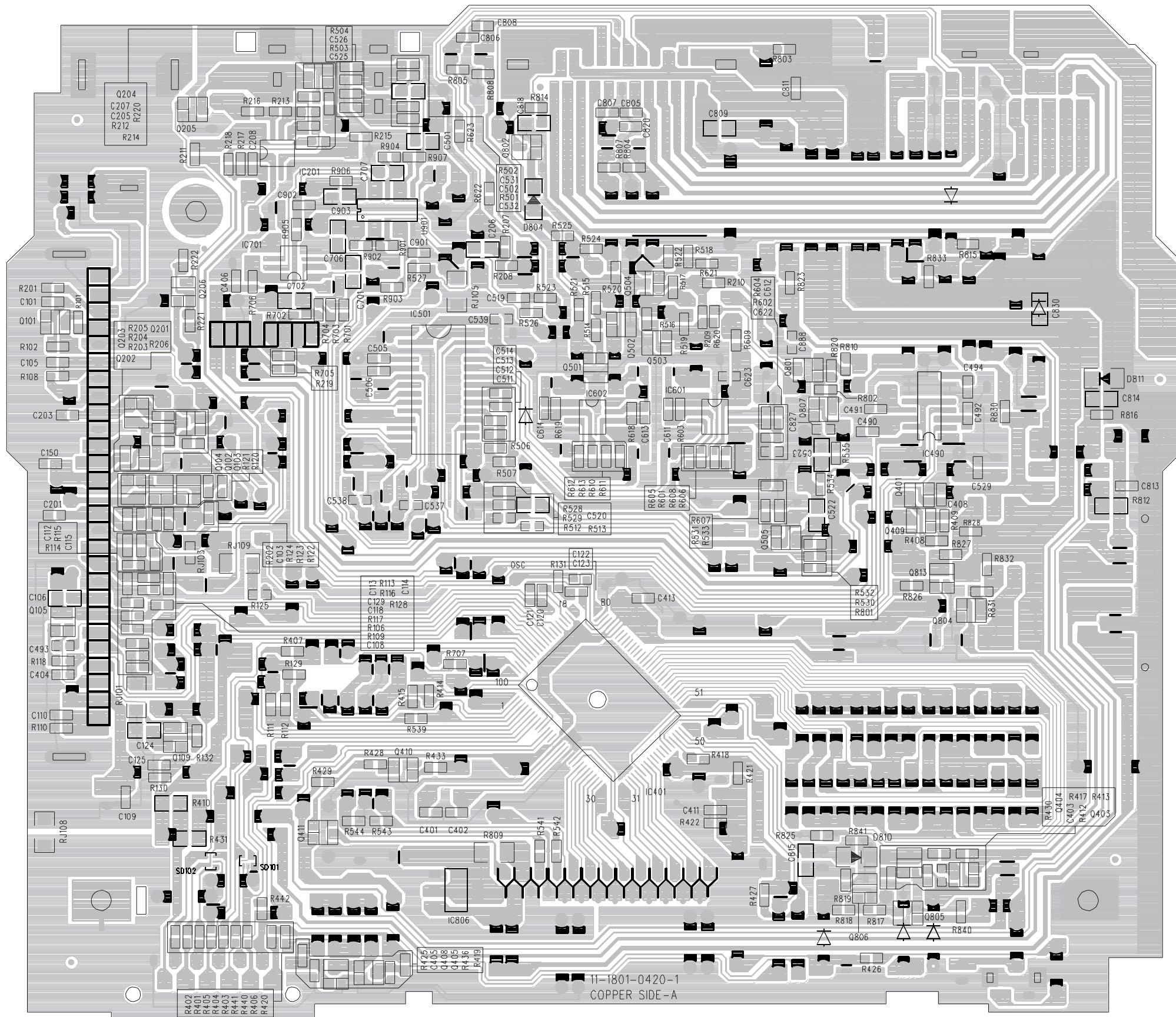
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PCB LAYOUT TOP VIEW



PCB LAYOUT BOTTOM VIEW



11-1801-0420-1
COPPER SIDE - A

ELECTRICAL PARTS LIST - MAIN BOARD

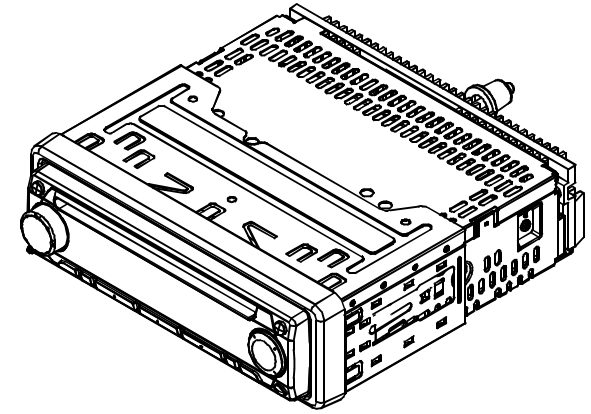
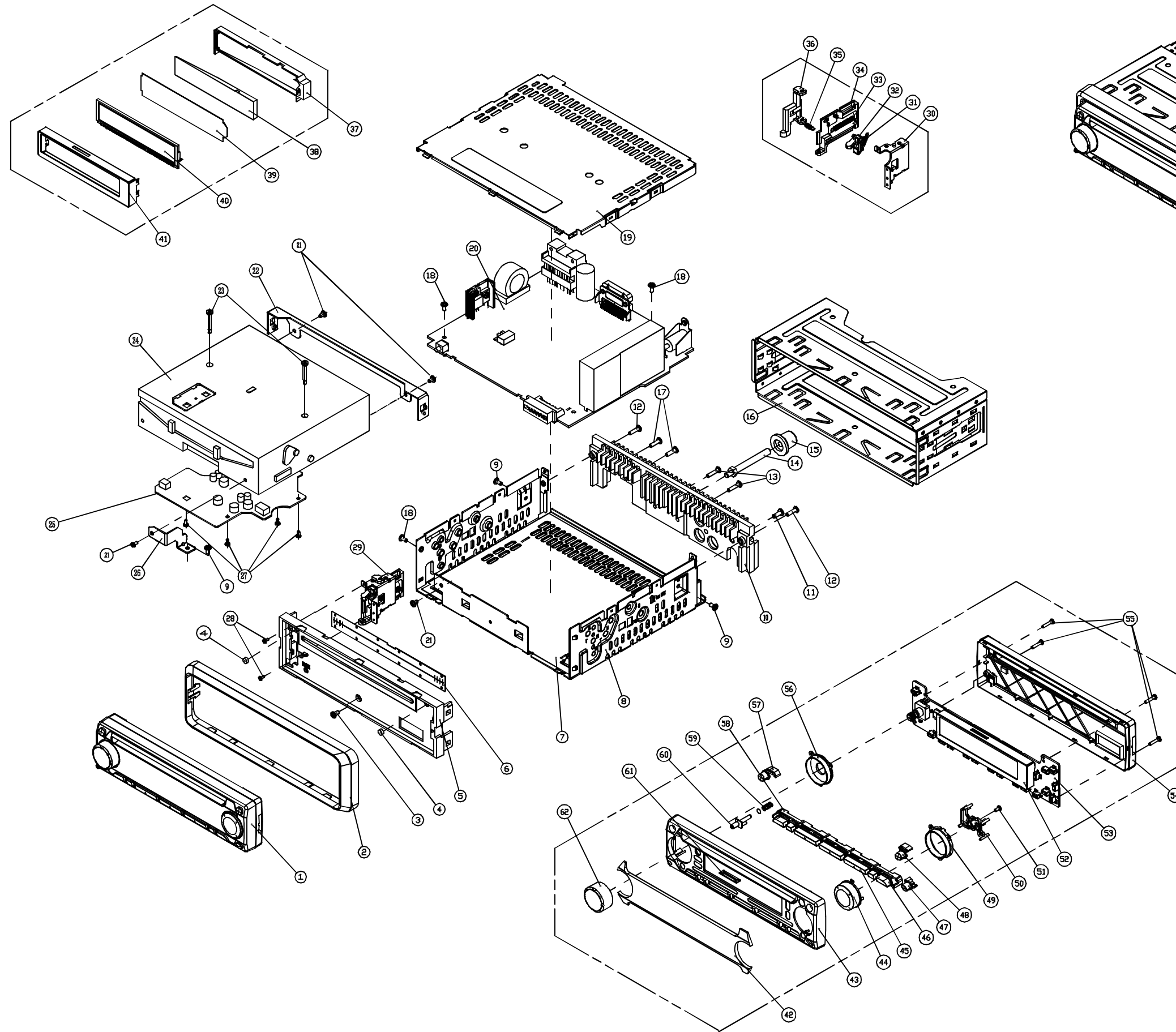
Part NO.	Description	QTY	Location
82-CD300-MB25-D	CD300 4X2V OIRT/FM SMT MB	1	
11-0102-1532-0	RMF 15K Ω 1/16W \pm 5% SMT 0603	4	R804,R805,R807,R808
11-0202-1021-0	CC1000PF/50V \pm 10% 0603(X7R)	8	C118,C120,C123,C505,C506,C537,C538,C622
11-0202-1031-0	CC0.01 μ F/50V \pm 10% 0603(X7R)	3	C103,C121,C122
11-0202-1042-0	CC0.1 μ F/16V +80% -20% 0603	14	C110,C125,C129,C413,C513,C514,C519,C511, C811,C813,C820,C830,C512,C815, C106,C522,C523,C809
11-0203-1051-0	CC 1 μ F/25V -80% +20% SMT 0805	4	C112,C113
11-0202-1531-0	CC 0.015 μ F/50V \pm 10% SMT 0603	2	C101,C105,C108,C109,C201,C203,C404,C411, C539,C623,C888
11-0202-2231-0	CC0.022 μ F/50V \pm 10% 0603(X7R)	11	C114,C115
11-0202-2222-0	CC2200PF/50V \pm 10% 0603(X7R)	2	C401,C402
11-0202-3301-0	CC33PF/50V \pm 5% SMT 0603	2	C124,C520,C818
11-0203-2251-0	CC2.2 μ F/16V +80% -20% 0805	3	R111,RJ103, R841,R815
11-0102-0R02-0	RMF 0 Ω 1/16W \pm 5% SMT 0603	4	R609,R830
11-0102-4701-0	RMF 47 Ω 1/16W \pm 5% SMT 0603	2	R102,R106,R110,R429,R436,R527,R532,R534, R607,R608,R518~521,R421,R818,R820,R823, R828,R832
11-0102-1032-0	RMF 10K Ω 1/16W \pm 5% SMT 0603	20	R406,R441,R442,R810
11-0102-1002-0	RMF 10 Ω 1/16W \pm 5% SMT 0603	4	R535
11-0102-1231-0	RMF 12K Ω 1/16W \pm 5% SMT 0603	1	R528,R529
11-0102-1542-0	RMF 150K Ω 1/16W \pm 5% SMT 0603	2	R123
11-0102-1511-0	RMF 150 Ω 1/16W \pm 5% SMT 0603	1	R101,R121,R202~R204,R827,R831
11-0102-1022-0	RMF 1K Ω 1/16W \pm 5% SMT 0603	7	R124, R526
11-0102-1521-0	RMF 1K5 Ω 1/16W \pm 5% SMT 0603	2	R809,RJ101,RJ105,RJ109
11-0104-0R02-0	RMF 0 Ω 1/8W \pm 5% SMT 1206	4	R422,R530,R539,R522~525
11-0102-2241-0	RMF 220K Ω 1/16W \pm 5% SMT 0603	7	R132
11-0102-2231-0	RMF 22K Ω 1/16W \pm 5% SMT 0603	1	R128,R620,R621,R622,R623
11-0102-2222-0	RMF 2K2 Ω 1/16W \pm 5% SMT 0603	5	R108
11-0102-3311-0	RMF 330 Ω 1/16W \pm 5% SMT 0603	1	R113,R114,R541,R542
11-0102-3322-0	RMF 3K3 Ω 1/16W \pm 5% SMT 0603	4	R130
11-0102-4741-0	RMF 470K Ω 1/16W \pm 5% SMT 0603	1	R120,R122
11-0102-4711-0	RMF 470 Ω 1/16W \pm 5% SMT 0603	2	R115~R118,R129,R418,R427,R605,R606,R611, R612,R814
11-0102-4732-0	RMF 47K Ω 1/16W \pm 5% SMT 0603	12	R206,R414,R415,R428,R433,R512,R513~R517, R543,R544,R801,R802,R817,R825,R826
11-0102-4722-0	RMF 4K7 Ω 1/16W \pm 5% SMT 0603	18	R533
11-0102-5121-0	RMF 5K1 Ω 1/16W \pm 5% SMT 0603	1	R506,R507,R840
11-0102-5622-0	RMF 5K6 Ω 1/16W \pm 5% SMT 0603	3	R812
11-0103-6811-0	RMF 680 Ω 1/10W \pm 5% SMT 0805	1	R601,R602,R603,R604,R610,R613,R618,R619,R803
11-0102-7521-0	RMF 7K5 Ω 1/16W \pm 5% SMT 0603	9	R531
11-0102-8232-0	RMF 82K Ω 1/16W \pm 5% SMT 0603	1	R410
11-0103-0R01-0	RMF 0 Ω 1/10W \pm 5% SMT 0805	1	R819
11-0103-1041-0	RMF 100K Ω 1/10W \pm 5% SMT 0805	1	SD101,SD102
11-0464-0002-A	ESD DIODE PG05GBUSV (5PIN KEC)	2	Q101~Q104,Q109,Q201,Q410,Q501~Q505,Q804, Q805,Q807,Q813
11-0501-0002-A	TR 3904(SMT SOT-23)NPN	16	Q105,Q202,Q411,Q801,Q806
11-0501-0003-A	TR 3906(SMT SOT-23)PNP	5	IC601,IC602
11-0901-0063-0	IC MC 4558 SOP DUAL OPERATIONA	2	IC806
11-0901-0292-0	IC UTC1117 3.3V SOT-223	1	IC401
11-0901-0031-B	IC .DSC-7900(MASKING/DONGSUNG), S3P830AXZZ	1	

Part NO.	Description	QTY	Location
11-0901-0011-A	IC.PT2313L SO-28	1	IC501
81-CD300-JW15-D	CD300 4X2V FM/OIRT A/I	1	
11-1801-0420-D	PCB CD300 MB S/S 194X150.1 1.6mm VER.3	1	
11-0122-1011-0	RCF 100 Ω 1/8W \pm 5% RTS	4	R614,R615,R616,R617
11-0124-1001-0	RCF 10 Ω 1/4W \pm 5% RTS	1	R133
11-0125-2R22-0	RCF 2 Ω 2 1/2W \pm 5% RTS	2	R811,R829
11-0125-5601-0	RCF 56 Ω 1/2W \pm 5% FL	1	R813
11-0411-0002-A	DIODE IN4001	2	D803, D801A
11-0402-4148-A	DIODE IN4148 1/2W	23	D103,D107,D108,D109,D401,D405,D414,D420, D426,D429,D430,D437,D501,D502,JMP51,D404, D425,D431,D415,D410,D413,D433,D408
11-0431-1000-A	ZENER DIODE 10V 1/2W	1	ZD802
11-0122-2731-0	RCF 27K Ω 1/8W \pm 5% RTS	1	JMP109
16-0701-0501-0	JUMP WIRE 5.0MM ϕ 0.5MM	8	JMP14,JMP46,JMP91,JMP123,JMP49,JMP117, JMP110. JMP122
16-0701-0551-0	JUMP WIRE 5.5MM ϕ 0.5MM	1	JMP125
16-0701-0651-0	JUMP WIRE 6.5MM ϕ 0.5MM	3	JMP18,JMP101,JMP103
16-0701-0701-0	JUMP WIRE 7MM ϕ 0.5MM	2	JMP57,JMP60
16-0701-0751-0	JUMP WIRE 7.5MM ϕ 0.5MM	13	JMP83,JMP86,JMP118,JMP97,JMP113,JMP130,JMP94, JMP126,JMP66,JMP104,JMP48,JMP121,JMP47
16-0701-0801-0	JUMP WIRE 8MM ϕ 0.5MM	4	JMP105,JMP70,JMP108, JMP28
16-0701-0851-0	JUMP WIRE 8.5MM ϕ 0.5MM	4	JMP112,JMP76,JMP95,JMP52
16-0701-0901-0	JUMP WIRE 9MM ϕ 0.5MM	2	JMP62,JMP23
16-0701-0951-0	JUMP WIRE 9.5MM ϕ 0.5MM	3	JMP24,JMP75,JMP42
16-0701-1001-0	JUMP WIRE 10MM ϕ 0.5MM	21	JMP20,JMP27,JMP29,JMP96,JMP12,JMP89,JMP124, JMP45,JMP21,JMP11,JMP106,JMP99,JMP50,JMP16, JMP114,JMP115,JMP61,JMP15,JMP111,JMP116, JMP7
16-0701-1101-0	JUMP WIRE 11MM ϕ 0.5MM	1	JMP87
16-0701-1201-0	JUMP WIRE 12MM ϕ 0.5MM	2	JMP3,JMP8
16-0701-1251-0	JUMP WIRE 12.5MM ϕ 0.5MM	6	JMP58,JMP31,JMP129,JMP67,JMP54,JMP127
16-0701-1351-0	JUMP WIRE 13.5MM ϕ 0.5MM	3	JMP81,JMP35,JMP68
16-0701-1401-0	JUMP WIRE 14MM ϕ 0.5MM	2	JMP6,JMP56
16-0701-1501-0	JUMP WIRE 15MM ϕ 0.5MM	12	JMP2,JMP88,JMP80,JMP33,JMP78,JMP77,JMP38, JMP36,JMP40,JMP98,JMP65, JMP119
16-0701-1601-0	JUMP WIRE 16MM ϕ 0.5MM	3	JMP13,JMP82, JMP22
16-0701-1651-0	JUMP WIRE 16.5MM ϕ 0.5MM	4	JMP1,JMP4,JMP59,JMP92
16-0701-1751-0	JUMP WIRE 17.5MM ϕ 0.5MM	5	JMP72,JMP85,JMP5,JMP9, JMP17
16-0701-1801-0	JUMP WIRE 18MM ϕ 0.5MM	2	JMP10,JMP25
16-0701-1851-0	JUMP WIRE 18.5MM ϕ 0.5MM	3	JMP107,JMP34, JMP64
16-0701-2001-0	JUMP WIRE 20MM ϕ 0.5MM	2	JMP102,JMP128
16-0701-2101-0	JUMP WIRE 21MM ϕ 0.5MM	1	JMP93
16-0701-2251-0	JUMP WIRE 22.5MM ϕ 0.5MM	4	JMP39,JMP37,JMP41,JMP73
16-0701-2301-0	JUMP WIRE 23MM ϕ 0.5MM	1	JMP71
16-0701-2401-0	JUMP WIRE 24MM ϕ 0.5MM	3	JMP43,JMP74,JMP120
16-0701-2501-0	JUMP WIRE 25MM ϕ 0.5MM	4	JMP44,JMP90,JMP69, JMP100
11-0122-3331-0	RCF 33K Ω 1/8W \pm 5% RTS	1	R834
16-0701-0601-0	JUMP WIRE 6MM ϕ 0.5MM	1	JMP131
11-0122-1022-0	RCF 1K Ω 1/8W \pm 5% RTS	1	D802
11-0102-1012-0	RMF 100 Ω 1/16W \pm 5% SMT 0603	9	R125,R131,R426,R440,R401~R405
11-0203-1043-0	CC 0.1 μ F/50V \pm 10% SMT 0805	1	R833
11-0501-0001-A	TR DTC343TK(SMT SOT-23)	1	Q802

ELECTRICAL PARTS LIST - MAIN BOARD

Part NO.	Description	QTY	Location
11-0411-0008-A	DIODE IN4148 SMT 1/2W	1	D804
11-0202-4711-0	CC470PF/50V ±10% 0603(X7R)	4	C805-C808
14-0922-0001-0	HEATSINK IC 7809 FOR CM226	1	
14-0300-0014-A	BRACKET OF AMP IC FOR CMV100	1	IC801
11-0231-3381-0	CE 3300 μ F/16V±20%12.5X25 105	1	C810
11-0321-4710-0	CHOKE INDUCTOR 470 μ H	1	L801
11-0411-0001-A	DIODE IN5401	1	D801
11-0512-0011-A	T.R.BD435S SAMSUNG	1	Q808
11-0901-0055-A	IC L7809 REGULATOR ST	1	IC804
11-0901-0075-A	IC TDA7384	1	IC801
11-1500-0002-A	XT 4.500MHZ (-20° C~+70° C) HC	1	XT401
11-2101-0001-0	15A DIN FUSE	1	
11-2011-0017-0	TACT SW.TS-40-BS-2	1	RSTSW
11-2701-0030-A	FM/AM TC-702FYAB(FM/OIRT)	1	TUN101
11-3101-0020-1	20PIN PWR/SPK EST-KNT-20-04	1	SK801
11-3111-0007-0	25PIN FPC SOCKET 1.25	1	CON401
14-2500-0001-A	ANTTENA JACK	1	
11-3102-0001-A	CONNECTOR 12PIN FEMALE 1.6MM	1	CON101
11-0224-2241-0	CE 0.22 μ F/16V±20% 4X5 105° C	2	C508,C509
11-0224-1077-0	CE 100 μ F/16V±20%6.3X5 105° C	10	C107,C410,C412,C504,C605,C605A,C606,C816, C835, C1
11-0227-2272-0	CE 220 μ F/16V ±20% 6.3X11 85° C	2	C823,C819
11-0224-1067-0	CE 10 μ F/16V ±20% 4X5 105° C	4	C202,C414,C824,C825
11-0224-2253-0	CE 2.2 μ F/50V±20% 4X5 105° C	18	C507,C510,C515,C516,C517,C518,C527,C528, C607,C608,C609,C610,C116,C117,C801,C802, C803,C804
11-0228-2271-0	CE 220 μ F/10V±20%6.3X11 105° C	1	C817
11-0224-2261-0	CE 22 μ F/16V±20% 4X5 105° C	1	C503
11-0224-4767-0	CE 47 μ F/16V ±20% 5X5 105° C	4	C102,C521,C821,C822
11-0522-0001-A	TR B1243 POWER SWITCH	2	Q803,Q814
11-0901-0024-0	IC 78L05 REGULATOR ST	1	IC803
11-0144-0008-0	GBX050 PTC	1	IC802
16-0300-0053-0	FM OSC SHIELD WIRE 75 Ω 150MM CD300	1	OSC
11-0224-1043-0	CE 0.1 μ F/50V ±20% 4X5 105° C	1	C826
11-0229-2242-0	CE-NP 0.22UF/50V ±20% 4X5 85°C	1	C104

EXPLODED VIEW - MAIN UNIT



MECHANICAL PARTS LIST

Item	Assembly Part NO	Description	QTY
1	84-CM122-KB19-A	PANEL ASSEMBLY	1
2	13-0700-0001-A	RIM CMV100 PAINTED IN SILVER	1
3	14-1070-2605-0	BLACK ZINC BM SCREW BM2605	1
4	13-1505-0001-0	SPONGE FOR CABINET CM110	2
5	13-0300-0101-F	CABINET FOR CMV100	1
6	13-1805-0001-3	DUST PROOF FOR CM110	1
7	13-1700-0008-0	0.2MM-PC-SHEET FOR CM110	1
8	14-0400-0004-B	FRAME(01) NEW FOR CM110	1
9	14-1174-2606-0	PLATING NICKEL,BTS SCREW	3
10	14-0923-0002-B	MAIN HEATSINK FOR CM120	1
11	14-1174-3008-0	BTS, PLATING NICKEL SCREW	1
12	14-1174-2610-0	PLATING NICKEL ,BTS SCREW	2
13	14-1474-2612-0	BTS WHITE ZINC SCREW	2
14	14-2600-0001-0	POLE FOR CMV100	1
15	13-1600-0001-0	RUBBER FOR CMV100	1
16	14-0616-0001-E	SHORT SHEET FOR CM216	1
17	14-1153-2610-0	PLATING NICKEL, PBT SCREW 2610	2
18	14-1174-2605-0	PLATING NICKEL,BTS M2.6X5	3
19	14-0500-0003-A	TOP COVER NEW FOR CMV100	1
20	83-CD300A-MB28-D	PCB MAIN BOARD ASSEMBLY	1
21	14-1176-2605-0	PLATING NI BTB SCREW M2.6X5	4
22	14-0300-0009-1	BRACKET DECK BACK(01)	1
23	14-1200-2619-0	M2.6X19 CM SCREW FOR SHINWA CL-C01	2
24	11-3501-0008-D	CD DECK CL-C01FY6 SHINWA VER.3	1
25	83-CK5100-SB01-B	CK5100 SB ASSEMBLY	1
26	14-0300-0013-B	BRACKET DECK FRONT OF CLC01 NEW FOR CM110	1
27	14-1254-2004-0	PW,COLOR ZINC, PTS, SCREW	4
28	14-1064-1604-0	BLACK ZINC, TTB, SCREW	2
29	84-CMV100LOC-A	KEY LOCK	1
30	14-0300-0012-0	BRACKET LOCK FOR CMV100	1
31	14-0200-0001-1	SPRING LOCK TOP FOR CMV100	1
32	13-0805-0003-C	LOCK TOP FOR CM110	1
33	14-0200-0004-0	SPRING LOCK FOR CMV100	1
34	13-0805-0004-B	LOCK BOTTOM FOR CM110	1
35	14-0200-0002-1	SPRING LOCK BOTTOM FOR CMV100	1
36	13-0805-0002-C	LOCK FOR CM110	1
37	13-0805-0001-C	LCD HOLDER FOR CMV110	1
38	13-0900-0002-A	REFLECTOR LCD FOR CMV100	1
39	13-1005-0001-1	FILTER SHEET FOR CM110 COLOR LCD	1
40	11-2602-0016-A	LCD CM122 NEGATIVE COLOUR	1
41	14-0305-0003-A	LCD COVER FOR CM110	1
42	13-0441-0832-A	LENS OF CM122 58A PROLOGY	1
43	13-0141-0701-C	PANEL FRONT FOR CM122	1
44	13-0541-0501-A	KNOB SKIP FOR CM122	1
45	13-0541-0802-A	KNOB NUMBER FOR CM122	1
46	13-0541-0803-A	KNOB DISP BAND FOR CM122	1
47	13-0541-0704-A	KNOB LOUD FOR CM122	1
48	13-0541-0706-A	KNOB-EJECT FOR CM122	1
49	13-0941-0002-A	LIGHT GUIDE SKIP FOR CM122	1
50	13-0841-0001-A	CUSHIONING-TRAY FOR CM122	1

Item	Assembly Part NO	Description	QTY
51	14-1055-2005-0	M2X5 SELF TAPPING SCREW	1
52	AS-1200-0001-0	LCD ASSEMBLY	1
53	82-CM122-KB00-A	PCB ASSEMBLY	1
54	13-0241-0801-A	PANEL BACK FOR CM122	1
55	14-1055-2010-0	BLACK PAN TP SCREW M2X10	4
56	13-0941-0001-A	LIGHT GUIDE VOLUME FOR CM122	1
57	13-0541-0705-A	KNOB-POWER FOR CM122	1
58	13-0541-0801-A	KNOB SRCAMS FOR CM122	1
59	14-0200-0007-0	CMV100,SPRING RELEASE NEW	1
60	13-0541-0707-A	KNOB-OPEN FOR CM122	1
61	13-0923-0002-A	LIGHT-GUIDE FOR CM120	1
62	13-0629-0501-B	KNOB VOL FOR CM730	1