

Service  
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**Service**



# Service Manual

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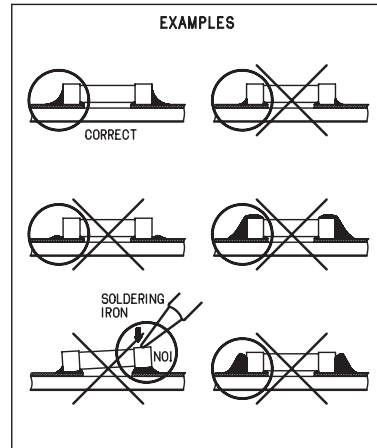
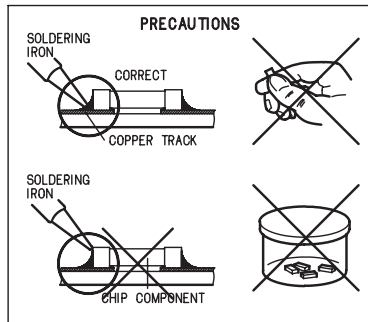
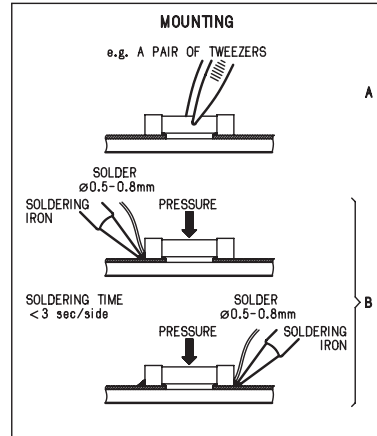
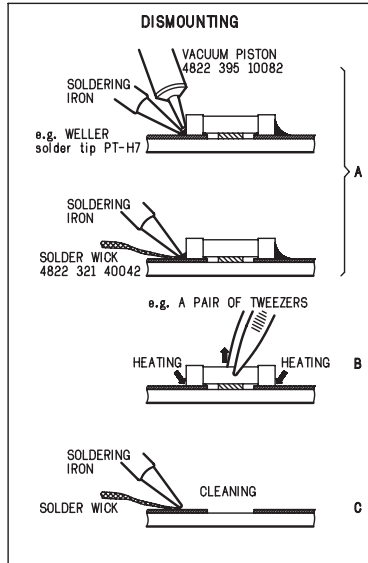
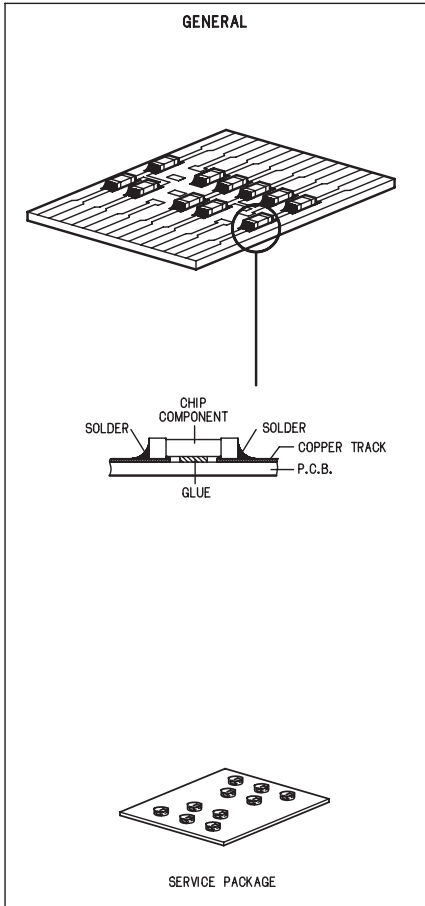
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**Version 1.0**



**PHILIPS**

# HANDLING CHIP COMPONENTS



**(GB) WARNING**

All ICs and many other semiconductors 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 wristband with resistance. Keep components and tools 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 hetzelfde 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 enfilez le bracelet sert 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) WARNUNG**

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Sorgen Sie dafür, daß Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind. Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

**(I) AVVERTIMENTO**

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta 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 braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

**(GB)**

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

**SAFETY**



**(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. Les composants de sécurité sont marqués

**(D)**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Originalersatzteile zu verwenden. Sicherheitsbauteile sind durch das Symbol markiert.

**(NL)**

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast. De Veiligheidsonderdelen zijn aangeduid met het symbool

**(I)**

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

**(GB) DANGER:** Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.



**(S) Varning !**

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

**(DK) Advarsel !**

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

**(FIN) Varoitus !**

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

**(GB)**

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

**(F)**

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

## TECHNICAL SPECIFICATIONS

### AMPLIFIER(for -/12)

Output power ..... 2 x 15W  
 ..... 30W total power  
 Signal-to-noise ratio .....  $\geq 62$  dBA (IEC)  
 Frequency response ..... 60 – 16000 Hz,  $\pm 3$  dB  
 Impedance loudspeakers ..... 4  $\Omega$   
 Impedance headphones ..... 32  $\Omega$  – 1000  $\Omega$

### CD PLAYER

Frequency range ..... 20 – 20000 Hz  
 Signal-to-noise ratio ..... 75 dBA

### TUNER

FM wave range ..... 87.5 – 108 MHz  
 MW wave range ..... 531 – 1602 kHz  
 Sensitivity at 75  $\Omega$   
 – mono, 26 dB signal-to-noise ratio ..... 2.8  $\mu$ V  
 – stereo, 46 dB signal-to-noise ratio ..... 61.4  $\mu$ V  
 Selectivity .....  $\geq 28$  dB  
 Total harmonic distortion .....  $\leq 5\%$   
 Frequency response ..... 63 – 12500 Hz ( $\pm 3$  dB)  
 Signal-to-noise-ratio .....  $\geq 40$  dB

### SPEAKERS

Bass reflex system  
 Dimensions (w x h x d)....150 x 150 x 200 (mm)

### GENERAL INFORMATION

AC Power ..... 220 - 230V / 50 Hz  
 Dimensions (w x h x d) .. 150 x 150 x 244 (mm)  
 Weight (with/without speakers) .....  
 ..... approx. 6.2 / 2.9 kg  
 ECO power consumption ..... < 1 W

## SERVICE TOOLS

**TORX T10** screwdriver with shaftlength 150mm.....4822 395 50423  
**TORX screwdriver set** SBC 163.....4822 295 50145  
**Audio signal disc** SBC 429.....4822 397 30184  
**Playability test disc** SBC 444.....4822 397 30245  
**Test disc 5** (disc without errors) +  
**Test disc 5A** (disc with dropout errors, black spots and fingerprints)  
 SBC 426/426A.....4822 397 30096  
**Burn in test disc** (65 min. 1kHz signal at -30 dB level without "pause") ....4822 397 30155  
**Universal test cassette** Fe SBC 420.....4822 397 30071

## AVAILABLE ESD PROTECTION EQUIPMENT

<b>anti-static table mat</b>	large 1200x650x1.25mm	4822 466 10953
	small 600x650x1.25mm	4822 466 10958
<b>anti-static wristband</b>		4822 395 10223
<b>connection box</b> (3 press stud connections, 1M $\Omega$ )		4822 320 11307
<b>extendible cable</b> (2m, 2M $\Omega$ , to connect wristband to connection box)		4822 320 11305
<b>connecting cable</b> (3m, 2M $\Omega$ , to connect table mat to connection box)		4822 320 11306
<b>earth cable</b> (1M $\Omega$ , to connect any product to mat or to connection box)		4822 320 11308
<b>KIT ESD3</b> (combining all 6 prior products - small table mat)		4822 310 10671
<b>wristband tester</b>		4822 344 13999

### AMPLIFIER(for -/37)

Output power ..... 2 x 15W  
 ..... 30W total power  
 ..... 2 x 12W FTC ①  
 Signal-to-noise ratio .....  $\geq 62$  dBA (IEC)  
 Frequency response ..... 125 – 16000 Hz,  $\pm 3$  dB  
 Impedance loudspeakers ..... 4  $\Omega$   
 Impedance headphones ..... 32  $\Omega$

Note:

①(4 $\Omega$  , 60Hz~12.5kHz, 10%THD)

### CD PLAYER

Frequency range ..... 20 – 20000 Hz  
 Signal-to-noise ratio ..... 62 dBA

### TUNER

FM wave range ..... 87.5 – 108 MHz  
 AM wave range ..... 530 – 1700 kHz  
 Sensitivity at 75  $\Omega$   
 – mono, 26 dB signal-to-noise ratio ..... 3.8  $\mu$ V  
 – stereo, 46 dB signal-to-noise ratio ..... 61.4  $\mu$ V  
 Selectivity .....  $\geq 28$  dB  
 Total harmonic distortion .....  $\leq 5\%$   
 Frequency response ..... 63 – 12500 Hz ( $\pm 3$  dB)  
 Signal-to-noise-ratio .....  $\geq 50$  dB

### SPEAKERS

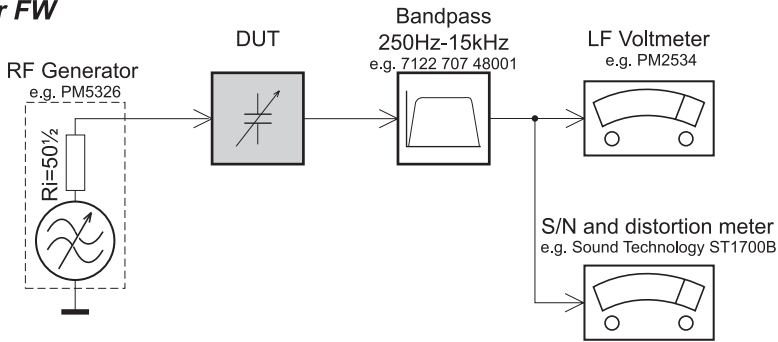
Bass reflex system  
 Dimensions (w x h x d) . 150 x 150 x 200 (mm)

### GENERAL INFORMATION

AC Power ..... 120V / 60 Hz  
 Dimensions (w x h x d) .. 150 x 150 x 220 (mm)  
 Weight (with/without speakers) .....  
 ..... approx. 4.9 / 2.3 kg  
 ECO power consumption ..... < 1 W

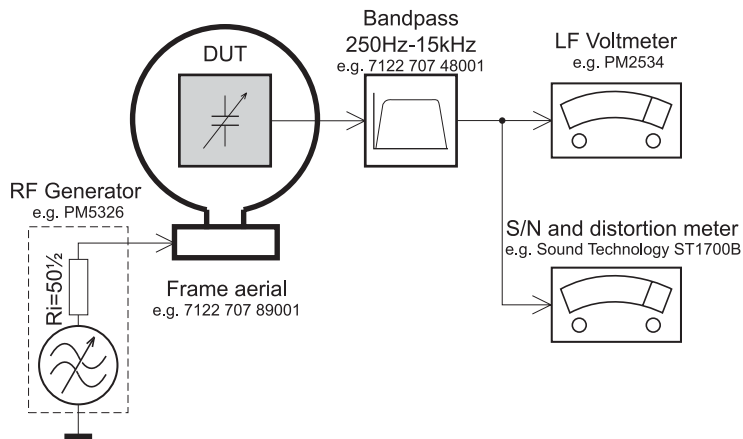
## SERVICE MEASUREMENT

### Tuner FW



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

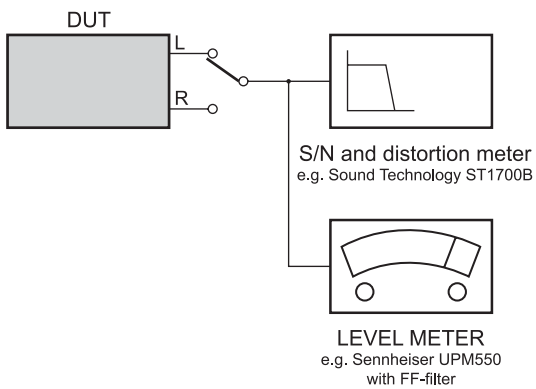
### Tuner AM (MW,LW)



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 250kHz) to eliminate hum (50Hz, 100Hz).

### CD

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

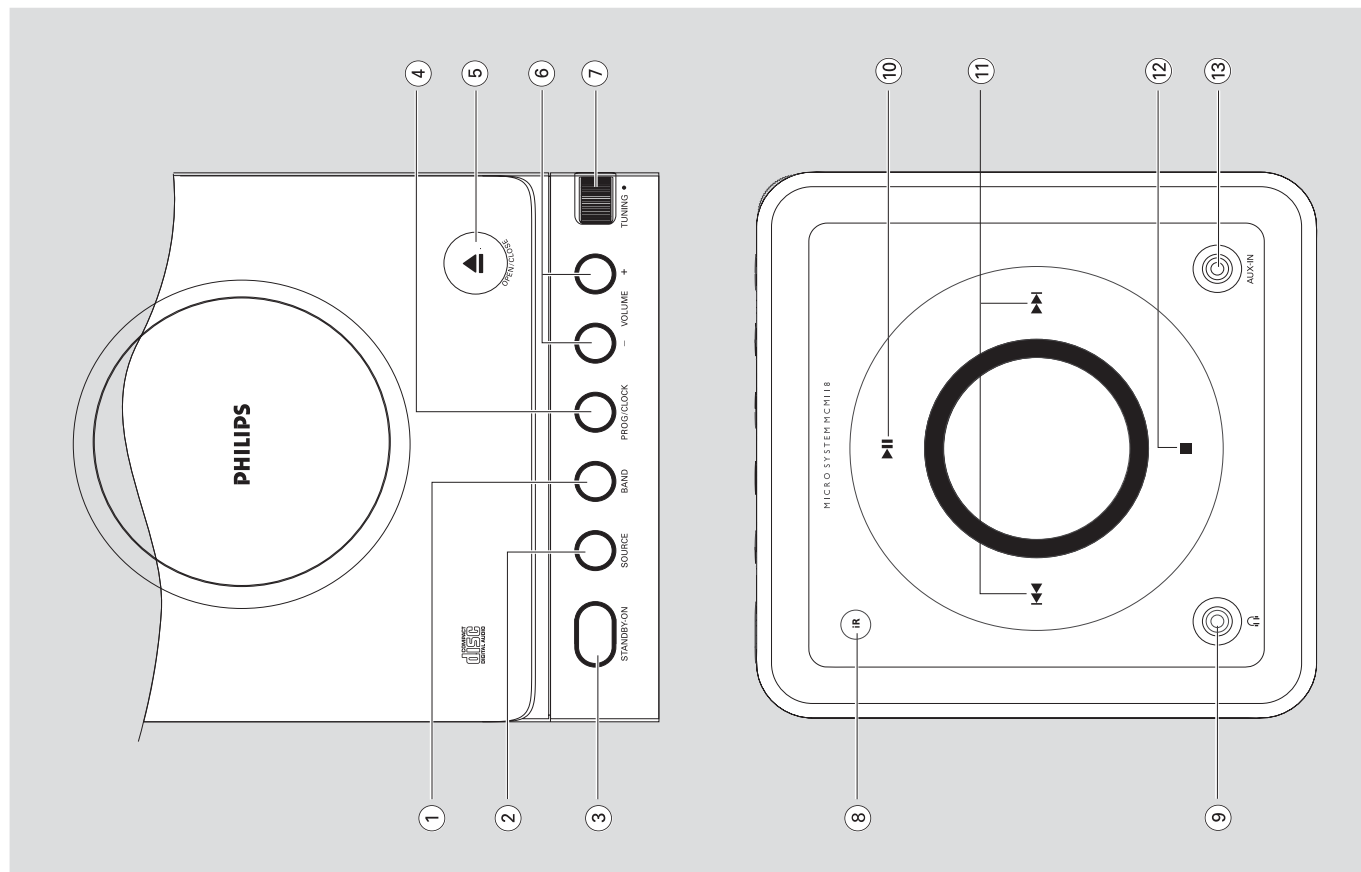


# CONNECTION AND CONTROLS

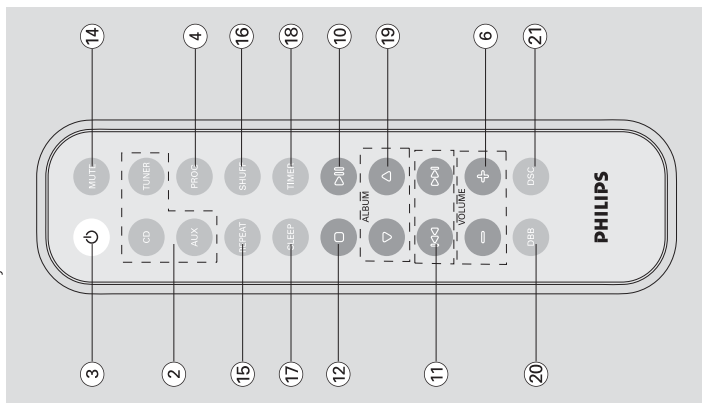
## Controls (illustrations on page 3)

### Controls on the system and remote control

- 1 **BAND**
  - for Tuner..... (on the set only) selects waveband.
- 2 **SOURCE (CD/TUNER/AUX)**
  - switches on the system.
  - selects the respective sound source for CD/FM/ MW/ AUX.
- 3 **STANDBY-ON /  $\psi$** 
  - switches the system to standby/on.
- 4 **PROG/CLOCK**
  - for CD .....programs tracks and reviews the program.
  - for clock .....sets the clock function.
- 5 **OPEN•CLOSE**
  - opens/closes the CD door.
- 6 **VOLUME - / +**
  - adjusts volume level.
- 7 **TUNING ●**
  - tunes to radio stations.
- 8 **IR SENSOR**
  - infrared sensor for remote control.
- 9  **$\oplus$** 
  - connect headphones.
- 10  **$\blacktriangleright \parallel$** 
  - for CD .....starts or pauses CD playback.
- 11  **$\blacktriangleleft \blacktriangleleft / \blacktriangleright \blacktriangleright$** 
  - skips to the beginning of a current track/previous/ next track.
  - fast searches back and forward within a track/ CD.
- 12 **STOP ■**
  - stops CD playback or erase a CD program.
- 13 **AUX IN**
  - connects to external audio source.
- 14 **MUTE**
  - switches playback sound off and on.
- 15 **REPEAT**
  - repeats a track/disc/all programmed tracks.
- 16 **SHUFF (SHUFFLE)**
  - plays CD/MP3 tracks in random order.
- 17 **SLEEP**
  - activates/deactivates or selects the sleeper time.



- 18 **TIMER**
  - activates/deactivates or sets the timer function.
- 19 **ALBUM  $\blacktriangledown \blacktriangle$** 
  - for MP3 disc.....selects an album.
- 20 **DBB**
  - (Dynamic Bass Boost) enhances the bass.
- 21 **DSC**
  - (Digital Sound Control) selects sound characteristics: JAZZ/POP/CLASSIC/ROCK.



- Notes for remote control:**
- First select the source you wish to control by pressing one of the source select keys on the remote control (for example CD, TUNER).
  - Then select the desired function (for example  $\blacktriangle$ ,  $\blacktriangleleft$ ,  $\blacktriangleright$ ).

# CONNECTION AND CONTROLS

## Troubleshooting

### WARNING

Under no circumstances should you try to repair the system yourself, as this will invalidate the warranty. Do not open the system as there is a risk of electric shock.

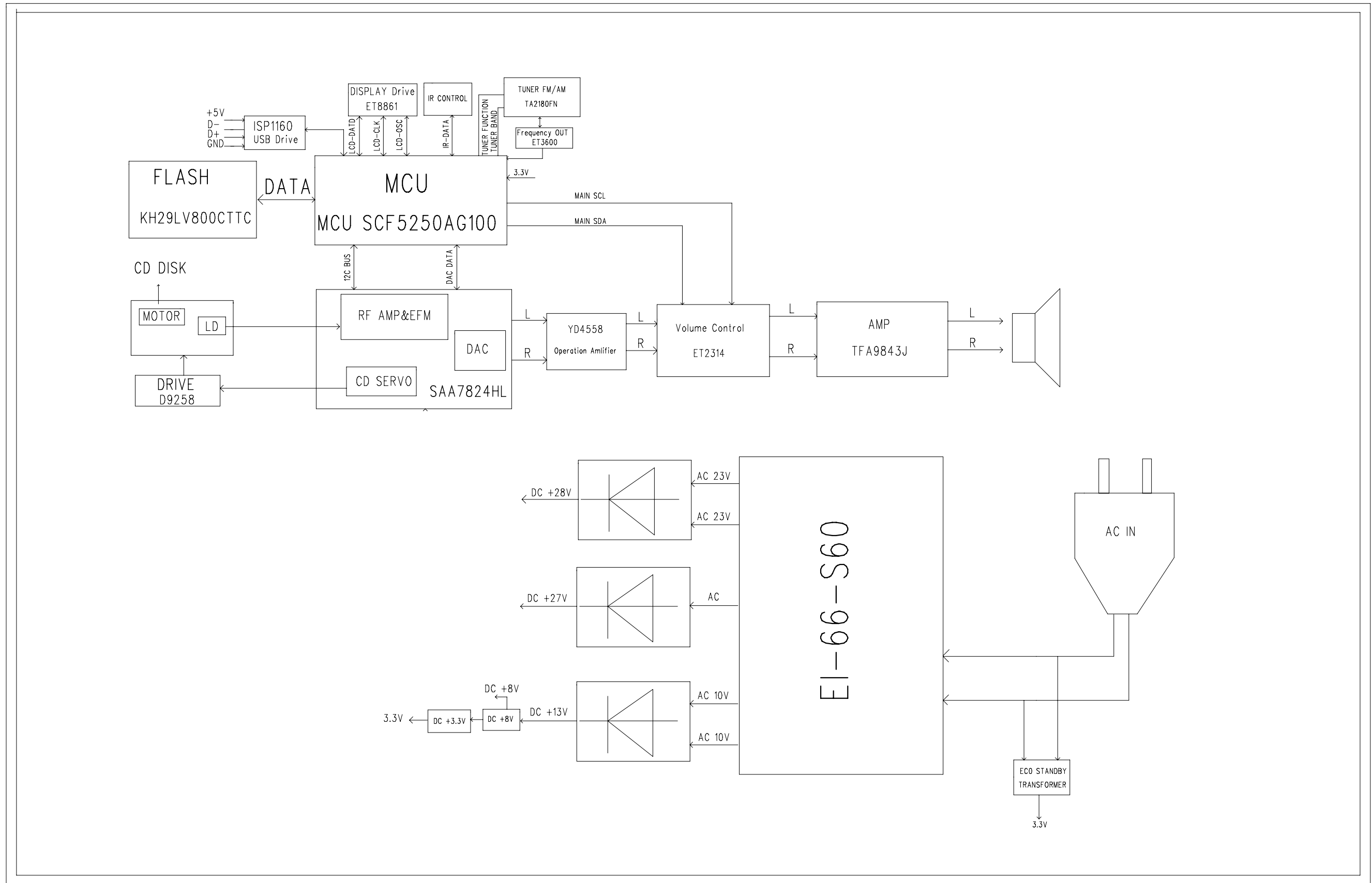
If a fault occurs, first check the points listed below before taking the system for repair. If you are unable to remedy a problem by following these hints, consult your dealer or service centre.

Problem	Solution
"NO cd " is displayed.	<ul style="list-style-type: none"> <li>✓ Insert a disc.</li> <li>✓ Check if the disc is inserted upside down.</li> <li>✓ Wait until the moisture condensation at the lens has cleared.</li> <li>✓ Replace or clean the disc, see "Maintenance".</li> <li>✓ Use a finalised CD-RW or CD-R, or a correct MP3-CD format disc.</li> </ul>
Radio reception is poor.	<ul style="list-style-type: none"> <li>✓ If the signal is too weak, adjust the antenna or connect an external antenna for better reception.</li> <li>✓ Increase the distance between the Micro HiFi System and your TV or VCR.</li> </ul>
The system does not react when buttons are pressed.	<ul style="list-style-type: none"> <li>✓ Remove and reconnect the AC power plug and switch on the system again.</li> </ul>
Sound cannot be heard or is of poor quality	<ul style="list-style-type: none"> <li>✓ Adjust the volume.</li> <li>✓ Disconnect the headphones.</li> <li>✓ Check that the speakers are connected correctly.</li> <li>✓ Check if the stripped speaker wire is clamped.</li> <li>✓ Make sure the MP3-CD was recorded within 32-256 kbps bit rate with sampling frequencies at 48 kHz, 44.1 kHz or 32 kHz.</li> </ul>
The left and right sound outputs are reversed.	<ul style="list-style-type: none"> <li>✓ Check the speaker connections and location.</li> </ul>
The remote control does not function properly.	<ul style="list-style-type: none"> <li>✓ Select the source (CD or TUNER, for example) before pressing the function button (▶, ◀, ▶▶).</li> <li>✓ Reduce the distance between the remote control and the system.</li> <li>✓ Insert the batteries with their polarities (+/- signs) aligned as indicated.</li> <li>✓ Replace the batteries.</li> <li>✓ Point the remote control directly toward IR sensor on the front of the system.</li> </ul>
The timer is not working.	<ul style="list-style-type: none"> <li>✓ Set the clock correctly.</li> <li>✓ Press <b>TIMER</b> to switch on the timer.</li> </ul>
The Clock/Timer setting is erased.	<ul style="list-style-type: none"> <li>✓ Power has been interrupted or the power cord has been disconnected. Reset the clock/timer.</li> </ul>

### DOCK OPERATION

The menu navigation or photo playback of the docked player cannot be carried out through the buttons on MCM118D or its remote control.	<ul style="list-style-type: none"> <li>– The buttons on MCM118D and its remote control can control playback of audio contents only. To navigate the menu, use the controls on the docked player.</li> </ul>
The STOP ■ and some buttons on MCM118D and its remote control have no function.	<ul style="list-style-type: none"> <li>– The playback of the docked player cannot be stopped using the <b>STOP ■</b> button on MCM118D and its remote control.</li> <li>– The buttons (▶▶, ◀◀, ▶▶▶ and <b>VOLUME</b>) function only.</li> </ul>
The battery of my Philips GoGear in dock is drained when it is not used for playback.	<ul style="list-style-type: none"> <li>– The docked GoGear is still consuming battery, power it off if you don't use the player.</li> </ul>

# SET BLOCK DIAGRAM





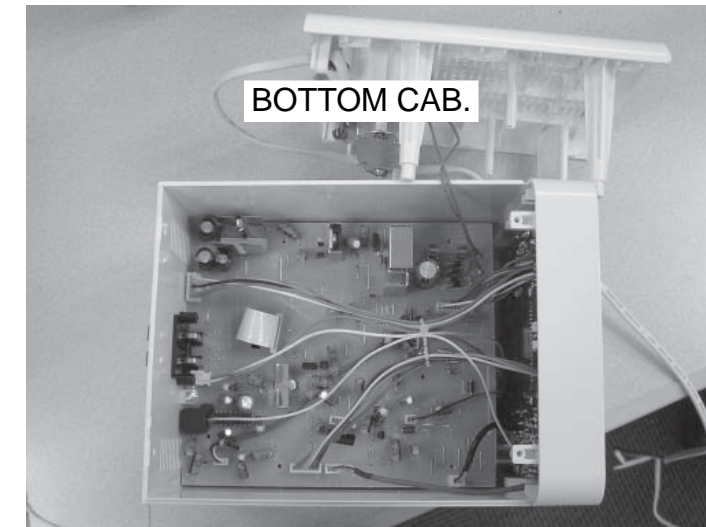
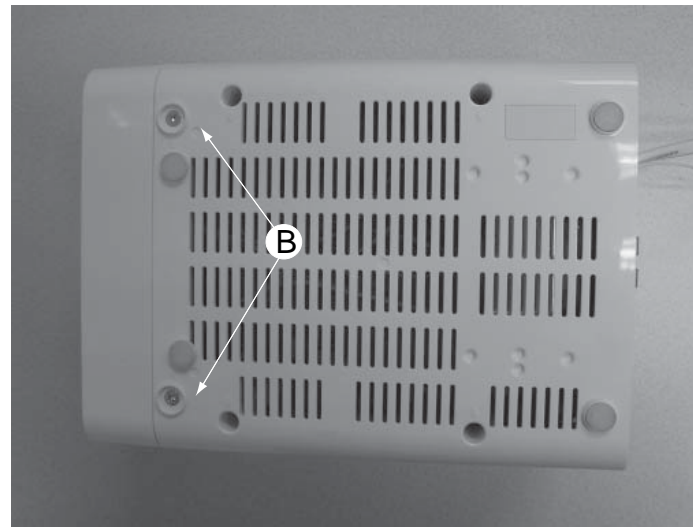
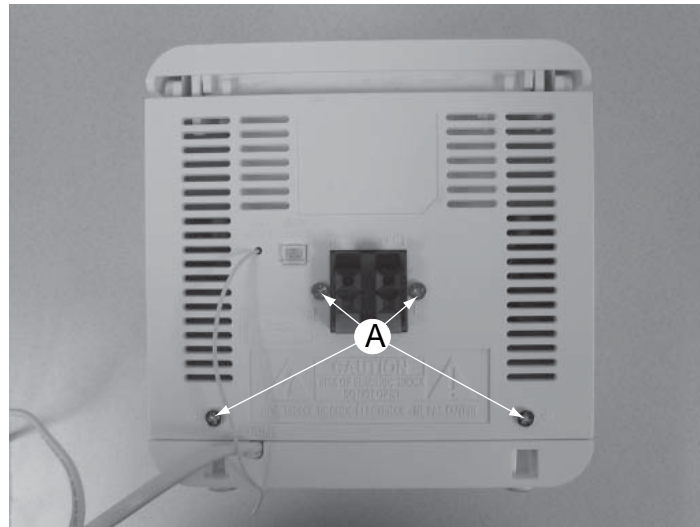


## DISASSEMBLY DIAGRAM

### Dismantling of the Bottom Cabinet

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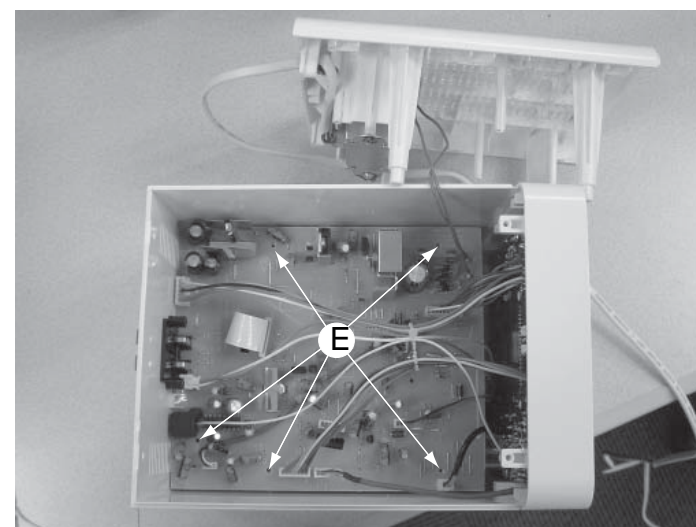
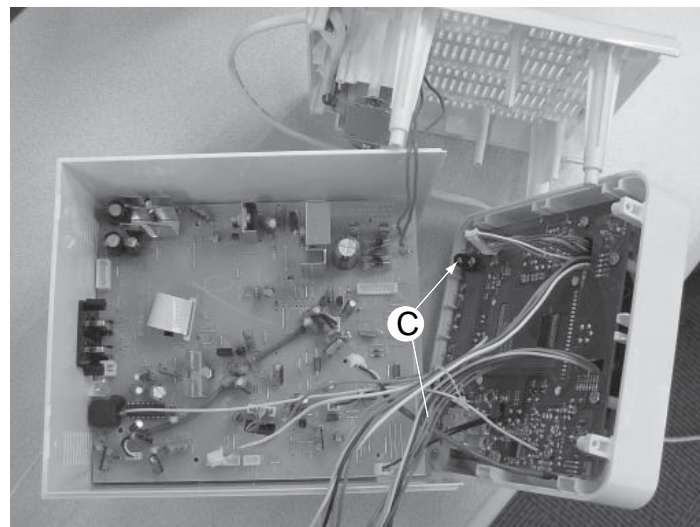
- 1) Remove 4 screws A as indicated to loosen the Rear Cabinet.
- 2) Remove 2 screws B as indicated to loosen the Bottom Cabinet.



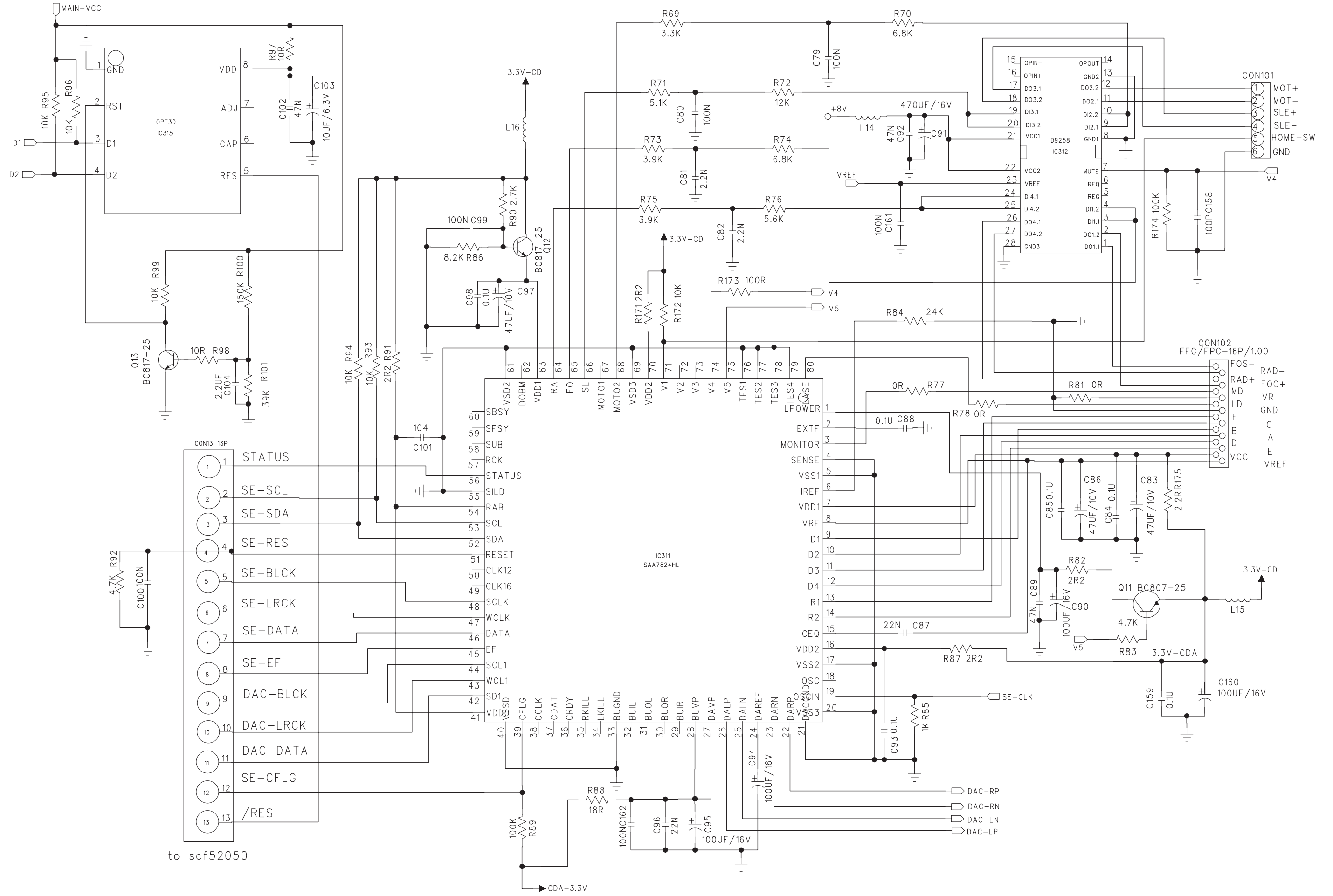
### Dismantling of the Front Cabinet and Main Board

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- 1) Remove 2 screws C as indicated to loosen the Front Cabinet.
- 2) Remove 5 screws D as indicated to loosen the Main Board.



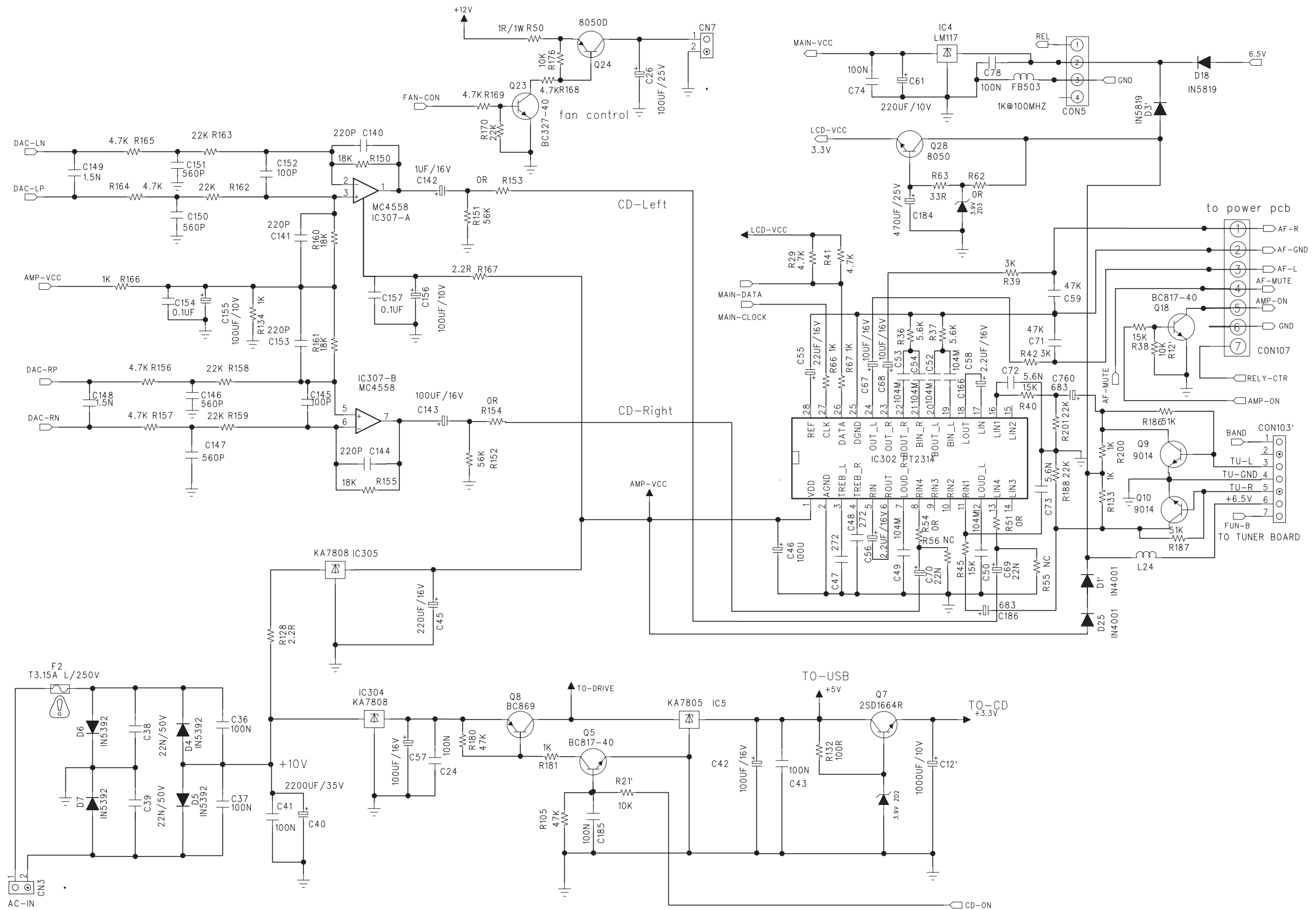
# CIRCUIT DIAGRAM - MAIN BOARD CD PART





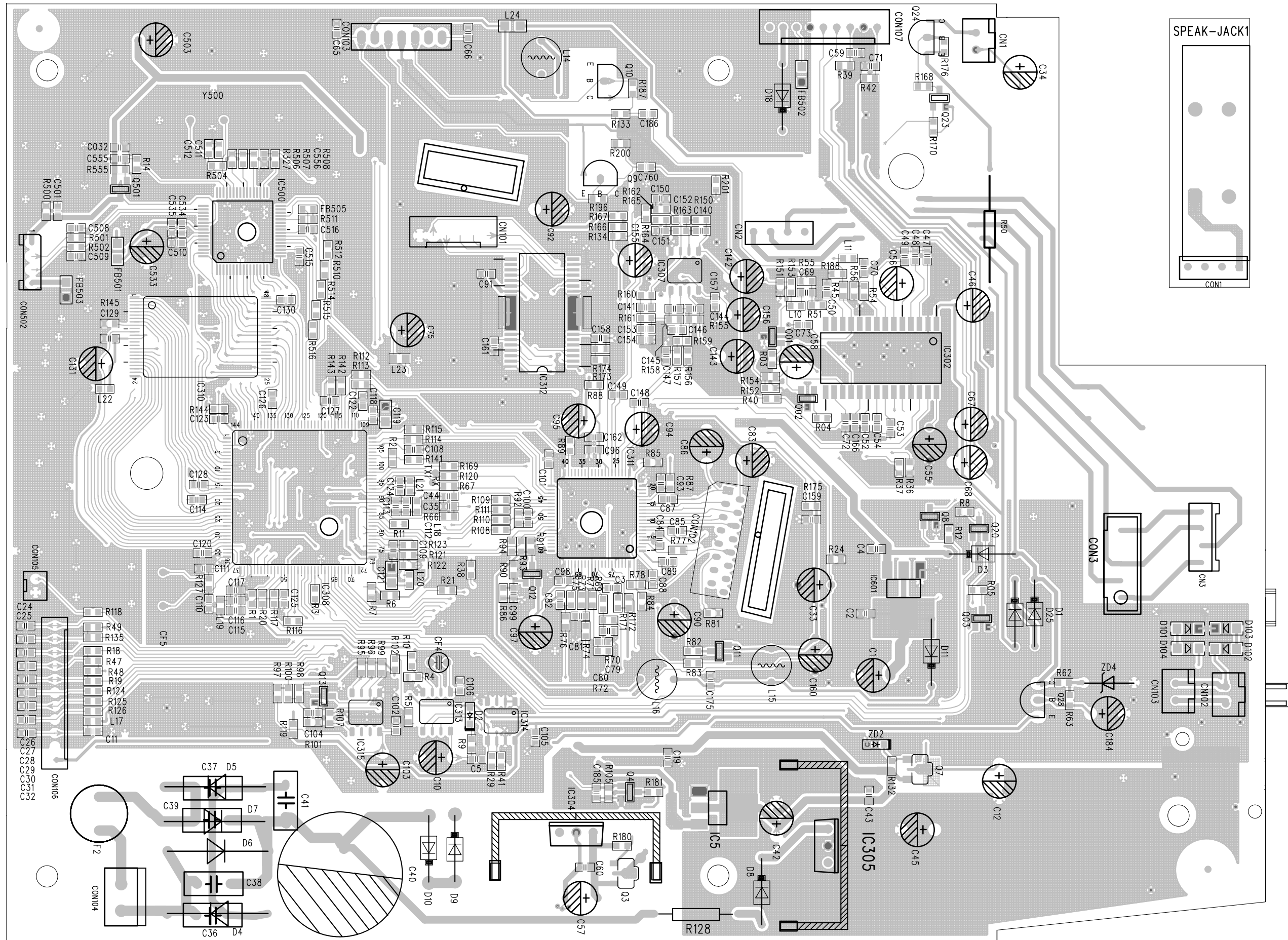


# CIRCUIT DIAGRAM - MAIN BOARD VOLUME PART

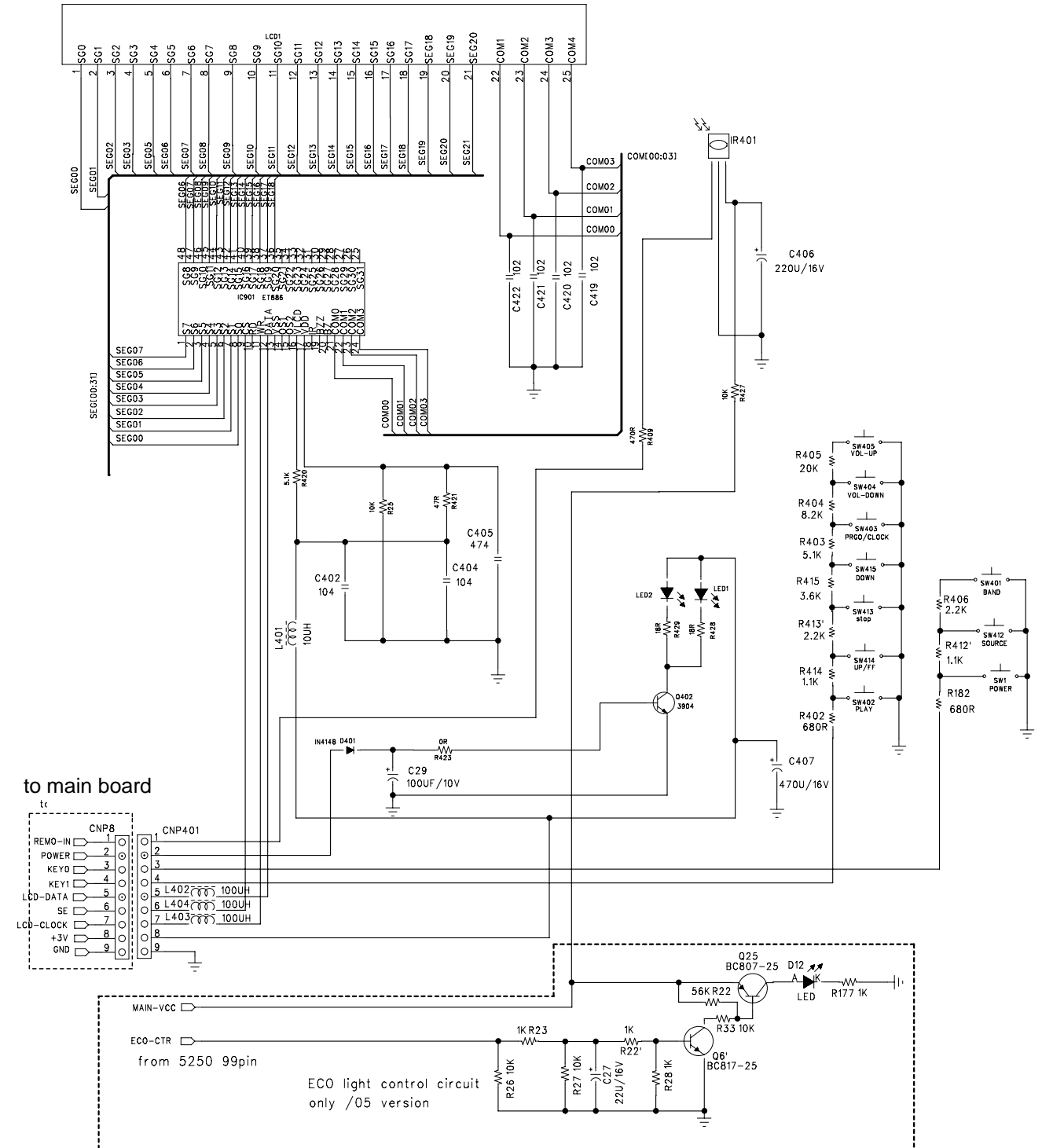
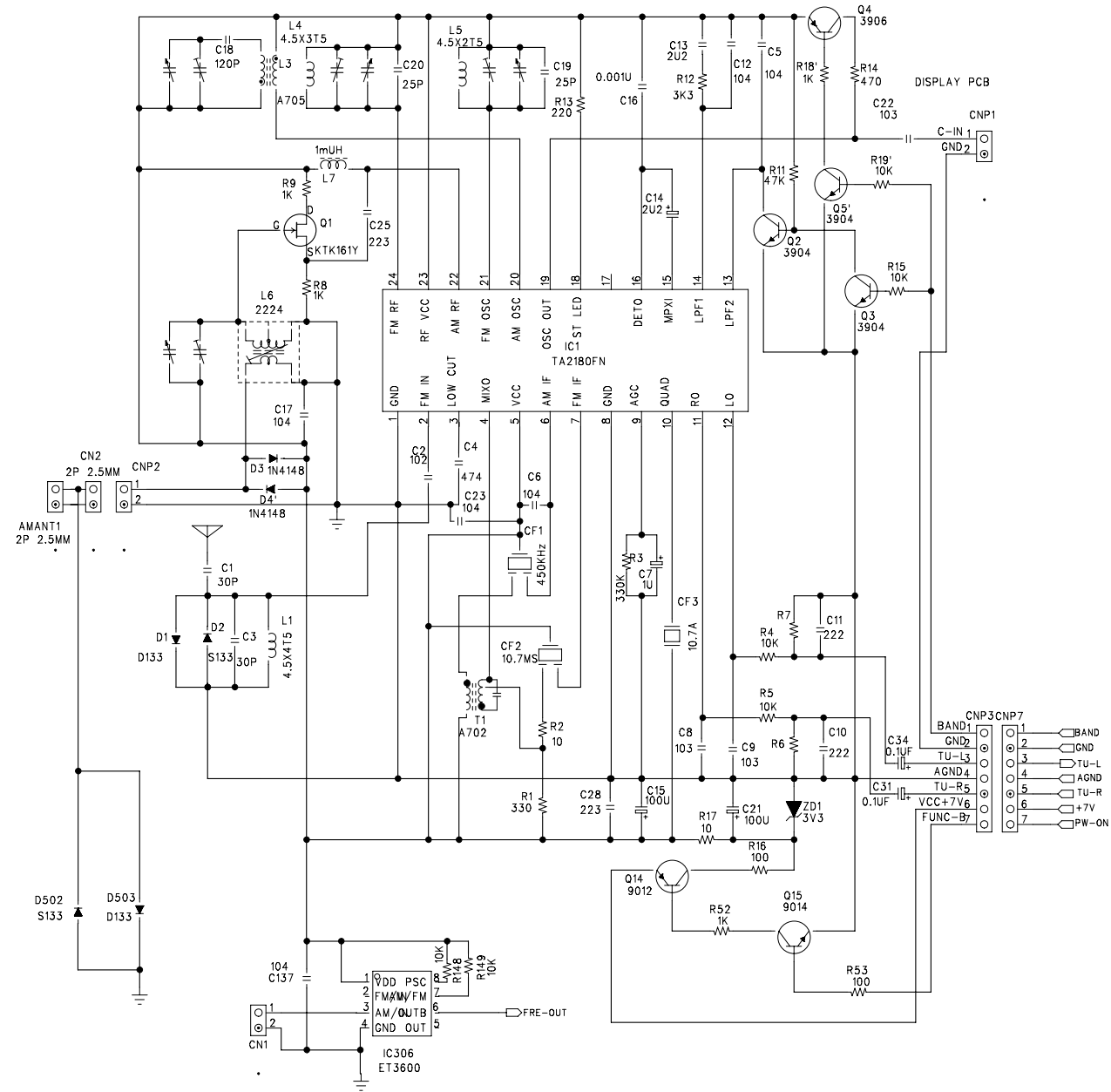




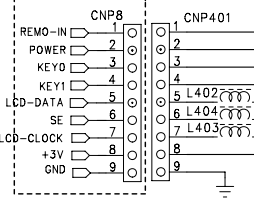
# LAYOUT DIAGRAM - MAIN BOARD



# CIRCUIT DIAGRAM - DISPLAY & TUNER BOARD



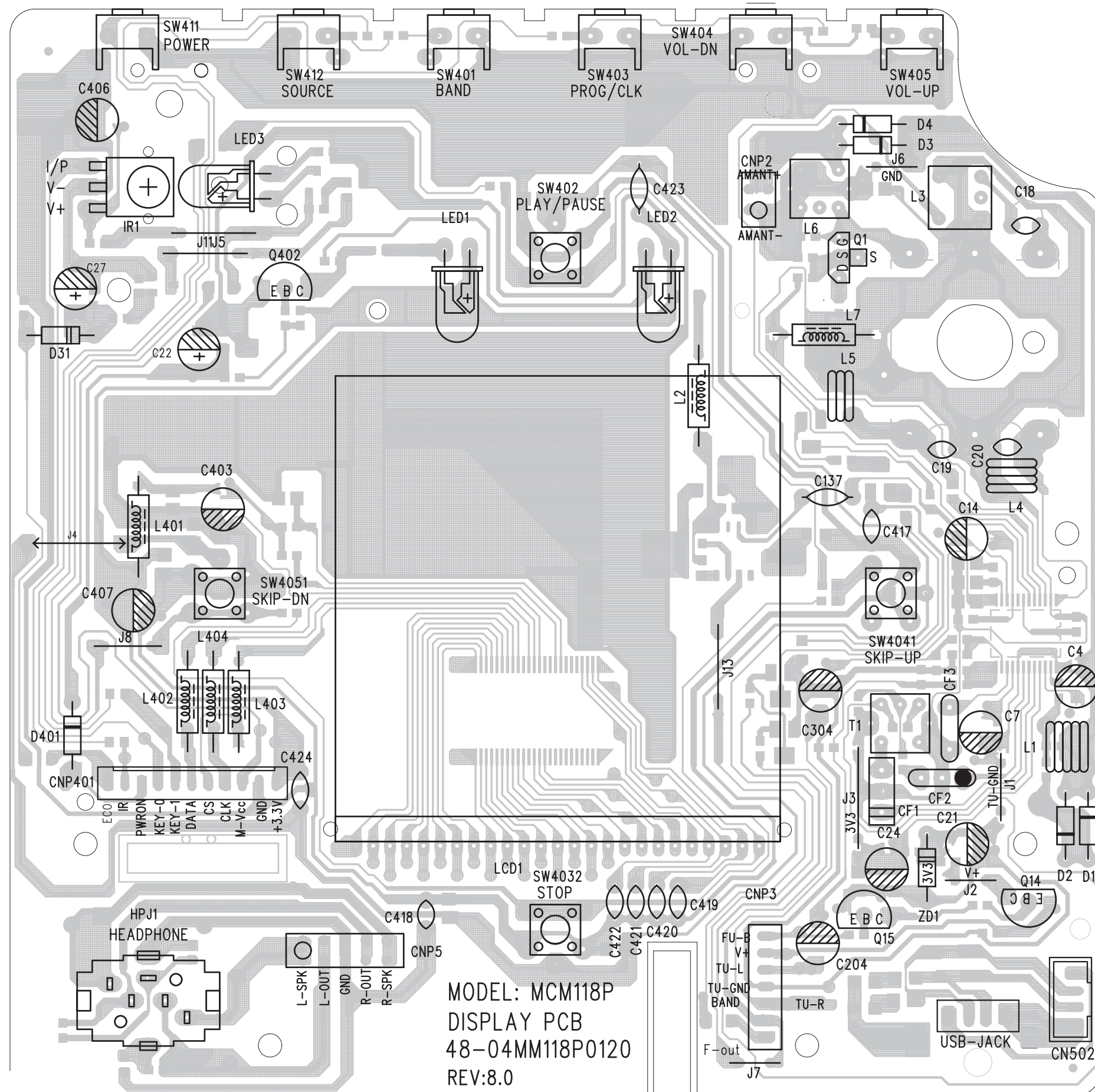
to main board



ECO light control circuit only /05 version

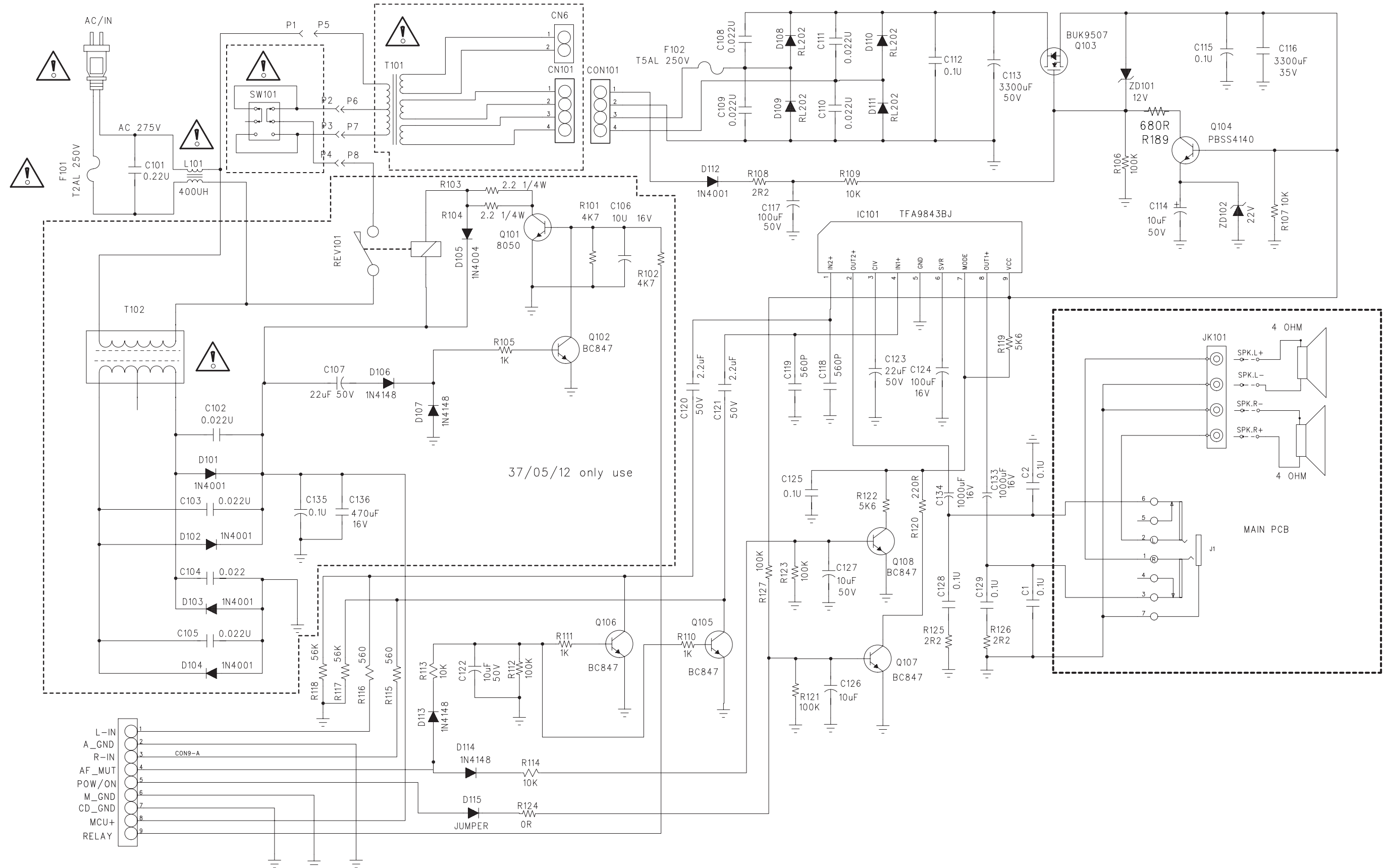


# LAYOUT DIAGRAM - DISPLAY & TUNER BOARD

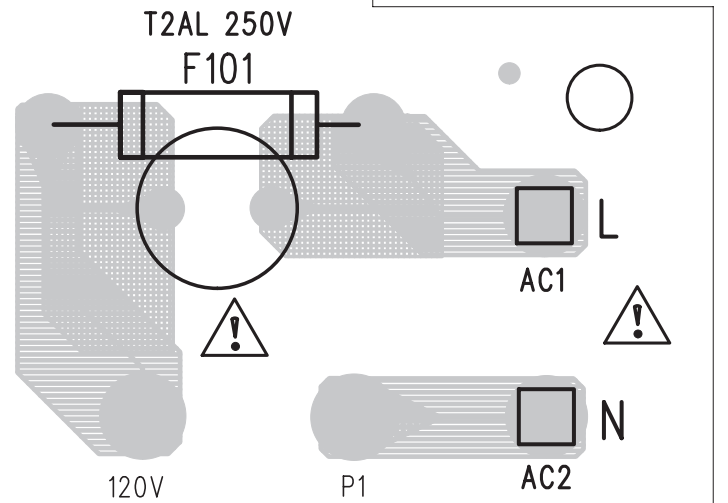
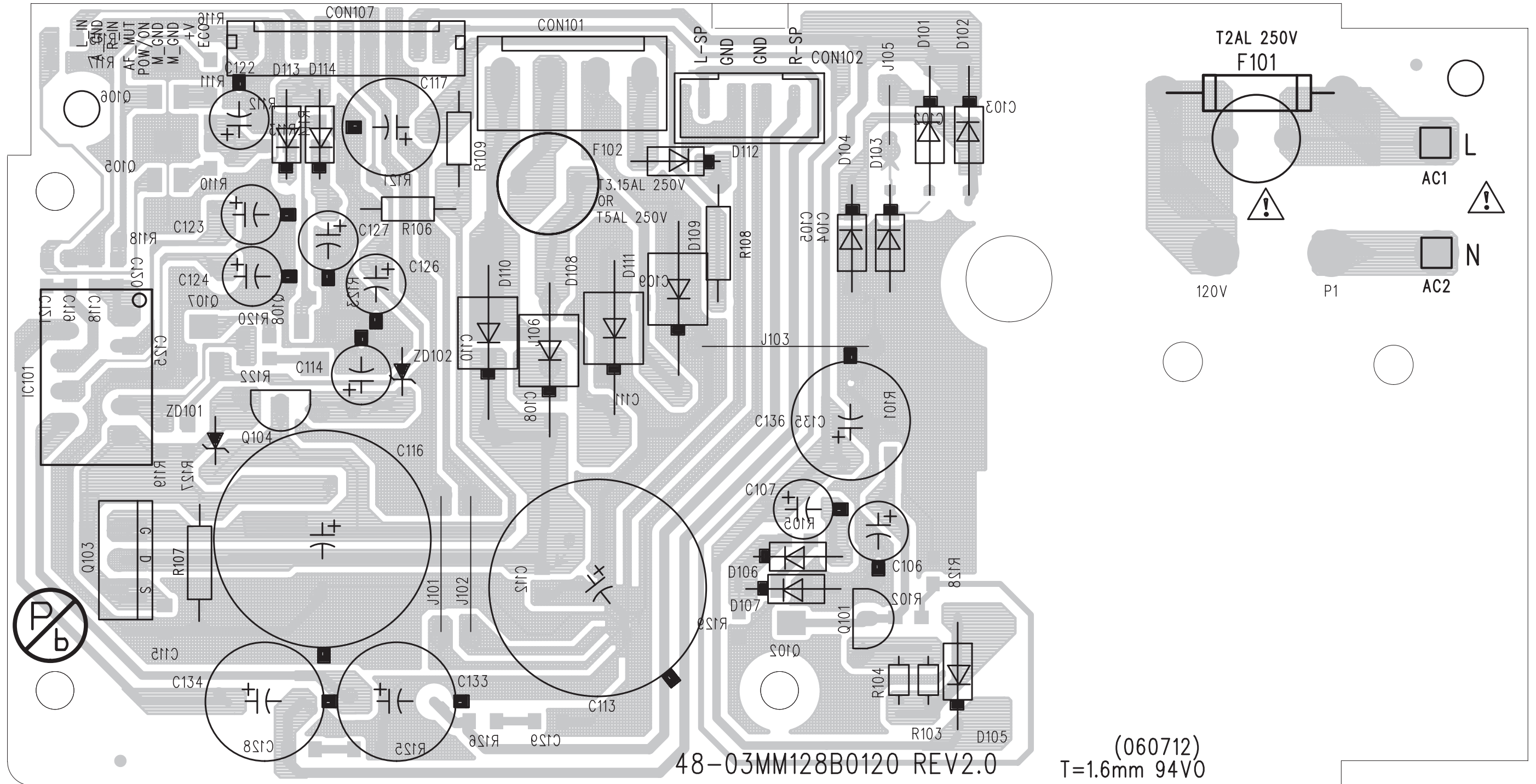




# CIRCUIT DIAGRAM - AC POWER BOARD

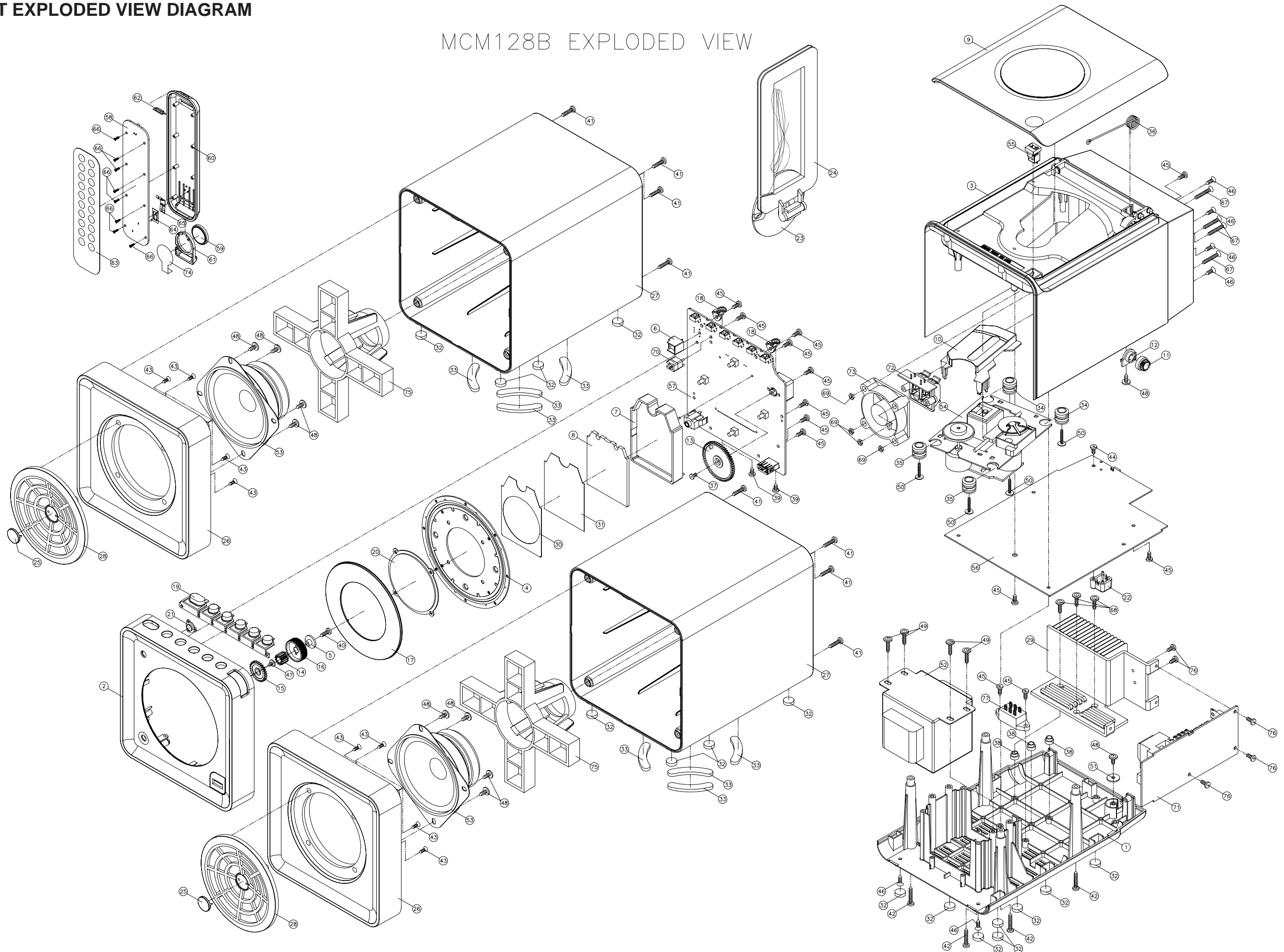


# LAYOUT DIAGRAM - AC POWER BOARD



# SET EXPLODED VIEW DIAGRAM

## MCM128B EXPLODED VIEW



**MECHANICAL & MISCELLANEOUS PARTSLIST**

01	9965 000 40315	BOTTOM CABINET (BLACK)
02	9965 100 00863	FRONT CABINET BLK
03	9965 000 40317	REAR CAB (BLACK)
22	9965 000 39790	FM PIG TAIL HOUSING
09	9965 000 39698	CD DOOR(BLK)
10	9940 000 04392	LASER COVER (FOR SANYO CD)
12	9965 100 00864	CD GEAR BRACKET
11	9965 100 00865	CD GEAR BLK
14	9965 100 00866	TUNING GEAR 1 BLK
15	9965 100 00867	TUNING GEAR 2 BLK
16	9965 000 39699	TUNING KNOB
19	9965 000 39700	FUNCTION KNOB GROUP
20	9965 000 39337	DISPLAY LENS
21	9965 000 39338	IR LENS(WHITE)
52	9965 100 00858	TRANSF. 230V T66-0612034-10
54	9940 000 05398	CD MECHANISM DA11B3VF
55	9940 000 02354	CD DOOR SWITCH DLS-02-W-1
FORCDM	9940 000 01942	16P FFC 1MM L80MM
ACCORD	9965 100 00859	AC CORD BS APP 2M
33	9965 000 39360	RUBBER FOOT(BLK)
73	9965 100 00351	FAN JD5015LS1 3700r/MIN
34	9965 100 00860	SHOCK ABSORBER (658 TA 30C)
35	9965 100 00861	SHOCK ABSORBER (658 TB 40C)
36	9940 000 05401	CD DOOR SPRING

**ACCESSORY PARTSLIST**

REMO	9965 100 00847	REMOTE ASS'Y
SPK	9965 100 00848	SPK BOX ASS'Y (15W)(L+R)
AM ANT	9965 100 00269	AM LOOP ANT ASS'Y

**Note:** Only these parts mentioned in the list are normal service parts.

**MECHANICAL & MISCELLANEOUS PARTSLIST**

01	9965 000 40315	BOTTOM CABINET (BLACK)
02	9965 100 00353	FRONT CABINET
03	9965 000 40317	REAR CAB (BLACK)
06	9965 100 00345	REMOTE BRACKET
07	9965 000 39352	LCD BRACKET
08	9965 100 00346	LIGHT BRACKET
09	9965 000 39698	CD DOOR(BLK)
16	9965 000 39699	TUNING KNOB
18	9965 100 00350	PC PLATE 38x90mm
19	9965 000 39700	FUNCTION KNOB GROUP
22	9965 000 39790	FM PIG TAIL HOUSING
33	9965 000 39360	RUBBER FOOT(BLK)
36	9940 000 05401	CD DOOR SPRING
54	9940 000 05398	CD MECHANISM DA11B3VF
55	9940 000 02354	CD DOOR SWITCH DLS-02-W-1
56	9965 100 00313	MAIN BD ASS'Y-55
57	9965 100 00338	DISPLAY BD ASS'Y(15W)
71	9965 100 00336	POWER BD ASS'Y/55
72	9965 100 00347	SPK JACK BD ASS'Y
52	9965 100 00349	TRANSFORMER 127/240V
77	9940 000 04376	SWITCH SL14-22AH-5AN
ACCORD	9965 000 40325	AC CORD VDE APP 6FT (BLK)
73	9965 100 00351	FAN JD5015LS1 3700r/MIN
FORCDM	9940 000 01942	16P FFC 1MM L80MM
ACADP	9940 000 01478	AC PLUG ADAPTOR
SPKJK	9940 000 03661	SPK JACK PT-22V11

**ACCESSORY PARTSLIST**

REMO	9965 100 00310	REMOTE ASS'Y
SPK	9965 100 00268	SPK BOX ASS'Y (15W)(L+R)
AM ANT	9965 100 00269	AM LOOP ANT ASS'Y

**Note:** Only these parts mentioned in the list are normal service parts.

**ELECTRICAL PARTSLIST****9965 200 00085 MAIN BD ASS'Y**

C40	9940 000 01957	E.CAP 6800UF 25V -20%
CF4	9965 100 00332	CRYSTAL 32.768KHZ
CF5	9965 100 00334	CRYSTAL 8.4672MHz 20PF
D2A	9965 100 00323	SMD DIODE BAS316
F2	9940 000 00586	GLASS FUSE W/LEAD 3.15A/250V
IC302	9965 000 39806	IC ET2314 (SOP28)
IC304	9940 000 00253	IC (SAMSUNG) KA7808
IC305	9940 000 00253	IC (SAMSUNG) KA7808
IC307	9965 000 39809	IC YD4558
IC308	9965 100 00331	IC SCF5250LAG100
IC310	9965 100 00327	IC KH29LV800C
IC311	9965 100 00330	IC SAA7824HL/MIA
IC312	9965 100 00325	IC (CHMC) D9258
IC313	9965 100 00329	IC PCF8563T CLOCK SOP8
IC315	9965 100 00328	IC OPT30 (SOP8)
IC500	9965 100 00326	IC USB HOST CTR
IC5	9965 100 00324	IC AZ1117H-5.0
IC601	9940 000 02839	IC LM1117S-3.3
L14	9965 100 00851	CHOKE COIL 100UH +-10% 300R 1A
L15	9965 100 00852	CHOKE COIL 100UH +-10% 0.5A
L16	9965 100 00852	CHOKE COIL 100UH +-10% 0.5A
L1A	9965 100 00850	CHOKE COIL 8UH +-20%
L2	9965 100 00850	CHOKE COIL 8UH +-20%
Q10	9965 100 00849	NPN TRANSISTORS 9014C
Q24	9965 000 38610	TRANSISTORS 2W 8550C
Q28	9965 000 39345	TRANSISTORS 2W 8050D
Q501	9965 100 00319	SMD TRANSISTORS FDN338P
Q7	9965 100 00314	SMD TRANSISTOR 2SD1664R
Q9	9965 100 00849	NPN TRANSISTORS 9014C
Y500	9965 100 00333	CRYSTAL 6.000MHz
ZD2	9965 100 00321	SMD ZENER DIODE PDZ3.9B

**9965 200 00086 POWER BD ASS'Y-05**

trans	9965 100 00853	TRANSF. 230V T28-0622022-00
relay	9965 000 39818	RELAY ME-7-006-HSL DC6V AC10A
C101	9940 000 01225	SAFETY CAP 275V 0.22UF -20%
C113	9940 000 01206	E.CAP 3300UF 50V -20%
C116	9940 000 01205	E.CAP 3300UF 35V -20%
D108	9940 000 03938	RECTIFIER DIODE RL-202
D109	9940 000 03938	RECTIFIER DIODE RL-202
D110	9940 000 03938	RECTIFIER DIODE RL-202
D111	9940 000 03938	RECTIFIER DIODE RL-202
F101	9940 000 01222	FUSE RADIAL LT 2A 250V
F102	9940 000 01223	FUSE RADIAL T5A 250V
IC101	9965 000 39816	IC (PHILIPS) TFA9843BJ
L101	9940 000 01226	AC LINE FILTER IND. 400UH 3A
Q101	9965 000 39345	TRANSISTORS 2W 8050D
Q103	9940 000 04545	TRANSISTORS BUK9507-30B
Q104	9940 000 04546	TRANSISTORS PBSS4140S

**9965 200 00083 DISPLAY BD ASS'Y**

usbsock	9965 100 00344	USB SOCKET
CF1	9940 000 02857	CERAMIC FILTER SFU450B
CF2	9940 000 01208	CER. FILTER SFELA10M7HA00-B0
CF3	9965 100 00343	DISCRIMINATOR JT10.7MG77
D1	9965 000 39372	SWITCHING DIODE 1SS133-T-77
D2	9965 000 39372	SWITCHING DIODE 1SS133-T-77
HPJ1	9940 000 01244	V/PHONE JACK 3.5MM
IC1	9940 000 05387	IC TA2180FN
IC306	9965 100 00342	IC (TEK) ET3600 (SOP8)
IC401	9940 000 04366	IC (TEK) ET8861S
IR1	9940 000 04367	OPTIC SENSER FM-6038TM2-5AN
L1	9965 000 39351	FM COIL 4.5x4.5T (0.8mm)
L3A	9940 000 05391	I.F.T 7.5X7.5MM 705 (RED)
L4A	9940 000 03655	FM COIL 4.5X3.5T
L5	9965 000 39350	FM COIL 4.5X2.5T (0.8MM)
L6	9940 000 04611	I.F.T 7MM #7M1A2224N
LCD1	9965 000 39349	LCD DISPLAY
LED1	9940 000 05385	LED LAMP (WHITE)
LED2	9940 000 05385	LED LAMP (WHITE)
LED3	9940 000 01482	LED LAMP 3MM (RED)
Q14	9965 000 39348	PNP TRANSISTORS 9012G 1W
Q15	9940 000 04143	NPN TRANSISTORS 9014C
Q1	9940 000 05384	TRANSISTOR KTK161GR TO-92M
Q2	9940 000 04338	SMD TRANSISTORS PMBT3904
Q3	9940 000 04338	SMD TRANSISTORS PMBT3904

10 - 3 (for version 05)

Q402	9965 000 39345	TRANSISTORS 2W 8050D
Q4	9940 000 03937	SMD TRANSISTORS PMBT3906
Q5	9940 000 04338	SMD TRANSISTORS PMBT3904
SW4011	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW4012	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW401	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW402	9940 000 05393	TACT SWITCH
SW4032	9940 000 05393	TACT SWITCH
SW403	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW4041	9940 000 05393	TACT SWITCH
SW404	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW4051	9940 000 05393	TACT SWITCH
SW405	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
T1	9940 000 05392	I.F.T 7.6X7.6MM A702 (YELLOW)

**9965 200 00084 SPK JACK BD ASS'Y-05**

13	9940 000 03661	SPK JACK PT-22V11
L3	9965 100 00850	CHOKE COIL 8UH +-20%
L4	9965 100 00850	CHOKE COIL 8UH +-20%

**Note: Only these parts mentioned in the list are normal service parts.**



**ELECTRICAL PARTSLIST****9965 100 00313 MAIN BD ASS'Y-55**

CF4	9965 100 00332	CRYSTAL 32.768KHZ
CF5	9965 100 00334	CRYSTAL 8.4672MHz 20PF
CON102	9965 100 00335	F.F.C.WAFER 1mm 16P
D2	9965 100 00323	SMD DIODE BAS316
D3	9940 000 04534	RECTIFIER DIODE 1N5819
D4	9965 100 00322	DIODE 1N5392 1.5A 100V
D5	9965 100 00322	DIODE 1N5392 1.5A 100V
D6	9965 100 00322	DIODE 1N5392 1.5A 100V
D7	9965 100 00322	DIODE 1N5392 1.5A 100V
F2	9940 000 00586	GLASS FUSE W/LEAD 3.15A/250V
IC302	9965 000 39806	IC ET2314 (SOP28)
IC304	9940 000 00253	IC (SAMSUNG) KA7808
IC305	9940 000 00253	IC (SAMSUNG) KA7808
IC307	9965 000 39809	IC YD4558
IC308	9965 100 00331	IC SCF5250LAG100
IC310	9965 100 00327	IC KH29LV800C
IC311	9965 100 00330	IC SAA7824HL/MIA
IC312	9965 100 00325	IC (CHMC) D9258
IC313	9965 100 00329	IC PCF8563T CLOCK SOP8
IC315	9965 100 00328	IC OPT30 (SOP8)
IC500	9965 100 00326	IC USB HOST CTR
IC5	9965 100 00324	IC AZ1117H-5.0
IC601	9940 000 02839	IC LM1117S-3.3
Q01	9965 100 00317	SMD TRANSISTORS BC817-25
Q02	9965 100 00317	SMD TRANSISTORS BC817-25
Q03	9965 100 00317	SMD TRANSISTORS BC817-25
Q11	9965 100 00315	SMD TRANSISTORS BC807-25
Q12	9965 100 00317	SMD TRANSISTORS BC817-25
Q13	9965 100 00317	SMD TRANSISTORS BC817-25
Q20	9965 100 00315	SMD TRANSISTORS BC807-25
Q23	9965 100 00317	SMD TRANSISTORS BC817-25
Q3	9965 100 00318	SMD TRANSISTORS BC869
Q4	9965 100 00316	SMD TRANSISTORS BC817-40
Q501	9965 100 00319	SMD TRANSISTORS FDN338P
Q7	9965 100 00314	SMD TRANSISTOR 2SD1664R
Q8	9965 100 00316	SMD TRANSISTORS BC817-40
Y500	9965 100 00333	CRYSTAL 6.000MHz
ZD2	9965 100 00321	SMD ZENER DIODE PDZ3.9B
ZD4	9965 100 00320	ZENER DIODE 3.9V 1/2W

**ELECTRICAL PARTSLIST****9965 100 00336 POWER BD ASS'Y/55**

D108	9940 000 03938	RECTIFIER DIODE RL-202
D109	9940 000 03938	RECTIFIER DIODE RL-202
D110	9940 000 03938	RECTIFIER DIODE RL-202
D111	9940 000 03938	RECTIFIER DIODE RL-202
F101	9940 000 00585	CERAMIC FUSE W/LEAD 2A/250V
F102	9940 000 01223	FUSE RADIAL T5A 250V
IC101	9965 000 39816	IC (PHILIPS) TFA9843BJ
Q103	9940 000 04545	TRANSISTORS BUK9507-30B
Q104	9940 000 04546	TRANSISTORS PBSS4140S
Q105	9965 100 00337	SMD TRANSISTORS BC847B
Q106	9965 100 00337	SMD TRANSISTORS BC847B
Q107	9965 100 00337	SMD TRANSISTORS BC847B
Q108	9965 100 00337	SMD TRANSISTORS BC847B
ZD101	9965 000 39814	ZENER DIODE -5% 12V 1/2W
ZD102	9965 000 39815	ZENER DIODE -5% 24V 1/2W

**9965 100 00338 DISPLAY BD ASS'Y(15W)**

12	9965 100 00344	USB SOCKET
CF1	9940 000 02857	CERAMIC FILTER SFU450B
CF2	9940 000 01208	CER. FILTER SFELA10M7HA00-B0
CF3	9965 100 00343	DISCRIMINATOR JT10.7MG77
D101	9965 100 00341	SMD ZENER DIODE 5.6V
D102	9965 100 00341	SMD ZENER DIODE 5.6V
D103	9965 100 00341	SMD ZENER DIODE 5.6V
D104	9965 100 00341	SMD ZENER DIODE 5.6V
D1	9965 000 39372	SWITCHING DIODE 1SS133-T-77
D2	9965 000 39372	SWITCHING DIODE 1SS133-T-77
HPJ1	9940 000 01244	V/PHONE JACK 3.5MM
IC1	9940 000 05387	IC TA2180FN
IC306	9965 100 00342	IC (TEK) ET3600 (SOP8)
IC401	9940 000 04366	IC (TEK) ET8861S
IR1	9940 000 04367	OPTIC SENSER FM-6038TM2-5AN
L2	9965 100 00339	ZENER DIODE 2.2V 1/2W
LCD1	9965 000 39349	LCD DISPLAY
LED1	9940 000 05385	LED LAMP (WHITE)
LED2	9940 000 05385	LED LAMP (WHITE)
Q14	9965 000 39348	PNP TRANSISTORS 9012G 1W
Q15	9940 000 04143	NPN TRANSISTORS 9014C
Q1	9940 000 05384	TRANSISTOR KTK161GR TO-92M
Q2	9940 000 04338	SMD TRANSISTORS PMBT3904
Q3	9940 000 04338	SMD TRANSISTORS PMBT3904
Q402	9965 000 39345	TRANSISTORS 2W 8050D

**ELECTRICAL PARTSLIST****9965 100 00338 DISPLAY BD ASS'Y(15W)**

Q4	9940 000 03937	SMD TRANSISTORS PMBT3906
Q5	9940 000 04338	SMD TRANSISTORS PMBT3904
SW401	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW402	9940 000 05393	TACT SWITCH
SW4032	9940 000 05393	TACT SWITCH
SW403	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW4041	9940 000 05393	TACT SWITCH
SW404	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW4051	9940 000 05393	TACT SWITCH
SW405	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW411	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
SW412	9940 000 04167	V/TACT SWITCH 7X7.4MM 3.85MM
ZD1	9965 100 00340	ZENER DIODE 3.3V 1/2W

**Note:** Only these parts mentioned in the list are normal service parts.

## REVISION LIST

**Version 1.0** (3142 785 31480)

\* Initial Release MCM128B(version /55)

**Version 1.1** (3142 785 31481)

\* Add Version (/05)