

Service
Service
Service



Service Manual



TABLE OF CONTENTS

| | Chapter |
|--|---------|
| Location of PCB Boards | 1-2 |
| Versions Variation | 1-2 |
| Specifications | 1-3 |
| Measurement Setup | 1-4 |
| Service Aids | 1-5 |
| ESD & Safety Instruction | 1-6 |
| Lead-free soldering Information | 1-7 |
| Setting procedure & Repair Instructions..... | 2 |
| Disassembly Instructions & Service positions | 3 |
| Block & Wiring Diagram | 4 |
| DISP+LED+VOL Board (main unit)..... | 5 |
| Main Board (main unit) | 6 |
| Power Board (main unit) | 7 |
| MP3 IN Board (main unit) | 8 |
| Scart Board (main unit) | 9 |
| Main+Led+Head Board (wireless)..... | 10 |
| SMPS Board (wireless)..... | 11 |
| Mechanical Exploded View & Part List | 12 |
| Revision List | 13 |

© Copyright 2009 Philips Consumer Electronics B.V. Eindhoven, The Netherlands
 All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise without the prior permission of Philips.

Published by RY0924 Service Audio Printed in The Netherlands Subject to modification

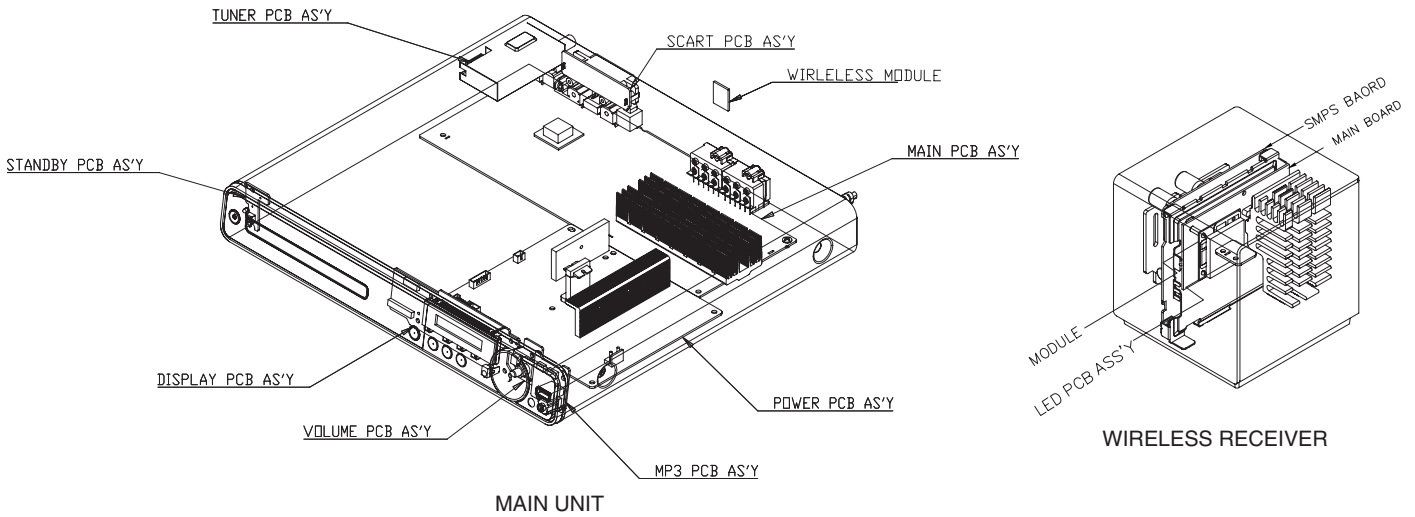
GB 3139 785 34990

Version 1.0



PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

| Type/Versions | HTS3376W |
|----------------------|----------|
| | /12 |
| Features | |
| Output Power - 1000W | X |
| Voltage (220~240V) | X |
| MP3 Link | X |

SERVICE SCENARIO MATRIX:

| Type/Versions | HTS3376W |
|----------------------|----------|
| | /12 |
| Board in used | |
| Main Board | C |
| Power Board | C |
| DISP+LED+VOL Board | C |
| Scart Board | C |
| MP3 IN Board | C |
| Main+Led+Heat Board | C |
| SMPS Board | C |

*C = Component Level Repair

SPECIFICATIONS

Playback media

DVD-Video, DVD+R/+RW, DVD-R/-RW, DVD+R DL, CD-R/
CD-RW, Audio CD, Video CD/SVCD, Picture CD, MP3-CD,
WMA-CD, DivX-CD, USB flash drive

Amplifier

Total output power.....
Home Theatre mode..... 1000 W(6 X 167)
Frequency response.....40 Hz ~ 20 kHz
Signal-to-noise ratio..... > 60 dB
..... (A-weighted)
Input sensitivity.....
AUX 400 mV
SCART TO TV..... 250 mV
MP3 LINK 250 mV

Disc

Laser Type..... Semiconductor
Disc diameter..... 12cm / 8cm
Video decoding..... MPEG1/ MPEG2 / DivX
..... / DivX Ultra
Video DAC..... 12 bits, 108 MHz
Signal system PAL / NTSC
Video S/N 56 dB
Audio DAC.....24 bits / 96 kHz
Frequency response.....
..... 4 Hz - 20 kHz (44.1 kHz)
..... 4 Hz - 22 kHz (48 kHz)
..... 4 Hz - 44 kHz (96 kHz)
PCM..... IEC 60958
Dolby Digital IEC 60958, IEC 61937
DTS IEC 60958, IEC 61937

Radio

Tuning range FM 87.5–108 MHz (50 kHz)
2.6 dB quieting sensitivity FM 22 dB
IF rejection ratio..... FM 60 dB
Signal-to-noise ratio..... FM 50 dB
Harmonic distortion..... FM 3%
Frequency response..... FM 180 Hz~10 kHz
..... / ± 6 dB
Stereo separation FM 26 dB (1 kHz)
Stereo Threshold..... FM 29 dB

USB

Compatibility Hi-Speed USB (2.0)
Class support..... UMS (USB Mass Storage Class)
File system FAT12, FAT16, FAT32

Main Unit

Power supply220–240 V; ~ 50 Hz
Power consumption 180 W
Standby power consumption < 1 W
Dimensions (WxHxD) 360 x 57 x 331 (mm)
Weight2.87 kg

Speakers

System..... full range satellite
Speaker impedance..... 4 ohm (centre), 4 ohm (Front/Rear)
Speaker drivers
Centre/Front/Rear..... 3" full range
Frequency response..... 150 Hz ~ 20 kHz
Dimensions (WxHxD)
- Centre..... 244 x 103 x 74 (mm)
- Front..... 103 x 203 x 71 (mm)
- Rear..... 262 x 1199 x 264 (mm)
Weight
- Centre.....0.79 kg
- Front.....0.54 kg
- Rear.....3.38 kg

Subwoofer

Impedance..... 4 ohm
Speaker drivers 165 (6.5") woofer
Frequency response.....40 Hz ~ 150 Hz
Dimensions (WxHxD) 163 x 363 x 369 (mm)
Weight4.85 kg

Wireless receiver

Power Consumption 50 W
Frequency Response 6000 Hz
S/N Ratio 60 dB (A-Weighted)
Input Sensitivity: 400-600 mV
Distortion 1%
Dimensions (WxHxD)
..... 126 x 130.5 x 126 (mm)
Weight:1.11 kg

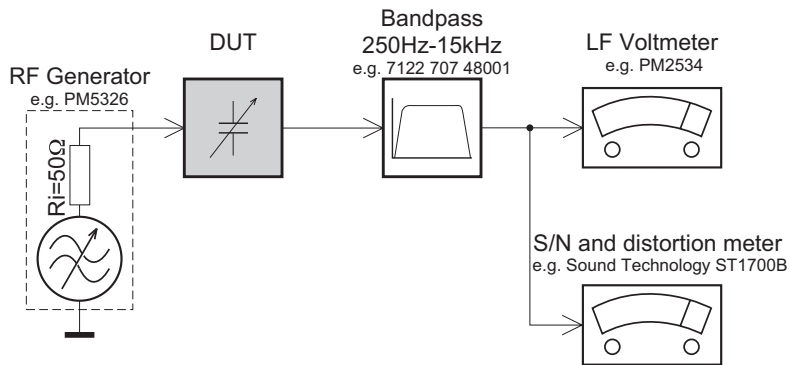
Laser specification

Type..... Semiconductor laser GaAlAs (CD)
Wave length..... 645 - 665 nm (DVD),770 - 800 nm (CD)
Output power6 mW (DVD),7 mW (VCD/CD)
Beam divergence..... 60 degrees.

Specifications subject to change without prior notice.

MEASUREMENT SETUP

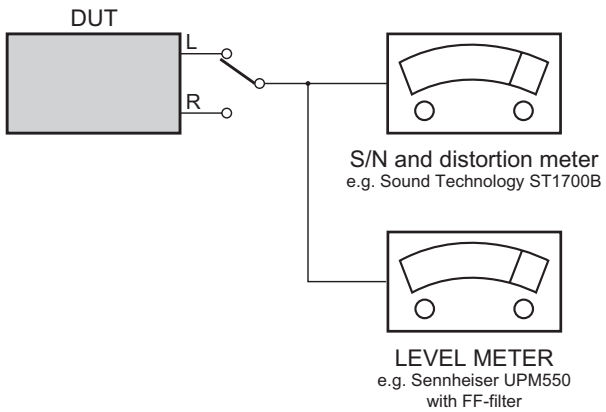
Tuner FM



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

CD

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



SERVICE AIDS

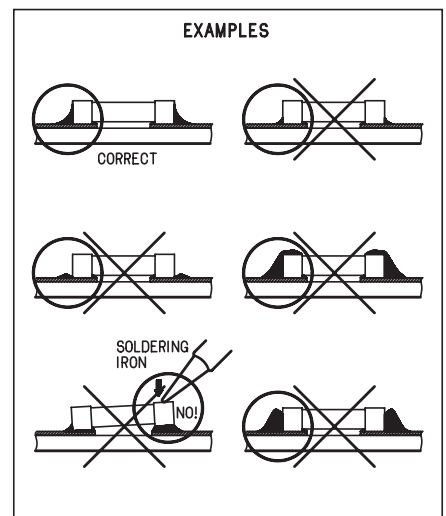
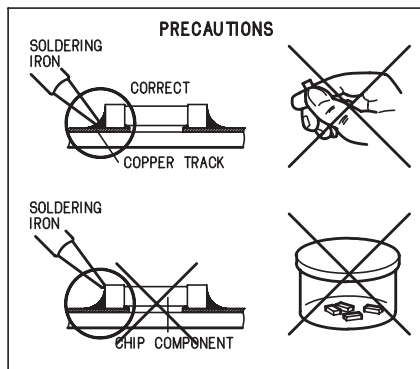
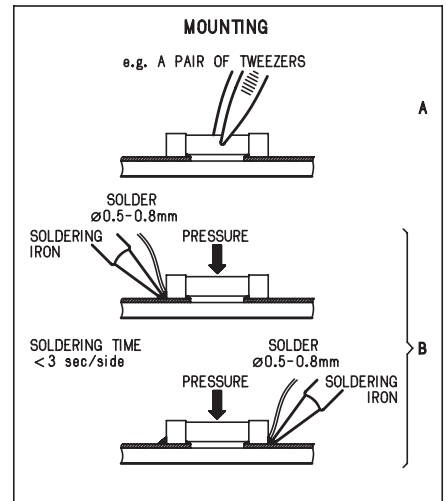
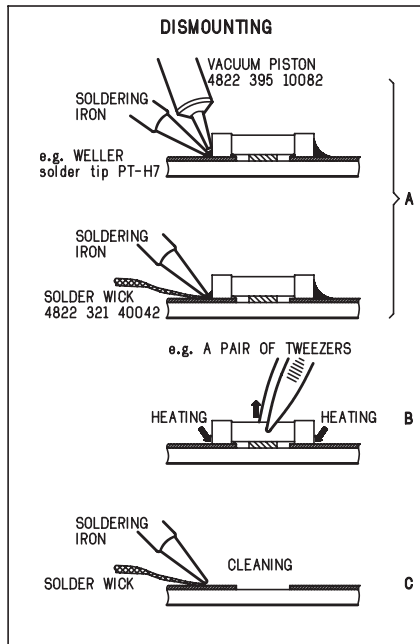
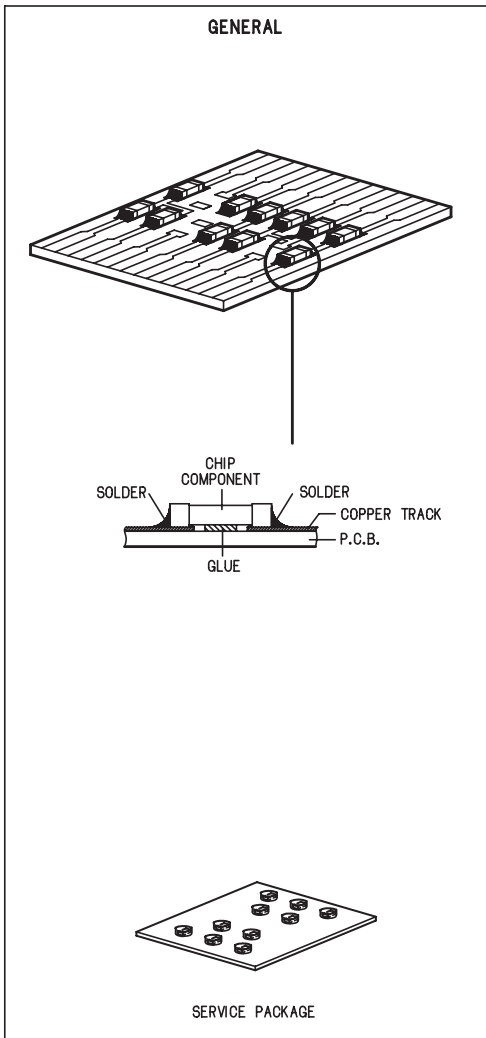
Service Tools:

- Universal Torx driver holder4822 395 91019
- Torx bit T10 150mm4822 395 50456
- Torx driver set T6-T204822 395 50145
- Torx driver T10 extended4822 395 50423

Compact Disc:

- SBC426/426A Test disc 5 + 5A4822 397 30096
- SBC442 Audio Burn-in test disc 1kHz4822 397 30155
- SBC429 Audio Signals disc4822 397 30184
- Dolby Pro-logic Test Disc4822 395 10216

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.

(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) WARNUNG

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

Unsorgfältige 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.

(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.

(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 braccialetto a resistenza.

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

(GB) ESD PROTECTION EQUIPMENT

Complete Kit ESD3 (small tablemat, wristband, connection box, estention cable and earth cable4822 310 10671
Wristband tester4822 344 13999

(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 Δ .

(NL)

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

De Veiligheidsonderdelen zijn aangeduid met het symbol Δ .

(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.

Less composants de sécurité sont marqués Δ .

(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.

Sicherheitsbauteile sind durch das Symbol Δ markiert.

(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.

Componenty di sicurezza sono marcati con Δ .

(GB)

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 spärren 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.


(F)

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

Pb(Lead) Free Solder

When soldering, be sure to use the pb free solder.

INDENTIFICATION:

Regardless of special logo (not always indicated) 

one must treat all sets from **1 Jan 2005** onwards, according next rules:

Important note: In fact also products of year 2004 must be treated in this way as long as you avoid mixing solder-alloys (lead-ed/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
 - To reach at least a solder-temperature of 400°C,
 - To stabilize the adjusted temperature at the solder-tip
 - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off unused equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with lead-ed solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (lead-ed and lead-free).

If one cannot avoid or does not know whether product is lead-free, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).

- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
 - Always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use the lead-free temperature profile, in case of doubt)
 - Lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening,

dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. (MSL=Moisture Sensitivity Level). This will be communicated via AYS-website.

Do not re-use BGAs at all.

- For sets produced before 1.1.2005 (except products of 2004), containing lead-ed solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website www.atyourservice.ce.Philips.com you find more information to:
 - BGA-de-/soldering (+ baking instructions)
 - Heating-profiles of BGAs and other ICs used in Philips-sets

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

System , Region Code , etc. Setting Prochure

1)System Reset

- Press "SETUP" button on R/C,TV will show setup menu
- Select the menu using the ▼ and ► on R/C
- Go preference page to do system reset

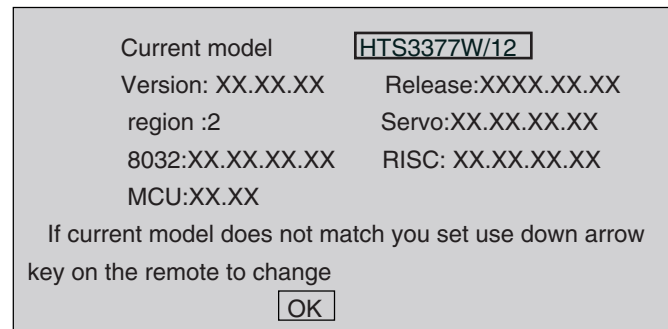
2)Region Code Change

- In open mode, press "9" "9" "9" on R/C,then input desired number to change region code :

- | | |
|---|-----------------------|
| 1 | USA |
| 2 | EU |
| 3 | AP |
| 4 | Australia ,NZ , Latam |
| 5 | Russia , INDIA |
| 6 | CHINA |

3)Version Control Change

- In open mode, press "1" "5" "9" on R/C
- Press "ok" button to confirm
- TV will show message as below:



4)Password Change

- Press "SETUP" button on R/C,TV will show setup menu
 - Select the menu using the ▼ and ► on R/C
 - Go preference page select "password" to change
- * 000000 is default password supplied.

5)Check on the Software Version

- Open the CD Door
- Press "INFO" button on R/C
- TV will show the version on screen

6)Trade model

- Press "Open/Close " button on R/C
- Press "2" "5" "9" on R/C,VFD will display "TRA ON " or "TRA OFF"

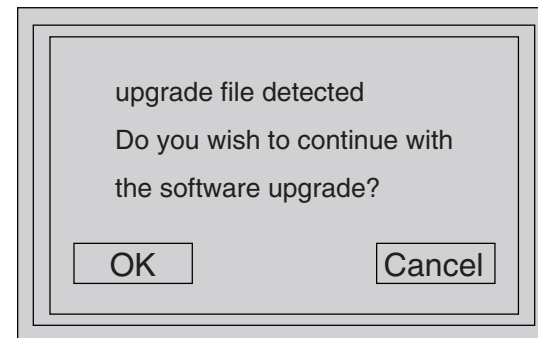
7) Upgrading new software

- Copy "software files" into a CD-R
- Open the CD Door,then insert the CD-R program disc
- Close the CD Door
- VFD will show:

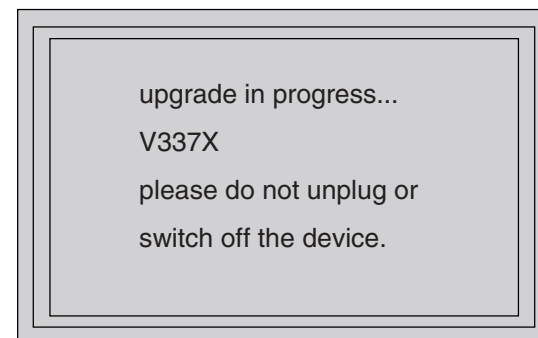
"Loading"
 "Erase" -- erase the flash memory
 "Writing" about 1 minute
 "done "

* the system will switch off and on again automatically.

- OSD will show:



- Select "OK", OSD will show:

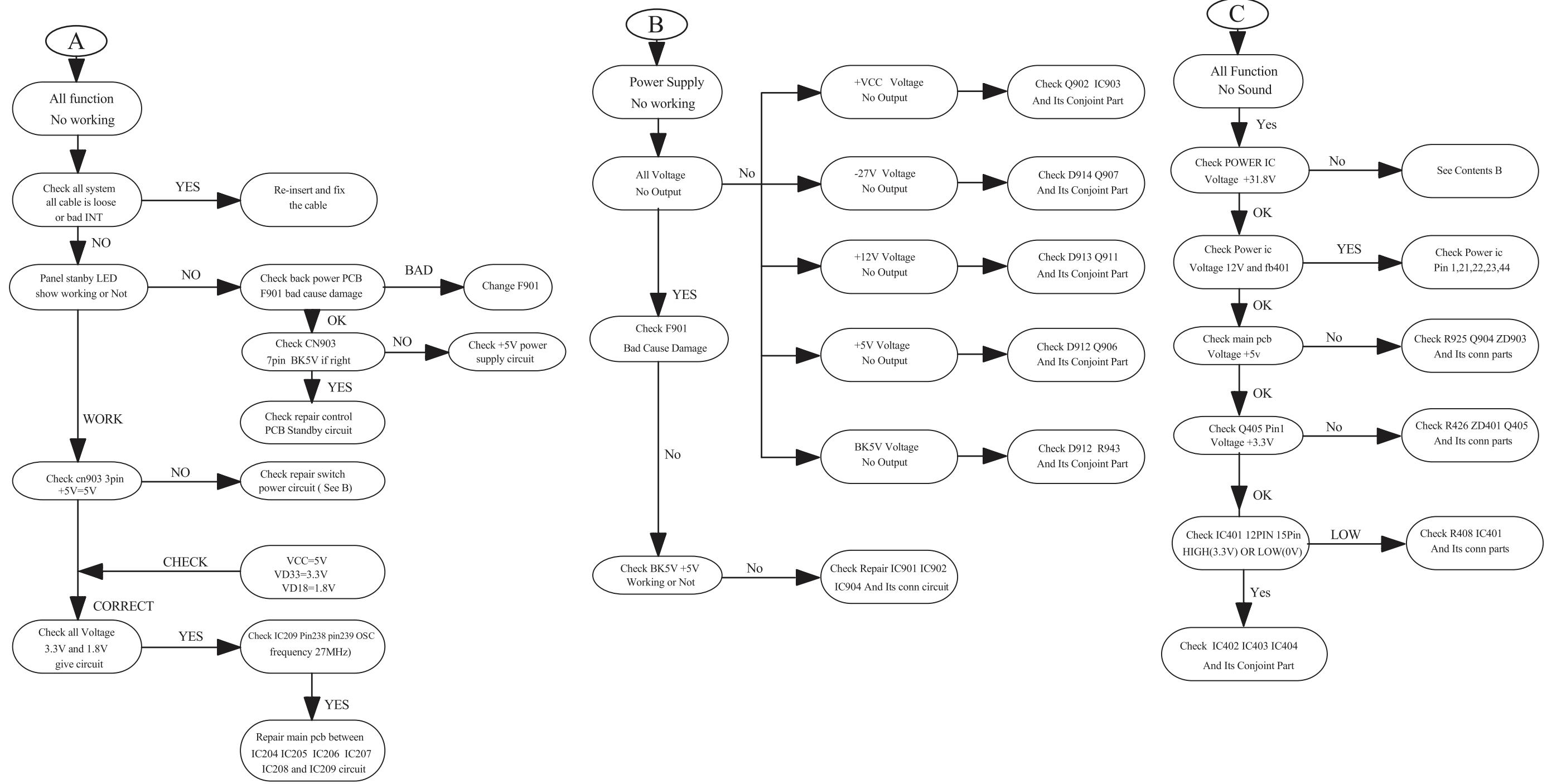


CAUTION!

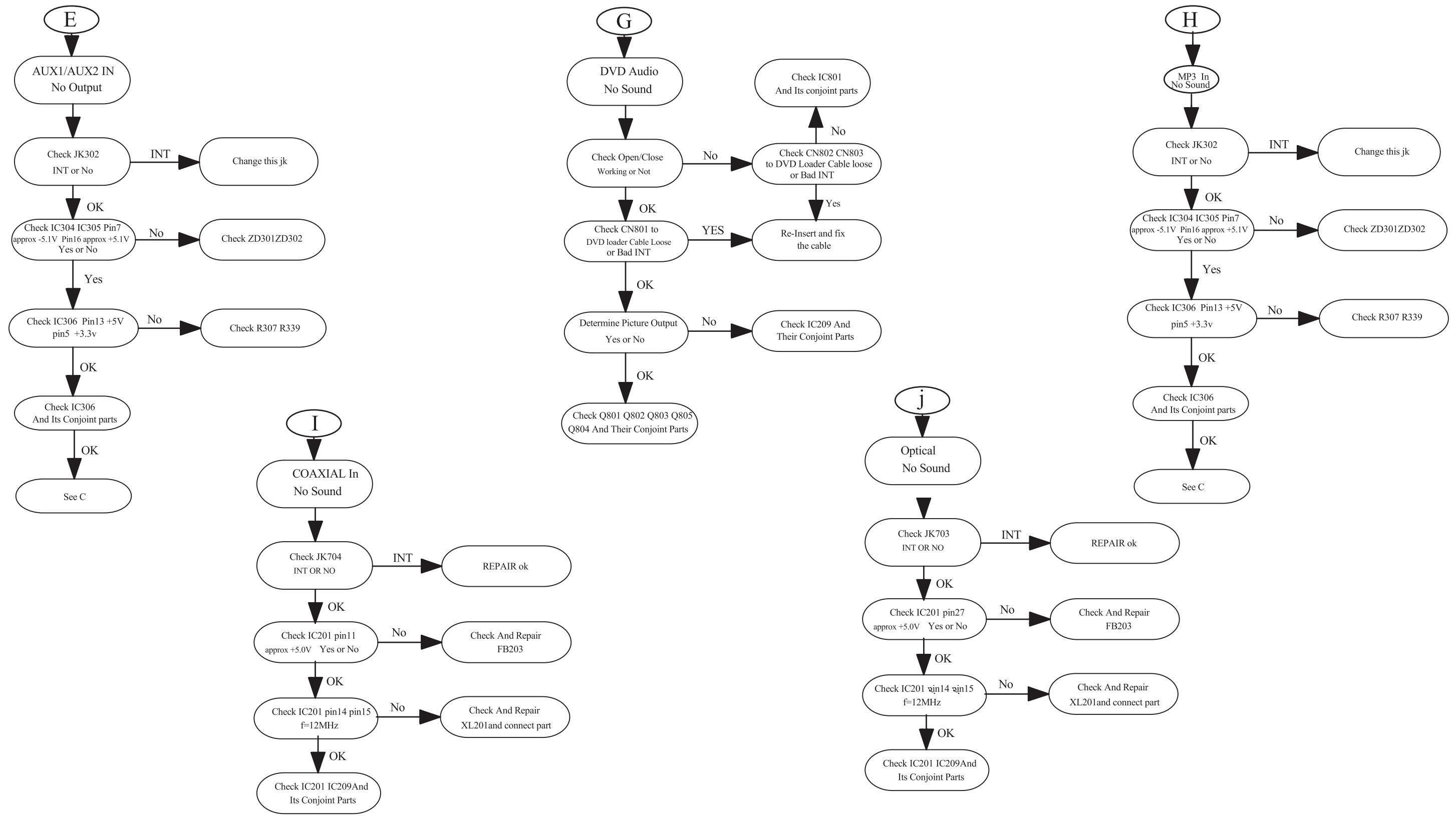
This information is confidential and may not be distributed.Only a qualified service person should reprogram the Region Code.

MAIN UNIT REPAIR CHART 1/3

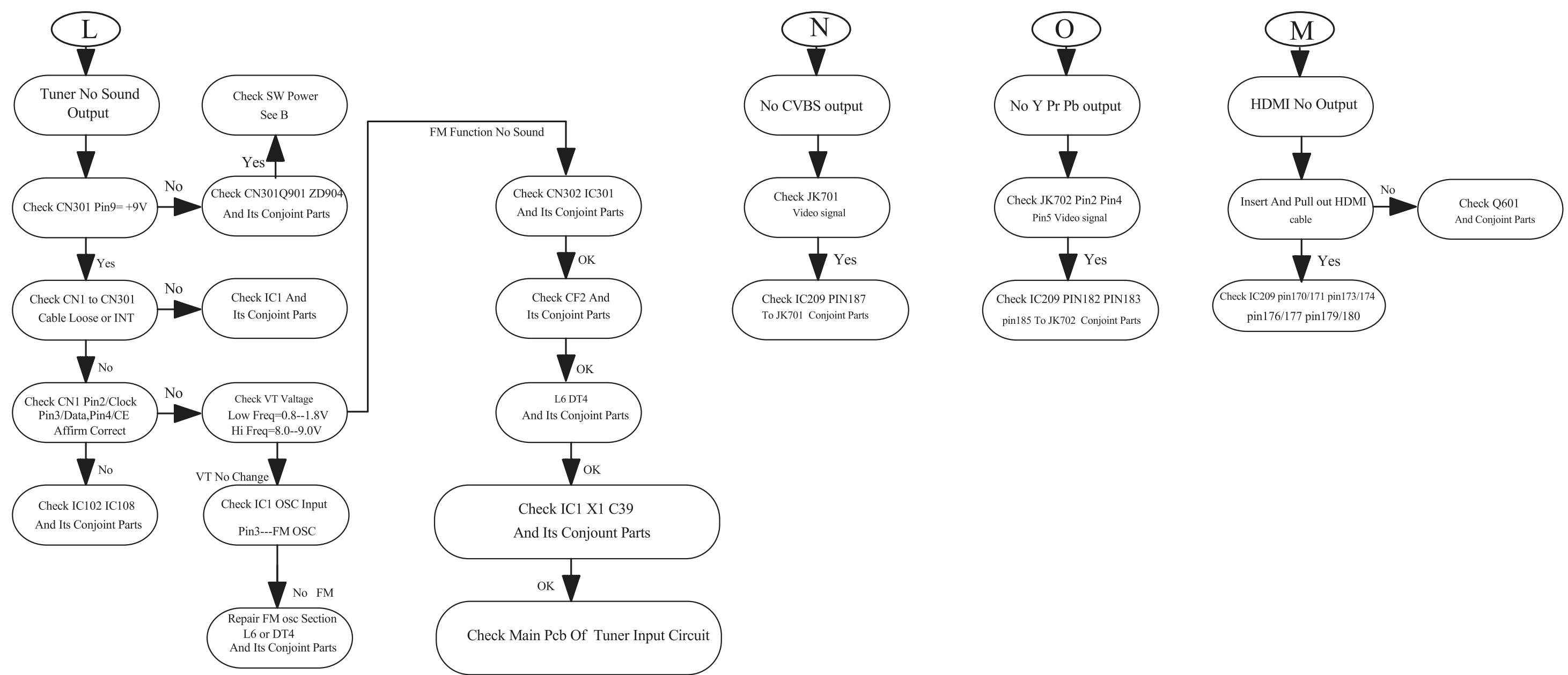
- A
All Function
No Working
- B
Power Supply
No Working
- C
All Function
No Sound
- E
Audio line IN
No Output
- G
DVD Audio
No Sound
- H
MP3 In
No Sound
- I
COAXIAL In
No Sound
- j
Optical In
No Sound
- L
Tuner No Sound
- M
HDMI No Output
- N
No CVBS Output
- O
No Y Pr Pb output



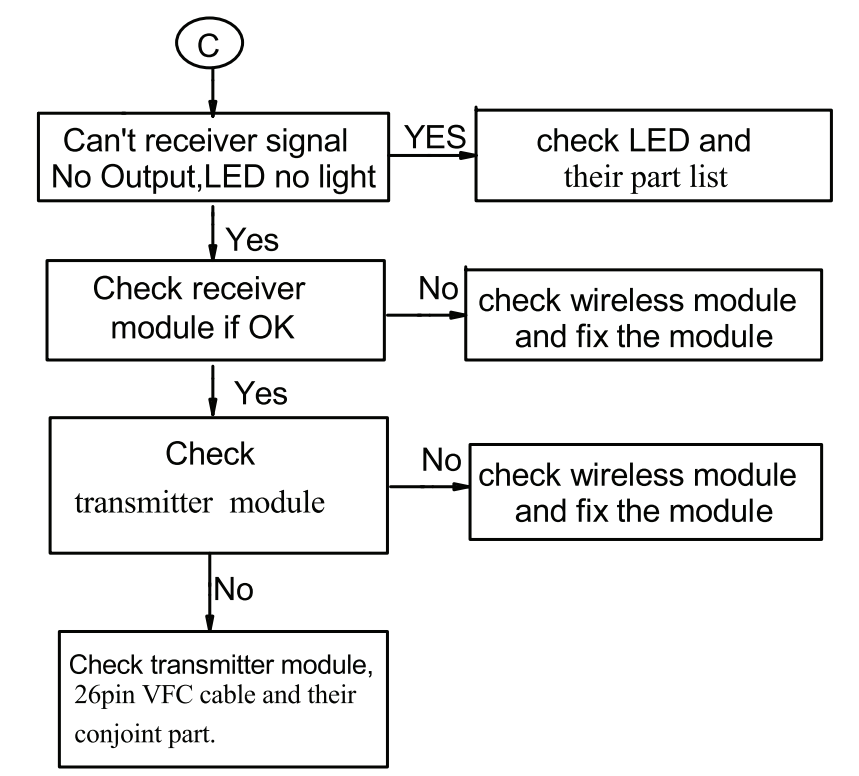
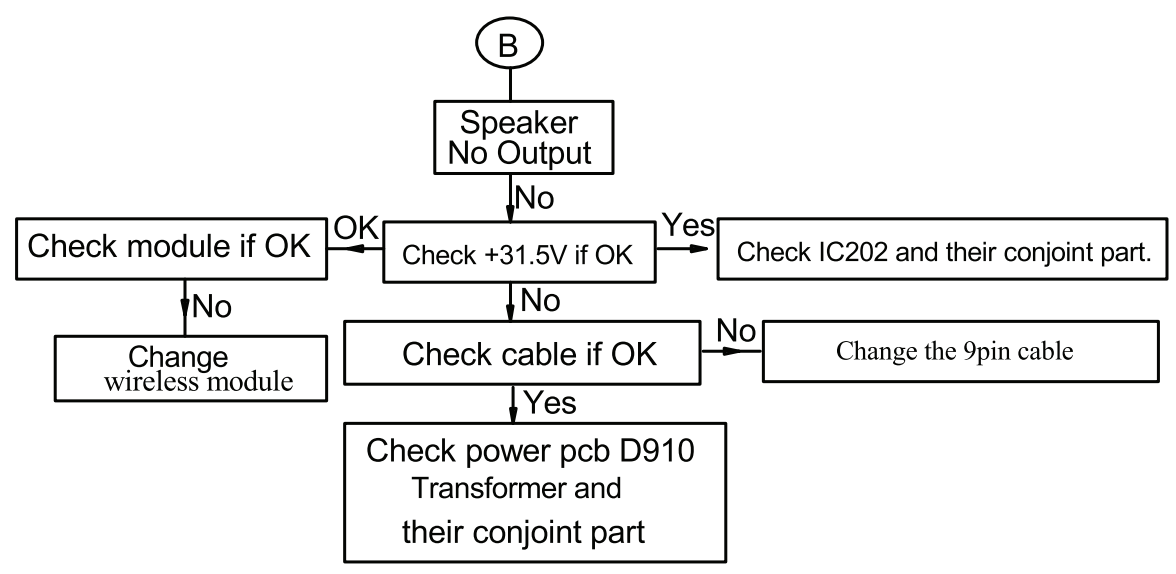
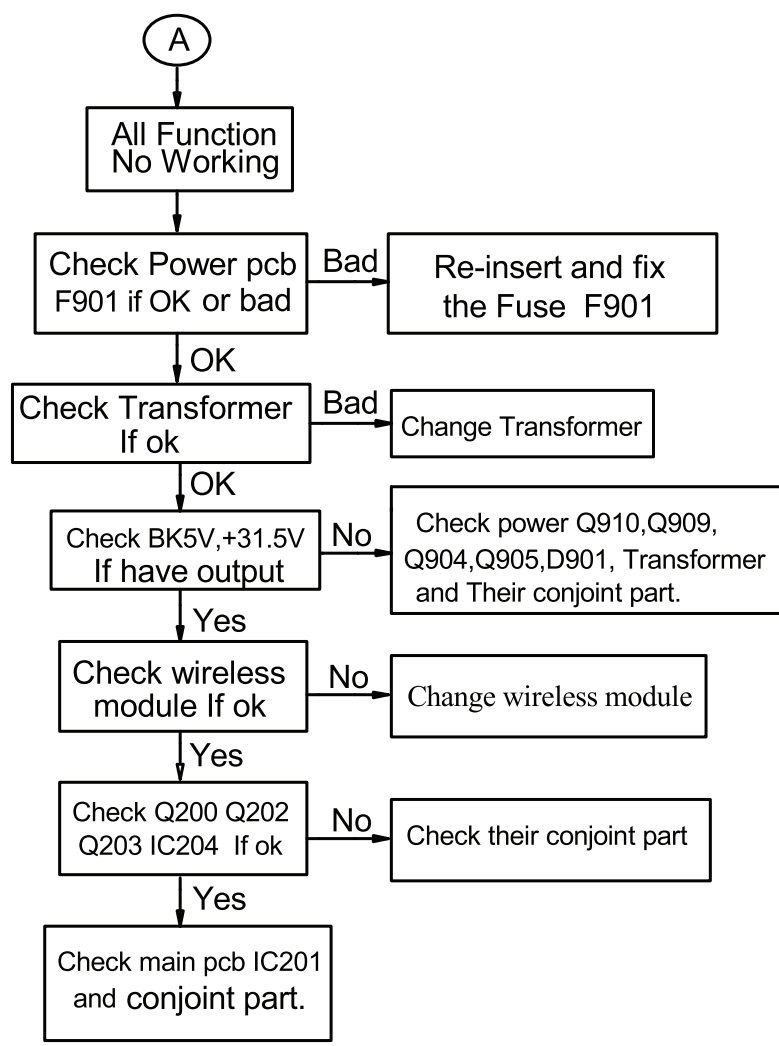
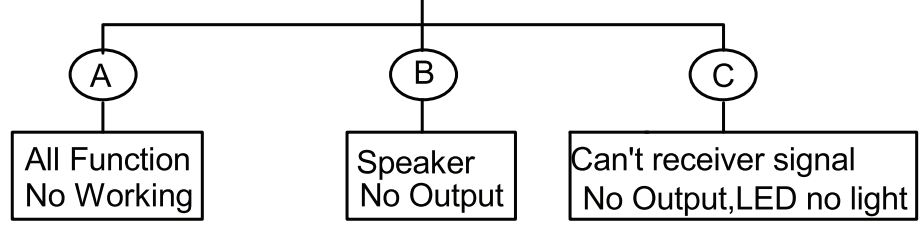
MAIN UNIT REPAIR CHART 2/3



MAIN UNIT REPAIR CHART 3/3



MAIN UNIT REPAIR CHART



3 - 1
DISASSEMBLY INSTRUCTIONS(part one _main unit)

Dismantling of the Front Panel Assemble

- 1) Open the DVD Tray by using the Open/Close Button while the Set is ON and disconnect the mains supply after removing the Tray Cover.
Note: If this is not possible, the DVD Tray has to be open manually.
Take a mini screw driver about 2mm diameter and make a marking 24mm from the tip as shown in figure 2 . Place the set on its side, insert the mini screw driver till the marking and slide it towards the left as shown in figure 1 until the Tray moves out of the Front Panel.
- 2) Return the set to its upright position and remove the Tray Cover as shown in Figure 3 and close the tray manually by pushing it back in.

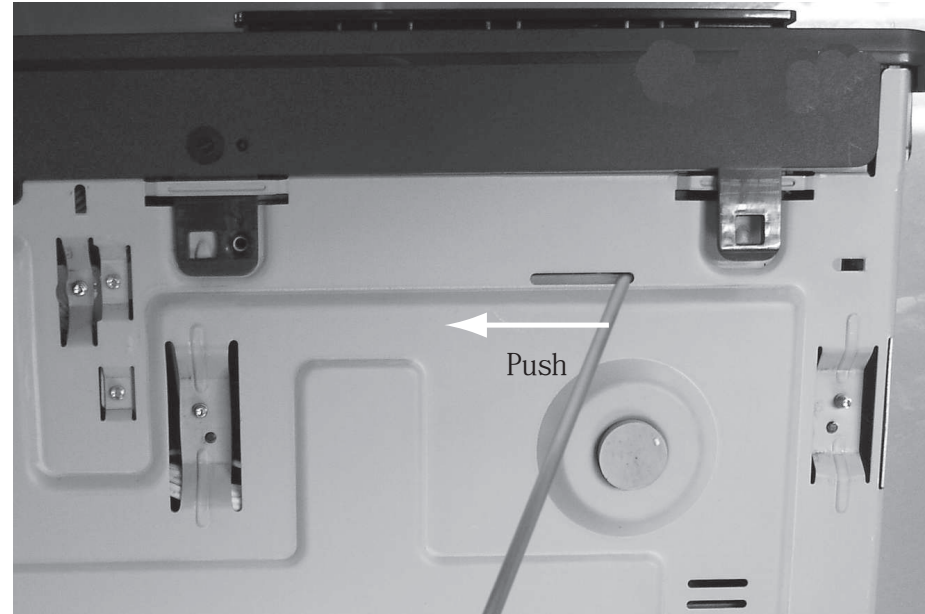


Figure 1



Figure 2

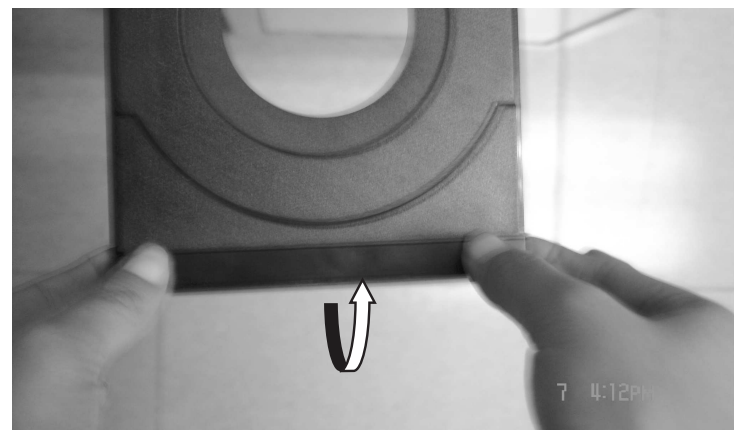


Figure 3

- 3) Loosen 6 screws and remove the Top Cover by lifting the rear portion upwards before sliding it out towards the rear.
 - 1 screw "A" each on the left & right side as shown in figure 4.
 - 4 screws "B" at the back panel as shown in figure 5.
- 4) Loosen 6 screws "C" at the front panel bracket as in figure 6A & figure 6B to remove the front panel.

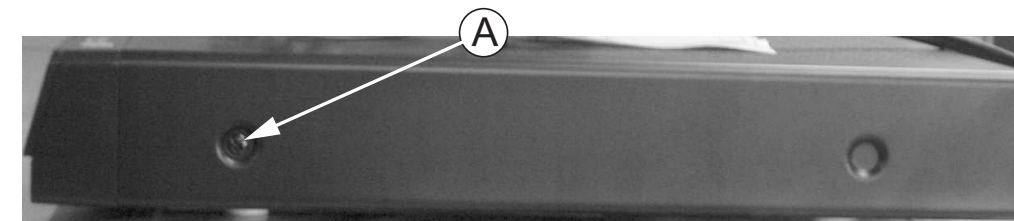


Figure 4

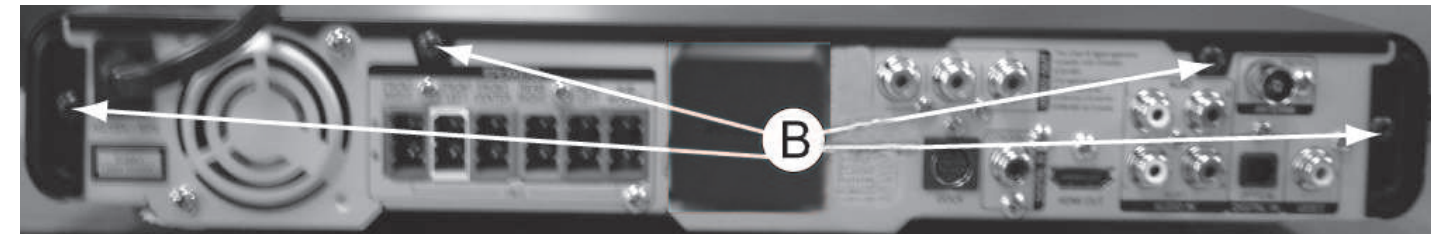


Figure 5

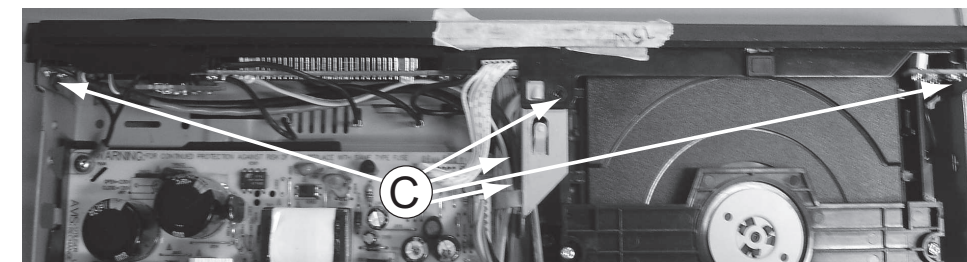


Figure 6A

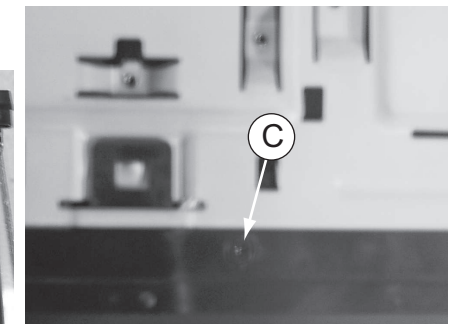


Figure 6B

Dismantling of the DVD Module

- 1) Loosen 4 screws "D" at the DVD Module as shown in figure 7.

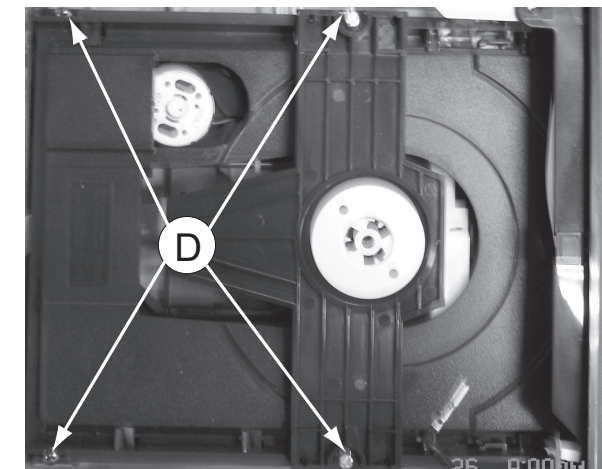


Figure 7

Dismantling of the DISP+LED+VOL&MP3 IN Board

1) Loosen 10 screws "E" on the top of DISP+LED+VOL & MP3 IN Board as shown in figure 8.

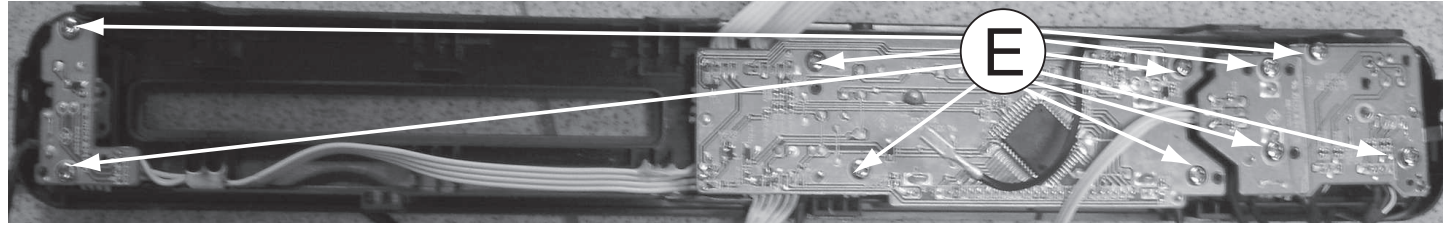


Figure 8

Dismantling of the Power Board

- 1) Loosen 4 screws "F" on the top of Power Board as shown in figure 9.
- 2) With a pincers to nip this space as shown in figure 10 and to take up the power board.

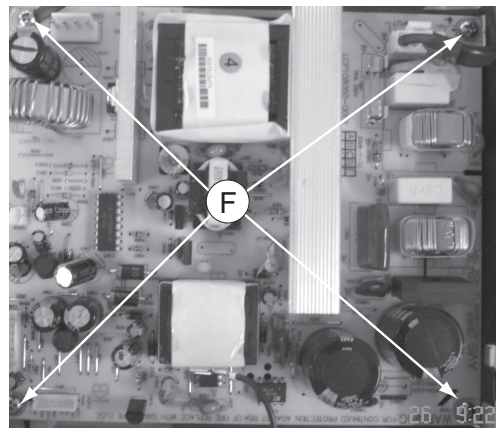


Figure 9

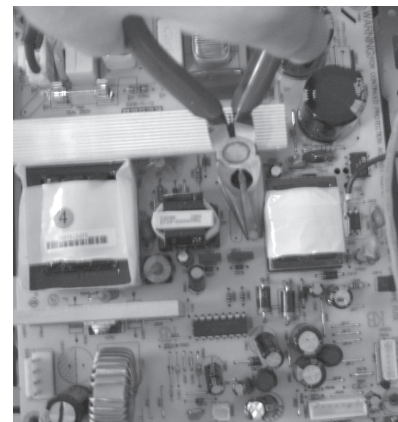


Figure 10

Dismantling of the MAIN+SCART Board

- 1) Loosen 4 screws "G" on the top of Main Board as shown in figure 11.
- 2) At the back panel, loosen 9 screws "H" to remove Main Board and loosen 2 screws to remove Scart Board as shown in figure 12.

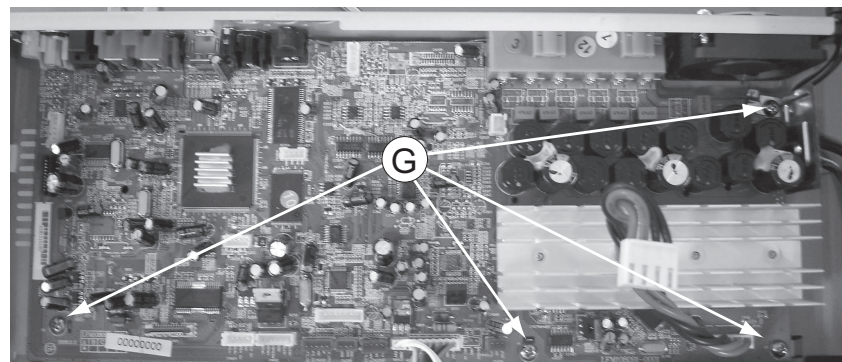


Figure 11

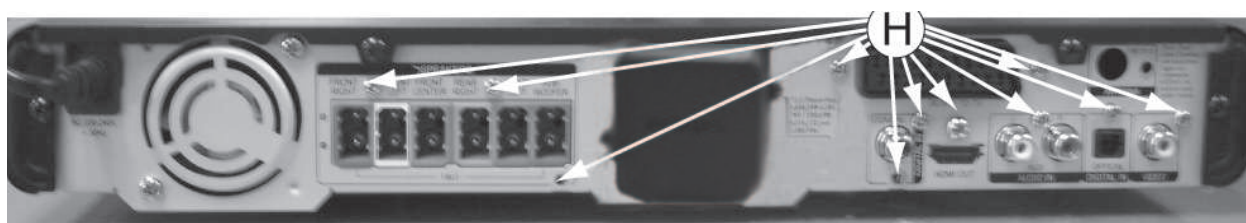
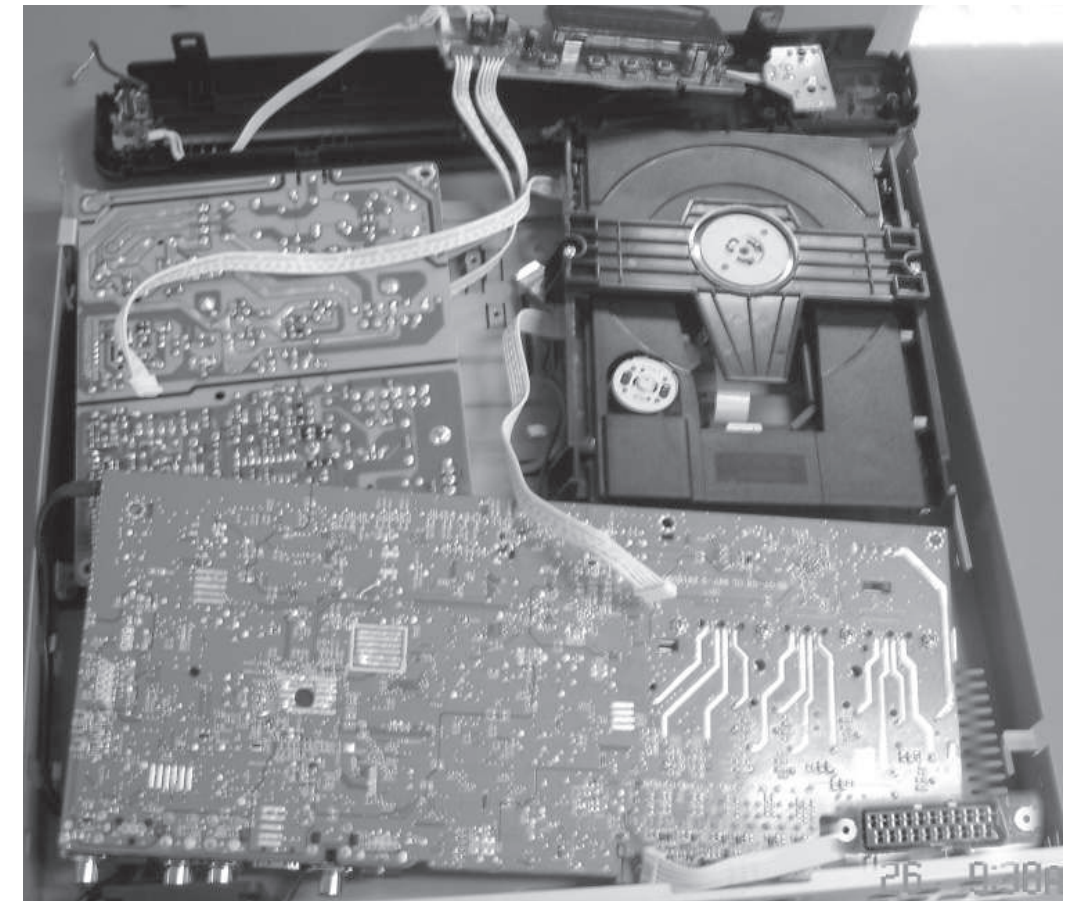


Figure 12

SERVICE POSITIONS

Service position A



Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.

DISASSEMBLY INSTRUCTIONS (part two_wireless)

Dismantling of the Receiver module outer cover Assembly

- 1) Loosen 4 screws "A" on the bottom and remove the front & top Cover by lifting the panel upwards before sliding it from the set as shown in figure 1.
- 2) Loosen 4 screws to remove the side & back & bottom panel:
 - 3 screws "B" on the bottom as shown in figure 2;
 - 1 screw "C" as shown in figure 3.

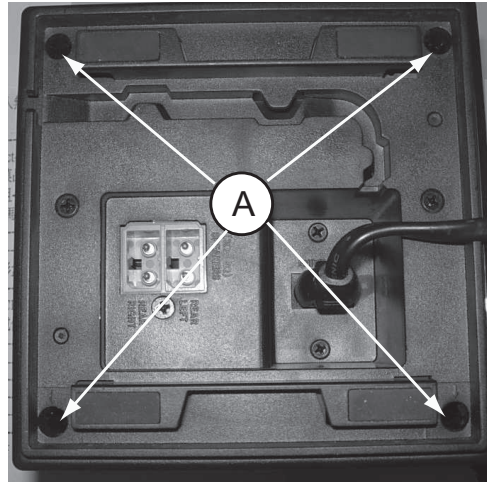


Figure 1

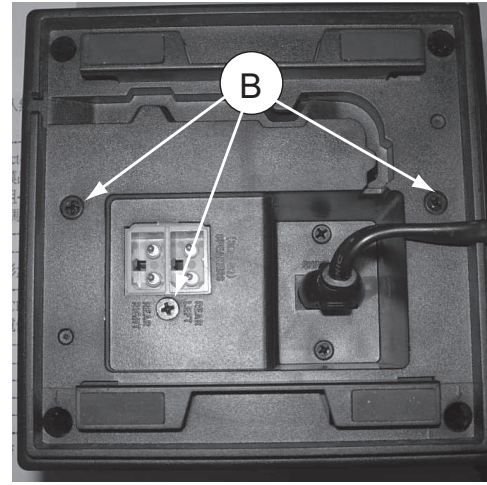


Figure 2

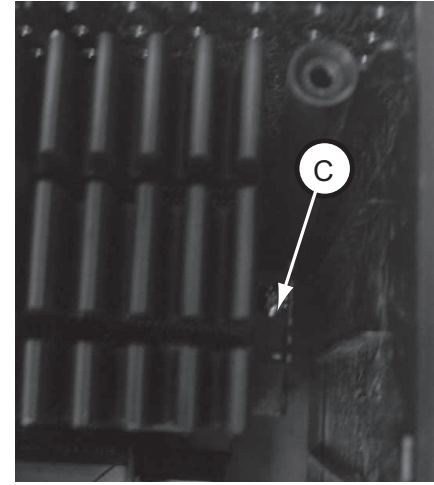


Figure 3

Dismantling of the SMPS Board

- 1) Loosen 4 screws "D" on the top of SMPS Board as shown in figure 4 to remove SMPS Board.
- 2) Loosen 3 screws "E" as shown in figure 5.

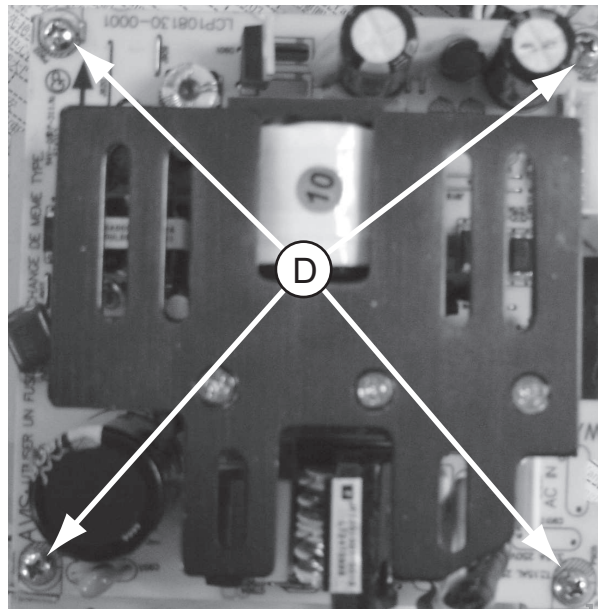


Figure 4

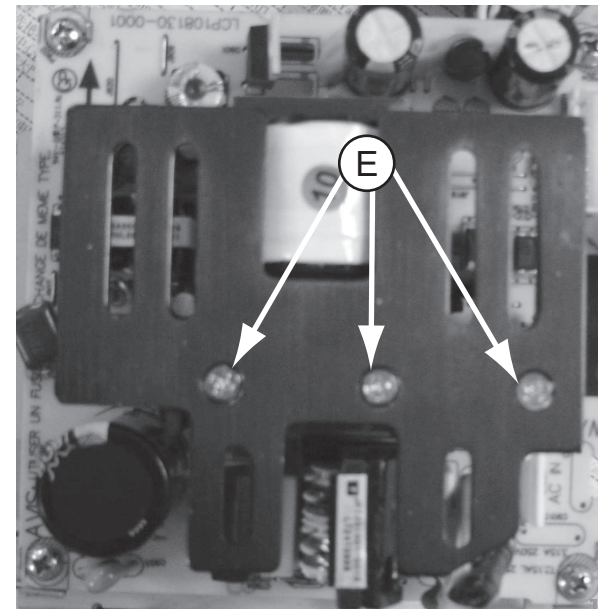


Figure 5

Dismantling of the MAIN+LED+HEAT SINK Board

- 1) With a pincers to nip this space as shown in figure 6 and to take up this board.
- 2) Loosen 2 screws "F" as shown in figure 7, and loosen 1 screw "G" on the top of Wireless Main Board as shown in figure 8 to remove the Wireless Main Board.
- 3) Loosen 2 screws "H" at the bottom of Wireless Main Board to remove Heat Sink as shown in figure 9.
- 4) Loosen 2 screws "I" on the top of LED Board as shown in figure 10.

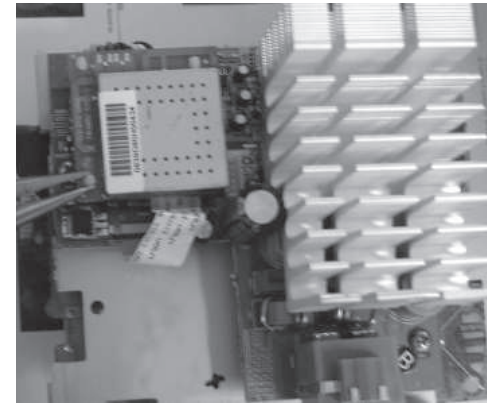


Figure 6

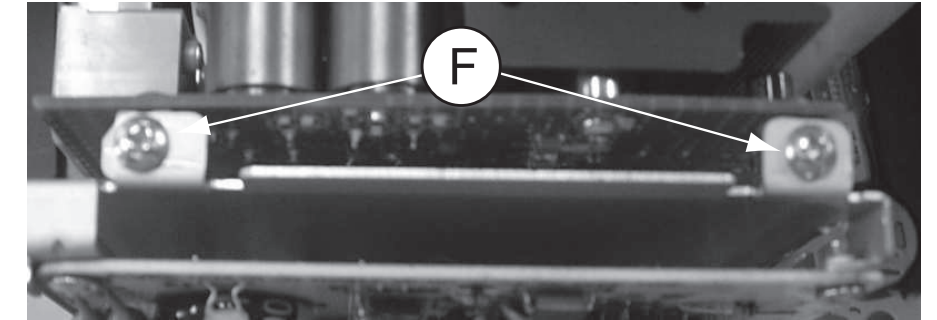


Figure 7

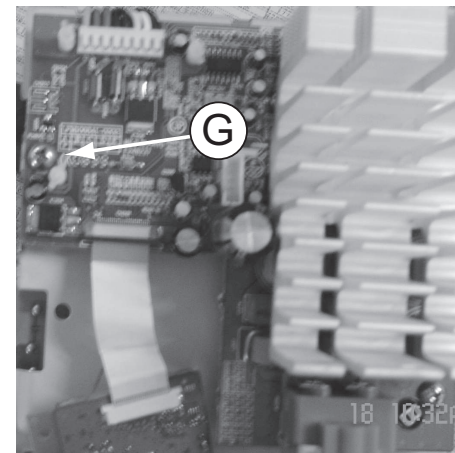


Figure 8

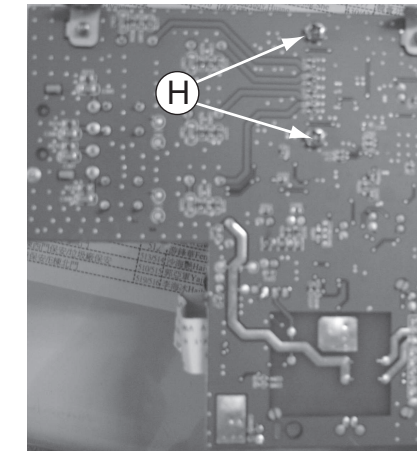


Figure 9

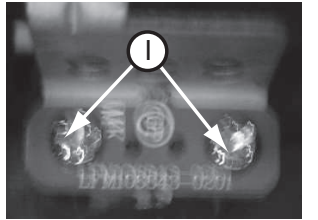
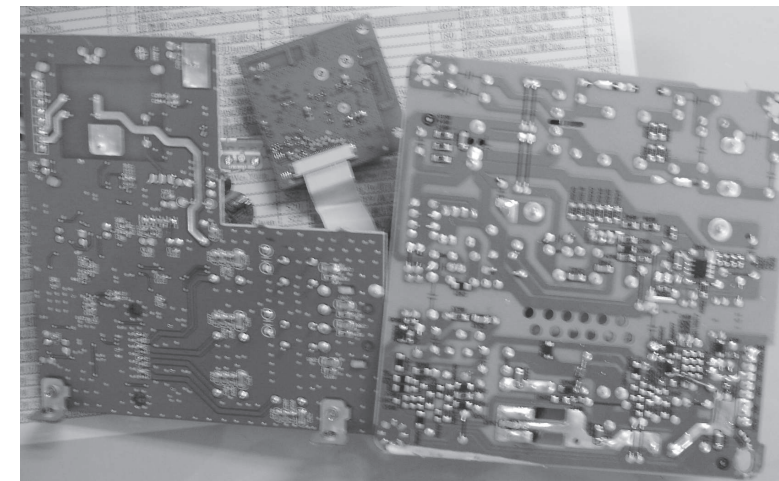
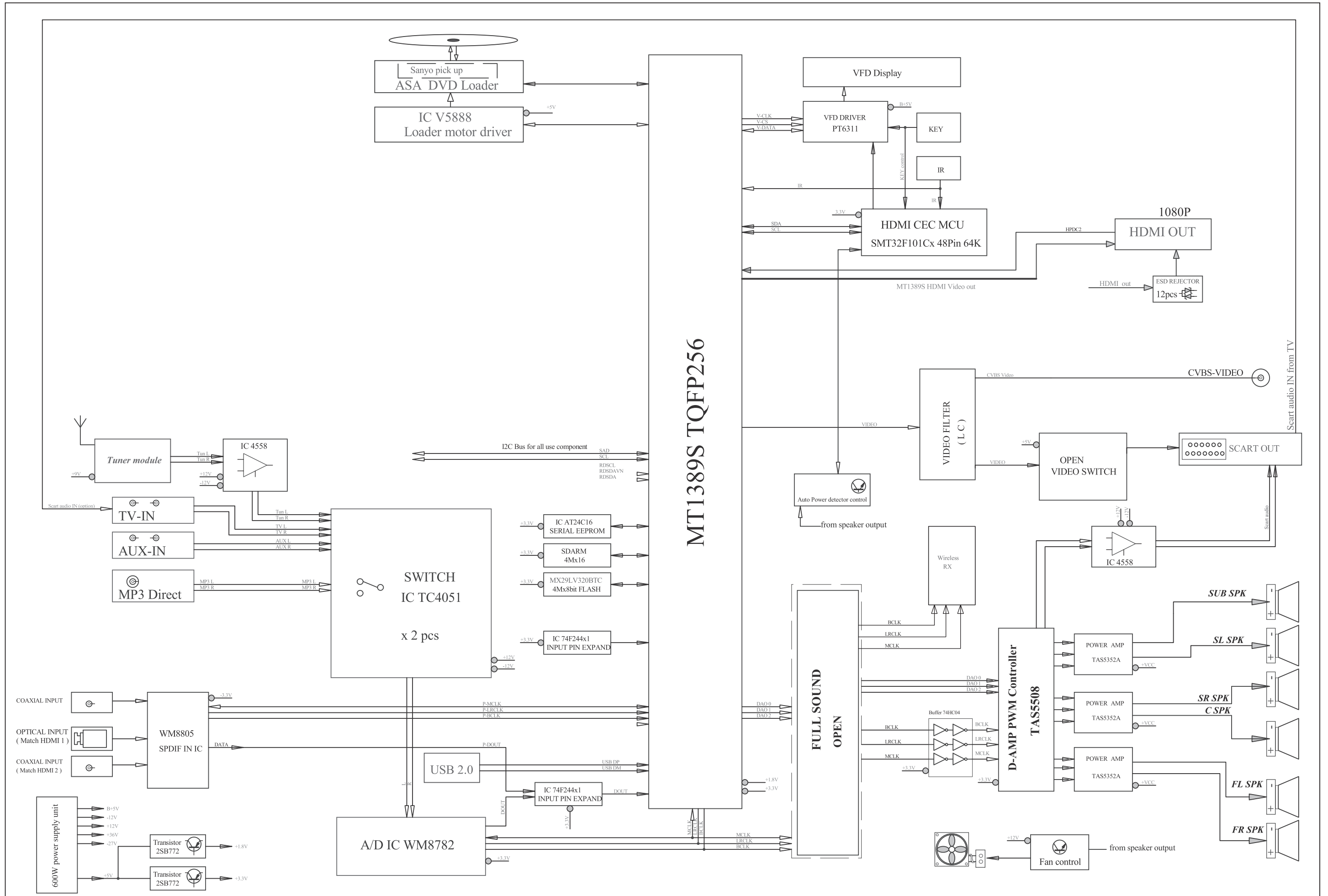


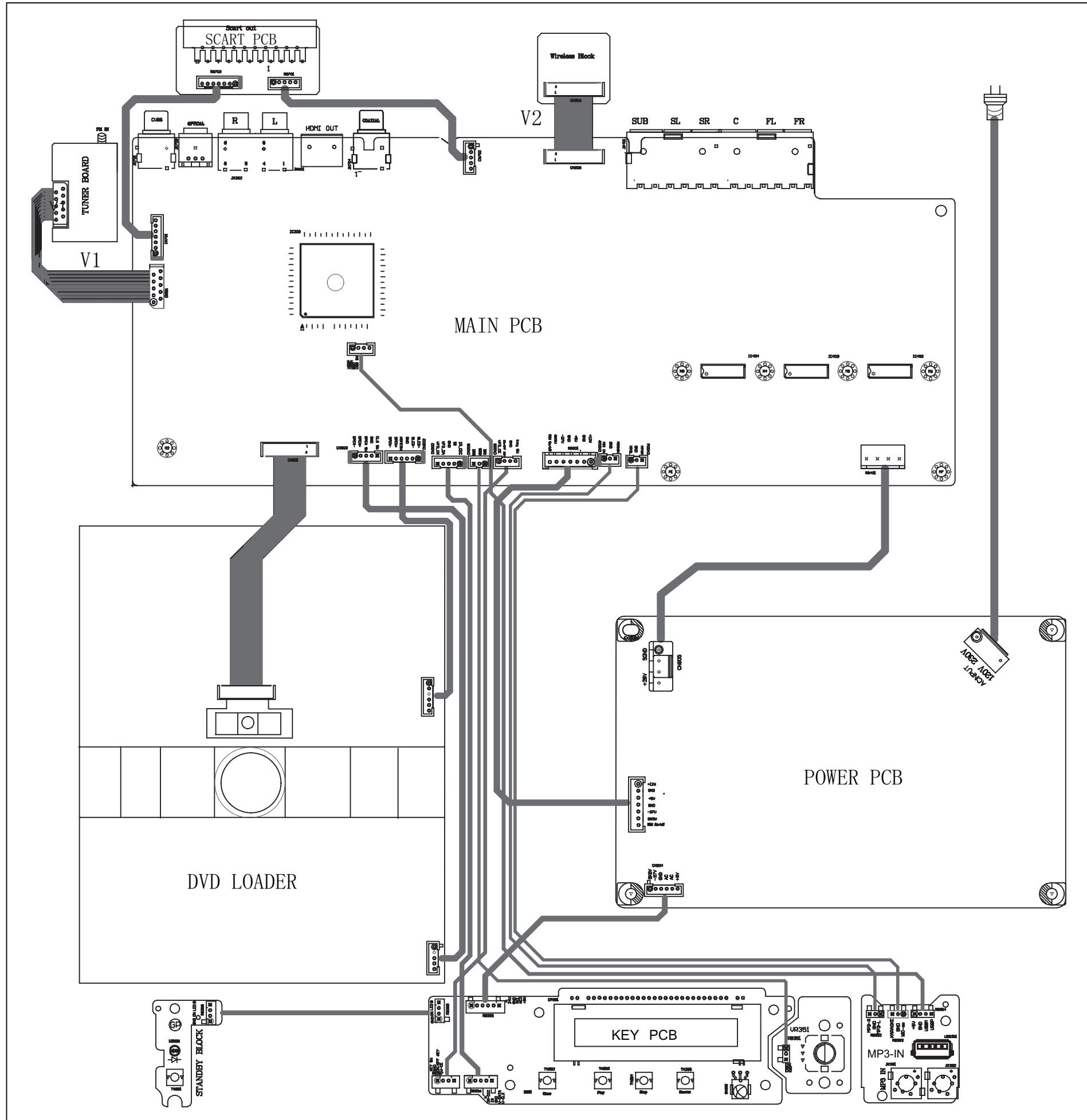
Figure 10

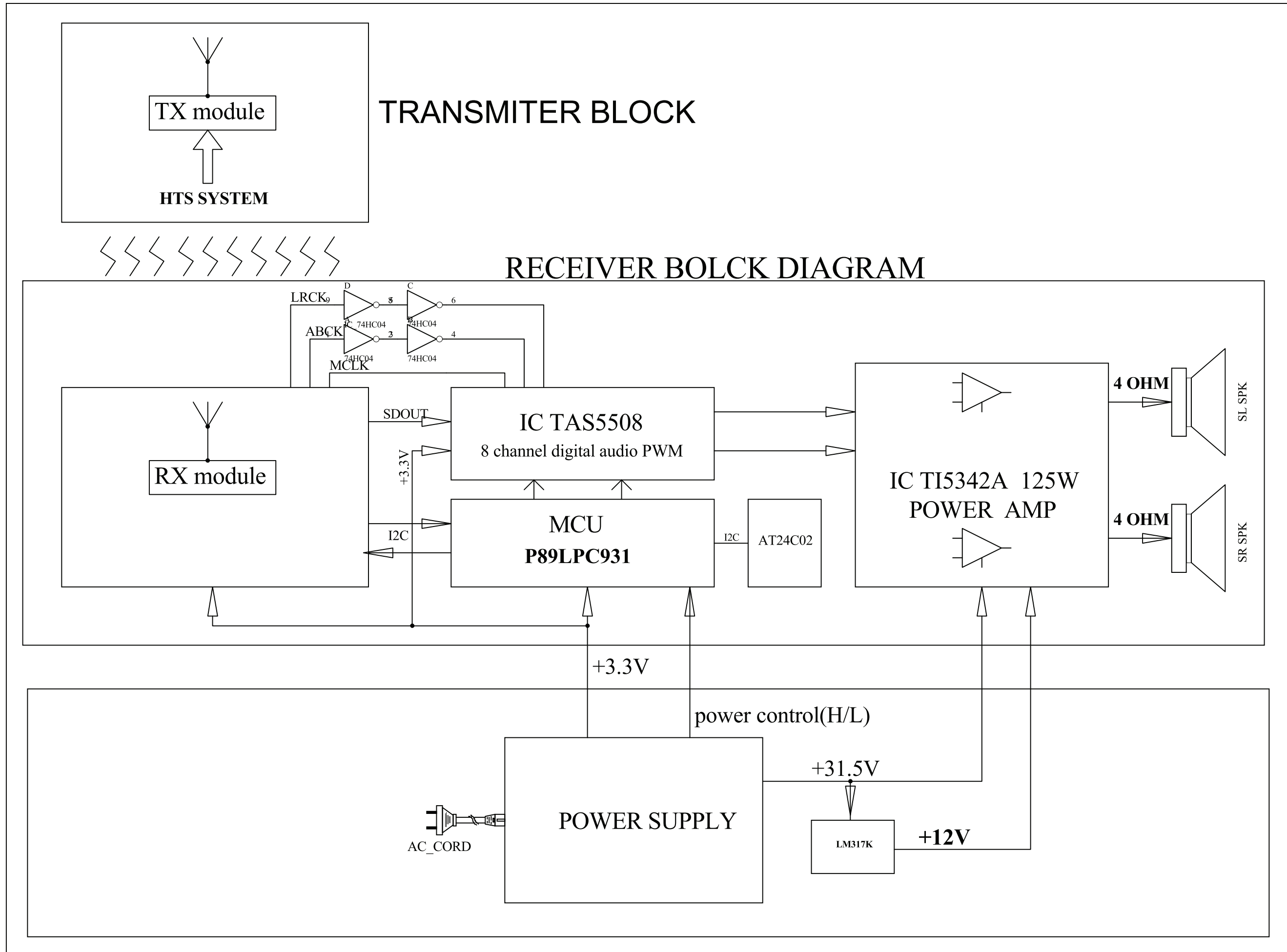
SERVICE POSITIONS (wireless)

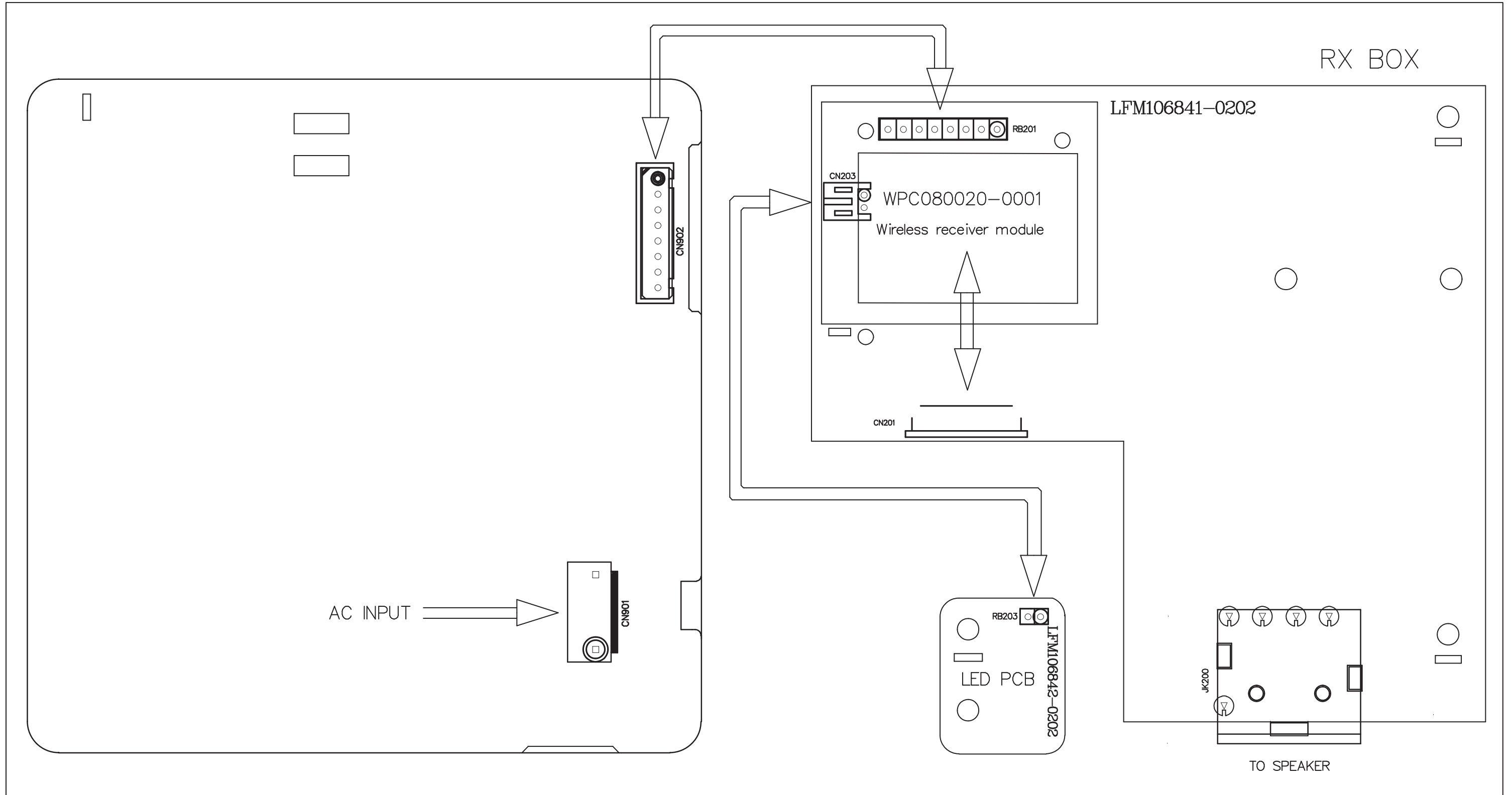


Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.







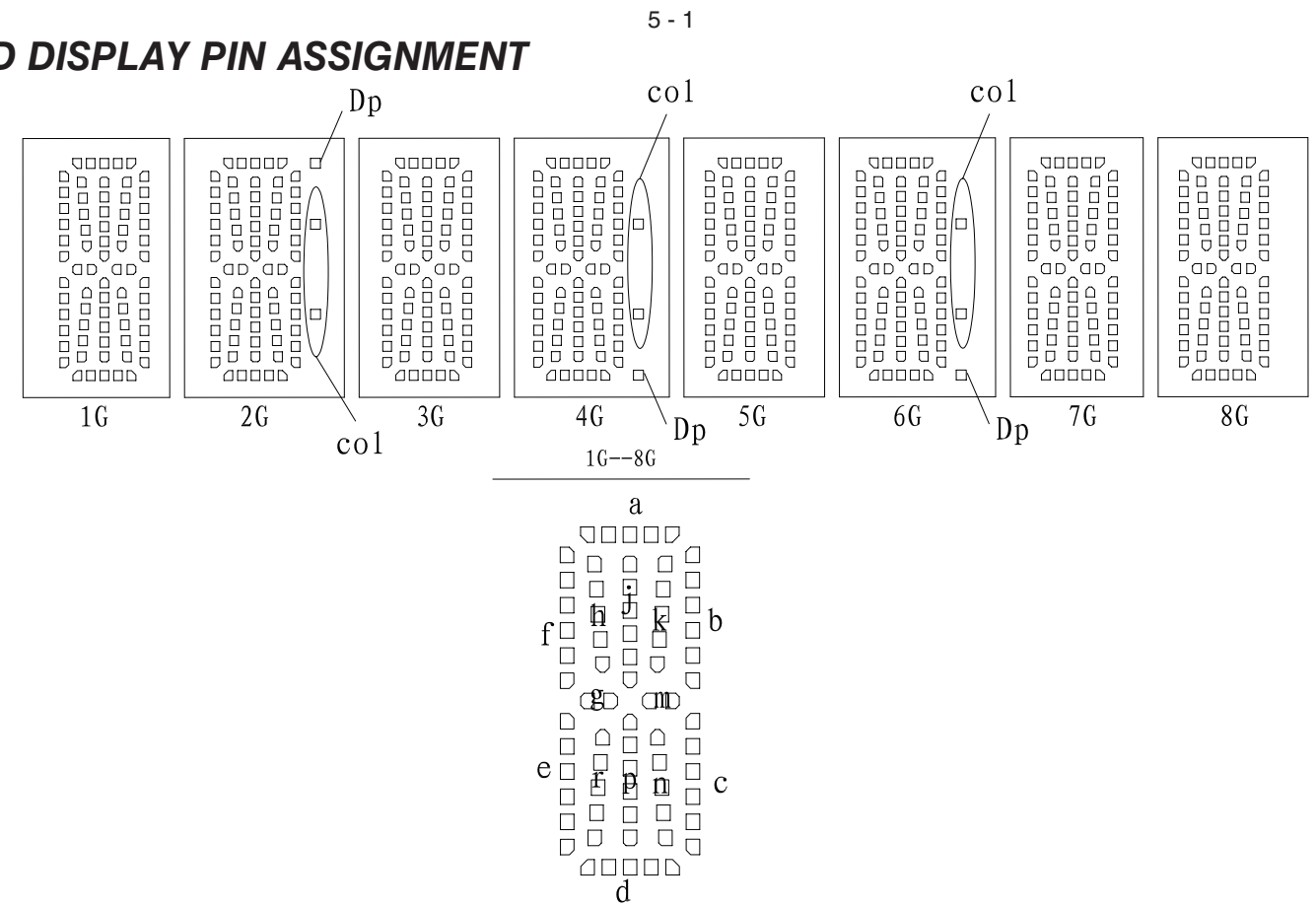


DISP+LED+VOL BOARD-main unit

TABLE OF CONTENTS

FTD Display Pin Assignment.....5-1
 Circuit Diagram5-2
 PCB Layout Top & Bottom View.....5-3

FTD DISPLAY PIN ASSIGNMENT



| | 1G | 2G | 3G | 4G | 5G | 6G | 7G | 8G |
|-----|------|------|------|------|------|------|------|------|
| P1 | a | a | a | a | a | a | a | a |
| P2 | j, p | j, p | j, p | j, p | j, p | j, p | j, p | j, p |
| P3 | h | h | h | h | h | h | h | h |
| P4 | k | k | k | k | k | k | k | k |
| P5 | b | b | b | b | b | b | b | b |
| P6 | f | f | f | f | f | f | f | f |
| P7 | m | m | m | m | m | m | m | m |
| P8 | g | g | g | g | g | g | g | g |
| P9 | c | c | c | c | c | c | c | c |
| P10 | e | e | e | e | e | e | e | e |
| P11 | r | r | r | r | r | r | r | r |
| P12 | n | n | n | n | n | n | n | n |
| P13 | d | d | d | d | d | d | d | d |
| P14 | / | col | / | col | / | col | / | / |
| P15 | / | Dp | / | Dp | / | Dp | / | / |

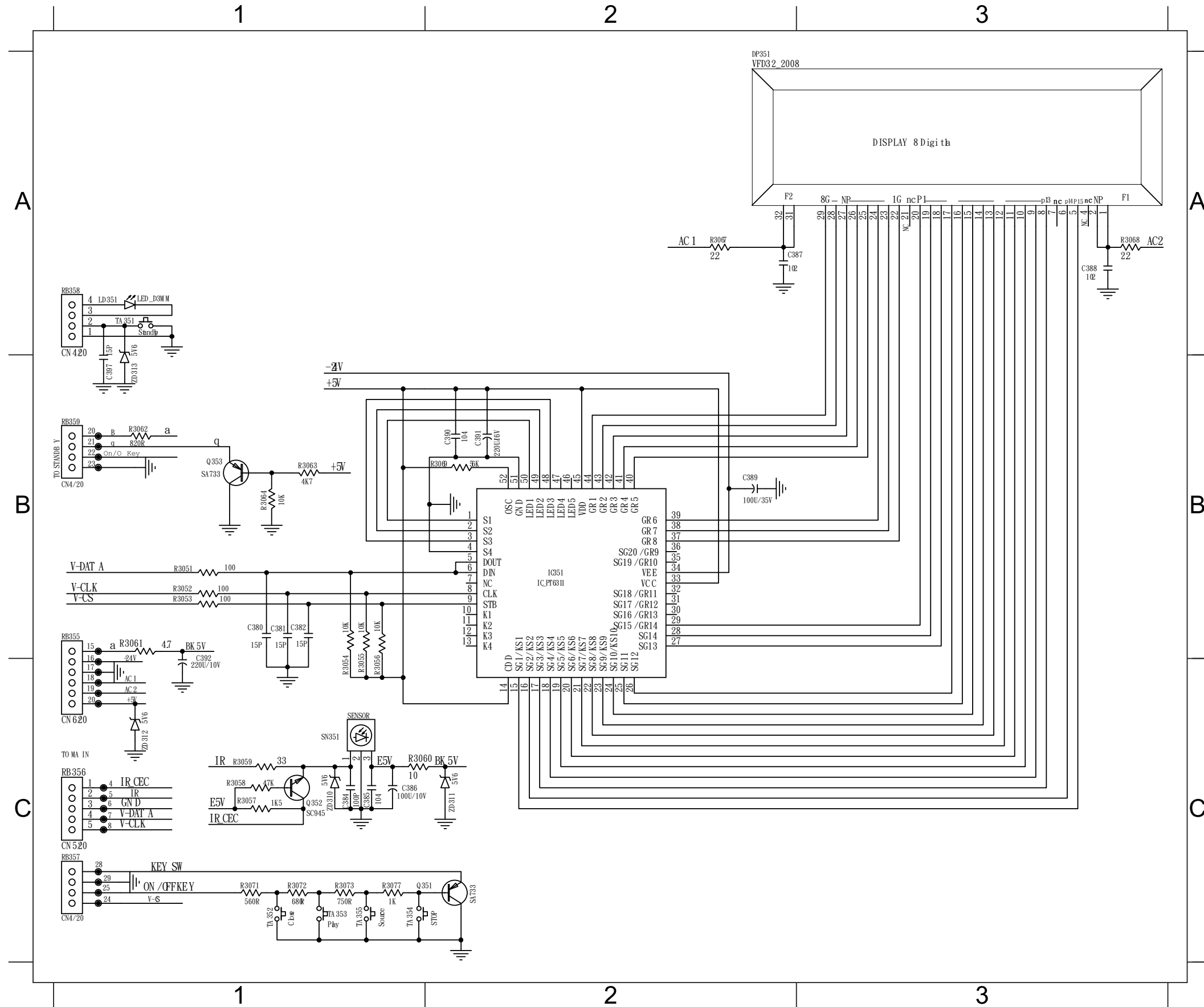
PIN CONNECTION

| | | | | | | | | | | | | | | | | |
|--------------|----|----|----|----|-----|-----|----|-----|-----|-----|-----|----|----|----|----|----|
| (Pin NO.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| (Connection) | F1 | F1 | NP | NC | P15 | P14 | NC | P13 | P12 | P11 | P10 | P9 | P8 | P7 | P6 | P5 |
| (Pin NO.) | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| (Connection) | P4 | P3 | P2 | P1 | NC | 1G | 2G | 3G | 4G | 5G | 6G | 7G | 8G | NP | F2 | F2 |

(Notes) : Fn : (Filament Pin) nG : (Grid Pin)
 Pn : (Anode Pin) NP : (No Pin)
 NC : (No connection Pin)

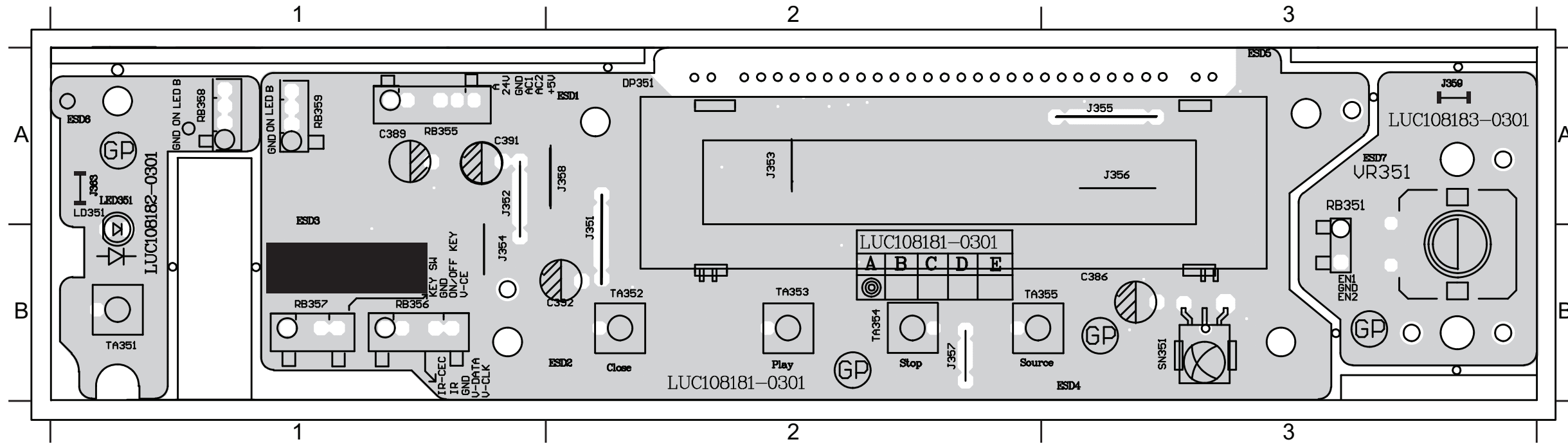
CIRCUIT DIAGRAM

C380 B1 C384 C1 C387 A2 C390 B2 C395 C4 DP351 A2 Q351 C1 R3051 B1 R3054 B1 R3057 C1 R3060 C1 R3063 B1 R3068 A3 R3072 C1 RB351 C4 RB357 C1 TA351 A1 TA354 C1 ZD310 C1 ZD313 B1
 C381 B1 C385 C1 C388 A3 C391 B2 C396 C4 IC351 B2 Q352 C1 R3052 B1 R3055 B1 R3058 C1 R3061 B1 R3064 B1 R3069 B2 R3073 C1 RB355 B1 RB359 B1 TA352 C1 TA355 C1 ZD311 C2
 C382 B1 C386 C1 C389 B2 C392 B1 C397 B1 LD351 A1 Q353 B1 R3053 B1 R3056 B1 R3059 C1 R3062 B1 R3067 A2 R3071 C1 R3077 C1 RB356 C1 SN351 C1 TA353 C1 VR351 C4 ZD312 C1



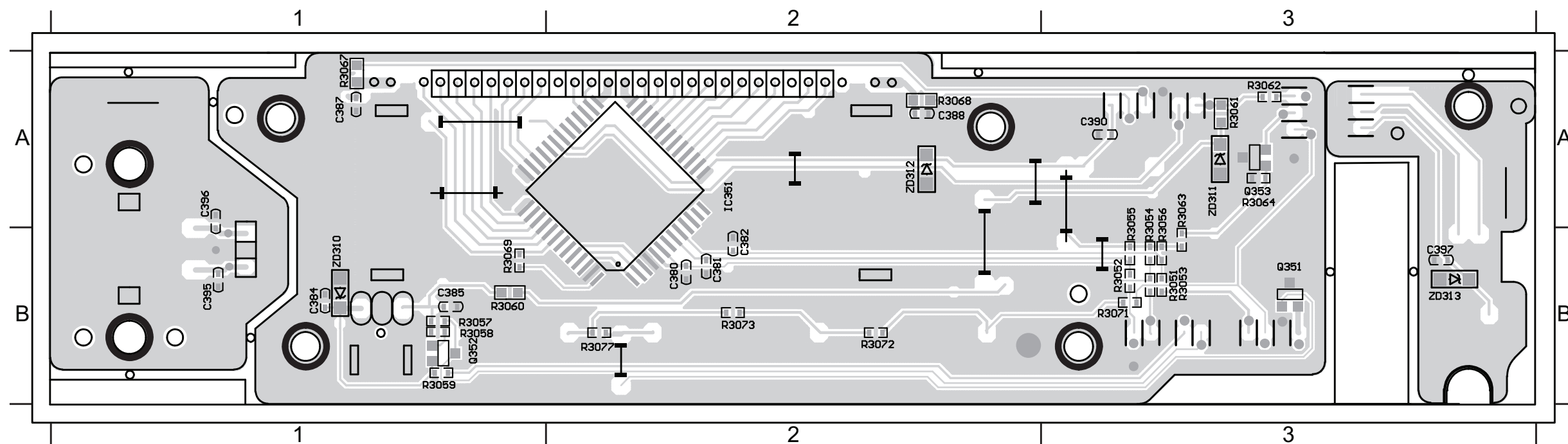
PCB LAYOUT - TOP VIEW

C386 A3 C391 A1 DP351 A2 ESD4 A3 ESD6 A1 J351 A2 J353 A2 J355 A3 J357 B2 J359 A3 LD351 A1 RB355 A1 RB357 B1 SN351 B3 TA352 B2 TA354 B2 VR351 A3
 C389 A1 C392 B2 ESD1 A2 ESD5 B3 ESD7 A3 J352 B1 J354 B1 J356 A3 J358 A2 J363 A1 RB351 A3 RB356 B1 RB359 A1 TA351 B1 TA353 B2 TA355 B2



PCB LAYOUT - BOTTOM VIEW

C380 B2 C382 B2 C387 A1 C390 A3 C396 A1 IC351 A2 Q352 B1 R3051 B3 R3053 B3 R3055 A3 R3057 B1 R3059 B1 R3061 A3 R3063 A3 R3067 A1 R3069 B1 R3072 B2 R3077 B2 ZD311 A3 ZD313 B3
 C381 B2 C385 B1 C388 A2 C395 B1 C397 B3 Q351 B3 Q353 A3 R3052 B3 R3054 A3 R3056 A3 R3058 B1 R3060 B1 R3062 A3 R3064 A3 R3068 A2 R3071 B3 R3073 B2 ZD310 B1 ZD312 A2

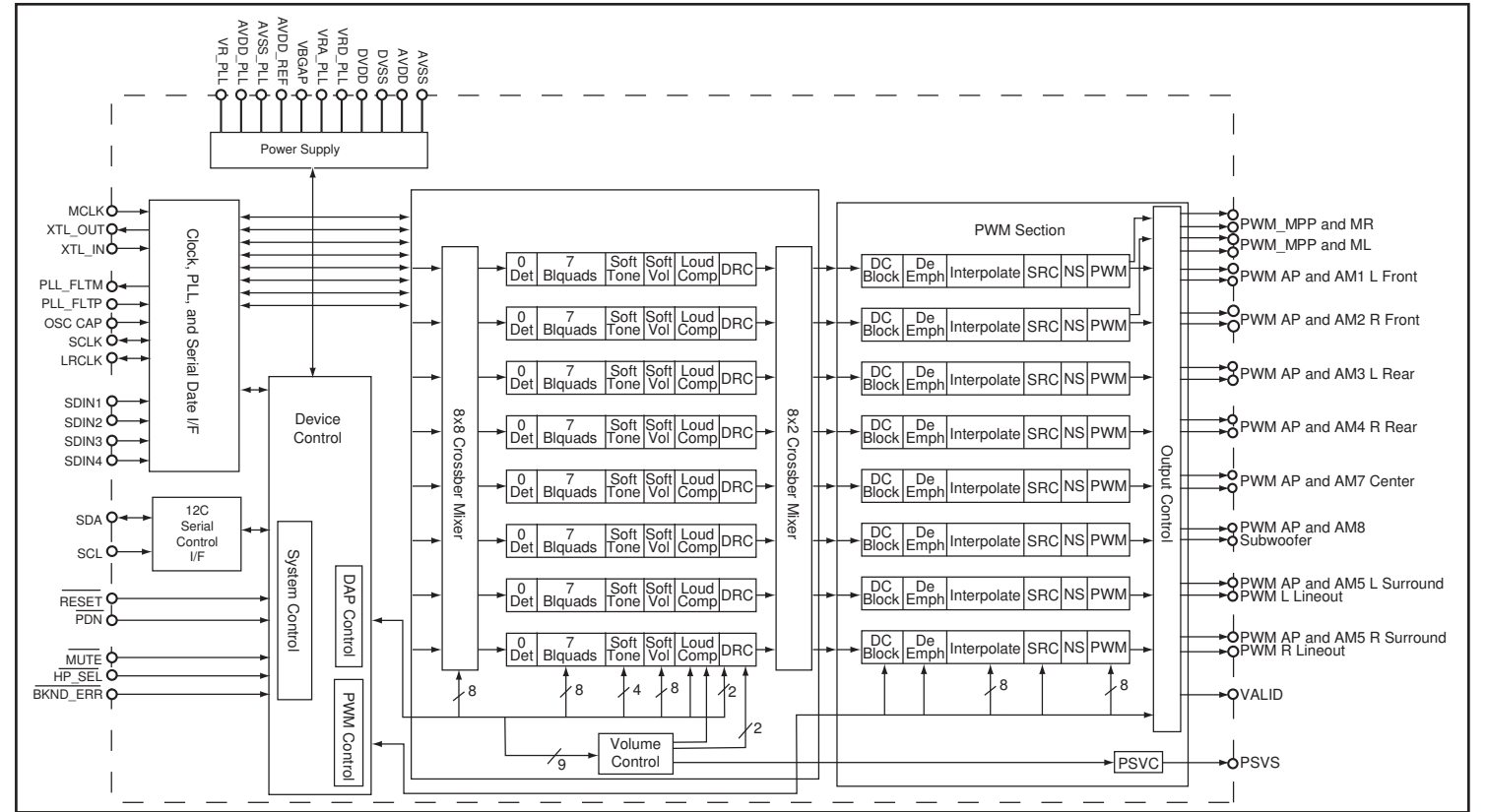


MAIN BOARD-main unit

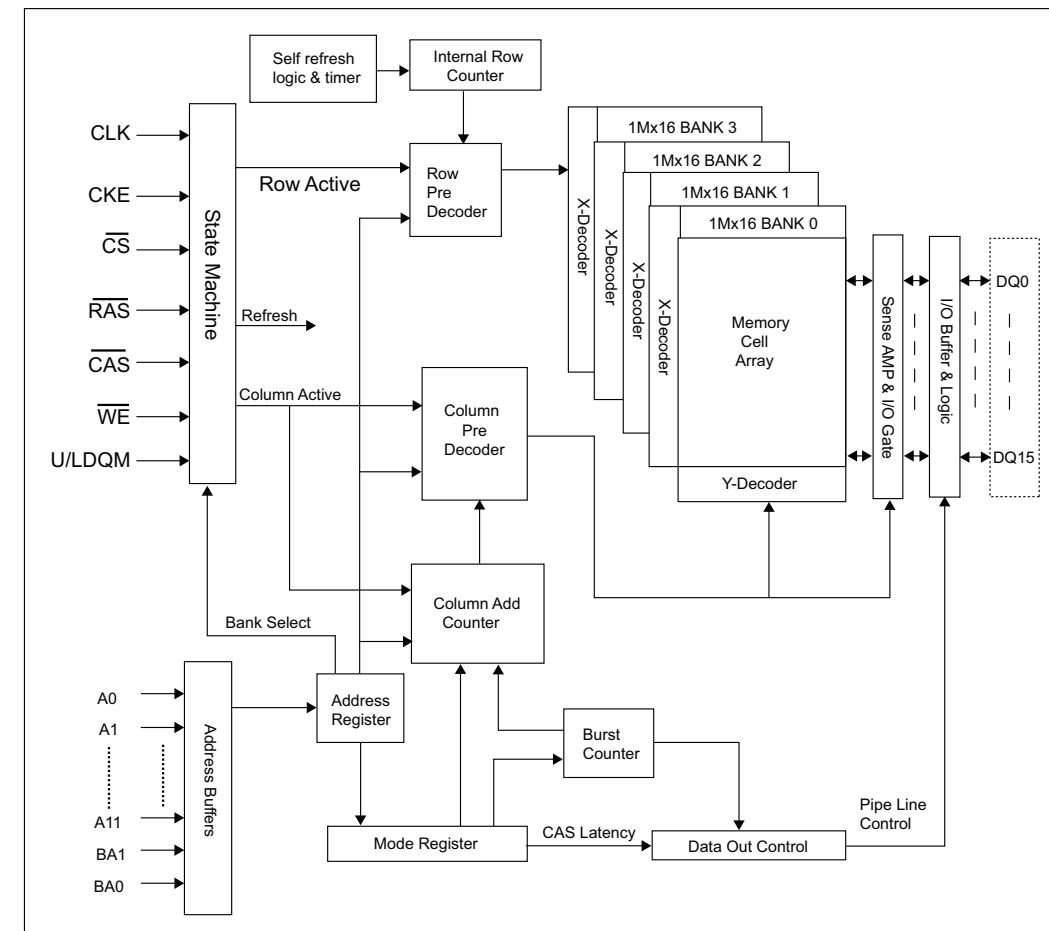
TABLE OF CONTENTS

Internal IC Diagram 6-1
 Circuit Diagram(part one) 6-2
 Circuit Diagram(part two)..... 6-3
 Circuit Diagram(part three) 6-4
 PCB Layout Top View 6-5
 PCB Layout Bottom View 6-6

INTERNAL IC DIAGRAM - TAS5508B

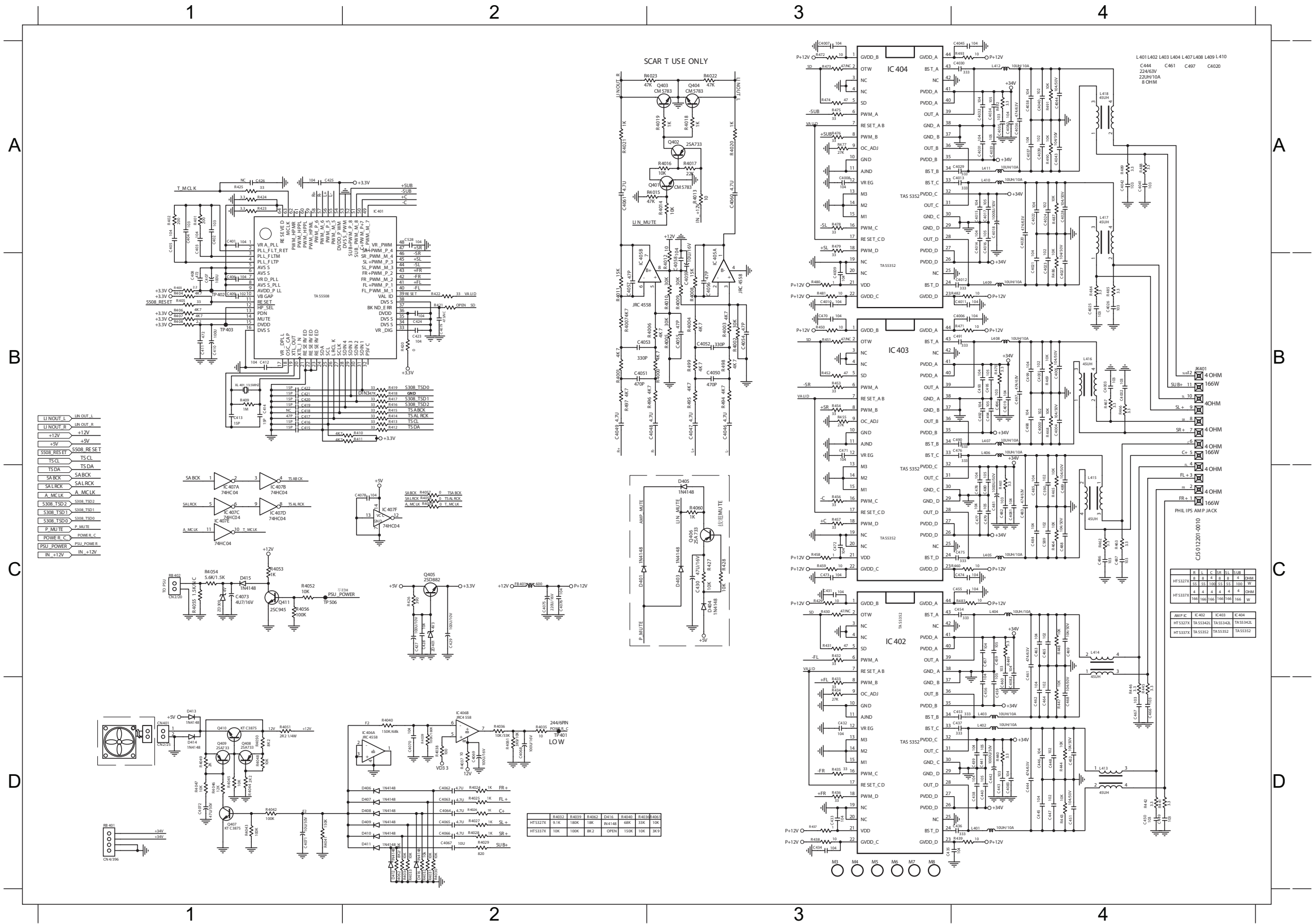


INTERNAL IC DIAGRAM - HY57V641620F



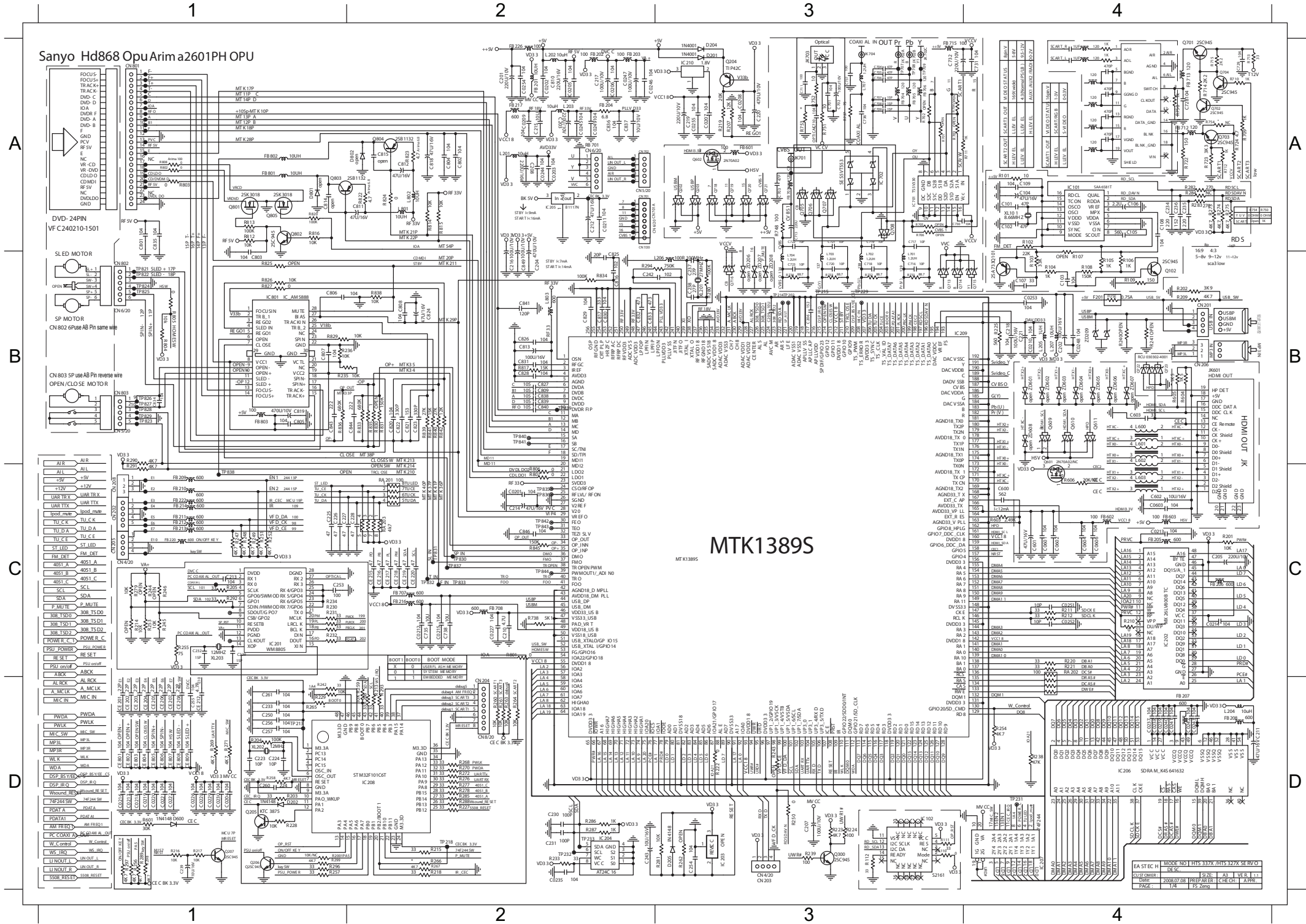
CIRCUIT DIAGRAM - part one

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|----------|
| C4000 B4 | C4014 A4 | C4032 A4 | C405 A1 | C4063 D2 | C408 B1 | C422 B1 | C438 D4 | C457 C4 | C476 B4 | C493 B4 | D408 D2 | IC407 C1 | Q402 A3 | R4005 B3 | R4019 A3 | R4032 D2 | R4046 D1 | R4062 D2 | R421 B2 | R437 D3 | R457 C3 | R472 A3 | R492 A4 |
| C4001 B4 | C4015 A4 | C4035 A4 | C4050 B3 | C4064 D2 | C4080 A4 | C423 B2 | C439 D4 | C460 D4 | C477 C4 | C496 B4 | D409 D2 | JK401 B4 | Q403 A3 | R4006 B3 | R402 A1 | R4033 D2 | R4047 D1 | R407 B1 | R422 B2 | R438 D3 | R458 C3 | R474 A3 | R493 A4 |
| C4002 B4 | C4018 A4 | C4036 A4 | C4051 B2 | C4065 D2 | C4081 C4 | C424 B2 | C442 D4 | C461 C4 | C478 C4 | C497 B4 | D410 D2 | L401 D4 | Q404 A3 | R4007 B2 | R4020 A3 | R4034 D2 | R4048 D1 | R408 B1 | R423 A1 | R439 D3 | R459 C3 | R475 A3 | R494 B3 |
| C4003 B4 | C402 A1 | C4037 A4 | C4052 B3 | C4066 D2 | C409 B1 | C425 A1 | C443 D4 | C462 D4 | C481 C4 | C498 B4 | D411 D2 | L402 D4 | Q405 C2 | R4008 B3 | R4021 A2 | R4035 D2 | R4049 D1 | R409 B1 | R424 A1 | R440 D4 | R460 C4 | R476 A3 | R495 B3 |
| C4004 B4 | C4020 A4 | C4038 A4 | C4053 B2 | C4067 D2 | C410 B1 | C427 C2 | C444 D4 | C463 C4 | C482 C4 | C499 B4 | D412 D2 | L403 D4 | Q406 C3 | R4009 B3 | R4022 A3 | R4036 D2 | R405 B1 | R410 B2 | R425 A1 | R443 D4 | R461 C4 | R477 A3 | R496 B3 |
| C4005 B4 | C4021 B4 | C4039 A4 | C4054 B3 | C4068 D2 | C411 B1 | C428 C2 | C445 D4 | C464 C4 | C483 C4 | C528 A2 | D413 D1 | L404 C4 | Q407 D1 | R401 A1 | R4023 A3 | R4037 D2 | R4050 D1 | R411 B2 | R426 C2 | R444 D4 | R462 C4 | R478 A3 | R497 B2 |
| C4006 B4 | C4022 A4 | C404 A1 | C4055 B3 | C4069 D2 | C412 B1 | C429 C2 | C446 D4 | C465 C4 | C484 C4 | C589 C4 | D414 D1 | L405 C4 | Q408 D1 | R4010 B3 | R4024 D2 | R4038 D2 | R4051 D1 | R412 B2 | R427 C3 | R447 D4 | R463 C4 | R479 A3 | R498 B3 |
| C4007 A3 | C4023 B4 | C4040 A4 | C4056 B3 | C407 B1 | C413 B1 | C430 C3 | C447 D4 | C468 D4 | C485 C4 | C590 C4 | D415 C1 | L406 B4 | Q409 D1 | R4011 B2 | R4025 D2 | R4039 D2 | R4052 C1 | R413 B2 | R428 C3 | R448 C4 | R464 C4 | R480 B3 | R499 B3 |
| C4008 A3 | C4024 A4 | C4043 A4 | C4057 B2 | C4070 D2 | C414 B1 | C431 C3 | C448 D4 | C469 C4 | C486 C4 | CN401 D1 | FB401 C2 | L407 B4 | Q410 D1 | R4012 B3 | R4026 D2 | R404 B1 | R4053 C1 | R414 B2 | R429 C3 | R449 C4 | R465 C4 | R481 B3 | RB401 D1 |
| C4009 B3 | C4027 B4 | C4044 A4 | C4058 B3 | C4071 D1 | C415 B1 | C432 D3 | C451 D4 | C470 B3 | C487 C4 | D401 C2 | IC401 A2 | L408 B4 | Q411 C1 | R4013 A3 | R4027 D2 | R4040 D2 | R4054 C1 | R415 B2 | R431 C3 | R450 B3 | R466 B4 | R482 B4 | RB402 C1 |
| C401 A1 | C4028 A4 | C4045 A4 | C4059 B3 | C4072 D1 | C416 B1 | C433 D3 | C452 D4 | C471 B3 | C488 C4 | D403 C3 | IC402 C3 | L409 B4 | R4000 B3 | R4014 A3 | R4028 D2 | R4041 D1 | R4055 C1 | R416 B2 | R432 C3 | R452 B3 | R467 B4 | R483 C4 | XL401 B1 |
| C4010 B3 | C4029 A4 | C4046 B3 | C406 B1 | C4073 C1 | C417 B1 | C434 D3 | C453 D4 | C472 C3 | C489 C4 | D404 C3 | IC403 B3 | L410 A4 | R4001 B2 | R4015 A3 | R4029 D2 | R4042 D1 | R4056 C1 | R417 B2 | R433 D3 | R453 B3 | R468 B4 | R486 B4 | ZD401 C2 |
| C4011 B4 | C403 A1 | C4047 B3 | C4060 A3 | C4075 C2 | C419 B1 | C435 D4 | C454 C4 | C473 C3 | C490 B4 | D405 C3 | IC404 A3 | L411 A4 | R4002 B3 | R4016 A3 | R403 B1 | R4043 D1 | R406 B1 | R418 B2 | R434 D3 | R454 B3 | R469 B4 | R487 A4 | |
| C4012 B4 | C4030 A4 | C4048 B3 | C4061 A2 | C4076 C2 | C420 B1 | C436 D4 | C455 C4 | C474 C4 | C491 B4 | D406 D2 | IC405 B3 | L412 A4 | R4003 B3 | R4017 A3 | R4030 D2 | R4044 D1 | R4060 C1 | R419 B2 | R435 D3 | R455 B3 | R470 B4 | R490 A4 | |
| C4013 A4 | C4031 A4 | C4049 B2 | C4062 D2 | C4078 C2 | C421 B1 | C437 D4 | C456 D4 | C475 C4 | C492 B4 | D407 D2 | IC406 D2 | Q401 A3 | R4004 B3 | R4018 A3 | R4031 D2 | R4045 D1 | R4061 D2 | R420 B2 | R436 D3 | R456 C3 | R471 B4 | R491 A4 | |



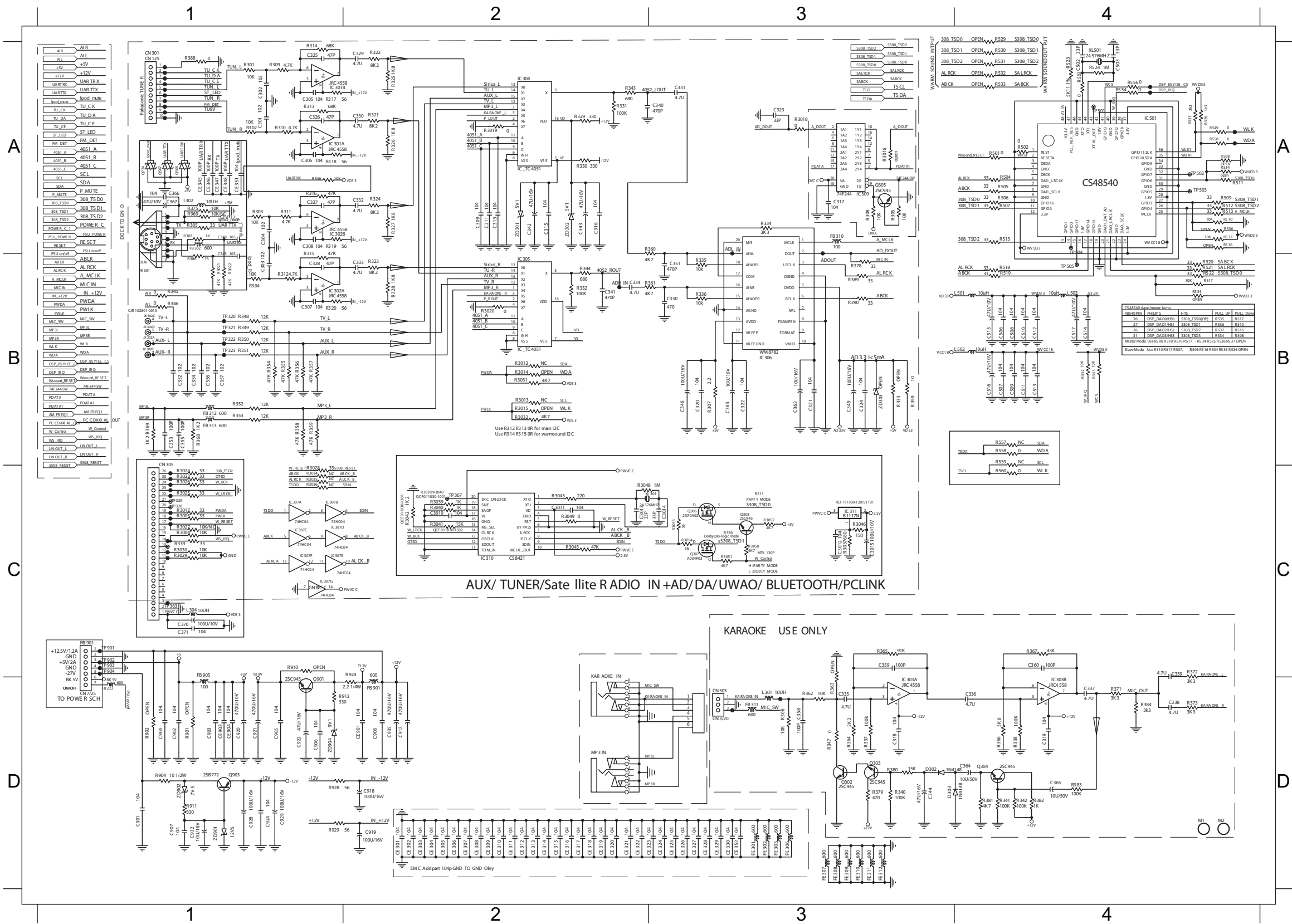
CIRCUIT DIAGRAM - part two

| | | | | | | | | | | | | | | | | | | | | | | |
|----------|----------|----------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| C0201 C2 | C0221 D1 | C0249 A2 | C202 B4 | C224 D1 | C254 D3 | C720 B3 | C808 B2 | C830 B2 | CE205 D1 | CN202 C1 | FB204 A2 | FB707 C2 | JK601 B4 | Q102 B4 | Q804 A2 | R211 C4 | R233 D2 | R260 D2 | R285 D2 | R704 A3 | R803 A1 | R833 B2 |
| C0202 A2 | C0222 D1 | C0251 C4 | C203 A2 | C225 C1 | C255 D1 | C721 A3 | C809 B2 | C831 B2 | CE206 D1 | CN203 D3 | FB205 C4 | FB708 C2 | JK701 A3 | Q204 A3 | Q805 A1 | R212 C4 | R234 C1 | R261 D2 | R286 D2 | R705 A3 | R804 B1 | R834 B2 |
| C0203 A2 | C0226 D1 | C0252 C4 | C204 B2 | C226 C1 | C256 D1 | C722 A3 | C810 A2 | C832 B2 | CE207 D1 | CN205 C1 | FB206 C4 | FB712 A4 | JK703 A3 | Q205 D1 | R101 A4 | R213 D2 | R235 B1 | R262 D2 | R287 D2 | R712 A4 | R805 B1 | R835 B2 |
| C0204 D1 | C0227 C2 | C0253 B4 | C205 C4 | C227 C1 | C257 D1 | C723 B3 | C811 A2 | C833 B2 | CE212 D1 | CN206 B4 | FB207 D4 | FB713 A4 | JK704 A3 | Q206 D1 | R102 A4 | R215 D2 | R236 B1 | R267 D2 | R288 D2 | R713 A4 | R806 C2 | R836 B1 |
| C0205 A2 | C0228 D1 | C0255 A3 | C206 B3 | C228 C2 | C260 D1 | C728 A4 | C812 A2 | C834 B1 | CE215 C2 | CN208 C1 | FB208 D4 | FB715 A3 | L201 A2 | Q207 D1 | R103 B4 | R216 D1 | R238 D4 | R268 D2 | R289 D1 | R714 A4 | R807 C2 | R838 B2 |
| C0206 A2 | C0229 D1 | C0601 C4 | C207 D3 | C229 C1 | C261 D1 | C729 A4 | C813 B2 | C835 A1 | CE216 C2 | CN701 A3 | FB209 C1 | FB801 A1 | L202 A2 | Q300 D3 | R104 B4 | R217 D1 | R239 D3 | R269 D1 | R290 B1 | R715 A4 | R808 A1 | R839 B2 |
| C0207 A3 | C0230 D1 | C0602 C4 | C208 A2 | C230 D2 | C600 C4 | C730 A3 | C816 B2 | C836 A2 | CE217 C2 | CN702 A2 | FB210 C1 | FB802 A1 | L203 A2 | Q601 B4 | R105 B4 | R218 D2 | R242 D1 | R270 D2 | R291 C1 | R722 A4 | R812 A1 | R840 B2 |
| C0208 A3 | C0235 D2 | C0603 C4 | C209 B3 | C231 D2 | C601 C4 | C731 A4 | C817 B2 | C837 A2 | CE218 C2 | CN801 A1 | FB211 C1 | FB803 B1 | L204 D4 | Q602 A3 | R106 B4 | R219 A3 | R245 C1 | R271 D1 | R292 C1 | R724 A4 | R813 A1 | R841 B2 |
| C0209 A2 | C0237 D4 | C0604 C4 | C210 C2 | C232 C1 | C602 C4 | C732 A3 | C818 A2 | C838 B2 | CE219 C2 | CN802 B1 | FB212 C1 | IC101 A4 | L205 B4 | Q611 B4 | R108 B4 | R220 C4 | R247 C1 | R272 D2 | R293 D2 | R731 B3 | R814 A2 | R842 B2 |
| C0210 B4 | C0238 D4 | C0606 C4 | C211 D4 | C233 D1 | C603 B4 | C735 C2 | C819 B1 | C839 B2 | CE220 C2 | CN803 B1 | FB213 C1 | IC201 D3 | L206 B3 | Q701 A4 | R109 B4 | R221 C4 | R248 C1 | R273 A4 | R294 B2 | R732 B3 | R815 A2 | R845 C2 |
| C0211 A2 | C0239 D4 | C101 A4 | C213 C1 | C234 A4 | C701 A3 | C736 A3 | C820 B2 | C840 B2 | CE201 D1 | C0254 A2 | FB214 C1 | IC202 C4 | L207 B4 | Q702 A4 | R201 C4 | R222 D3 | R249 C1 | R274 A4 | R296 D1 | R733 B3 | R816 A1 | RA201 C2 |
| C0212 C2 | C0240 D4 | C102 A4 | C214 C2 | C235 A4 | C702 A3 | C737 A3 | C821 B2 | C841 B2 | CE802 D1 | D201 A3 | FB216 C2 | IC203 D3 | L701 B3 | Q703 A4 | R202 B4 | R223 D3 | R250 D3 | R275 A4 | R297 D1 | R734 B3 | R817 B2 | RA202 C4 |
| C0213 C4 | C0241 D4 | C103 B4 | C215 A2 | C236 A4 | C703 A3 | C738 C2 | C822 B2 | C843 B1 | CE803 D1 | D202 D1 | FB217 A2 | IC204 D2 | L702 B3 | Q704 A4 | R203 D1 | R224 D3 | R251 C1 | R276 D2 | R298 D1 | R737 A3 | R820 A1 | RA203 C4 |
| C0214 C4 | C0242 D4 | C104 A4 | C216 B2 | C237 B3 | C710 A3 | C801 A1 | C823 B2 | C844 B2 | CE804 D1 | D204 A3 | FB220 C1 | IC205 A2 | L703 B3 | Q705 A3 | R204 D1 | R225 B4 | R252 C1 | R277 D2 | R299 D1 | R738 C2 | R822 A2 | XL101 A4 |
| C0215 C2 | C0243 D4 | C105 A4 | C217 A2 | C238 B3 | C711 A3 | C802 A2 | C824 B2 | C846 C2 | CE805 D1 | D205 D3 | FB222 C1 | IC206 D4 | L704 B3 | Q706 A3 | R205 C1 | R227 D2 | R253 C1 | R278 D2 | R601 D1 | R748 A3 | R823 A2 | XL201 B3 |
| C0216 D1 | C0244 A2 | C106 A4 | C218 B4 | C239 D1 | C713 A3 | C803 B1 | C825 A2 | C849 B2 | CE806 D1 | D600 D1 | FB226 A2 | IC207 D4 | L707 A3 | Q707 A3 | R206 D2 | R228 D1 | R254 D4 | R279 C1 | R603 C4 | R750 A4 | R824 A2 | XL202 D1 |
| C0217 D1 | C0245 A2 | C107 B4 | C219 A3 | C242 B2 | C716 B3 | C804 A2 | C826 B2 | CE201 D1 | CE807 D1 | F201 B4 | FB601 A3 | IC208 D2 | L801 A2 | Q708 A3 | R207 A3 | R229 D1 | R256 D1 | R280 B3 | R604 B4 | R751 A3 | R826 B1 | XL203 C1 |
| C0218 D1 | C0246 A2 | C108 A4 | C220 A3 | C243 D2 | C717 A3 | C805 B1 | C827 B2 | CE202 D1 | CE808 D1 | FB201 A2 | FB602 C4 | IC209 B3 | L802 A2 | Q801 A1 | R208 D2 | R230 C1 | R257 D1 | R281 D3 | R605 B4 | R752 A3 | R827 B1 | ZD209 B4 |
| C0219 D1 | C0247 A2 | C109 A4 | C221 B4 | C250 D1 | C718 B3 | C806 B1 | C828 B2 | CE203 D1 | CE809 D1 | FB202 A2 | FB603 C4 | IC210 A3 | L803 B2 | Q802 A1 | R209 B4 | R231 C1 | R258 D1 | R282 A4 | R606 C4 | R801 C2 | R829 B1 | |
| C0220 D1 | C0248 B4 | C201 A2 | C223 D1 | C253 C1 | C719 A3 | C807 B1 | C829 B2 | CE204 D1 | CN201 B4 | FB203 A2 | FB703 A3 | IC801 B1 | Q101 B4 | Q803 A1 | R210 C4 | R232 C1 | R259 D2 | R283 A4 | R702 A3 | R802 A1 | R831 B2 | |



CIRCUIT DIAGRAM - part three

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----|------|----|------|----|------|----|------|----|------|----|-------|----|-------|----|-------|----|-------|----|----------|----|-------|----|-------|----|-------|----|-------|----|------|----|------|----|------|----|------|----|-------|----|-------|----|--|--|
| C301 | A1 | C313 | A2 | C326 | A1 | C351 | B3 | C506 | B4 | C901 | D1 | C921 | D1 | CE306 | D2 | CE329 | D3 | FB901 | D1 | IC304 | A2 | Q305 | A3 | R302 | A1 | R3037 | C3 | R3051 | C3 | R318 | A1 | R335 | B3 | R353 | B1 | R389 | B3 | R560 | C4 | ZD301 | A2 | | |
| C3010 | C2 | C315 | A2 | C329 | A2 | C352 | B1 | C507 | B4 | C902 | D1 | C922 | D1 | CE307 | D2 | CE330 | D3 | FB905 | C1 | IC305 | B2 | Q306 | C3 | R3020 | B2 | R3039 | C2 | R3052 | C3 | R321 | A2 | R336 | B3 | R354 | B1 | R390 | B3 | R709 | A4 | ZD302 | A2 | | |
| C3011 | C2 | C316 | A2 | C330 | A2 | C353 | B1 | C508 | B4 | C903 | D1 | C924 | D1 | CE308 | D2 | CE352 | D3 | FE301 | D3 | IC306 | B3 | Q307 | C3 | R3023 | C1 | R3040 | C2 | R3053 | C3 | R322 | A2 | R339 | C1 | R355 | B1 | R399 | B3 | R710 | A4 | ZD901 | D1 | | |
| C3012 | C3 | C317 | A3 | C331 | A3 | C354 | B1 | C509 | B4 | C904 | D1 | C928 | D1 | CE309 | D2 | CE901 | D2 | FE302 | D3 | IC307 | C1 | Q308 | C3 | R3024 | C1 | R3041 | C2 | R3054 | C3 | R325 | A2 | R343 | A2 | R356 | B1 | R523 | A4 | R711 | A3 | ZD902 | D1 | | |
| C3013 | C2 | C318 | D3 | C334 | B2 | C355 | B1 | C510 | B4 | C905 | D1 | C929 | D1 | CE310 | D2 | CE903 | D1 | FE306 | D3 | IC309 | A3 | Q901 | D1 | R3025 | C1 | R3042 | C2 | R307 | B3 | R326 | A2 | R344 | B2 | R357 | B1 | R529 | A4 | R904 | D1 | ZD904 | D1 | | |
| C3014 | C3 | C319 | D4 | C340 | A3 | C356 | B1 | C511 | B4 | C906 | D1 | C932 | D1 | CE311 | D2 | CE904 | D1 | FE307 | D3 | IC310 | C2 | Q903 | D1 | R3026 | C1 | R3043 | C2 | R308 | A3 | R327 | A2 | R345 | B1 | R358 | B1 | R530 | A4 | R911 | D1 | | | | |
| C3015 | C3 | C320 | B3 | C341 | B2 | C357 | B1 | C512 | B4 | C907 | D1 | C935 | D2 | CE312 | D2 | CN301 | A1 | FE308 | D3 | IC311 | C3 | R3004 | C1 | R3027 | C1 | R3045 | C2 | R309 | A1 | R328 | B2 | R346 | B1 | R359 | B1 | R531 | A4 | R913 | D1 | | | | |
| C302 | A1 | C321 | B3 | C342 | A2 | C360 | C4 | C513 | B4 | C908 | D2 | CE301 | D2 | CE319 | D2 | CN305 | C1 | FE309 | D3 | JK302AB1 | | R3005 | C1 | R3028 | C1 | R3046 | C3 | R310 | A1 | R329 | A2 | R348 | B1 | R360 | A2 | R532 | A4 | R924 | C2 | | | | |
| C305 | A1 | C322 | B3 | C343 | A2 | C362 | B3 | C514 | B4 | C912 | D2 | CE302 | D2 | CE321 | D2 | FB223 | D1 | FE310 | D3 | L304 | C1 | R301 | A1 | R3029 | C1 | R3048 | C2 | R313 | A1 | R330 | A2 | R349 | B1 | R361 | B3 | R533 | A4 | R928 | D1 | | | | |
| C306 | A1 | C323 | A3 | C346 | B3 | C363 | B3 | C515 | B4 | C918 | D2 | CE303 | D2 | CE322 | D2 | FB310 | A3 | FE311 | D3 | L501 | B4 | R3017 | C1 | R3030 | C1 | R3049 | C2 | R314 | A1 | R331 | A3 | R350 | B1 | R378 | B3 | R552 | B4 | R929 | D1 | | | | |
| C309 | A2 | C324 | B3 | C349 | B3 | C370 | C1 | C516 | B4 | C919 | D2 | CE304 | D2 | CE327 | D3 | FB312 | B1 | FE312 | D3 | L502 | B4 | R3018 | A3 | R3031 | B2 | R3045 | A3 | R316 | A1 | R332 | B2 | R351 | B1 | R380 | D3 | R553 | B4 | RB901 | C1 | | | | |
| C311 | A2 | C325 | A1 | C350 | B3 | C371 | C1 | C517 | B4 | C920 | D1 | CE305 | D2 | CE328 | D3 | FB313 | B1 | FE313 | A1 | L503 | B4 | R3019 | A2 | R3032 | B2 | R3050 | C3 | R317 | A1 | R334 | A3 | R352 | B1 | R388 | A1 | R558 | B4 | XL301 | C2 | | | | |



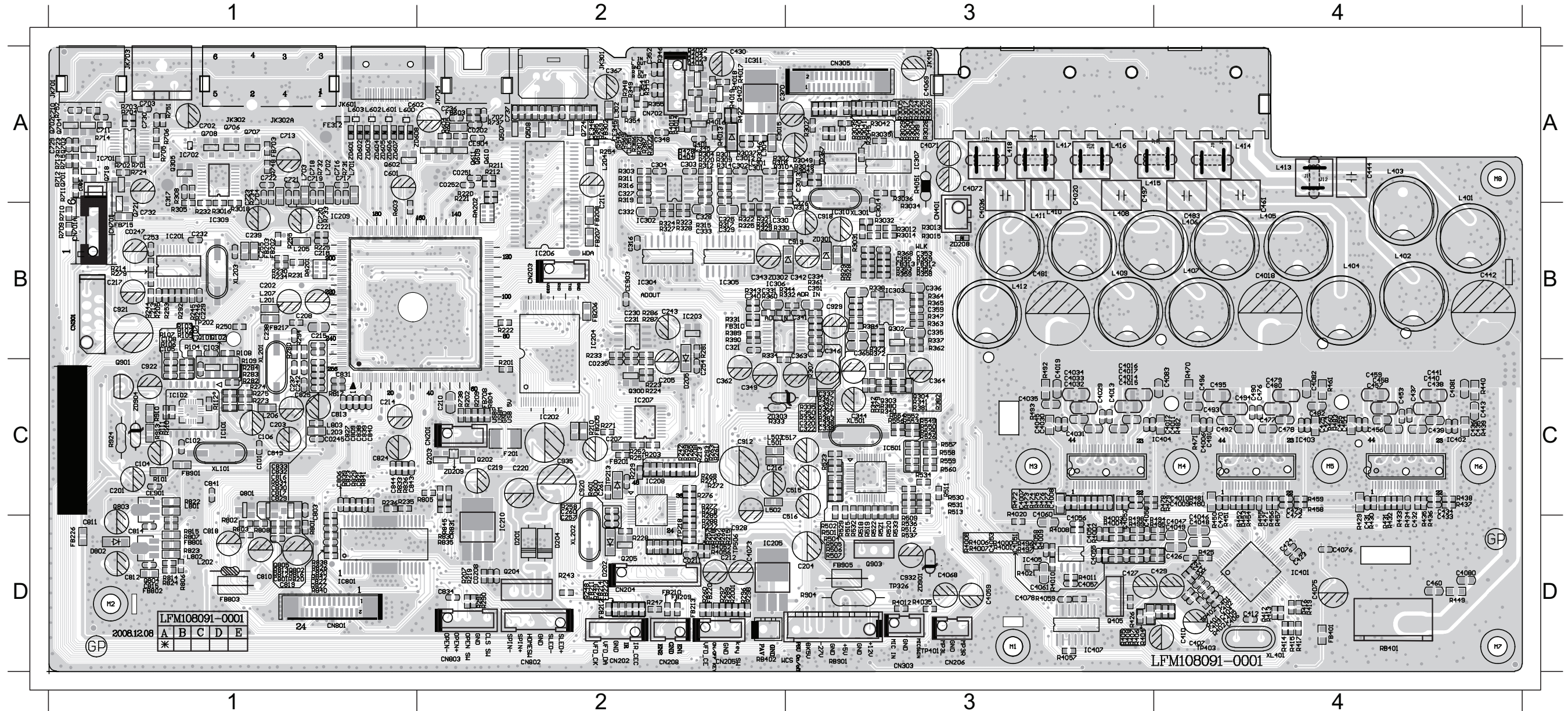
AUX/ TUNER/Sate llite R ADIO IN +AD/DA/UWAO/ BLUETOOTH/PCLINK

KARAOKE USE ONLY

EM C Addpart 100pGND TO GND Obly

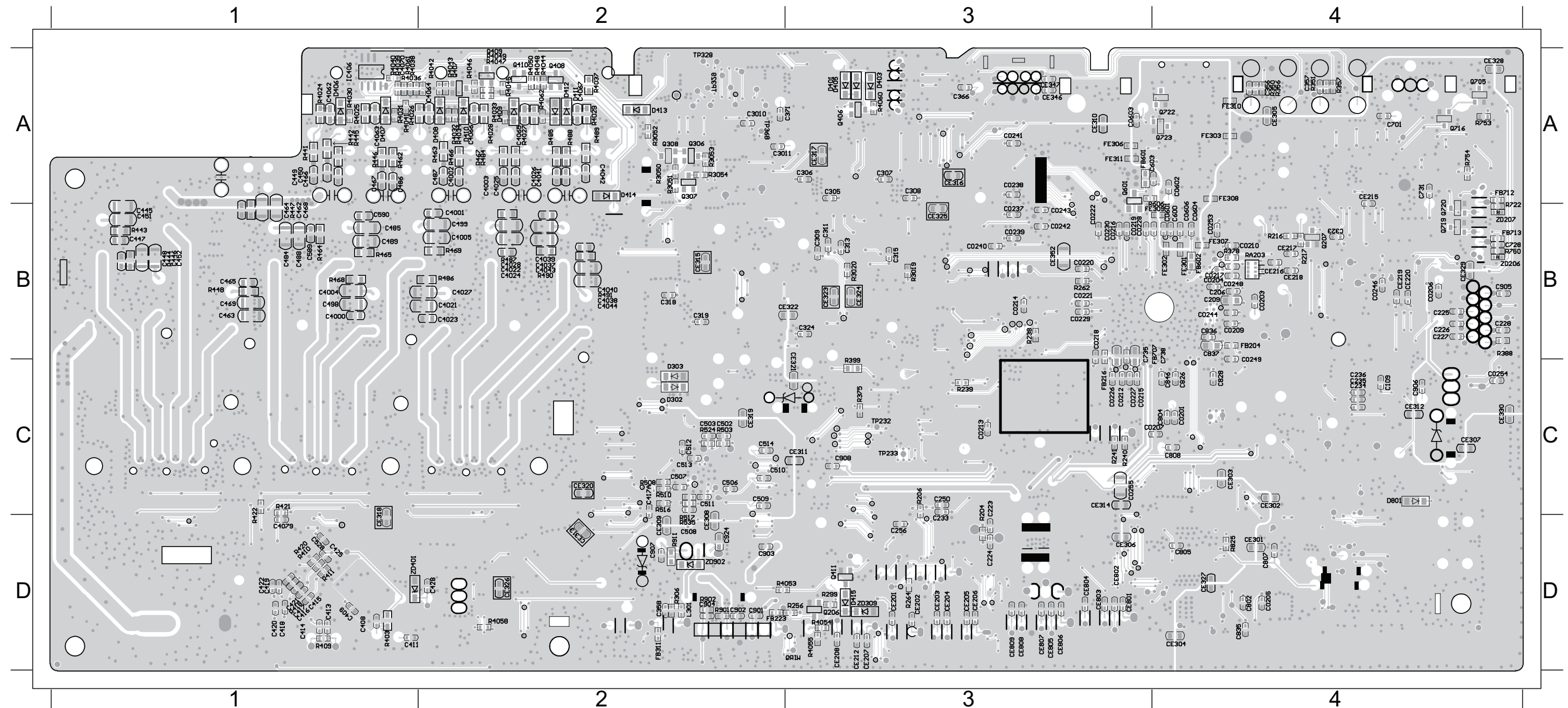
PCB LAYOUT - TOP VIEW

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|----------|----------|----------|----------|---------|---------|---------|----------|----------|----------|----------|----------|---------|---------|---------|---------|----------|----------|----------|----------|---------|---------|---------|---------|----------|----------|
| C0202 A2 | C216 C2 | C317 A1 | C4008 C3 | C4052 D3 | C430 A2 | C478 C4 | C729 A1 | C833 C1 | CN301 B1 | FB217 B1 | IC210 D2 | JK302AA2 | L503 C2 | Q707 A1 | R213 C2 | R253 B1 | R288 D2 | R3040 A3 | R334 B2 | R4007 D3 | R412 D4 | R454 C4 | R499 D3 | R732 A1 | R829 C1 | ZD209 C2 |
| C0208 D2 | C217 B1 | C320 C3 | C4009 C4 | C4053 D3 | C431 C4 | C481 B3 | C730 A1 | C834 D2 | CN305A3 | FB220 D2 | IC301 A2 | JK401 A3 | L701 A1 | Q708 A1 | R215 D2 | R254 A2 | R289 D2 | R3041 A3 | R335 C3 | R4008 D3 | R413 D4 | R455 C4 | R523 C3 | R733 B1 | R831 D2 | ZD301 B3 |
| C0211 D2 | C218 B1 | C321 B2 | C401 D4 | C4054 D3 | C432 C4 | C482 C4 | C732 B1 | C838 C1 | CN401A3 | FB222 D2 | IC304 B2 | JK601 A1 | L702 A1 | Q801 C1 | R218 D2 | R257 D2 | R290 D2 | R3042 A3 | R336 C3 | R4009 D3 | R414 D4 | R456 C4 | R529 D3 | R734 A1 | R833 C1 | ZD302 B2 |
| C0235 C2 | C219 C2 | C322 C3 | C4010 C4 | C4055 D3 | C433 D4 | C483 B4 | C736 A2 | C839 C1 | CN701 B1 | FB226 D1 | IC305 B2 | JK701 A1 | L703 A1 | Q802 D1 | R219 D2 | R258 C2 | R291 D2 | R3043 A3 | R339 A3 | R401 D4 | R415 D4 | R457 C4 | R530 C3 | R737 A2 | R834 C1 | ZD901 D3 |
| C0245 C1 | C220 C2 | C325 B2 | C4011 C4 | C4056 D3 | C434 C4 | C490 C4 | C737 A2 | C840 C1 | CN702A2 | FB310 B2 | IC306 B2 | JK703 A1 | L704 A1 | Q803 C1 | R220 A2 | R259 C2 | R292 B1 | R3045 A3 | R343 B2 | R4010 D3 | R416 D4 | R458 C4 | R531 C3 | R738 C2 | R835 D2 | ZD904 C1 |
| C0247 B1 | C221 B1 | C326 A2 | C4012 C4 | C4057 D3 | C435 C4 | C491 C4 | C738 A2 | C841 C1 | CN801 D1 | FB312 B3 | IC307 A3 | JK704 A2 | L707 A2 | Q804 D1 | R221 A2 | R260 D2 | R293 C2 | R3046 A2 | R344 B3 | R4011 D3 | R417 D4 | R459 C4 | R532 D3 | R748 A1 | R836 C1 | |
| C0251 A2 | C229 B1 | C329 B2 | C4013 C3 | C4058 D3 | C436 C4 | C492 C4 | C803 C1 | C843 C1 | CN802 D2 | FB313 B3 | IC309 B1 | L201 B1 | L801 C1 | Q805 D1 | R222 B2 | R261 C2 | R294 B1 | R3048 A3 | R345 A2 | R4012 D3 | R419 D4 | R460 C4 | R533 D3 | R751 A1 | R838 D1 | |
| C0252 A2 | C230 B2 | C330 B2 | C4014 B4 | C4059 D3 | C437 C4 | C493 C4 | C806 C1 | C844 C1 | CN803 D2 | FB401 D4 | IC310 A3 | L202 D1 | L802 D1 | Q901 C1 | R223 C2 | R263 C2 | R296 D2 | R3049 A3 | R346 A2 | R4013 A2 | R423 D4 | R461 C4 | R552 C3 | R752 A1 | R839 C1 | |
| C101 C1 | C231 B2 | C331 B2 | C4015 B4 | C406 D4 | C438 C4 | C496 C4 | C809 C1 | C849 C1 | CN801 D1 | FB603 A2 | IC311 A2 | L203 C1 | L803 C1 | Q903 D3 | R224 C2 | R267 D2 | R297 D2 | R305 B1 | R348 A2 | R4014 A2 | R424 D4 | R470 C4 | R553 C3 | R801 D1 | R840 D1 | |
| C102 C1 | C232 B1 | C334 B3 | C4018 B4 | C4060 D3 | C439 C4 | C497 A3 | C810 D1 | C912 C2 | D202 D2 | FB703 A1 | IC401 D4 | L204 A2 | Q101 B1 | R101 C1 | R225 B1 | R268 C3 | R298 D2 | R307 C3 | R349 A2 | R4015 A2 | R425 D4 | R471 C4 | R558 C3 | R802 D1 | R841 C1 | |
| C103 B1 | C237 C1 | C340 B2 | C402 D4 | C4061 D3 | C442 B4 | C515 C3 | C811 D1 | C918 B3 | D204 D2 | FB708 C2 | IC402 C4 | L205 B1 | Q102 B1 | R102 B1 | R227 D2 | R269 A2 | R3004 A3 | R308 A1 | R352 B3 | R4016 A2 | R426 D4 | R472 C3 | R560 C3 | R803 D1 | R842 D1 | |
| C104 C1 | C238 B1 | C341 B3 | C4020 A3 | C4068 D3 | C443 C4 | C516 D3 | C812 D1 | C919 B3 | D205 C2 | FB715 B1 | IC403 C4 | L206 C1 | Q204 D2 | R103 B1 | R228 D2 | R270 C2 | R3005 A3 | R309 A2 | R353 B3 | R4017 A2 | R427 A2 | R474 C3 | R601 C2 | R804 C2 | R845 D2 | |
| C105 B1 | C239 B1 | C342 B3 | C4029 C3 | C4069 A3 | C444 A4 | C517 C3 | C813 C1 | C920 C2 | D404 A2 | FB801 D1 | IC404 C3 | L207 B1 | Q205 D2 | R104 B1 | R229 C2 | R271 C2 | R301 A2 | R310 A2 | R354 A2 | R4018 A2 | R428 A2 | R475 C3 | R603 A1 | R805 C2 | R904 D3 | |
| C106 C1 | C242 C1 | C343 B2 | C403 D4 | C407 D4 | C453 C4 | C601 A1 | C816 C1 | C921 B1 | D600 C2 | FB802 D1 | IC405 D3 | L304 A2 | Q300 C2 | R105 B1 | R230 B2 | R272 C2 | R3017 A3 | R313 B3 | R355 A2 | R4019 A2 | R429 C4 | R476 C3 | R604 A2 | R806 D1 | R913 C1 | |
| C107 B1 | C243 B2 | C346 B3 | C4030 C3 | C4071 A3 | C454 C4 | C602 A1 | C817 C1 | C922 C1 | F201 C2 | FB803 D1 | IC407 D3 | L401 A4 | Q305 A1 | R106 B1 | R231 B1 | R273 C1 | R3018 B1 | R314 B3 | R358 B3 | R402 D4 | R431 C4 | R477 C3 | R605 A2 | R807 D1 | R924 C1 | |
| C108 B1 | C253 B1 | C349 C2 | C4031 C3 | C4072 A3 | C455 C4 | C702 A1 | C818 D1 | C928 D2 | FB201 C2 | FB901 C1 | IC801 D1 | L402 B4 | Q401 A2 | R108 B1 | R232 B1 | R274 C1 | R302 A2 | R316 A2 | R359 B3 | R4020 D3 | R432 C4 | R478 C4 | R702 A1 | R808 D1 | R928 B3 | |
| C201 C1 | C254 C2 | C350 C3 | C4032 C3 | C4073 D2 | C456 C4 | C703 A1 | C819 D1 | C929 B3 | FB202 B1 | FB905 D3 | J1 A3 | L403 A4 | Q402 A2 | R109 C1 | R233 B2 | R275 C1 | R3023 A3 | R317 B2 | R360 B2 | R4021 D3 | R433 C4 | R479 C4 | R704 A1 | R812 D1 | R929 B3 | |
| C202 B1 | C255 B1 | C351 B3 | C4035 C3 | C4074 D4 | C457 C4 | C710 A1 | C820 D1 | C932 D1 | FE312 A1 | J10 A4 | A3 | L404 B4 | Q403 A2 | R201 C2 | R234 B2 | R276 C2 | R3024 A3 | R318 A2 | R361 B3 | R4022 A2 | R434 C4 | R480 C4 | R705 A1 | R813 D1 | RA201 B1 | |
| C203 C1 | C257 D2 | C352 A2 | C4036 A3 | C4076 D4 | C460 D4 | C711 A1 | C821 C1 | C935 C2 | FB205 C2 | IC101 C1 | J11 A4 | L405 B4 | Q404 A2 | R202 C2 | R235 C1 | R277 C2 | R3025 A3 | R321 B2 | R380 C3 | R4023 A2 | R435 C4 | R481 C4 | R709 B1 | R814 D1 | RA202 A2 | |
| C204 D3 | C260 C2 | C353 B3 | C404 D4 | C4078 D3 | C461 A3 | C713 A1 | C822 D1 | CE901 C1 | FB206 B2 | IC201 B1 | J12 A4 | L406 B4 | Q405 D3 | R203 C2 | R236 C1 | R278 C2 | R3026 A3 | R322 B2 | R389 B2 | R4035 D3 | R436 C4 | R482 C4 | R710 B1 | R815 D1 | RB401 D4 | |
| C205 C2 | C262 C2 | C354 A2 | C4045 C3 | C4080 D4 | C470 C4 | C716 A1 | C823 C1 | CE903 B2 | FB207 B2 | IC202 C2 | J2 A3 | L407 B4 | Q406 A1 | R205 B1 | R242 C1 | R279 B1 | R3027 A3 | R325 B2 | R390 B2 | R404 D3 | R437 C4 | R483 C4 | R711 A1 | R816 D1 | RB402 D2 | |
| C207 C2 | C301 A2 | C355 B3 | C4046 D4 | C4081 C4 | C471 C4 | C717 A1 | C824 C1 | CE904 A2 | FB208 B2 | IC203 B2 | J3 A3 | L408 B3 | Q611 A2 | R206 C3 | R245 B1 | R280 B1 | R3028 A3 | R326 B2 | R4000 D3 | R405 D3 | R438 C4 | R492 C3 | R712 A1 | R817 C1 | RB901 D3 | |
| C208 B1 | C3012 A2 | C360 C3 | C4047 D4 | C410 D4 | C472 C4 | C718 A1 | C825 C1 | CN201 C2 | FB209 D2 | IC204 B2 | J4 A3 | L409 B3 | Q701 A1 | R207 D2 | R247 D2 | R281 B2 | R3029 A3 | R327 B2 | R4001 D3 | R405 A3 | R439 C4 | R493 C3 | R713 B1 | R820 D1 | XL101 C1 | |
| C210 C2 | C3013 A3 | C362 C2 | C4048 D4 | C412 D4 | C473 C4 | C719 A1 | C827 C1 | CN202 D2 | FB210 D2 | IC205 D2 | J5 A3 | L410 B3 | Q702 A1 | R208 C2 | R248 D2 | R282 C1 | R3030 A3 | R328 B2 | R4002 D3 | R405 D2 | R440 C4 | R494 D3 | R714 A1 | R822 C1 | XL201 B1 | |
| C211 A2 | C3014 A3 | C363 B3 | C4049 D4 | C423 D4 | C474 C4 | C720 B1 | C829 C1 | CN203 B2 | FB211 D2 | IC206 B2 | J6 A3 | L411 B3 | Q703 A1 | R209 C2 | R249 D2 | R283 C1 | R3031 B3 | R329 B2 | R4003 D3 | R405 D2 | R449 D4 | R495 D3 | R715 B1 | R823 D1 | XL202 D2 | |
| C213 B1 | C3015 A2 | C370 A2 | C405 D4 | C424 D4 | C475 C4 | C721 A1 | C830 C1 | CN205 D2 | FB212 D2 | IC207 C2 | J7 A3 | L412 B3 | Q704 A1 | R210 C2 | R250 B1 | R285 D2 | R3032 B3 | R330 B2 | R4004 D3 | R406 D3 | R450 C4 | R496 D3 | R722 B4 | R824 D1 | XL203 B1 | |
| C214 C1 | C302 A2 | C4006 C4 | C4050 D3 | C427 D3 | C476 C4 | C722 A1 | C831 C1 | CN206 D3 | FB213 D2 | IC208 C2 | J8 A4 | L501 C1 | Q705 A4 | R211 A2 | R251 C1 | R286 B2 | R3037 A2 | R331 B2 | R4005 D3 | R407 D3 | R452 C4 | R497 D3 | R724 A1 | R826 D1 | XL301 A3 | |
| C215 B1 | C316 B2 | C4007 C3 | C4051 D3 | C429 D3 | C477 C4 | C723 A1 | C832 C1 | CN208 D2 | FB214 D2 | IC209 B1 | J9 A4 | L502 C2 | Q706 A1 | R212 A2 | R252 C2 | R287 B2 | R3039 A3 | R332 B3 | R4006 D3 | R408 D3 | R453 C4 | R498 D3 | R731 A1 | R827 D1 | XL401 D4 | |



PCB LAYOUT - BOTTOM VIEW

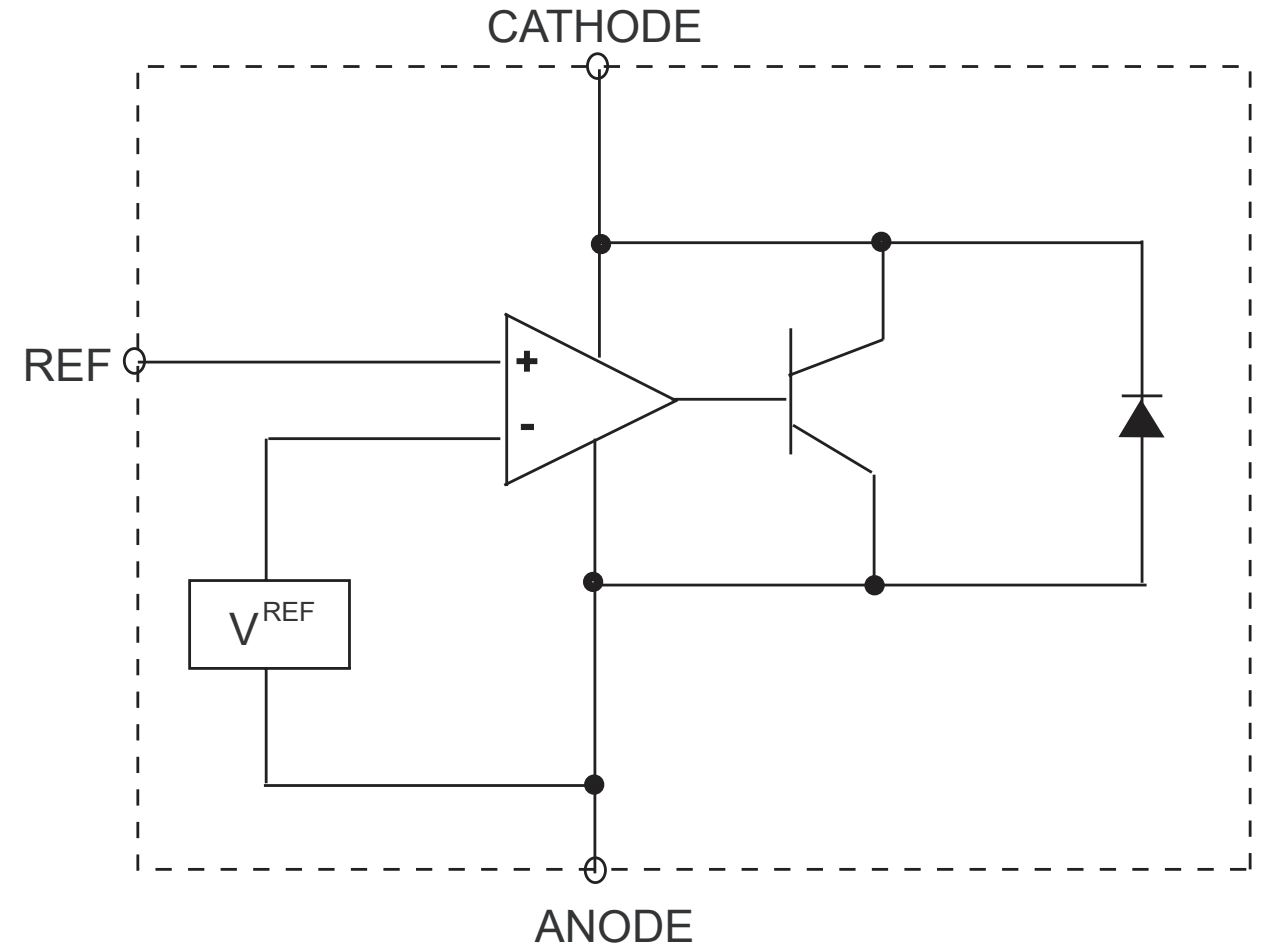
| | | | | | | | | | | | | | | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|----------|
| C0201 C4 | C0219 B3 | C0243 B3 | C223 C3 | C306 A3 | C4003 A2 | C4062 A1 | C419 D1 | C465 B1 | C510 C2 | C802 D4 | C905 B4 | CE217 B4 | CE312 C4 | CE807 D3 | D415 D3 | FE310 A4 | R204 C3 | R351 A4 | R4032 A2 | R4048 A2 | R422 C1 | R490 B2 |
| C0203 B4 | C0220 B3 | C0244 B4 | C224 D3 | C309 B3 | C4004 B1 | C4063 A1 | C420 D1 | C468 B1 | C511 C2 | C804 C4 | C906 C4 | CE218 B4 | CE319 C2 | CE808 D3 | FB204 B4 | FE311 A3 | R216 B4 | R356 A4 | R4033 A2 | R4049 A2 | R443 B1 | R491 B2 |
| C0204 B4 | C0221 B3 | C0246 B4 | C225 B4 | C311 B3 | C4005 B2 | C4064 A2 | C421 D1 | C469 B1 | C512 C2 | C805 D4 | C907 D2 | CE219 B4 | CE321 B3 | CE809 D3 | FB216 C3 | IC406 A1 | R217 B4 | R357 A4 | R4034 A2 | R4050 A2 | R444 B1 | R606 B4 |
| C0205 D4 | C0222 B3 | C0248 B4 | C226 B4 | C313 B3 | C4021 B2 | C4065 A2 | C422 D1 | C484 B1 | C513 C2 | C807 D4 | C908 C3 | CE220 B4 | CE322 B3 | D401 A3 | FB223 D2 | Q206 D3 | R238 B3 | R378 B4 | R4036 A1 | R4053 D2 | R447 B1 | R750 B4 |
| C0206 B4 | C0226 C3 | C0249 B4 | C227 B4 | C315 B3 | C4022 B2 | C4066 A2 | C425 D1 | C485 B1 | C514 C2 | C808 C4 | C924 D2 | CE301 D4 | CE327 D4 | D403 A3 | FB601 A3 | Q207 B4 | R239 C3 | R388 B4 | R4037 A2 | R4054 D3 | R448 B1 | R911 D2 |
| C0207 C3 | C0227 C3 | C0253 B4 | C228 B4 | C318 B2 | C4023 B2 | C4067 A2 | C428 D2 | C486 A1 | C528 D1 | C826 C4 | CE201 D3 | CE302 C4 | CE328 A4 | D405 A3 | FB602 B4 | Q306 A2 | R256 D3 | R399 B3 | R4038 A1 | R4055 D3 | R462 A1 | RA203 B4 |
| C0209 B4 | C0228 B3 | C0255 C3 | C233 D3 | C319 B2 | C4024 B2 | C4070 A1 | C445 B1 | C487 A2 | C589 B1 | C828 C4 | CE202 D3 | CE303 C4 | CE329 B4 | D406 A1 | FB707 B4 | Q307 A2 | R299 D3 | R4024 A1 | R4039 A1 | R4060 A3 | R463 A2 | ZD401 D1 |
| C0210 B4 | C0229 B3 | C0601 B4 | C234 C4 | C323 B4 | C4027 B2 | C408 D1 | C446 B1 | C488 B1 | C590 B1 | C835 D4 | CE203 D3 | CE304 D4 | CE330 C4 | D407 A1 | FB712 A4 | Q308 A2 | R3019 B3 | R4025 A1 | R4040 A1 | R4061 A1 | R464 B1 | ZD902 D2 |
| C0212 C3 | C0230 B3 | C0602 A3 | C235 C4 | C324 B3 | C4028 B2 | C409 D1 | C447 B1 | C489 B1 | C600 B4 | C836 B4 | CE204 D3 | CE305 A4 | CE352 B3 | D408 A2 | FB713 B4 | Q406 A3 | R3020 B3 | R4026 A1 | R4041 A1 | R4062 A2 | R465 B1 | |
| C0213 C3 | C0237 B3 | C0603 A3 | C236 C4 | C356 A4 | C4037 B2 | C411 D1 | C448 B1 | C498 B1 | C603 A3 | C837 B4 | CE205 D3 | CE306 D3 | CE801 D3 | D409 A2 | FE301 B4 | Q407 A2 | R3050 A2 | R4027 A2 | R4042 A2 | R409 D1 | R466 A2 | |
| C0214 B3 | C0238 B3 | C0604 B4 | C250 C3 | C357 A4 | C4038 B2 | C413 D1 | C451 B1 | C499 B2 | C701 A4 | C846 C4 | CE206 D3 | CE307 C4 | CE802 D3 | D410 A2 | FE302 B4 | Q408 A2 | R3051 A2 | R4028 A2 | R4043 A2 | R410 D1 | R467 A2 | |
| C0215 C3 | C0239 B3 | C0606 B4 | C256 D3 | C371 A2 | C4039 B2 | C414 D1 | C452 B1 | C506 C2 | C728 B4 | C901 D2 | CE207 D3 | CE308 C2 | CE803 D3 | D411 A2 | FE306 A3 | Q409 A2 | R3052 A2 | R4029 A2 | R4044 A2 | R411 D1 | R468 B1 | |
| C0216 B3 | C0240 B3 | C109 C4 | C3010 A2 | C4000 B1 | C4040 B2 | C415 D1 | C462 B1 | C507 C2 | C731 A4 | C902 D2 | CE212 D3 | CE309 D2 | CE804 D3 | D412 A2 | FE307 B4 | Q410 A2 | R3053 A2 | R4030 A1 | R4045 A2 | R418 D1 | R469 B2 | |
| C0217 B4 | C0241 A1 | C206 B4 | C3011 A2 | C4001 B2 | C4043 B2 | C416 D1 | C463 B1 | C508 D2 | C735 B3 | C903 D2 | CE215 A4 | CE310 A3 | CE805 D3 | D413 A2 | FE308 A4 | Q411 D3 | R3054 A2 | R4030 A1 | R4046 A2 | R420 D1 | R486 B2 | |
| C0218 B3 | C0242 B3 | C209 B4 | C305 A3 | C4002 A2 | C4044 B2 | C417 D1 | C464 B1 | C509 C2 | C738 B4 | C904 D2 | CE216 B4 | CE311 C2 | CE806 D3 | D414 A2 | FE309 B4 | Q601 A3 | R350 A4 | R4031 A1 | R4047 A2 | R421 C1 | R487 B2 | |



POWER BOARD-main unit

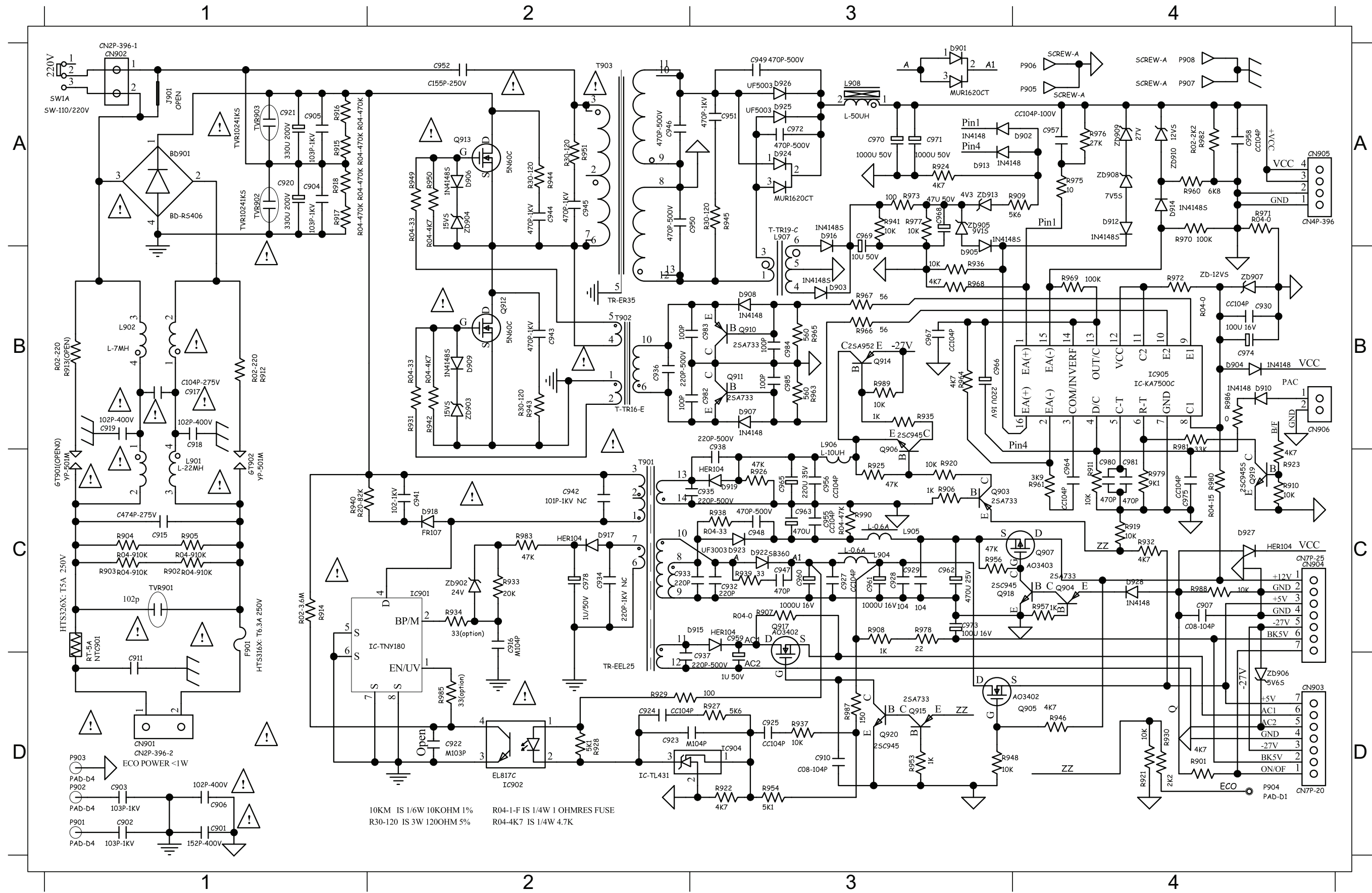
TABLE OF CONTENTS

Internal IC Diagram7-1
 Circuit Diagram.....7-2
 PCB Layout Top View7-3
 PCB Layout Bottom View7-4



CIRCUIT DIAGRAM

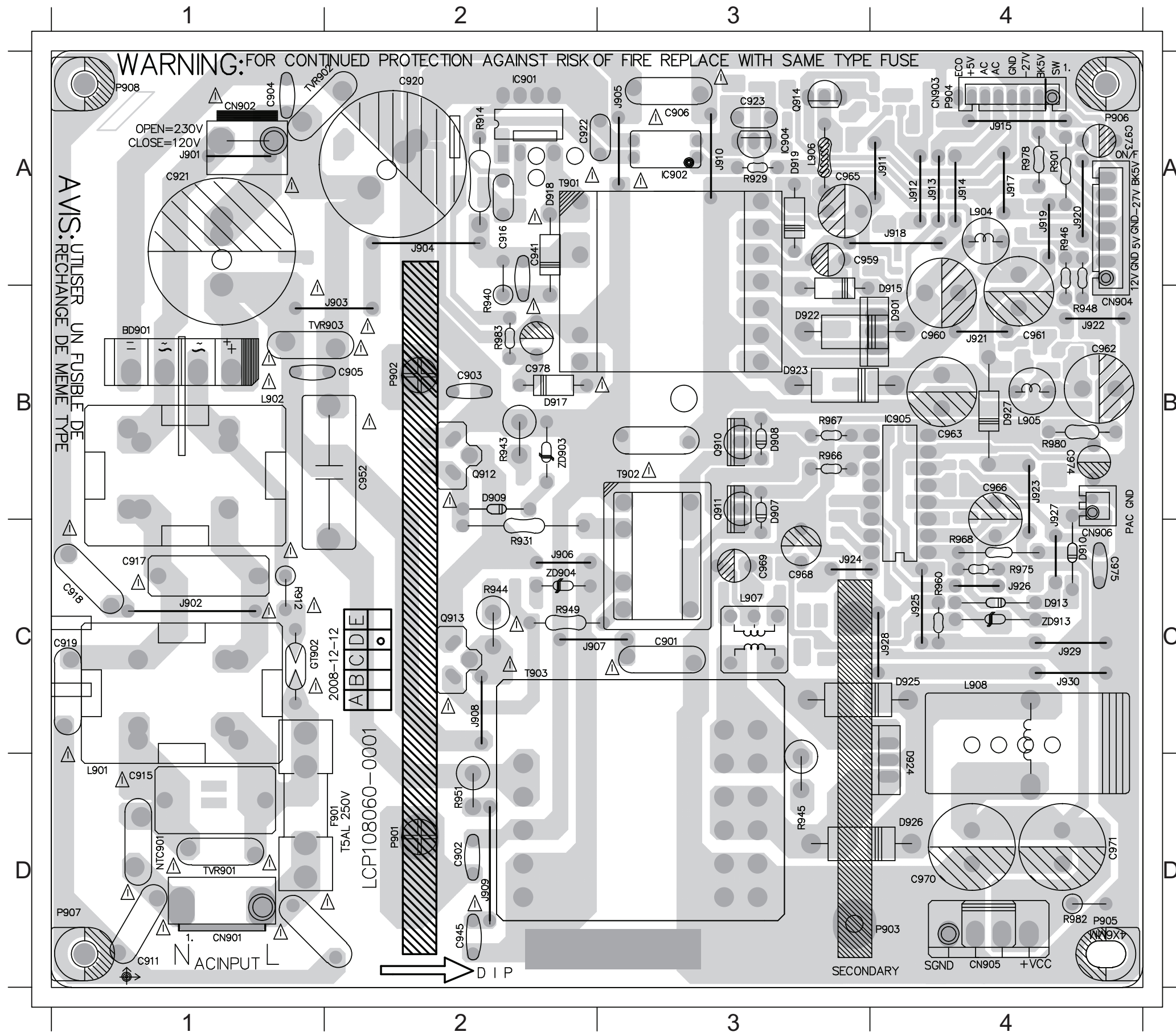
BD901A1 C910 D3 C923 D2 C936 B2 C947 C3 C957 A4 C965 C3 C974 B4 C985 B3 D904 B4 D915 C2 D927 C4 L901 C1 Q903 C3 Q913 A2 R906 C3 R916 A1 R926 C3 R935 B3 R943 B2 R954 D3 R966 B3 R975 A4 R985 D2 TVR902A1 ZD909A4
 C901 D1 C915 C1 C924 D2 C938 C3 C948 C3 C958 A4 C966 B3 C975 C4 CN901D1 D906 A2 D916 A3 D928 C4 L902 B1 Q904 C4 Q914 B3 R907 C3 R917 A1 R927 C3 R936 B3 R944 A2 R956 C3 R967 B3 R976 A4 R986 B4 TVR903A1 ZD910A4
 C902 D1 C916 C2 C925 D3 C941 C2 C949 A3 C959 C3 C967 B3 C978 C2 CN903D4 D907 B3 D917 C2 F901 C1 L904 C3 Q905 D4 Q918 C3 R908 C3 R918 A1 R928 D2 R937 D3 R945 A3 R957 C4 R968 B3 R977 A3 R987 D3 ZD902C2 ZD913A3
 C903 D1 C917 B1 C927 C3 C942 C2 C950 A2 C960 C3 C968 A3 C980 C4 CN904C4 D908 B3 D918 C2 GT902C1 L905 C3 Q906 C3 R901 D4 R909 A3 R919 C4 R929 D2 R938 C3 R946 D4 R960 A4 R969 B4 R978 C3 R989 B3 ZD903B2
 C904 A1 C918 B1 C928 C3 C943 B2 C951 A3 C961 C3 C969 A3 C981 C4 CN905A4 D909 B2 D919 C3 IC901C2 L906 C3 Q907 C4 R902 C1 R911 A4 R920 C3 R931 B2 R939 C3 R948 D3 R961 C4 R970 A4 R979 C4 T901 C2 ZD904A2
 C905 A1 C919 B1 C929 C3 C944 A2 C952 A2 C962 C3 C971 A3 C982 B3 CN906B4 D910 B4 D922 C3 IC902D2 L907 A3 Q910 B3 R903 C1 R912 B1 R922 D3 R932 C4 R940 C1 R949 A2 R963 B3 R971 A4 R980 C4 T902 B2 ZD906D4
 C906 D1 C920 A1 C930 B4 C945 A2 C955 C3 C963 C3 C972 A3 C983 B3 D902 A4 D912 A4 D923 C3 IC904D3 L908 A3 Q911 B3 R904 C1 R914 C1 R924 A3 R933 C2 R941 A3 R950 A2 R964 B3 R972 B4 R982 A4 T903 A2 ZD907B4
 C907 C4 C921 A1 C934 C2 C946 A2 C956 C3 C964 C4 C973 C3 C984 B3 D903 B3 D914 A4 D924 A3 IC905B4 NTC901C1 Q912 B2 R905 C1 R915 A1 R925 C3 R934 C2 R942 B2 R951 A2 R965 B3 R973 A3 R983 C2 TVR901C1 ZD908A4



10KM IS 1/6W 10KOHM 1% R04-1-F IS 1/4W 1 OHMRES FUSE
 R30-120 IS 3W 120OHM 5% R04-4K7 IS 1/4W 4.7K

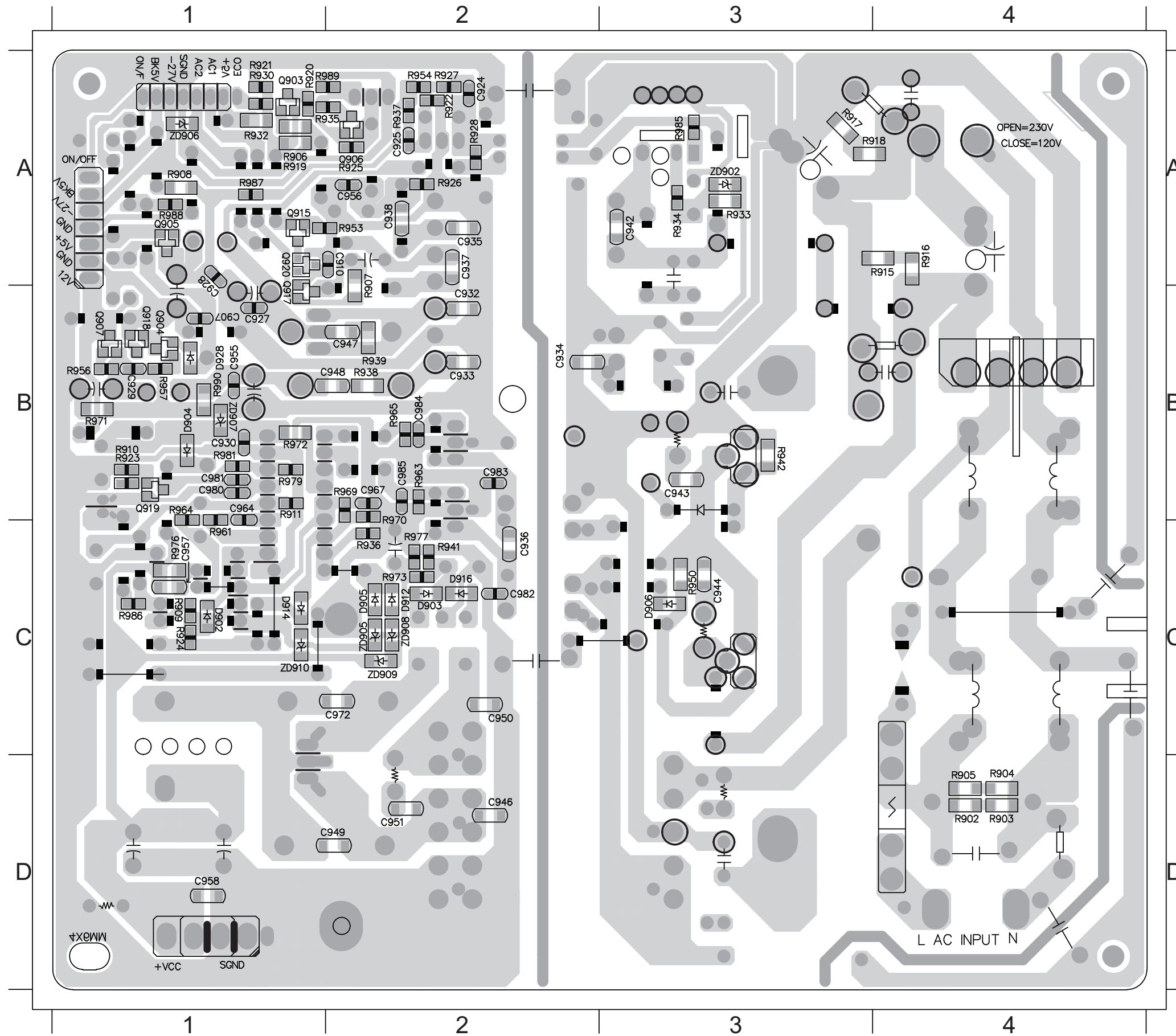
PCB LAYOUT - TOP VIEW

BD901B1 C906 A3 C920 A2 C959 A3 C966 B4 C975 C4 CN906C4 D917 B2 D927 B4 IC905 B4 J907 C2 J913 A4 J920 A4 J926 C4 L902 B1 NTC901D1 R901 A4 R943 B2 R951 D2 R978 A4 T903 C2 ZD913C4
 C901 C3 C915 D1 C921 A1 C960 B4 C968 C3 C978 B2 D907 B3 D918 A1 F901 D2 J902 C1 J908 C2 J914 A4 J921 B4 J927 B4 L904 A4 Q910 B3 R912 C1 R944 C2 R960 C4 R980 B4 TVR901D1
 C902 D2 C916 A2 C923 A3 C961 B4 C969 C3 CN901D1 D908 B3 D919 A3 GT902C1 J903 B1 J909 D2 J915 A4 J922 B4 J928 C4 L905 B4 Q911 B3 R914 A2 R945 D3 R966 B3 R982 D4 TVR902A1
 C903 B2 C917 C1 C941 A2 C962 B4 C971 D4 CN903A4 D909 B2 D922 B3 IC901 A2 J904 A2 J910 A3 J917 A4 J923 B4 J929 C4 L906 A3 Q912 B2 R929 A3 R946 A4 R967 B3 R983 B2 TVR903B1
 C904 A1 C918 C1 C945 D2 C963 B4 C973 A4 CN904B4 D910 C4 D923 B3 IC902 A3 J905 A3 J911 A4 J918 A4 J924 C3 Q913 C2 R931 C2 R948 B4 R968 C4 T901 A1 ZD903B2
 C905 B2 C919 C1 C952 B2 C965 A3 C974 B4 CN905D4 D915 B4 D924 D4 IC904 A3 J906 C2 J912 A4 J919 A4 J925 C4 L901 D4 L908 C4 Q914 A3 R940 B2 R949 C2 R975 C4 T902 B3 ZD904C2



PCB LAYOUT - BOTTOM VIEW

C907 B1 C928 A1 C938 A2 C947 B2 C955 B1 C967 B2 C983 B2 D904 B1 D928 B1 Q907 B1 R905 D4 R911 B1 R919 A1 R926 A2 R934 A3 R939 B2 R956 B1 R965 B2 R973 C2 R986 C1 ZD907 B1
 C910 A2 C929 B1 C942 A3 C948 B2 C956 A2 C972 C2 C984 B2 D906 C3 Q903 A1 Q918 B1 R906 A1 R915 A3 R920 A1 R927 A2 R935 A1 R941 C2 R957 B1 R969 B2 R976 C1 R987 A1 ZD908 C2
 C924 A2 C930 B1 C943 B3 C949 D2 C957 C1 C980 B1 C985 B2 D912 C2 Q904 B1 R902 D4 R907 A2 R916 A4 R922 A2 R928 A2 R936 C2 R942 B3 R961 C1 R970 B2 R977 C2 R989 A1 ZD909 C2
 C925 A2 C934 B2 C944 C3 C950 C2 C958 D1 C981 B1 D902 C1 D914 C1 Q905 A1 R903 D4 R908 A1 R917 A3 R924 C1 R932 A1 R937 A2 R950 C3 R963 B2 R971 B1 R979 B1 ZD902 A3 ZD910 C1
 C927 B1 C936 C2 C946 D2 C951 D2 C964 B1 C982 C2 D903 C2 D916 C2 Q906 A2 R904 D4 R909 C1 R918 A3 R925 A2 R933 A3 R938 B2 R954 A2 R964 B1 R972 B1 R985 A3 ZD906 A1



MP3 IN BOARD-main unit

TABLE OF CONTENTS

| | |
|-----------------------------------|-----|
| Circuit Diagram..... | 8-1 |
| PCB Layout Top & Bottom View..... | 8-2 |

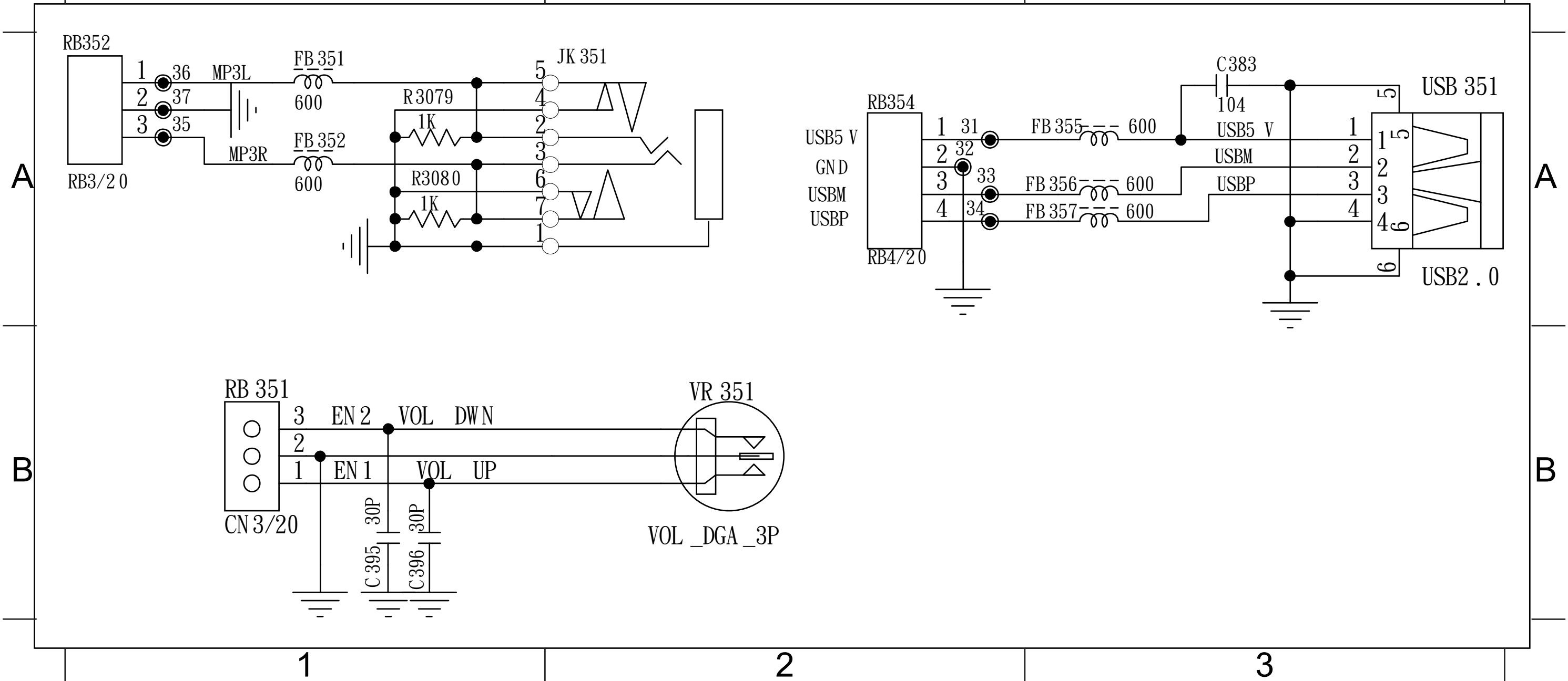
CIRCUIT DIAGRAM

C383 A3 FB351 A1 FB352 A1 FB355 A3 FB356 A3 FB357 A3 JK351 A2 R3079 A1 R3080 A1 RB352 A1 RB354 A2 USB351 A3

1

2

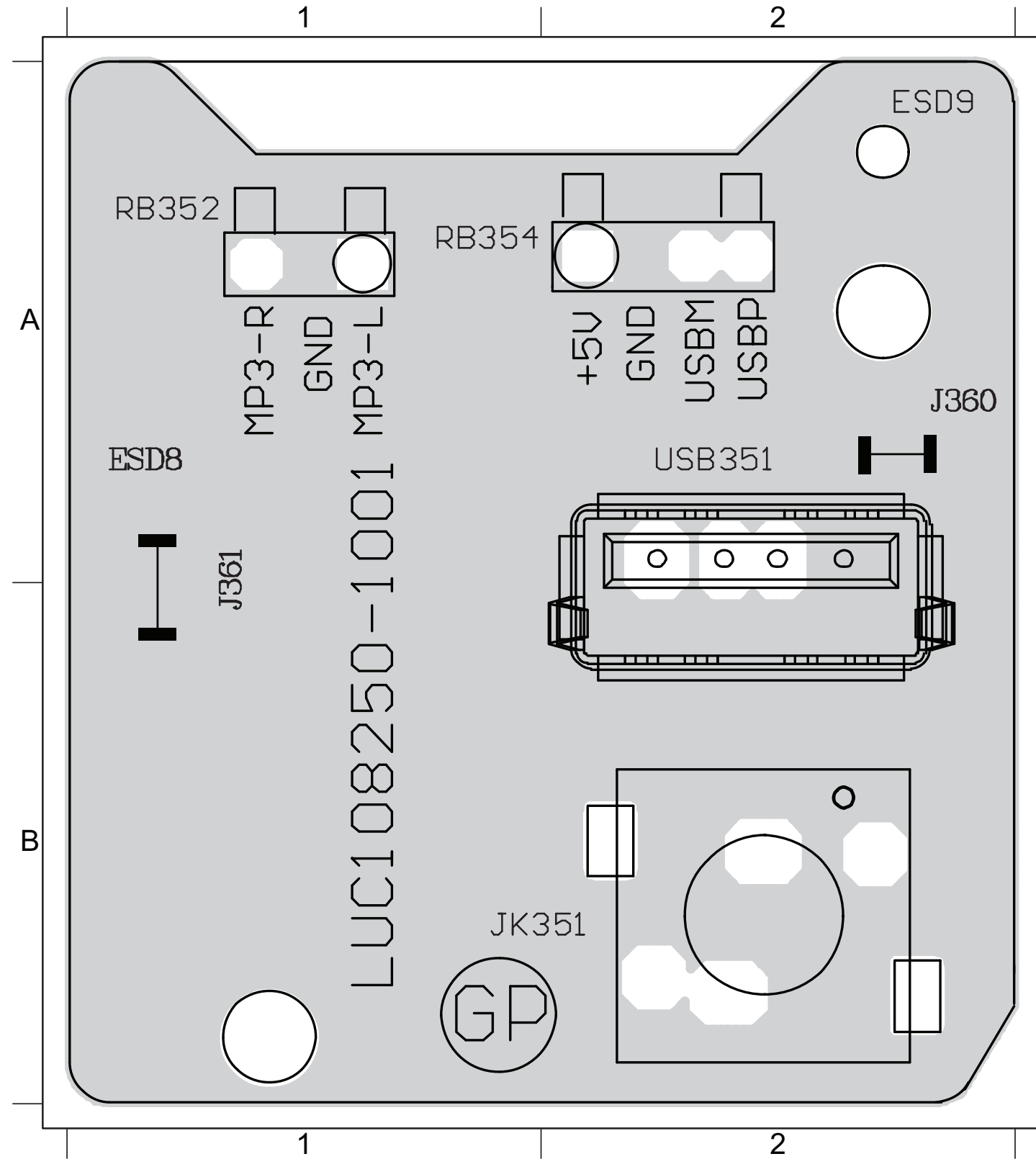
3



PCB LAYOUT - TOP VIEW

8-3

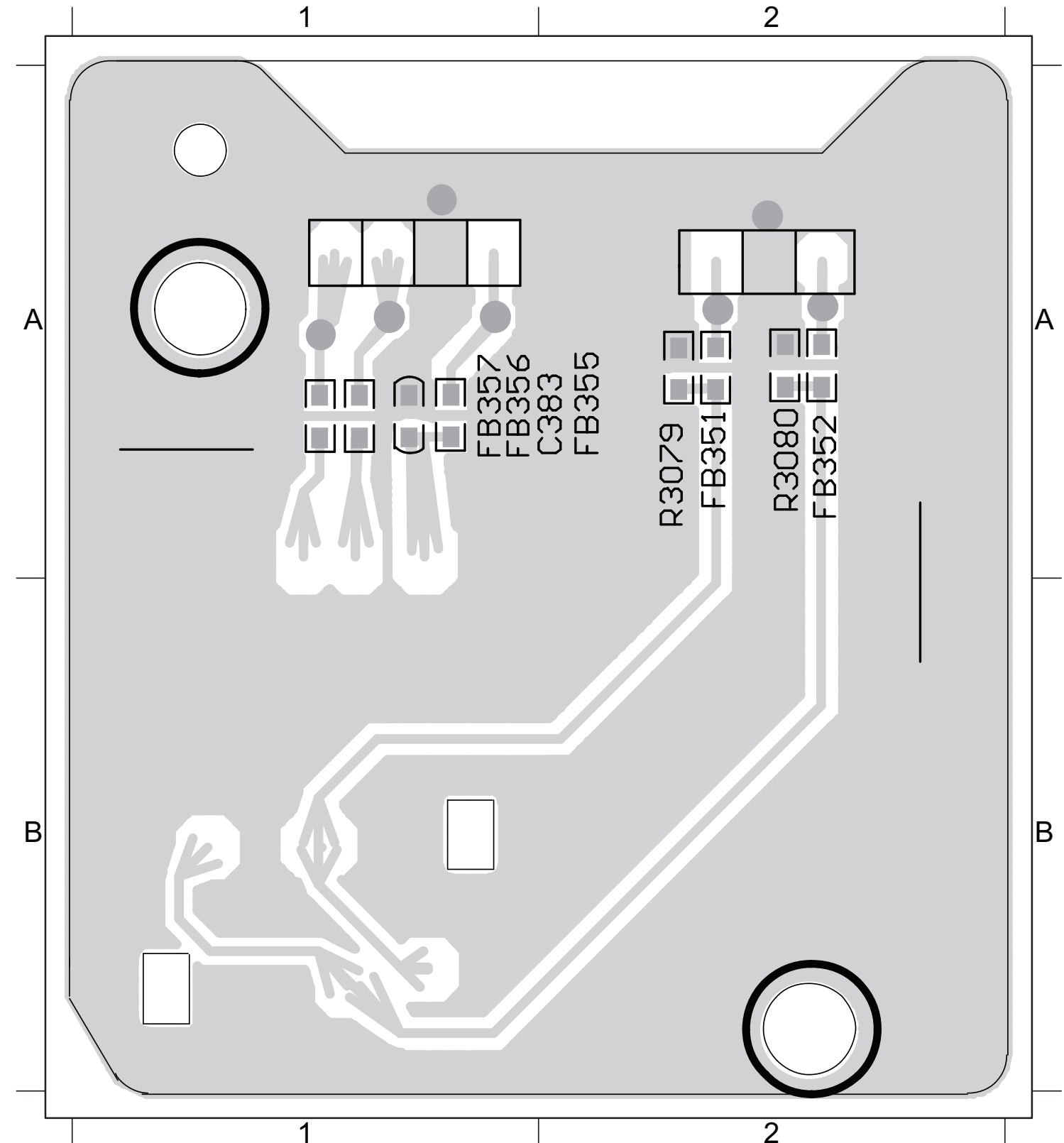
J360 A2 J361 A1 JK351 B1 RB352 A1 RB354 A1 USB351 A2



PCB LAYOUT - BOTTOM VIEW

8-3

C383 A2 FB351 A2 FB352 A2 FB355 A2 FB356 A1 FB357 A1 R3079 A2 R3080 A2



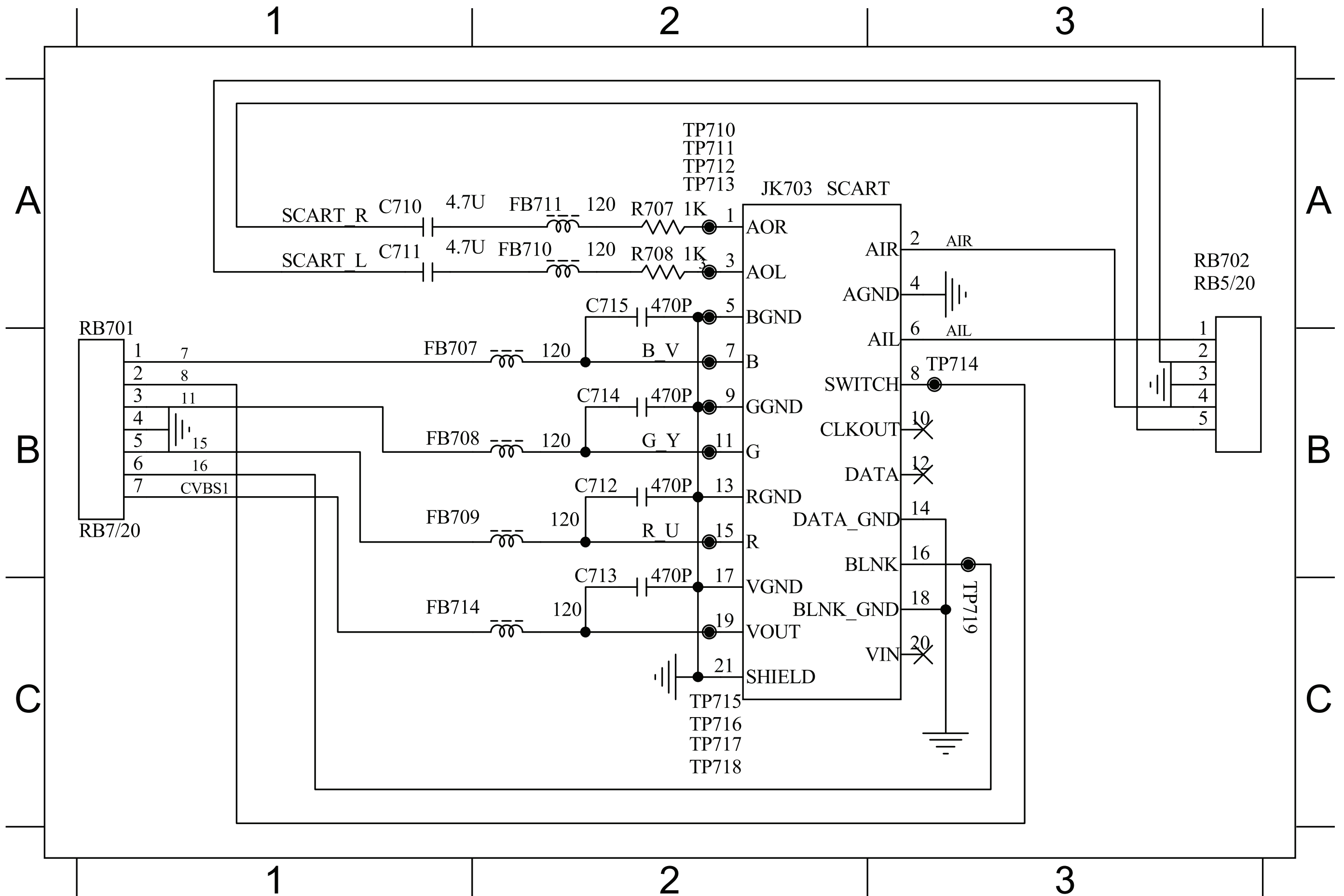
SCART BOARD

TABLE OF CONTENTS

Circuit Diagram9-2
PCB Layout Scart PCB View.....9-3

CIRCUIT DIAGRAM

C710 A1 C712 B2 C714 B2 FB707 B1 FB709 B1 FB711 A2 JK703 A2 R708 A2 RB702 A1
 C711 A1 C713 B2 C715 A2 FB708 B1 FB710 A2 FB714 C2 R707 A2 RB701 B1

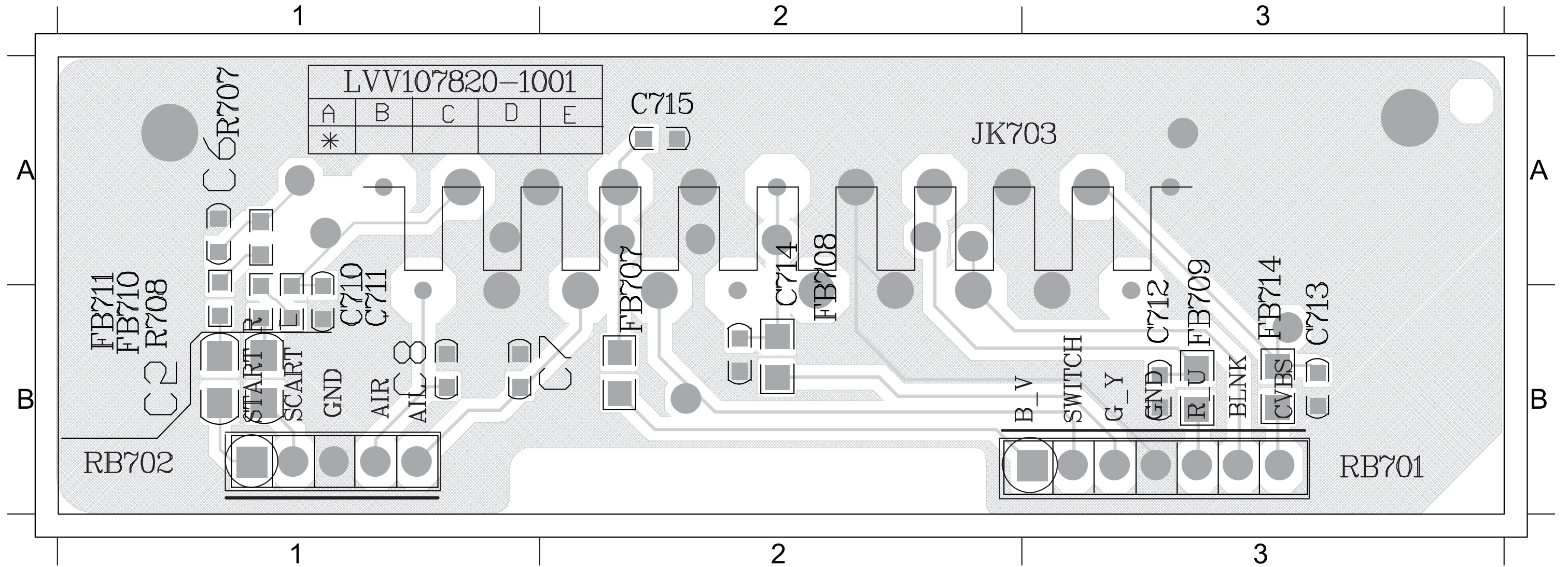


PCB LAYOUT - SCART PCB VIEW

9-3

9-3

C710 A1 C712 B3 C714 A2 FB707 A2 FB709 B3 FB711 A1 JK703 A2 R708 A1 RB702 B1
 C711 A1 C713 B3 C715 A2 FB708 A1 FB710 A1 FB714 A1 R707 A1 RB701 B3

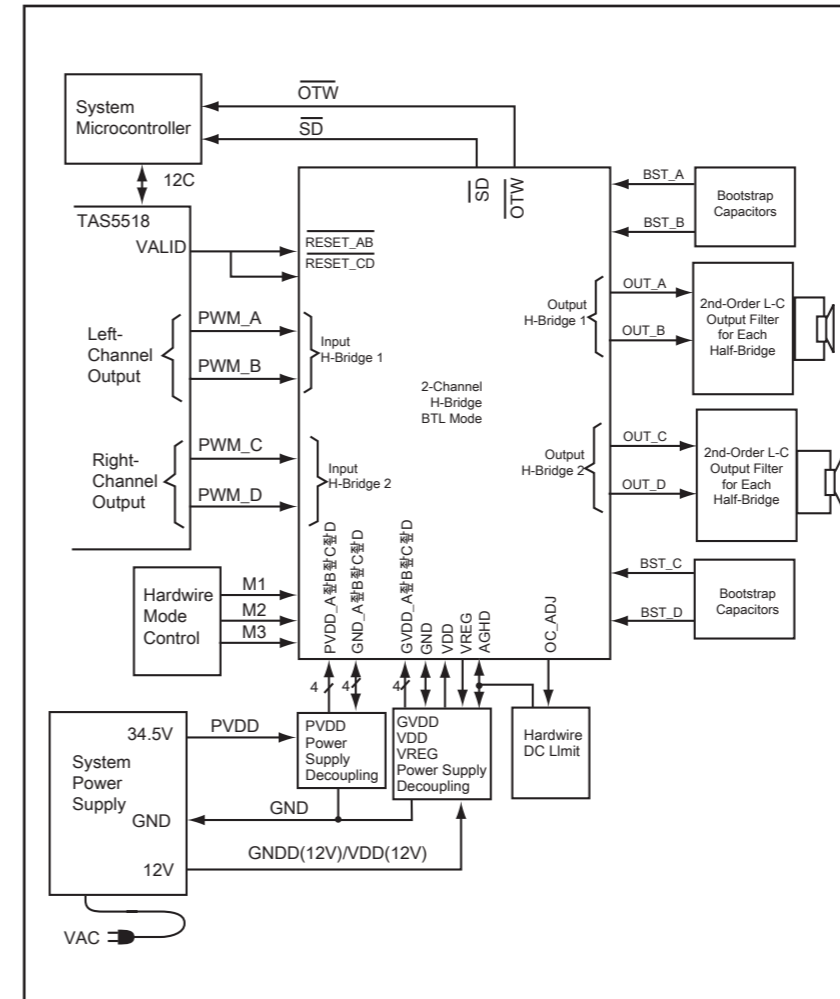


MAIN+LED+HEAT BOARD-Wireless

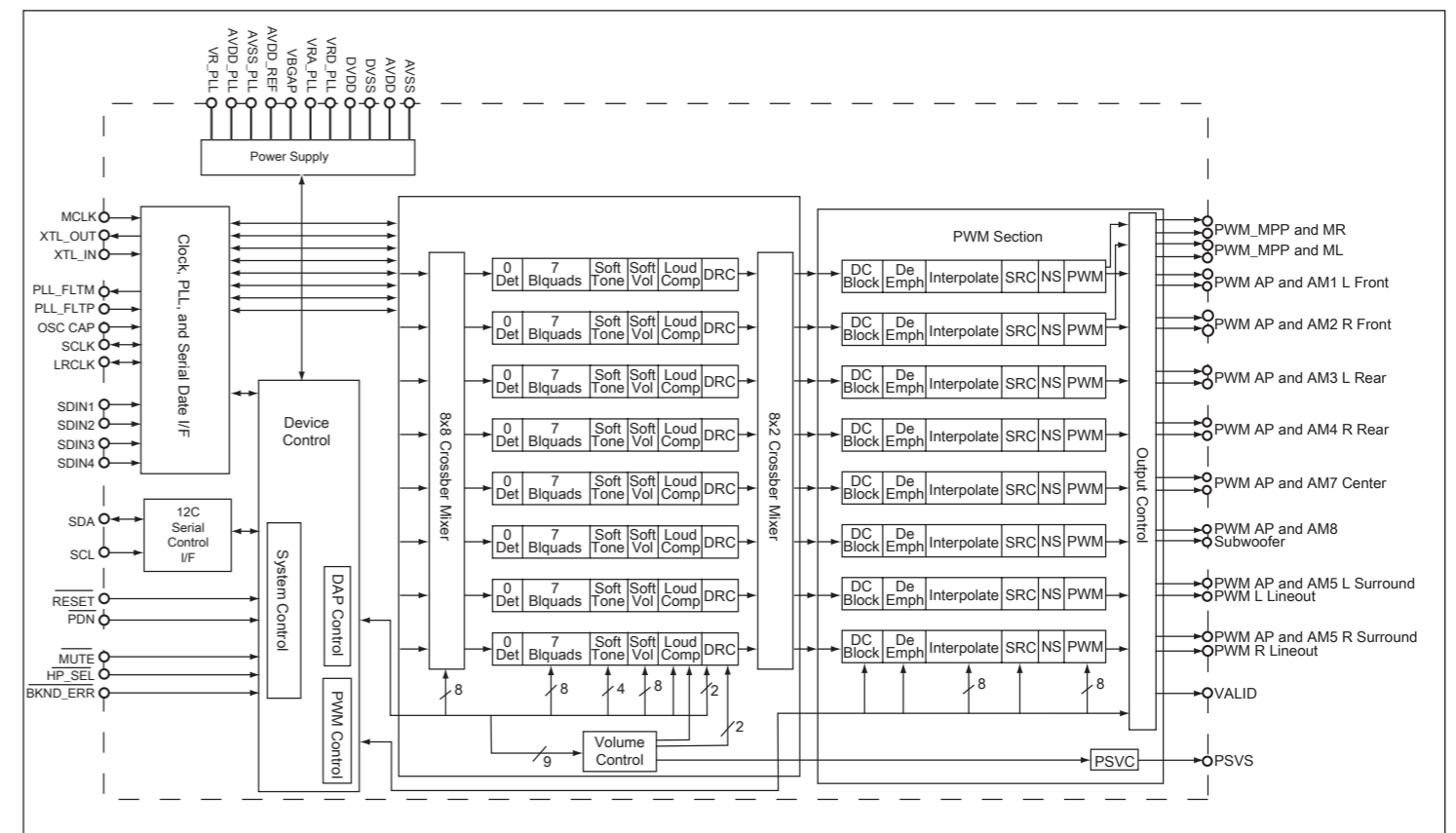
TABLE OF CONTENTS

- Circuit Diagram.....8-1
- PCB Layout Top View8-2
- PCB Layout Bottom View8-3

INTERNAL IC DIAGRAM - TAS5352ADDV

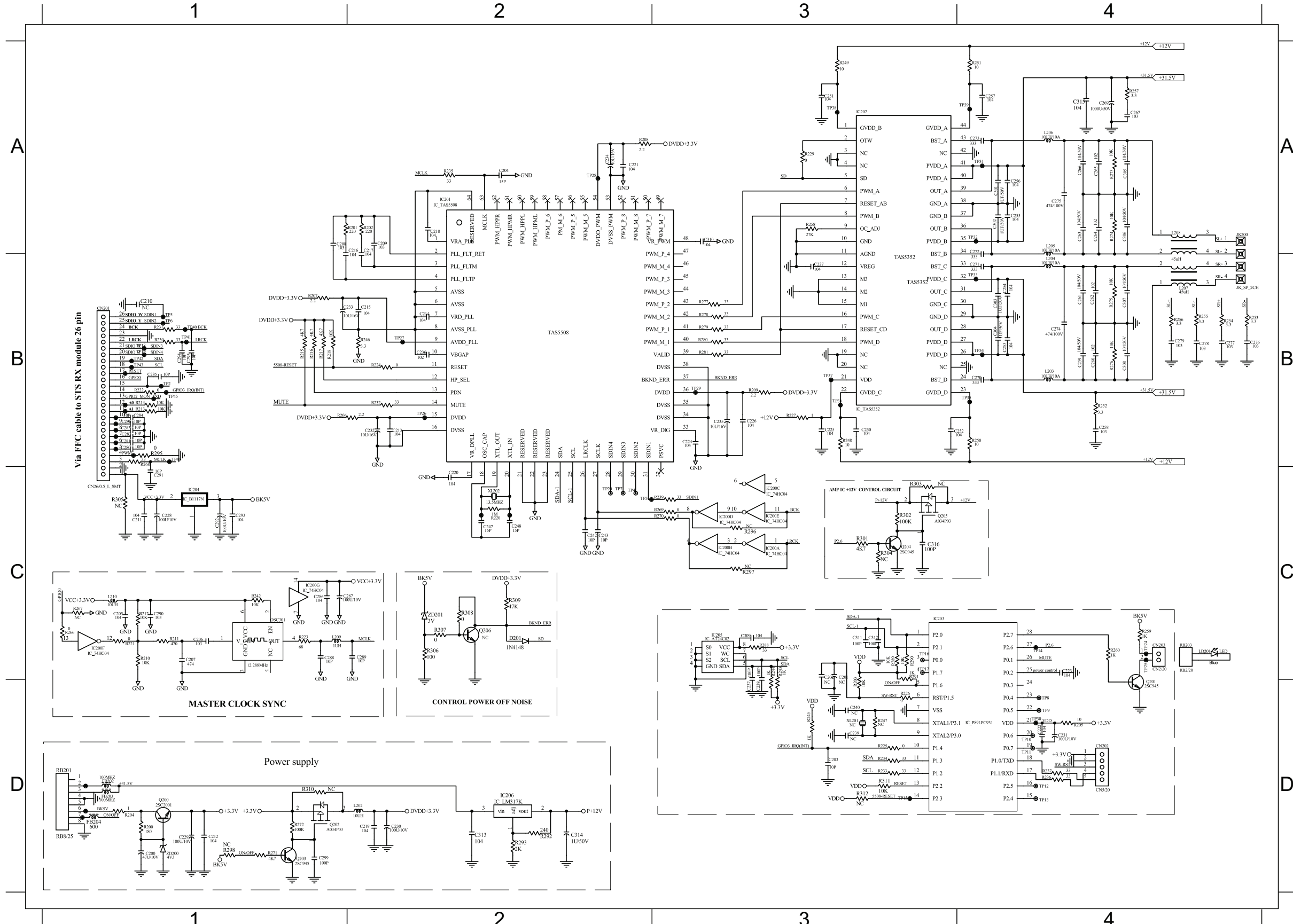


INTERNAL IC DIAGRAM - TAS5508APAG



CIRCUIT DIAGRAM

C200 D1 C212 D1 C221 A2 C230 D2 C242 C2 C255 A4 C264 A4 C274 B4 C283 B1 C292 C1 C304 B4 C313 D2 FB203 D1 JK200 A4 OSC301 C1 R202 A2 R211 C1 R221 C1 R231 B1 R243 C3 R253 B4 R268 B1 R277 B3 R292 D2 R311 D3
 C203 D3 C213 B2 C222 D4 C231 D4 C243 C2 C256 A4 C265 A4 C275 A4 C284 B1 C293 C1 C305 A4 C314 D2 FB204 D1 L202 D2 Q200 D1 R203 C3 R212 C1 R222 B1 R232 B2 R244 C3 R254 B4 R269 C3 R278 B3 R293 D2 RB201 D1
 C204 A2 C214 B2 C223 C4 C232 B2 C247 C2 C257 A4 C266 A4 C276 B4 C285 B1 C294 B1 C306 A4 C315 A4 IC200 C1 L203 B4 Q201 D4 R204 D1 R213 B1 R223 C1 R233 D3 R245 D3 R255 B4 R270 C3 R279 B3 R295 B1 RB203 C4
 C205 C1 C215 B2 C224 B3 C233 B2 C248 C2 C258 B4 C267 A4 C277 B4 C286 C1 C295 B1 C307 B4 C316 C3 IC201 A2 L204 B4 Q202 D1 R205 D4 R214 B1 R224 B2 R234 D3 R246 B2 R256 B4 R271 D1 R280 B3 R301 C3 XL202 C2
 C206 C1 C216 A2 C225 B3 C234 A2 C250 B3 C259 B4 C269 A4 C278 B4 C287 C1 C296 B1 C308 B4 CN201 B1 IC202 A3 L205 A4 Q203 D1 R206 B1 R215 B1 R225 D3 R235 A2 R248 B3 R257 A4 R272 D1 R281 B3 R302 C3 ZD200 D1
 C207 C1 C217 A2 C226 B3 C235 B3 C251 A3 C260 B4 C270 B4 C279 B4 C288 C1 C299 D1 C309 C3 CN202 D4 IC203 C3 L206 A4 Q204 C3 R207 B1 R216 B1 R226 D3 R236 D4 R249 A3 R258 A3 R273 A4 R288 C3 R306 C2 ZD201 C2
 C208 A1 C218 A2 C227 B3 C236 B2 C252 B4 C261 B4 C271 B4 C280 B1 C289 C2 C301 A4 C310 A3 CN203 C4 IC204 C1 L209 C1 Q205 C3 R208 A2 R217 B1 R227 B3 R237 D4 R250 B4 R259 C4 R274 A4 R289 C3 R307 C2
 C209 A2 C219 D2 C228 C1 C237 D3 C253 B4 C262 B4 C272 A4 C281 B1 C290 C1 C302 A4 C311 C3 D201 C2 IC205 C3 L210 C1 R200 D1 R209 B3 R218 B1 R229 A3 R239 C3 R251 A4 R260 C4 R275 B4 R290 C3 R308 C2
 C211 C1 C220 C2 C229 D1 C238 D3 C254 B4 C263 A4 C273 A4 C282 B1 C291 C1 C303 B4 C312 C3 FB202 D1 IC206 D2 LD201 C4 R201 A2 R210 C1 R220 C2 R230 B1 R242 C1 R252 B4 R266 C1 R276 B4 R291 C3 R309 C2



Via FFC cable to STS RX module 26 pin

MASTER CLOCK SYNC

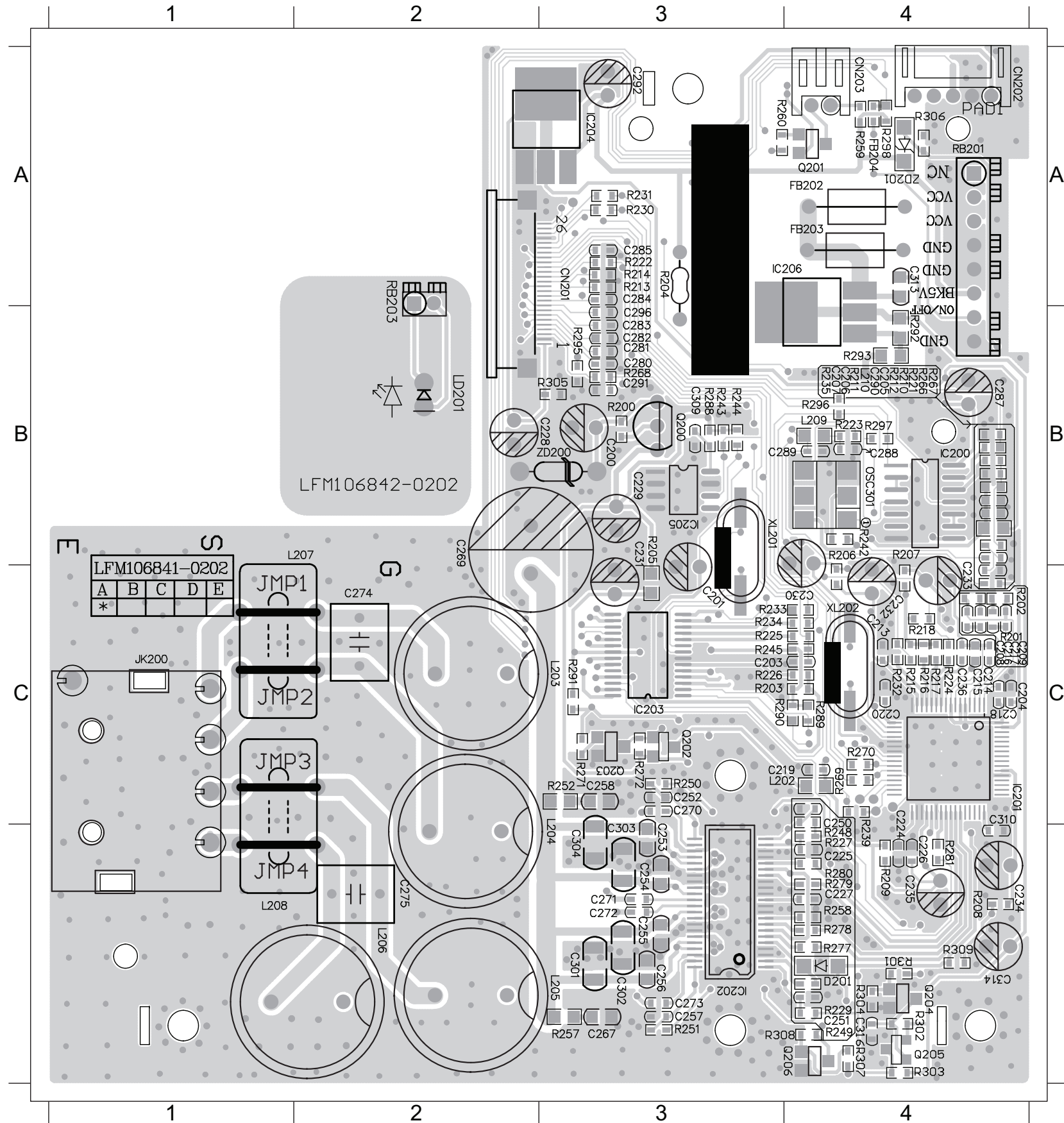
CONTROL POWER OFF NOISE

Power supply

AMP IC +12V CONTROL CIRCUIT

PCB LAYOUT - TOP VIEW

C200 B3 C213 C4 C224 C4 C232 C4 C253 D3 C270 C3 C282 B3 C291 B3 C310 C4 FB202 A4 IC205 B3 L203 C3 Q200 B3 R202 C4 R210 B4 R218 C4 R229 D4 R242 B4 R252 C3 R270 C4 R288 B3 R302 D4 ZD200 B3
 C203 C3 C214 C4 C225 D4 C233 C4 C254 D3 C271 D3 C283 B3 C292 A3 C313 A4 FB203 A4 IC206 A4 L204 D3 Q201 A4 R203 C3 R211 B4 R221 B4 R230 A3 R243 B3 R257 D3 R271 C3 R289 C4 R306 A4 ZD201 A4
 C204 C4 C215 C4 C226 D4 C234 D4 C255 D3 C272 D3 C284 A3 C296 B3 C314 D4 FB204 A4 JK200 C1 L205 D3 Q202 C3 R204 A3 R212 B1 R222 A3 R231 A3 R244 B3 R258 D4 R272 C3 R290 C3 R307 D4
 C205 B4 C216 C4 C227 D4 C235 D4 C256 D3 C273 D3 C285 A3 C301 D3 C316 D4 IC200 B4 JMP1 C1 L206 D2 Q203 C3 R205 B3 R213 A3 R223 B4 R232 C4 R245 C3 R259 A4 R277 D4 R291 C3 R308 D4
 C206 B4 C217 C4 C228 B3 C236 C4 C257 D3 C274 C2 C287 B4 C302 D3 CN201 A3 IC201 C4 JMP2 C1 L209 B4 Q204 D4 R206 B4 R214 A3 R224 C4 R233 C3 R248 D4 R260 A3 R278 D4 R292 B4 R309 D4
 C207 B4 C218 C4 C229 B3 C250 C4 C258 C3 C275 D2 C288 B1 C303 D3 CN202 A4 IC202 D3 JMP3 C1 L210 B4 Q205 D4 R207 B4 R215 C4 R225 C3 R234 C3 R249 D4 R266 B4 R279 D4 R293 B4 RB201 A4
 C208 C4 C219 C3 C230 C4 C251 D4 C267 D3 C280 B3 C289 B4 C304 D3 CN203 A4 IC203 C3 JMP4 D1 LD201 B2 R200 B3 R208 D4 R216 C4 R226 C3 R235 B4 R250 C3 R268 B3 R280 D4 R295 B3 RB203 A2
 C209 C4 C220 C1 C231 B3 C252 C3 C269 B2 C281 B3 C290 B4 C309 B3 D201 D4 IC204 A3 L202 C3 osc301 B4 R201 C4 R209 D4 R217 C4 R227 D4 R239 D4 R251 D3 R269 C4 R281 D4 R301 D4 XL202 C4

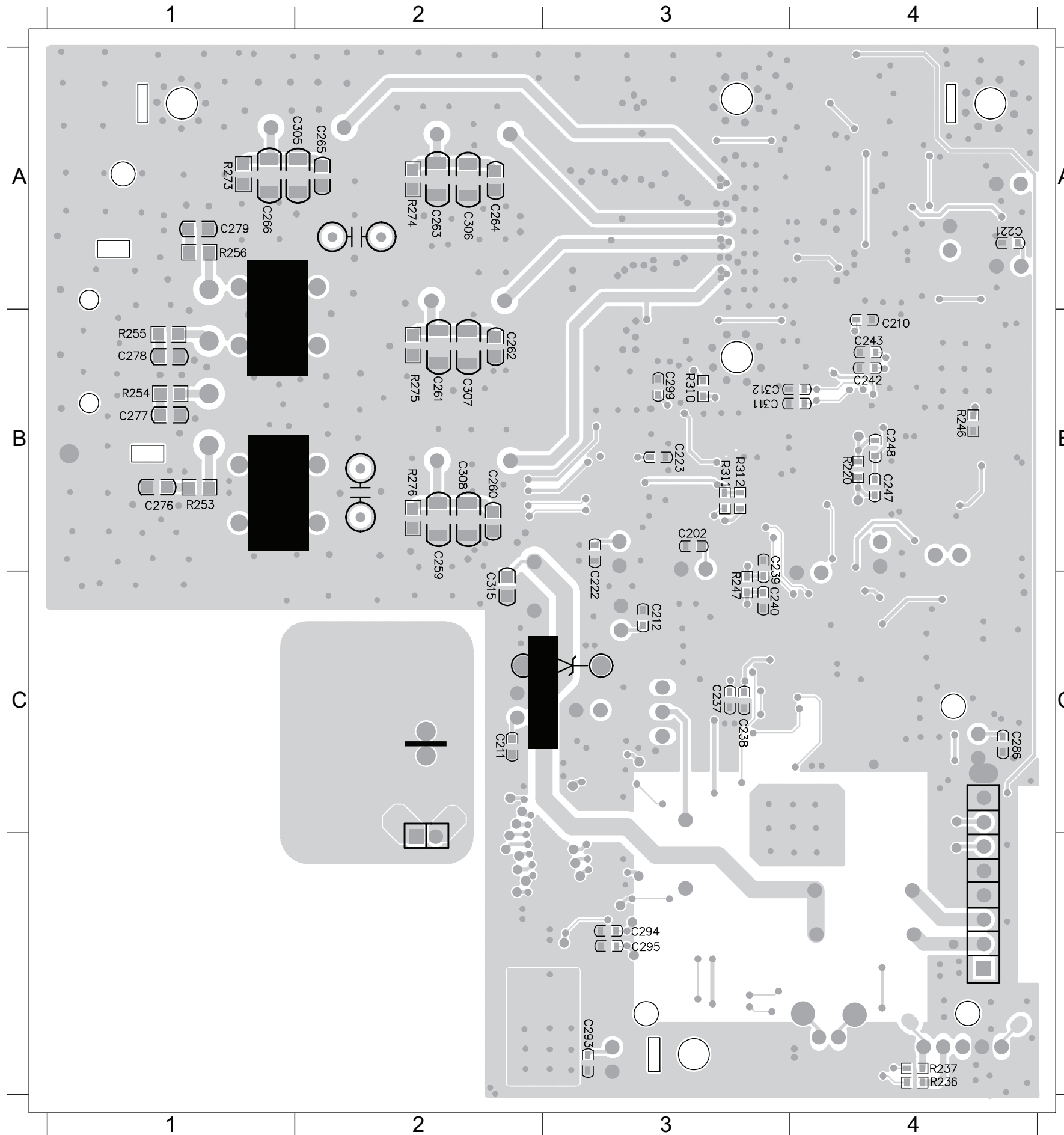


PCB LAYOUT - BOTTOM VIEW

10 - 4

10 - 4

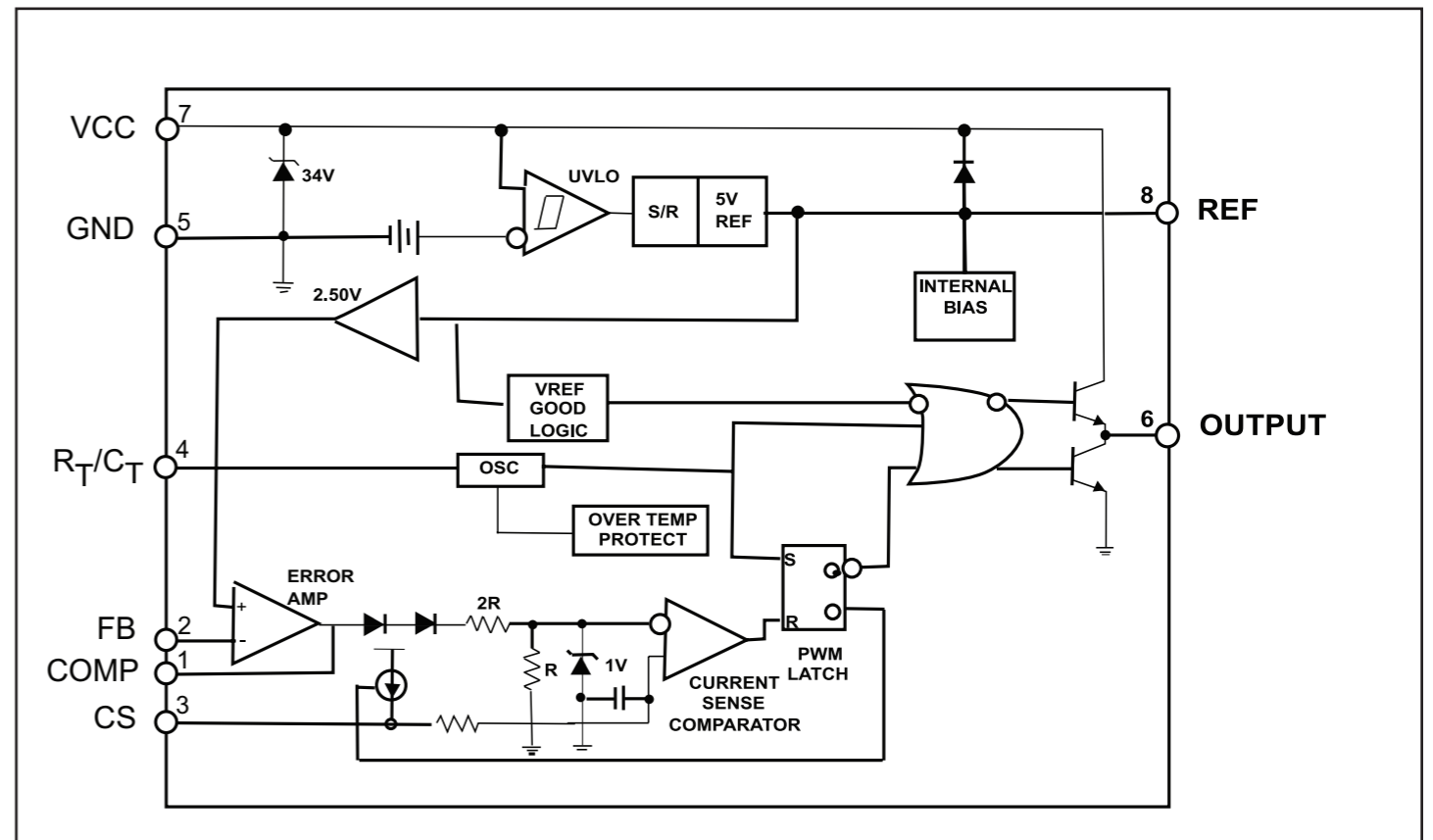
C211 C2 C221 A4 C223 B3 C238 C3 C243 B4 C248 B4 C260 B2 C262 B2 C264 A2 C266 A1 C277 B1 C279 A1 C293 D3 C295 D3 C305 A2 C307 B2 C311 B3 C315 C2 R236 D4 R246 B4 R254 B1 R256 A1 R274 A2 R276 B2
C212 C3 C222 C3 C237 C3 C242 B4 C247 B4 C259 B2 C261 B2 C263 A2 C265 A2 C276 B1 C278 B1 C286 C4 C294 D3 C299 B3 C306 A2 C308 B2 C312 B3 R220 B4 R237 D4 R253 B1 R255 B1 R273 A1 R275 B2 R311 B3



POWER BOARD-Wireless

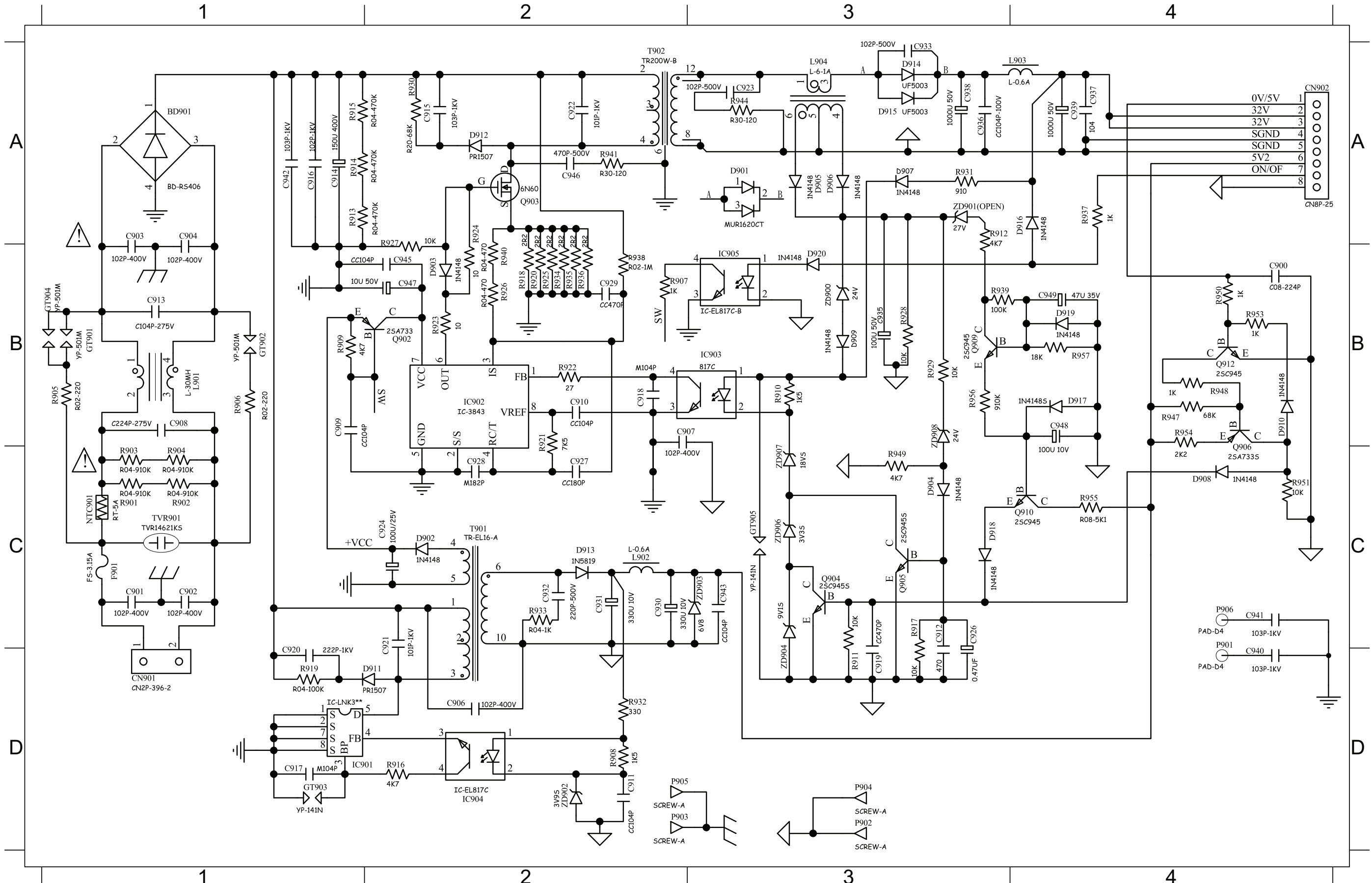
TABLE OF CONTENTS

| | |
|------------------------------|------|
| Internal IC Diagram | 10-1 |
| Circuit Diagram..... | 10-2 |
| PCB Layout Top View | 10-3 |
| PCB Layout Bottom View | 10-4 |



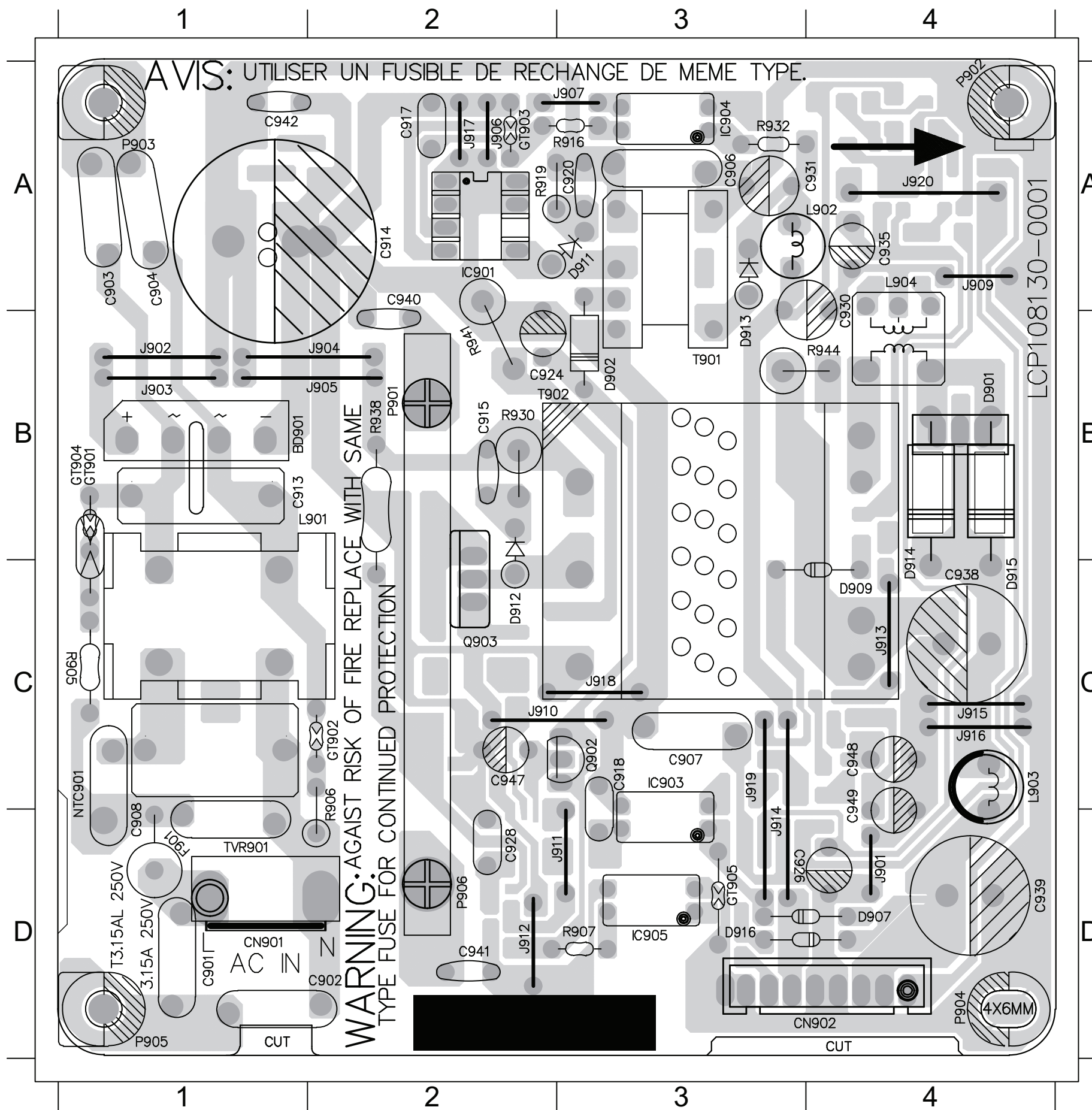
CIRCUIT DIAGRAM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----|------|----|------|----|------|----|------|----|------|----|-------|----|------|----|-------|----|-------|----|--------|----|------|----|------|----|------|----|------|----|------|----|------|----|--------|----|-------|----|--|--|
| BD901 | A1 | C909 | B1 | C916 | A1 | C924 | C2 | C932 | C2 | C939 | A4 | C946 | A2 | D903 | B2 | D912 | A2 | IC901 | D1 | L902 | C2 | R901 | C1 | R908 | D2 | R916 | D2 | R923 | B2 | R930 | A2 | R936 | B2 | T901 | C2 | ZD904 | C3 | | |
| C903 | A1 | C910 | B2 | C917 | D1 | C927 | C2 | C933 | A3 | C940 | C4 | C947 | B2 | D905 | A3 | D913 | C2 | IC902 | B2 | L903 | A4 | R902 | C1 | R909 | B1 | R918 | B2 | R924 | A2 | R931 | A3 | R937 | A4 | T902 | A2 | ZD906 | C3 | | |
| C904 | A1 | C911 | D2 | C918 | B2 | C928 | C2 | C935 | B3 | C941 | C4 | CN901 | D1 | D906 | A3 | D916 | A4 | IC903 | B3 | L904 | A3 | R903 | C1 | R910 | B3 | R919 | D1 | R925 | B2 | R932 | D2 | R938 | B2 | TVR901 | C1 | ZD907 | C3 | | |
| C906 | D2 | C913 | B1 | C920 | C1 | C929 | B2 | C936 | A3 | C942 | A1 | CN902 | A4 | D907 | A3 | D920 | B3 | IC904 | D2 | NTC901 | C1 | R904 | C1 | R913 | A1 | R920 | B2 | R926 | B2 | R933 | C2 | R940 | B2 | ZD900 | B3 | | | | |
| C907 | B2 | C914 | A1 | C922 | A2 | C930 | C2 | C937 | A4 | C943 | C3 | D901 | A3 | D909 | B3 | F901 | C1 | IC905 | B3 | Q902 | B2 | R905 | B1 | R914 | A1 | R921 | B2 | R927 | A2 | R934 | B2 | R941 | A2 | ZD902 | D2 | | | | |
| C908 | B1 | C915 | A2 | C923 | A3 | C931 | C2 | C938 | A3 | C945 | B2 | D902 | C2 | D911 | D2 | GT901 | B1 | L901 | B1 | Q903 | A2 | R907 | B2 | R915 | A1 | R922 | B2 | R928 | B3 | R935 | B2 | R944 | A3 | ZD903 | C3 | | | | |



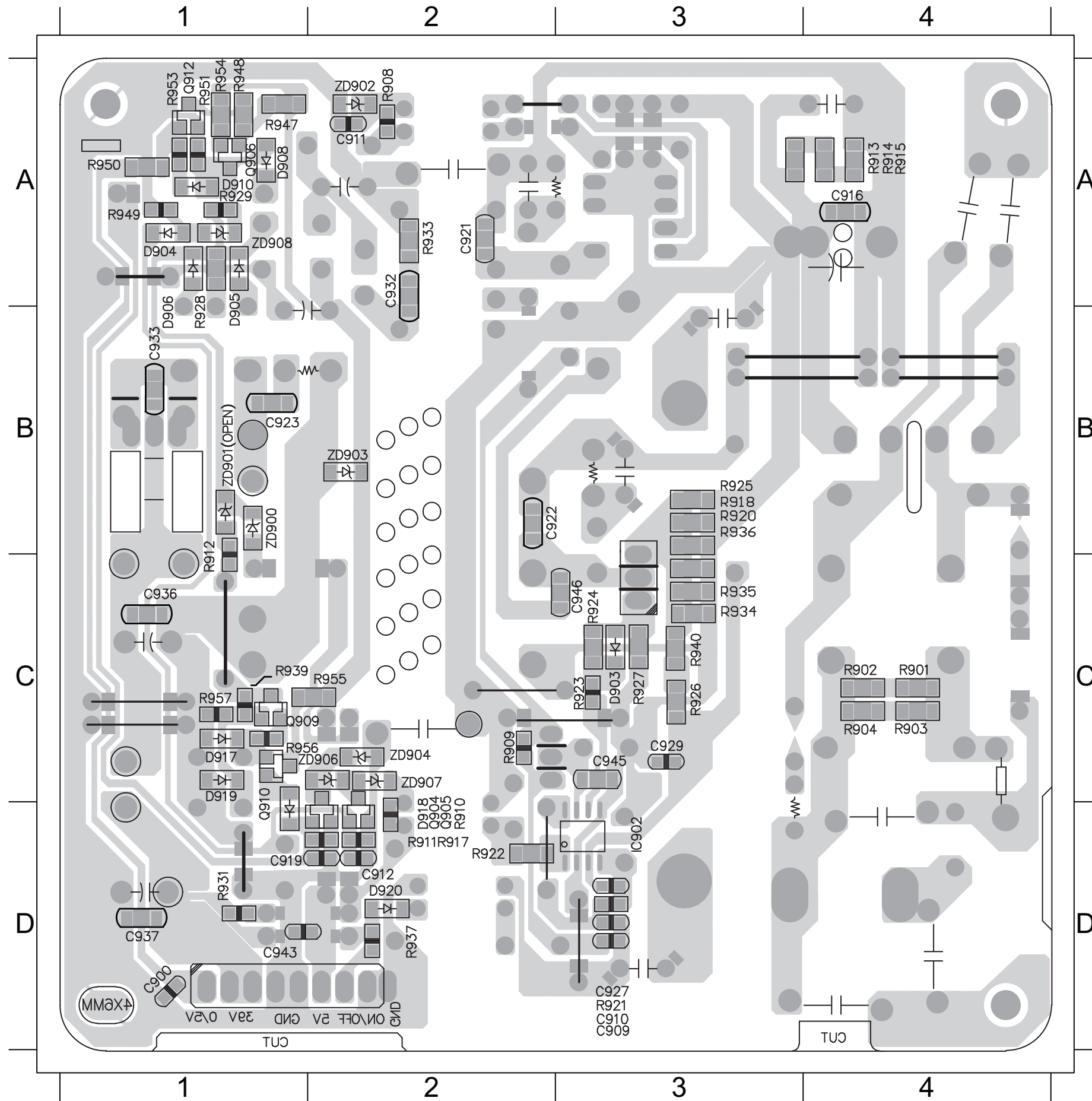
PCB LAYOUT - TOP VIEW

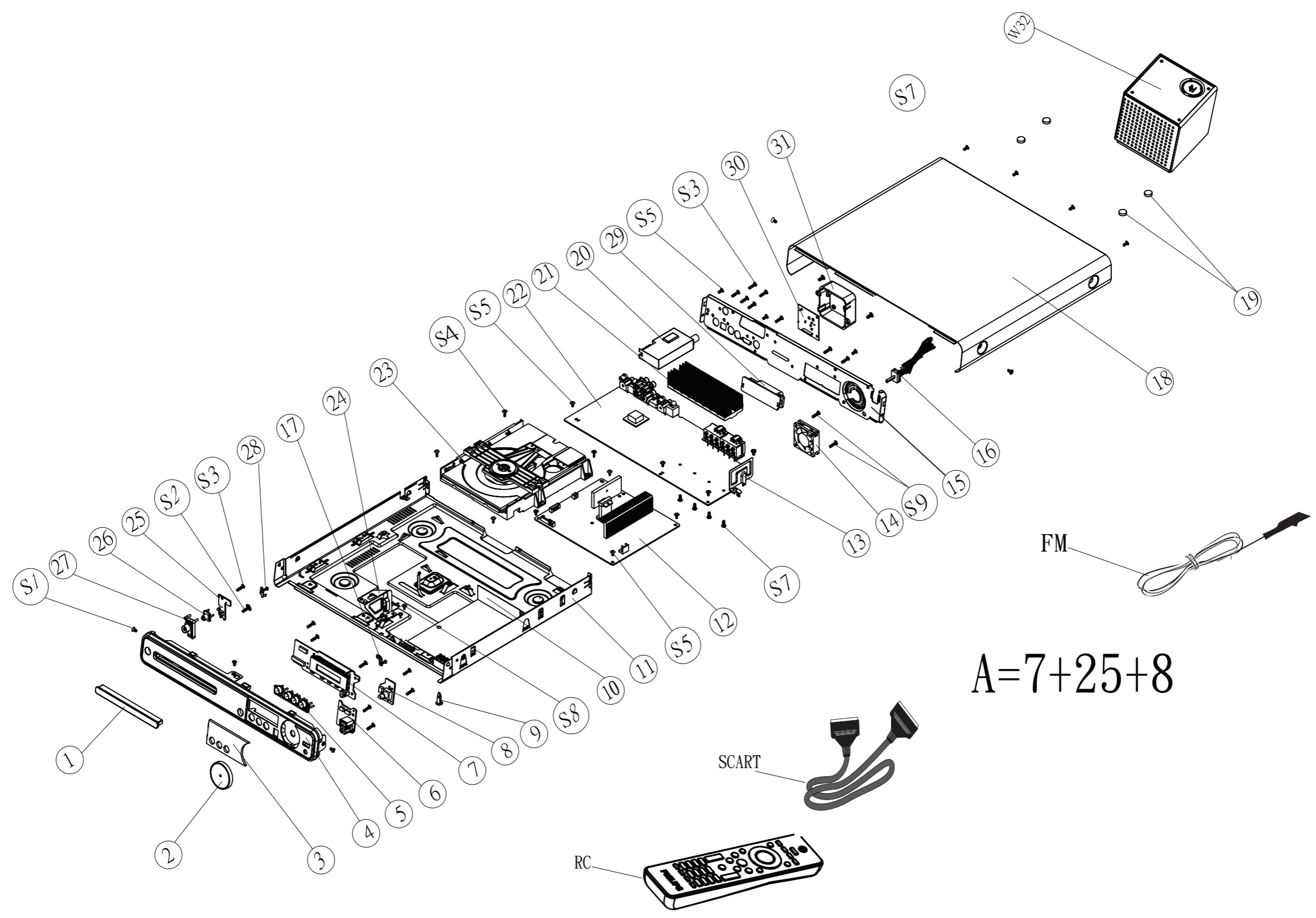
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----|------|----|------|----|------|----|------|----|-------|----|-------|----|------|----|-------|----|-------|----|------|----|------|----|------|----|------|----|------|----|--------|----|------|----|------|----|--------|----|
| BD901 | B1 | C907 | C3 | C915 | B2 | C924 | B2 | C935 | A4 | C941 | D2 | CN902 | D4 | D909 | C4 | D916 | D3 | IC903 | C3 | J902 | B1 | J906 | A2 | J911 | D3 | J916 | C4 | L901 | B2 | NTC901 | C1 | R907 | D3 | R938 | B2 | T902 | B3 |
| C903 | A1 | C908 | D1 | C917 | A2 | C928 | D2 | C938 | C4 | C942 | A1 | D901 | B4 | D911 | A3 | F901 | D1 | IC904 | A3 | J903 | B1 | J907 | A3 | J912 | D2 | J917 | A2 | L902 | A4 | Q902 | C3 | R919 | A2 | R941 | B2 | TVR901 | D1 |
| C904 | A1 | C913 | B1 | C918 | C3 | C930 | A4 | C939 | D4 | C947 | C2 | D902 | B3 | D912 | C2 | GT901 | B1 | IC905 | D3 | J904 | B2 | J909 | A4 | J914 | D3 | J918 | C3 | L903 | C4 | Q903 | C2 | R930 | B2 | R944 | B4 | | |
| C906 | A3 | C914 | A2 | C920 | A3 | C931 | A4 | C940 | A2 | CN901 | D1 | D907 | D4 | D913 | B3 | IC901 | A2 | J901 | D4 | J905 | B2 | J910 | C2 | J915 | C4 | J919 | C3 | L904 | A4 | R905 | C1 | R932 | A3 | T901 | B3 | | |



PCB LAYOUT - BOTTOM VIEW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----|------|----|------|----|------|----|-------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|-------|----|-------|----|
| C909 | D3 | C922 | B2 | C932 | A2 | C943 | D1 | D905 | A1 | R901 | C4 | R908 | A2 | R914 | A4 | R920 | B3 | R924 | C3 | R928 | A1 | R935 | C3 | ZD900 | B1 | ZD906 | C1 |
| C910 | D3 | C923 | B1 | C933 | B1 | C945 | C3 | D906 | A1 | R902 | C4 | R909 | C2 | R915 | A4 | R921 | D3 | R925 | B3 | R931 | D1 | R936 | B3 | ZD902 | A2 | ZD907 | C2 |
| C911 | A2 | C927 | D3 | C936 | C1 | C946 | C3 | D920 | D2 | R903 | C4 | R910 | C2 | R916 | A3 | R922 | D2 | R926 | C3 | R933 | A2 | R937 | D2 | ZD903 | B2 | | |
| C916 | A4 | C929 | C3 | C937 | D1 | D903 | C3 | IC902 | D3 | R904 | C4 | R913 | A4 | R918 | B3 | R923 | C3 | R927 | C3 | R934 | C3 | R940 | C3 | ZD904 | C2 | | |

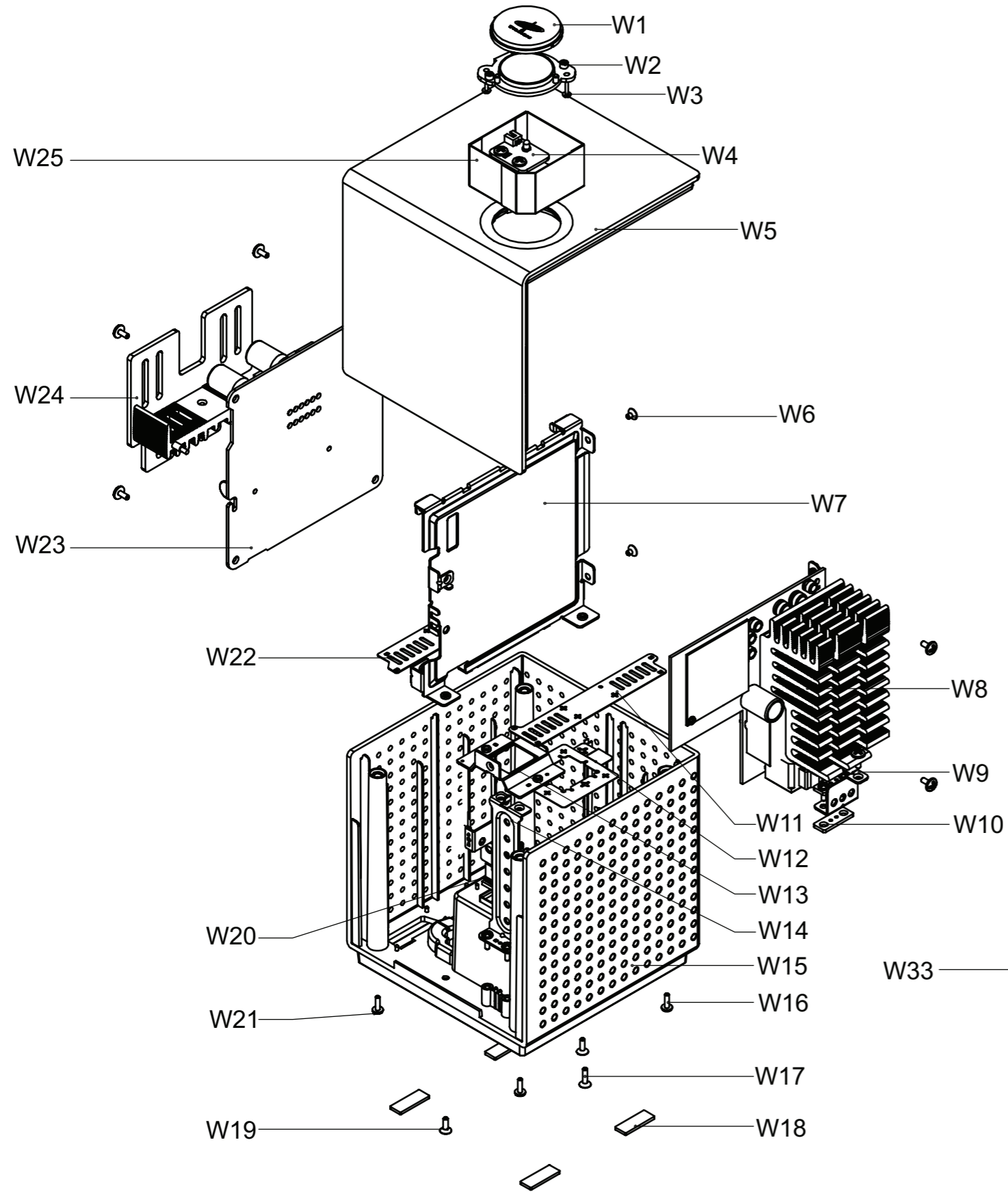




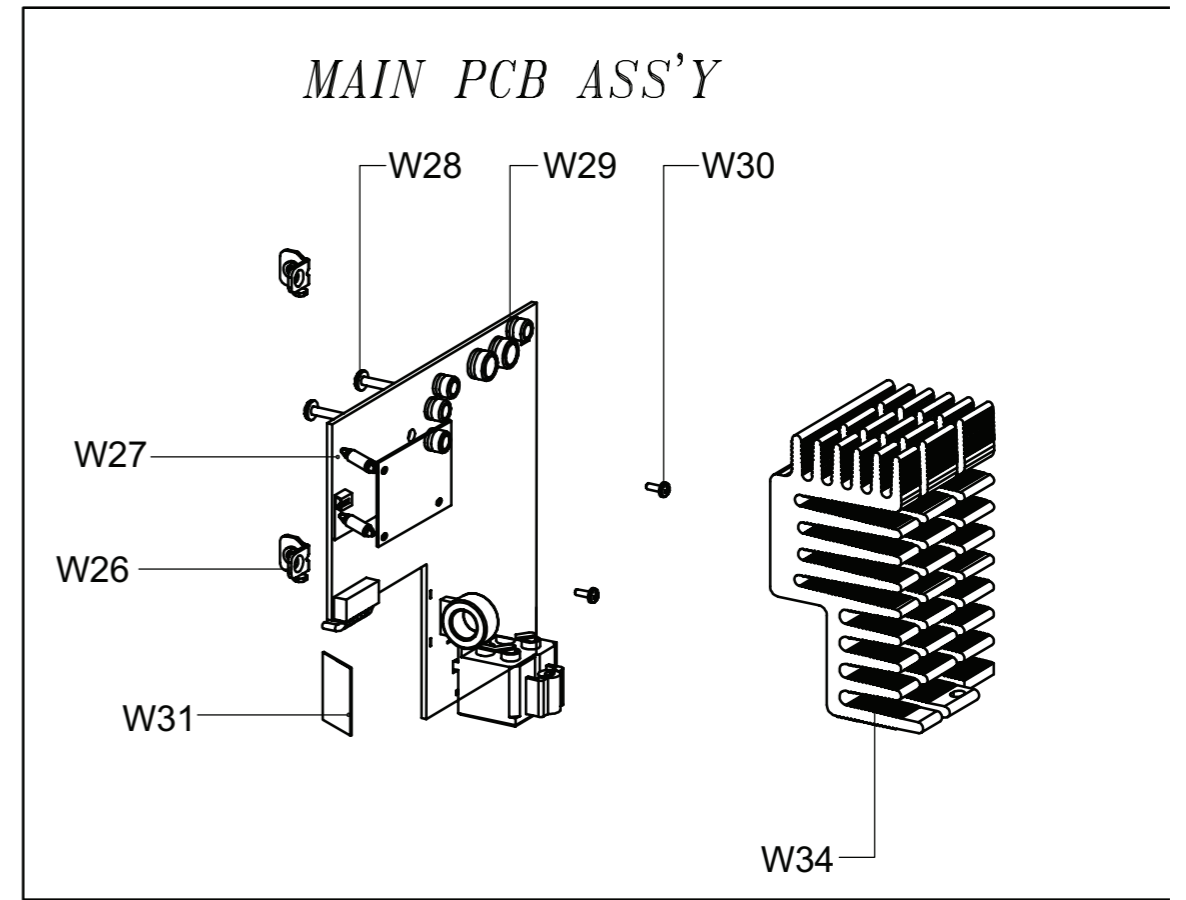
A=7+25+8

Mechanical Exploded View-Wireless

12-2



12-2



PART LIST

| Loc. | Alt Part No. | safety Description |
|------------------|----------------|----------------------------|
| MAIN UNIT | | |
| 1 | 996510027013 | DVD DOOR ABS BLK |
| 2 | 996510021087 | VOLUME KNOB |
| 3 | 996510021093 | DISPLAY LENS |
| 4 | 996510021057 | FRONT PANEL |
| 5 | 996510021068 | FUNCTION KNOB |
| 6 | 996510021066 | MP3 IN PCB ASSY |
| 11 | 996510021945 | BOTTOM CABINET T0.6mm |
| 12 | 996510021073 | ⚠ POWER PCB ASSY 850W |
| 14 | 996510021076 | ⚠ FAN DC12V 0.55A |
| 15 | 996510022501 | ⚠ REAR PANEL |
| 16 | 996510001638 | ⚠ POWER CORD |
| 17 | 996510027029 | VOLUME BKT SECC T=1.0mm |
| 18 | 996510022469 | TOP COVER SECC |
| 19 | 996510021942 | RUBBER FOOT D14xH4.2 |
| 20 | 996510018486 | TUNER PACK KST-MT004FS1 |
| 22 | 996510022474 | MAIN PCB ASSY |
| 23 | 996510021248 | DVD LOADER |
| 24 | 996510027035 | TOP SUPPORT SECC |
| 26 | 996510021064 | STANDBY LENS |
| 27 | 996510021069 | STANDBY KNOB |
| 29 | 996510021058 | SCART PCB ASSY |
| 30 | 996510022419 | OEM MODULE DWAM80_D2D |
| 31 | 996510021589 | WIRELESS COVER |
| A | 996510021089 | DISP+LED+VOL PCB ASSY |
| FM | 996510008251 | FM ANT |
| RC | 996510021067 | REMOTE CONTROL 39 KEYS |
| SCART | 996510001650 | SCART CABL |
| SCREW | 996510017273 | SCREW |
| V1 | 996510007429 | GP FFCCBLE |
| V2 | # 996510021565 | FFC CABLE 26P 80mm UL20706 |
| V2 | # 996510021953 | FFC CABLE 26P 80mm |
| W32 | 996510022473 | WIRELESS RECEIVER ASSY |

SPEAKER

| | | |
|--------|--------------|------------------|
| C | 996510027012 | SPEAKER BOX |
| W | 996510027018 | SPEAKER BOX |
| FRSUBW | 996510010854 | RUBBER FOOT -SUB |
| ML | 996510027026 | SPEAKER BOX |
| MR | 996510027011 | SPEAKER BOX |
| SL | 996510027014 | SPEAKER BOX |
| SR | 996510027017 | SPEAKER BOX |

SCREW

| | | |
|----|----|------------------------|
| S1 | -- | SCREW M3xP0.5xL6mm |
| S2 | -- | SCREW T3.0x1.06PxL8mm |
| S3 | -- | SCREW T3.0x1.06PxL8mm |
| S4 | -- | SCREW M3.0x0.5PxL8mm |
| S5 | -- | SCREW M3.0x0.5PxL6mm |
| S6 | -- | SCREW M3x6x0.5P |
| S7 | -- | SCREW T3.0x1.06PxL10mm |
| S8 | -- | SCREW M3.0x0.5PxL4mm |
| S9 | -- | L10xP2.12xT5.0mm |

MAIN PCB

| | | |
|-------|--------------|--------------------------|
| CN201 | 996500015859 | CONNECTOR 4PIN P2.0MM |
| CN202 | 996510012494 | CONNECTOR 5 PIN RED |
| CN205 | 996510012495 | CONNECTOR 4P |
| CN206 | 996500015897 | CONNECTOR 3 PIN RED |
| CN208 | 996500015897 | CONNECTOR 3 PIN RED |
| CN301 | 996510012497 | FPC/FFC CONN. 10P |
| CN401 | 996500015862 | CONNECTOR B2B-XH-A 2 PIN |
| CN701 | 996500017358 | CONNECTOR 7P |
| CN702 | 996500015895 | CONNECTOR 5 PIN P=2.0MM |

| Loc. | Alt Part No. | safety Description |
|-----------------|-----------------|--------------------------------|
| MAIN PCB | | |
| CN802 | 996500015901 | CONNECTOR 6 PIN P=2.0MM |
| CN803 | 996500015895 | CONNECTOR 5 PIN P=2.0MM |
| D201 | 996510010358 | DIODE 1N4007 |
| D204 | 996510010358 | DIODE 1N4007 |
| GT01 | 996510027047 | EMC BKT TIN T=0.3mm |
| IC101 | 996510021063 | IC 16P SAA6581T SO16 PHILIPS |
| IC201 | 996510012499 | IC 28P |
| IC202 | 996510027022 | IC 48P KH29LV320DBTC-70G |
| IC203 | # 994000005209 | IC 3P AZ809NSTR-E1 SOT23 |
| IC203 | # 9965000041284 | IC 3P STM809SWX6F 3.0V |
| IC204 | 996510004289 | IC 8P TU24C16CS2 SOIC |
| IC205 | # 996510027042 | IC 3P LD1117AL-33-AA3 3.3V |
| IC205 | # 996500027091 | IC 3PIN AP1117E33LA SOT223 3. |
| IC205 | # 996510021062 | IC3P LD1117ADJ SOT223 3.3VST1A |
| IC206 | # 996510009895 | IC 54P A641604L-6T TSOP II |
| IC206 | # 996510016601 | IC 54P HY57V641620F(L/S)TP-6 |
| IC207 | 996510012500 | IC 20 PIN SN74HC244PWR |
| IC208 | 996510021955 | IC 48P STM32F101C6A LQFP ST |
| IC209 | 996510021082 | IC 256P MT1389FXE/SN LQFP |
| IC210 | 996500027090 | IC 3 PIN AP1117E18LA 1.8V |
| IC301 | # 996510020341 | IC 8P D4558 SOP SILICORE |
| IC301 | # 996500029611 | IC 8P CO4558A SO8 CERAMATE LF |
| IC304 | 996510012503 | IC 16P CD4051BM SOIC |
| IC305 | 996510012503 | IC 16P CD4051BM SOIC |
| IC306 | 996510021056 | IC 20P WM8781GEDS |
| IC307 | 996500023948 | IC 14PIN 74HCU04D PHILIPS |
| IC309 | 996510012500 | IC 20 PIN SN74HC244PWR |
| IC310 | 996510021581 | IC 20P CS8421-CZZ TSSOP |
| IC311 | 994000000837 | IC 3PIN LD1117 ADJ |
| IC401 | 996510021092 | IC 64P TAS5508APAG TQFP TI |
| IC402 | 996510021081 | IC 44P TAS5352ADDV |
| IC403 | 996510021081 | IC 44P TAS5352ADDV |
| IC404 | 996510021081 | IC 44P TAS5352ADDV |
| IC405 | # 996510020341 | IC 8P D4558 SOP SILICORE |
| IC405 | # 996500029611 | IC 8P CO4558A SO8 |
| IC406 | # 996510020341 | IC 8P D4558 SOP SILICORE |
| IC406 | # 996500029611 | IC 8P CO4558A SO8 |
| IC407 | 996500023948 | IC 14PIN 74HCU04D PHILIPS |
| IC801 | 996510010380 | Motor Drive IC |
| JK302A | 996510016616 | RCA JACK2PWHT-RED |
| JK401 | 996510013837 | GPSPK JAC12P RD-WT-GRN |
| JK601 | 996510027045 | HDMI JACK 19P 01-010039 |
| JK701 | 996510012481 | RCA JACK 1P YELLOW W/GND |
| JK703 | 996510015645 | TOSL JA PLR131/T2 RECEIVER |
| JK704 | 996500017363 | RCA JACK 1P W/GND P |
| L202 | 996500015871 | INDUCTOR 10 UH 10% |
| L401 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L402 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L403 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L404 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L405 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L406 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L407 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L408 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L409 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L410 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L411 | 996510021061 | INDUCTOR 10uH 20% 10A |
| L412 | 996510021061 | INDUCTOR 10uH 20% 10A |
| Q101 | 994000000921 | XISTR PNP 2SA812 HFE |
| Q102 | # 994000000915 | XISTR NPN 2SC1623 |
| Q102 | # 996510027037 | XISTR NPN 2SC5343SG |
| Q204 | 996510012508 | XISTR PNP TIP42C |
| Q205 | 996510000578 | XISTR NPN KTC3875-Y |
| Q206 | # 994000000915 | XISTR NPN 2SC1623 |
| Q206 | # 996510027037 | XISTR NPN 2SC5343SG |
| Q207 | # 994000000915 | XISTR NPN 2SC1623 |
| Q207 | # 996510027037 | XISTR NPN 2SC5343SG |
| Q300 | # 994000000915 | XISTR NPN 2SC1623 |
| Q300 | # 996510027037 | XISTR NPN 2SC5343SG |
| Q305 | # 994000000915 | XISTR NPN 2SC1623 |

| Loc. | Alt Part No. | safety | Description |
|-----------------|----------------|--------|-----------------------------|
| MAIN PCB | | | |
| Q305 | # 996510027037 | | XISTR NPN 2SC5343SG |
| Q306 | 996510024012 | | MOSFET 2N7002K SOT-23 |
| Q307 | 996500041969 | | FET AO3403 ALPHA -30V/-2.6A |
| Q308 | # 994000000915 | | XISTR NPN 2SC1623 |
| Q308 | # 996510027037 | | XISTR NPN 2SC5343SG |
| Q401 | 996510000578 | | XISTR NPN KTC3875-Y |
| Q402 | 994000000921 | | XISTR PNP 2SA812 HFE |
| Q403 | 996510000578 | | XISTR NPN KTC3875-Y |
| Q404 | 996510000578 | | XISTR NPN KTC3875-Y |
| Q405 | 996500028742 | | XISTR NPN 2SD882P |
| Q406 | 994000000921 | | XISTR PNP 2SA812 HFE |
| Q407 | 996510000578 | | XISTR NPN KTC3875-Y |
| Q408 | 994000000921 | | XISTR PNP 2SA812 HFE |
| Q409 | 994000000921 | | XISTR PNP 2SA812 HFE |
| Q410 | 996510000580 | | XISTR NPN MMS8050L |
| Q411 | 996510000578 | | XISTR NPN KTC3875-Y |
| Q412 | 996510000578 | | XISTR NPN KTC3875-Y |
| Q601 | # 996510027039 | | MOSFET STK003SF SOT23 |
| Q601 | # 996510008289 | | FET AO3402 SOT23 30V/4A |
| Q602 | 996500041281 | | FET 2N7002 60V/115MA |
| Q701 | # 994000000915 | | XISTR NPN 2SC1623 |
| Q701 | # 996510027037 | | XISTR NPN 2SC5343SG |
| Q702 | # 994000000915 | | XISTR NPN 2SC1623 |
| Q702 | # 996510027037 | | XISTR NPN 2SC5343SG |
| Q703 | # 994000000915 | | XISTR NPN 2SC1623 |
| Q703 | # 996510027037 | | XISTR NPN 2SC5343SG |
| Q704 | # 994000000915 | | XISTR NPN 2SC1623 |
| Q704 | # 996510027037 | | XISTR NPN 2SC5343SG |
| Q801 | 996510004117 | | FET 2SK3018 30V/0.1A SC-70 |
| Q802 | # 994000000915 | | XISTR NPN 2SC1623 |
| Q802 | # 996510027037 | | XISTR NPN 2SC5343SG |
| Q803 | 996500026927 | | XISTR PNP 2SB1132RT100 |
| Q804 | 996500026927 | | XISTR PNP 2SB1132RT100 |
| Q805 | 996510004117 | | FET 2SK3018 30V/0.1A SC-70 |
| Q901 | 996510000615 | | XISTR NPN 2SC945P |
| Q903 | 996500026946 | | XISTR PNP 2SB772P/Q NEC |
| XL301 | 996510000566 | | CRYST 24.576MHZ +/-20PPM |
| XL401 | 996510021233 | | X'TAL 13.5MHz 15ppm 20pF |
| ZD901 | 994000005204 | | DIODE ZENR 12.6-13.1V 0.5W |
| ZD904 | 996500028741 | | DIODE ZENR 9.1-9.5V 0.5W |

POWER PCB

| | | | |
|-------|----------------|---|---------------------------|
| BD901 | # 996500038405 | | BRIDGE KBU808 8A 800V |
| BD901 | # 996500041973 | | BRIDGE KBU808 8A 800V |
| BD901 | # 996510011372 | | BRIDGE KBU808 8A 800V |
| C901 | 996500027115 | ⚠ | CAP.SAFTY Y1 102PF 250V |
| C902 | 996500018042 | | COND DISC 0.01UF 1KV 20% |
| C903 | 996500018042 | | COND DISC 0.01UF 1KV 20% |
| C904 | 996500018042 | | COND DISC 0.01UF 1KV 20% |
| C905 | 996500018042 | | COND DISC 0.01UF 1KV 20% |
| C906 | 994000005344 | ⚠ | CAP.SAFETY Y1 560PF 400V |
| C915 | 996510012548 | ⚠ | GOND SAFETY 0.47uF 275V |
| C916 | 996510004633 | | COND MYLAR 0.1 uF 100V 5% |
| C917 | 994000005343 | ⚠ | COND SAFETY 0.22UF 275V |
| C918 | 996500027115 | ⚠ | CAP.SAFTY Y1 102PF 250V |
| C919 | 996500027115 | ⚠ | CAP.SAFTY Y1 102PF 250V |
| C920 | 996510012472 | | COND ELEC 330uF 200V 20% |
| C921 | 996510012472 | | COND ELEC 330uF 200V 20% |
| C941 | 996510021078 | | COND DISC 1000 pF 1KV 10% |
| C945 | 996500020264 | | COND DISC 470PF 1KV 10% |
| C952 | # 996500027124 | | COND METAL 1.5UF 250V DC |
| C952 | # 996510018266 | | COND METAL 1.5uF 250V DC |
| CN901 | # 996500015936 | | CONNECTOR 4PIN P=3.96MM |
| CN901 | # 996510018268 | | CONNECTOR 4P P=3.96mm180' |
| CN903 | 996500015901 | | CONNECTOR 6 PIN P=2.0MM |
| CN904 | 996510021055 | | CONNECTOR B7B-XH-A 7 PIN |
| CN905 | # 996500017360 | | CONNECTOR 4P CL3962WVO |
| CN905 | # 996510016729 | | CONNec 4P P=3.96mm 180' |

| Loc. | Alt Part No. | safety | Description |
|------------------|----------------|--------|-----------------------------|
| POWER PCB | | | |
| CN906 | 996500015898 | | CONNECTOR 2 PIN |
| D907 | 996500026949 | | DIODE SW 1N4148 |
| D908 | 996500026949 | | DIODE SW 1N4148 |
| D909 | 996500026949 | | DIODE SW 1N4148 |
| D910 | 996500026949 | | DIODE SW 1N4148 |
| D915 | 996510012516 | | DIODEHER105 DO |
| D917 | 996510025474 | | DIODE HER105 1A 400V |
| D918 | 994000000938 | | DIODE PR1507 1.5A 1000V |
| D919 | 996510025474 | | DIODE HER105 1A 400V |
| D922 | 994000005249 | | DIODE SB360 3A 60V DO-201AD |
| D923 | 994000000943 | | DIODE UF3003 3A 200V |
| D924 | 994000005346 | | RECTIFIER UF1602CT TO- |
| F901 | 996500042572 | ⚠ | FUSE 5A 250V SLOW |
| GT902 | 996510021084 | | SURGE PROTECTOR |
| IC901 | 996510021079 | | IC 8P(P3=N.C) TNY180PN |
| IC902 | 994000000946 | | OPTICAL SENSOR 4P |
| IC904 | # 994000000952 | | IC 3PIN TL431 |
| IC904 | # 994000001572 | | IC 3P TL431 |
| IC905 | 996510008293 | | IC 16P AZ7500BP-E1 |
| L901 | # 996510021083 | | COMMON COIL 6mH 21.5Ts |
| L901 | # 996510027021 | | COMMON COIL 6mH 20.5Ts |
| L902 | # 996510021053 | | COMMON COIL 15mH 37.5Ts |
| L902 | # 996510027023 | | COMMON COIL 15mH 36.5Ts |
| L904 | 996500016694 | | 6UH 13.5TS 2UEW |
| L905 | 996500016694 | | 6UH 13.5TS 2UEW |
| L906 | 996500015871 | | INDUCTOR 10 UH 10% |
| L907 | 996500027102 | | TOROID COIL S1=1TS |
| L908 | 996510012474 | | COMMON COIL75uH10%1KHz/ |
| NTC901 | 994000005232 | ⚠ | THERMIST. NTC 5R 5A |
| Q903 | 994000000921 | | XISTR PNP 2SA812 HFE:200- |
| Q904 | 994000000921 | | XISTR PNP 2SA812 HFE:200- |
| Q905 | # 996510008289 | | FET AO3402 SOT23 30V/4A |
| Q905 | # 996510027039 | | MOSFET STK003SF SOT23 |
| Q906 | # 994000000915 | | XISTR NPN 2SC1623 |
| Q906 | # 996510004282 | | XISTR NPN SMT (2SC945) |
| Q907 | 996510018395 | | FET AO3401 SOT23 -30V/-4.2A |
| Q910 | 996500026946 | | XISTR PNP 2SB772P/Q NEC |
| Q911 | 996500026946 | | XISTR PNP 2SB772P/Q NEC |
| Q912 | 996510021085 | | MOSFET STK1060F TO220F |
| Q913 | 996510021085 | | MOSFET STK1060F TO220F |
| Q914 | 996510010356 | | XISTR PNP 2SB647 TO-92MOD |
| Q918 | 994000000915 | | XISTR NPN 2SC1623 |
| R943 | 996510012519 | | RES. 120 OHM 3W 5% MOF |
| R944 | 996510012519 | | RES. 120 OHM 3W 5% MOF |
| R945 | 996510012519 | | RES. 120 OHM 3W 5% MOF |
| R951 | 996510012519 | | RES. 120 OHM 3W 5% MOF |
| R982 | 996510027016 | | RES. 2.2K OHM 1W 5% MO |
| T901 | # 996510021071 | ⚠ | TRASFO EEL25 7+7P 40W |
| T901 | # 996510021236 | ⚠ | TRASFO. EEL-25 7+7P 40W |
| T901 | # 996510027028 | ⚠ | SW TRANS EEL-25 7+7P |
| T902 | # 994000001057 | ⚠ | SW. MODEL TRANSFORMER |
| T902 | # 996510021088 | ⚠ | TRASFO EEL19 5+5P 100KHz |
| T902 | # 996510022032 | ⚠ | TRASFO EEL-19 5+5P |
| T903 | # 996510012478 | ⚠ | SW TRANS ERL-35 7+7P |
| T903 | # 996510012479 | ⚠ | SW TRANS ERL-35/42 7+7P |
| T903 | # 996510021086 | ⚠ | TRASFO ERL35 7+7P 150W |
| TVR901 | 996510011373 | ⚠ | METAL OXIDE VARISTOR |
| TVR902 | 996510021072 | | SURGEORBER :VCR- |
| TVR903 | 996510021072 | | SURGEORBER :VCR- |
| ZD903 | 994000002067 | | DIODE ZENR 14.5-15.1V 0.5W |
| ZD904 | 994000002067 | | DIODE ZENR 14.5-15.1V 0.5W |

DISP+LED+VOL PCB

| | | | |
|-------|--------------|--|--------------------------|
| IC351 | 996500029614 | | IC 52 PIN PT6311(PTC) |
| LD351 | 996510020167 | | LED 3 DIA ULTRA RED TINT |
| Q351 | 994000000921 | | XISTR PNP 2SA812 HFE |
| Q352 | 994000000915 | | XISTR NPN 2SC1623 |
| SN351 | 994000005472 | | IRT RECEIVER IRM-2638AF4 |

| Loc. | Alt Part No. | safety Description |
|-----------------------------------|--------------|--------------------------|
| MP3 IN PCB | | |
| JK351 | 996510004129 | KARAOKE JACK D3.6MM 7P |
| SCART PCB | | |
| JK703 | 996510021054 | SCART SOCKET 21P P3.81mm |
| WIRELESS RECEIVER ASSEMBLE | | |
| MAIN PCB | | |
| B | 996510021593 | MAIN+LED+HEAT SINK 2 |
| W1 | 996520031043 | LED LENS TRANSPARENT |
| W2 | 996520031044 | LENS BASE PMMA |
| W5 | 996510006941 | GP FRONT CABINET FOR |
| W7 | 996520032396 | GP SUPPORT BKT SECC |
| W9 | 996510027025 | HEATSINK BRACKET |
| W12 | 996520032411 | GP ESD BKT TIN T=0.3mm |
| W13 | 996520032395 | GP AC SOCKET BRACKET |
| W14 | 996520032404 | GP LED PCB BKT SECC |
| W15 | 996510021599 | BOTTOM HOLDER |
| W18 | 996510005060 | RUBBER FOOT |
| W20 | 996510022472 | AC SOCKET |
| W23 | 996510021574 | ⚠ SMPS PCB ASSY 125W |
| W33 | 996510002650 | ⚠ POWER CORD |

MAIN+LED+HEAT SINK 2

| | | |
|-------|--------------|------------------------------|
| C274 | 996510022418 | COND METAL 0.47uF 100V 5% |
| C275 | 996510022418 | COND METAL 0.47uF 100V 5% |
| CN202 | 996500018028 | CONNECTOR 5P |
| CN203 | 996500018030 | CONNECTOR 2P |
| IC200 | 996500023948 | IC 14PIN 74HCU04D PHILIPS |
| IC201 | 996510021092 | IC 64P TAS5508APAG TQFP TI |
| IC202 | 996510021229 | IC 44P TAS5342ADDV |
| IC203 | 996510012501 | IC 28P P89LPC931FDH TSSOP |
| IC204 | 996510019947 | IC 3P AZ1117D-3.3 TO-252 AAC |
| IC205 | 996510004289 | IC 8P TU24C16CS2 SOIC TUR |
| IC206 | 996510021615 | IC 3P LM317K-TN3-R 1.3V-37V |
| JK200 | 996510021614 | SPK JACK 4P BLUE-GRAY |
| L203 | 996500027079 | INDUCTOR 22UH 20% 6A LF |
| L204 | 996500027079 | INDUCTOR 22UH 20% 6A LF |
| L205 | 996500027079 | INDUCTOR 22UH 20% 6A LF |
| L206 | 996500027079 | INDUCTOR 22UH 20% 6A LF |
| LD201 | 996500041956 | LED HI-BLUE |
| Q200 | 996510004299 | XISTR NPN 2SC2001L NEC |
| Q201 | 996510004282 | XISTR NPN SMT (2SC945) |
| Q202 | 996500041969 | FET AO3403 ALPHA -30V/-2.6A |
| ZD200 | 996510004286 | DIODE ZENR 4.1-4.3V 0.5W |

SMPS PCB

| | | |
|-------|--------------|---------------------------|
| BD901 | 996510016395 | BRIDGE KBL406KBU |
| C903 | 996500027115 | ⚠ CAP.SAFTY Y1 102PF 250V |
| C908 | 994000005343 | ⚠ COND SAFETY 0.22UF 275V |
| C913 | 996510008283 | ⚠ COND SAFTY 0.1uF 250V |
| C914 | 996510018518 | COND ELECT 100uF 400V 20% |
| C915 | 996500018042 | COND DISC 0.01UF 1KV 20% |
| C917 | 996510004633 | COND MYLAR 0.1 uF 100V 5% |
| C920 | 996510012473 | COND DISC 2200 pF 1KV 10% |
| C928 | 996510010365 | COND MYLAR 0.0018uF 100V |
| C940 | 996500018042 | COND DISC 0.01UF 1KV 20% |
| C941 | 996500018042 | COND DISC 0.01UF 1KV 20% |
| C942 | 996500018042 | COND DISC 0.01UF 1KV 20% |
| CN901 | 996500015936 | CONNECTOR 4PIN P=3.96MM |
| CN902 | 996500017359 | CONNECTOR B8B-XH-A 8P |
| D901 | 996510008292 | RECTIFIER UF1004CT |
| D902 | 994000000941 | DIODE HER104 1A 300V 50NS |

| Loc. | Alt Part No. | safety Description |
|-----------------|--------------|----------------------------|
| SMPS PCB | | |
| D911 | 994000000938 | DIODE PR1507 1.5A 1000V |
| D912 | 994000000938 | DIODE PR1507 1.5A 1000V |
| D913 | 996510004297 | IN5819 1A 28V SCHOTTKY |
| D916 | 996500026949 | DIODE SW 1N4148 |
| F901 | 996510004105 | ⚠ FUSE T3.15AL 250V |
| GT901 | 996500029309 | ABSORBER BL YP-501M 500V |
| IC901 | 996510013921 | IC 8PLNK362PNDIP-Loc. |
| IC902 | 996510004113 | IC 8P AP3843GMTR-E1 |
| IC903 | 994000000946 | OPTICAL SENSOR 4P |
| L901 | 996510013922 | LINE FILTER ET24 |
| L902 | 996500016694 | 6UH 13.5TS 2UEW |
| L903 | 996510012550 | CHOKECOILS 10UH 10% |
| L904 | 996500027102 | TOROID COIL S1=1TS |
| NTC901 | 994000005232 | THERMIST. NTC 5R 5A |
| Q902 | 996510010367 | XISTR PNP 2SA733Q |
| Q903 | 996510021085 | MOSFET STK1060F TO220F |
| R941 | 996510012519 | RES. 120 OHM 3W 5% MOF |
| T901 | 996510013924 | ⚠ SW TRANS EE-16 DW:KB486- |
| T902 | 996510021579 | ⚠ SW TRASFO ERL28 6+6P 60W |
| TVR901 | 996510011373 | METAL OXIDE VARISTOR |

REVISION LIST

Version 1.0

*Initial release

#=Alternative Codes

=Safety Symbol