

Service  
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**Service**



# Service Manual



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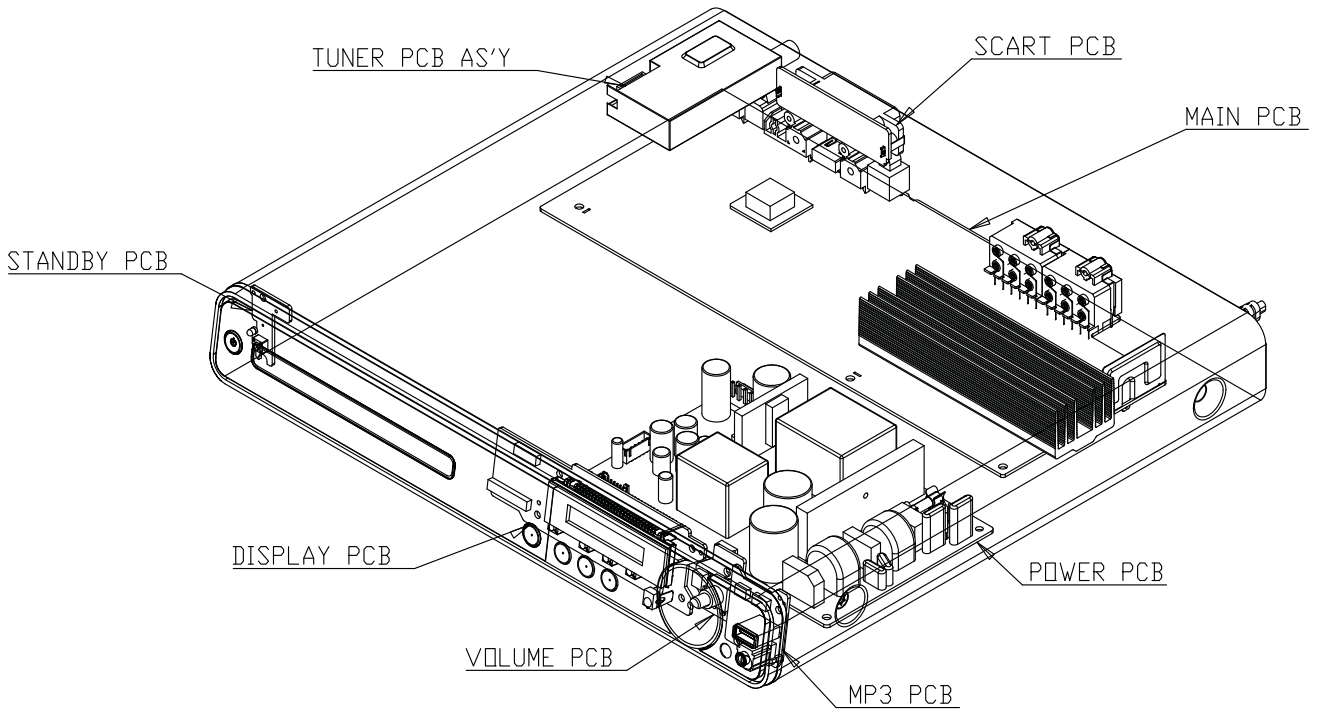
GB 3139 785 35110

Version 1.0



# PHILIPS

# LOCATION OF PCB BOARDS



## VERSION VARIATION:

Type/Versions	HTS3373
<b>Features</b>	<b>/12</b>
Output Power - 1000W	X
Voltage (220~240V)	X
MP3 Link	X

## SERVICE SCENARIO MATRIX:

Type/Versions	HTS3373
<b>Board in used</b>	<b>/12</b>
MAIN Board	C
Power Board	C
DISP+LED+VOL Board	C
Scart Board	C
MP3 IN 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 dBf  
IF rejection ratio.....FM 60 dB  
Signal-to-noise ratio.....FM 50 dB  
Harmonic distortion..... FM 3%  
Frequency response.....FM 180 Hz~10 kHz  
..... /  $\pm 6$ 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 supply .....220–240 V; ~ 50 Hz  
Power consumption ..... 180 W  
Standby power consumption ..... < 1 W  
Dimensions (WxHxD) ..... 360 x 57 x 331 (mm)  
Weight .....2.87 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)  
Weight .....4.85 kg

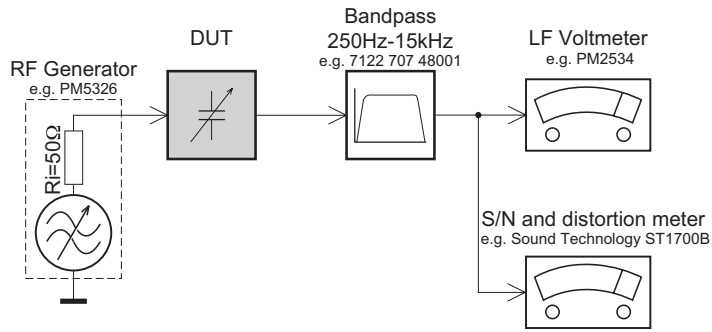
## **Laser specification**

Type..... Semiconductor laser GaAlAs (CD)  
Wave length..... 645 - 665 nm (DVD),770 - 800 nm (CD)  
Output power .....6 mW (DVD),7 mW (VCD/CD)  
Beam divergence..... 60 degrees.

Specifications subject to change without prior notice.

# MEASUREMENT SETUP

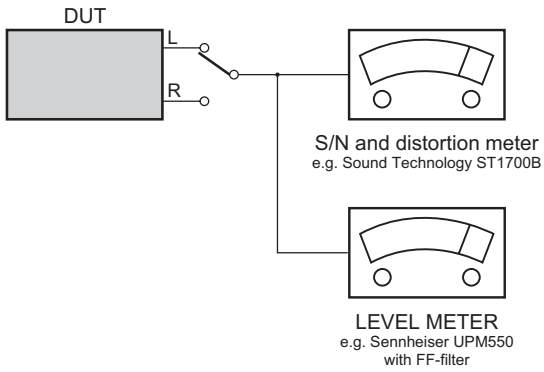
## Tuner FM



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

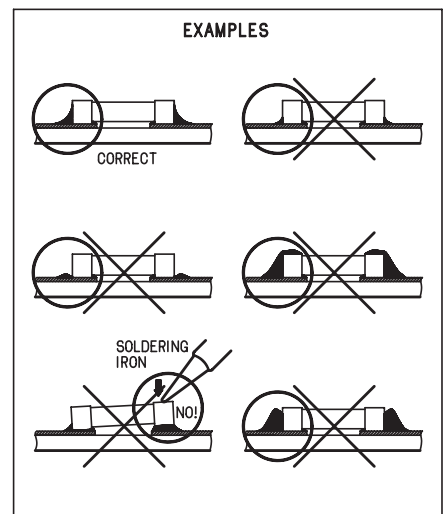
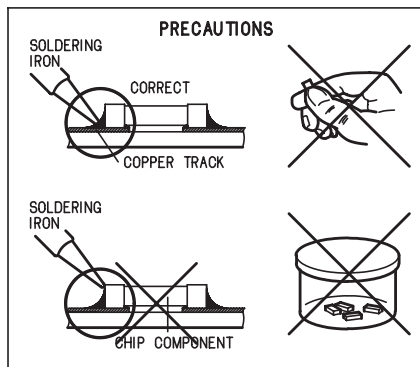
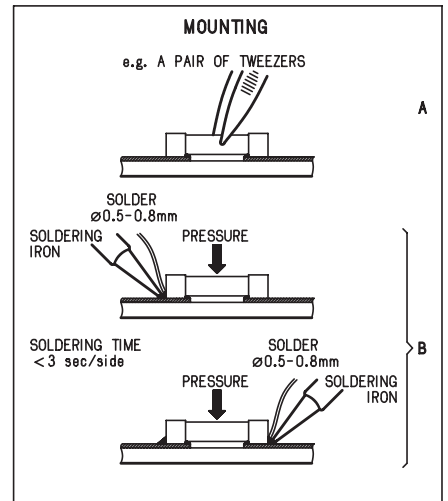
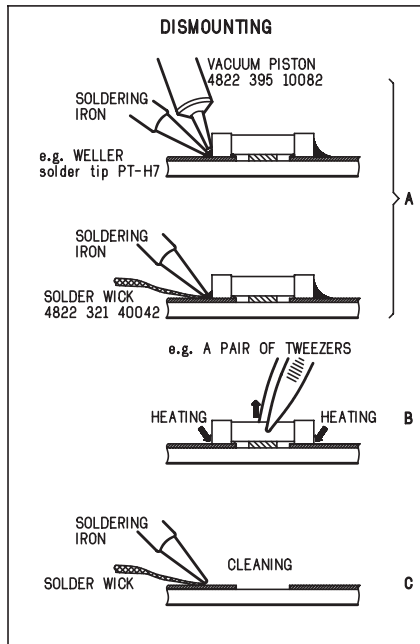
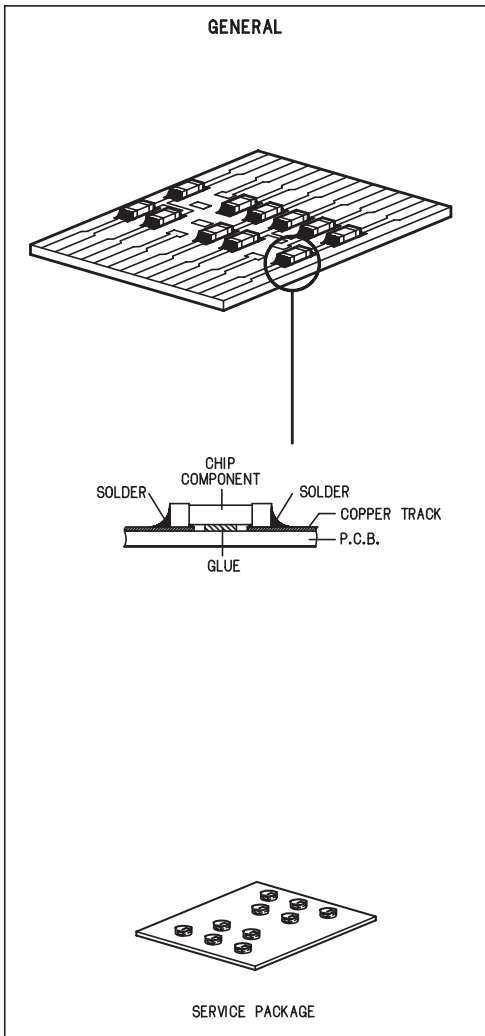
## Service Tools:

Universal Torx driver holder .....	4822 395 91019
Torx bit T10 150mm .....	4822 395 50456
Torx driver set T6-T20 .....	4822 395 50145
Torx driver T10 extended .....	4822 395 50423

## Compact Disc:

SBC426/426A Test disc 5 + 5A .....	4822 397 30096
SBC442 Audio Burn-in test disc 1kHz .....	4822 397 30155
SBC429 Audio Signals disc .....	4822 397 30184
Dolby Pro-logic Test Disc .....	4822 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 hetzelfde 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 cable ..... 4822 310 10671  
Wristband tester ..... 4822 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  $\Delta$ .

**(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  $\Delta$ .

**(F)**

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

Less composants de sécurité sont marqués  $\Delta$ .

**(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  $\Delta$  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.

Componenti di sicurezza sono marcati con  $\Delta$ .

**(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 suojaelukituksen ohitettaessa olet alttiina 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 un-used 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](http://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

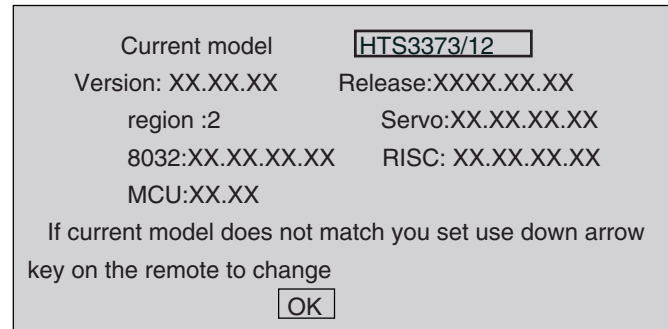
### **2)Region Code Change**

- 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"

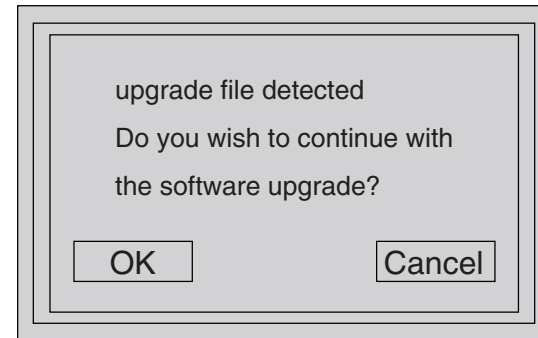
### **7) Upgrading new software**

- 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:

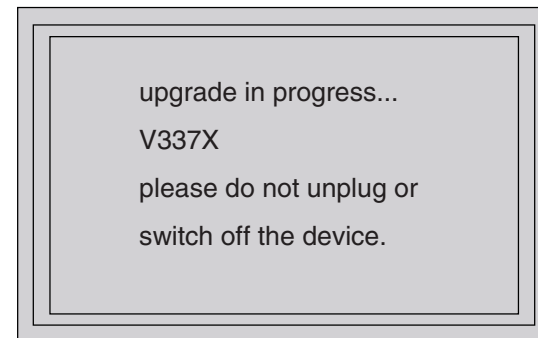
"Loading"  
 "Erase" -- erase the flash memory  
 "Writing" about 1 minute  
 "done "

\* the system will switch off and on again automatically.

- OSD will show:



- Select "OK", OSD will show:



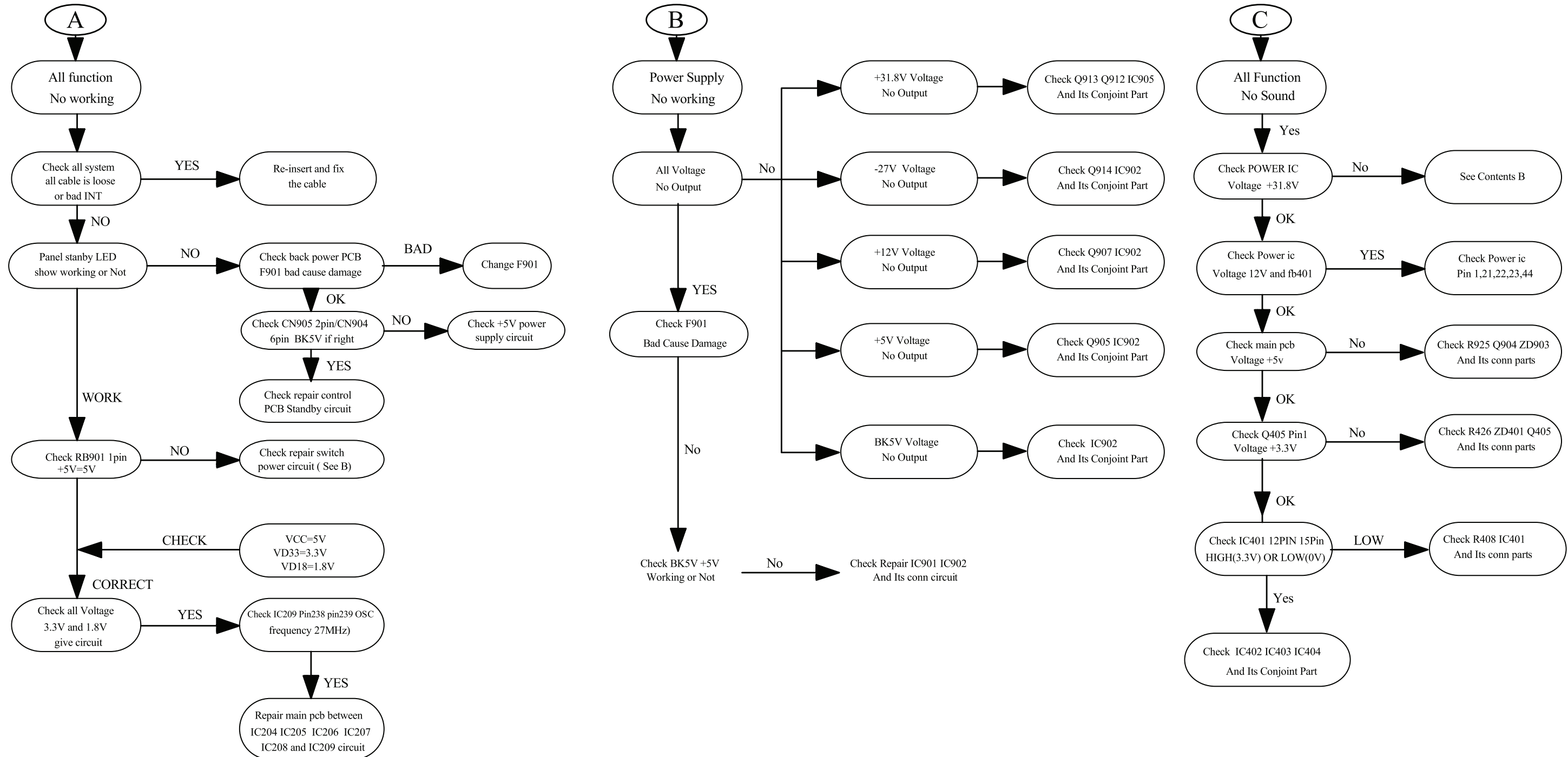
### **CAUTION!**

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

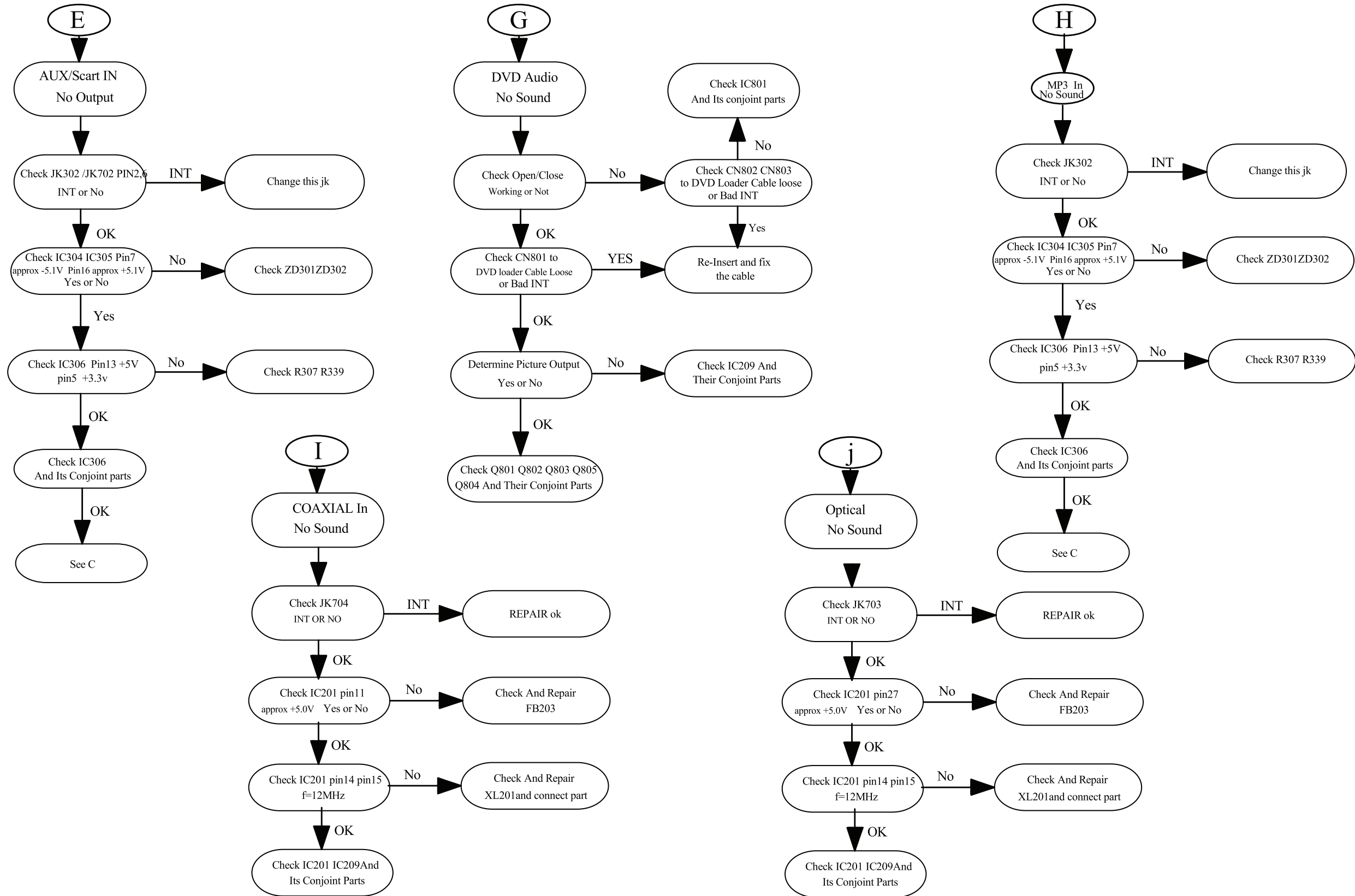


# MAIN UNIT REPAIR CHART 1/3

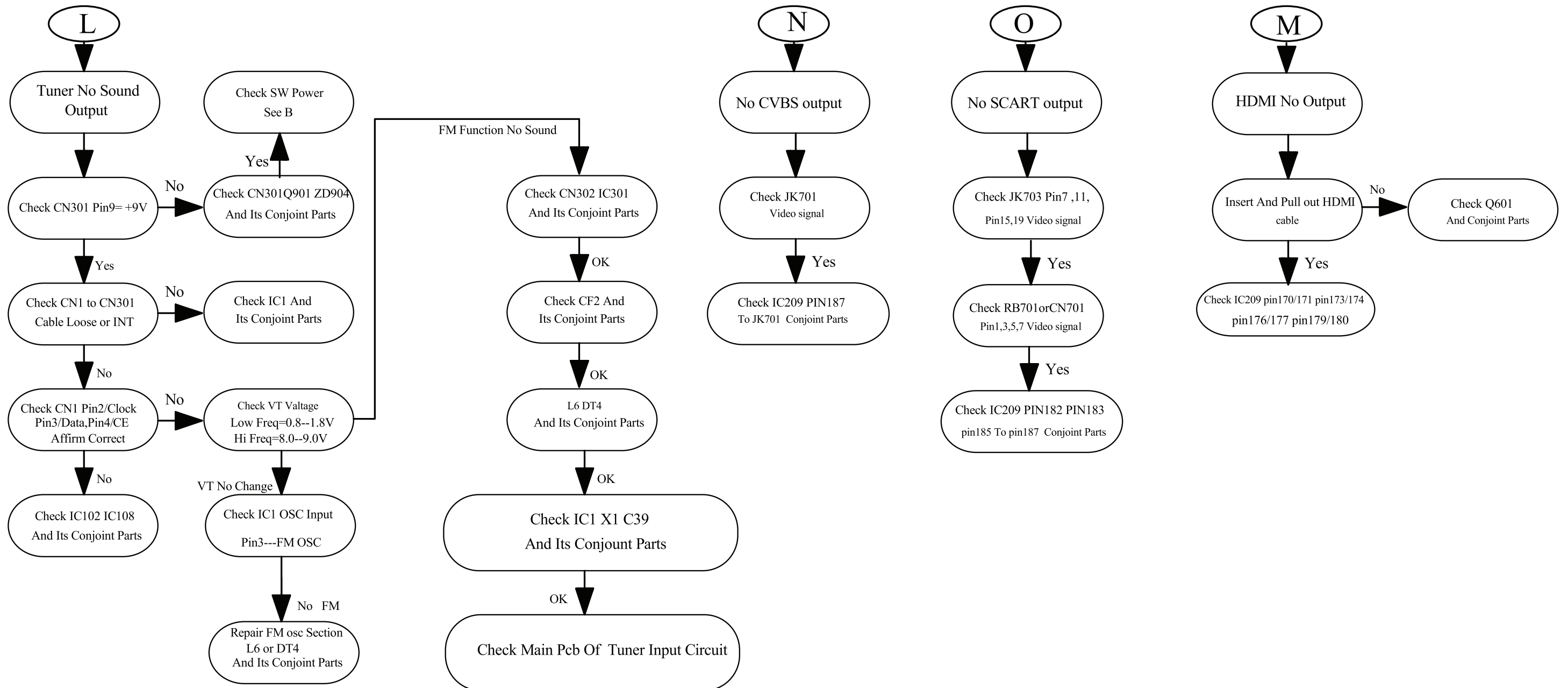
- A**  
 All Function  
 No Working
- B**  
 Power Supply  
 No Working
- C**  
 All Function  
 No Sound
- E**  
 Audio line IN  
 No Output
- G**  
 DVD Audio  
 No Sound
- H**  
 MP3 In  
 No Sound
- I**  
 COAXIAL In  
 No Sound
- L**  
 Tuner No Sound
- M**  
 HDMI No Output
- N**  
 No CVBS Output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



# MAIN UNIT REPAIR CHART 2/3



# MAIN UNIT REPAIR CHART 3/3



# DISASSEMBLY INSTRUCTIONS

## 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.

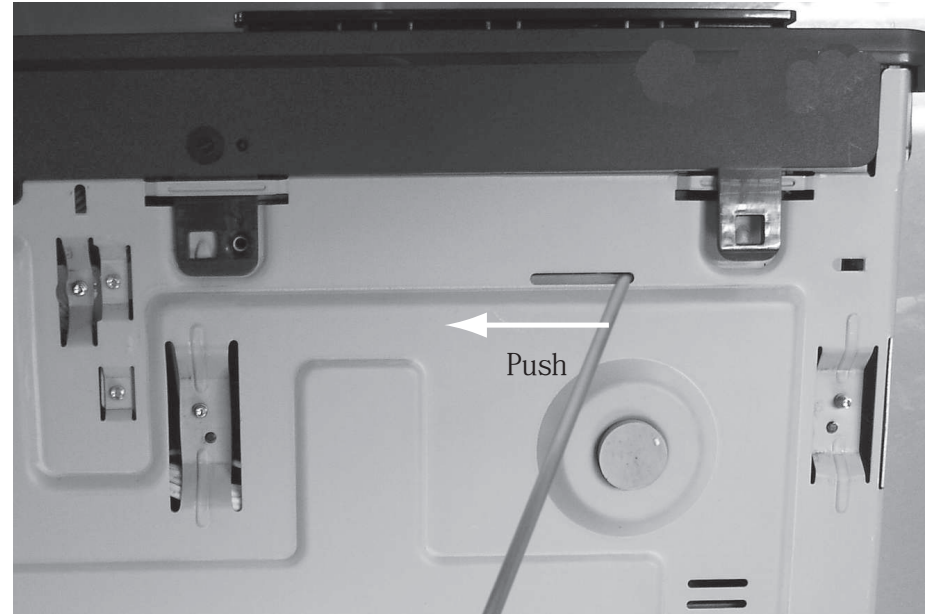


Figure 1

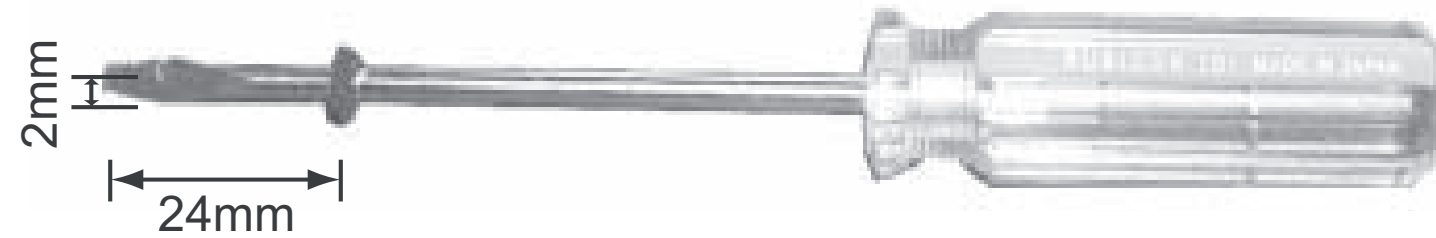


Figure 2

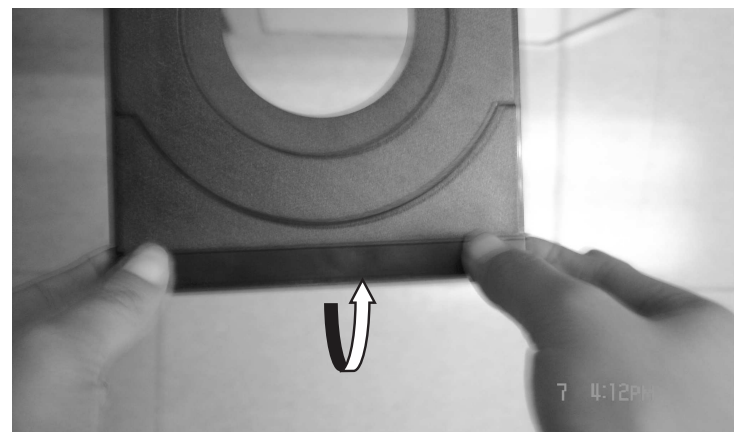


Figure 3

- 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 5 screws "C" at the front panel bracket as in figure 6 to remove the front panel.

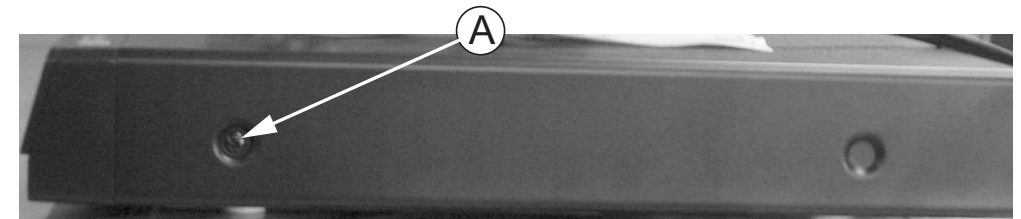


Figure 4

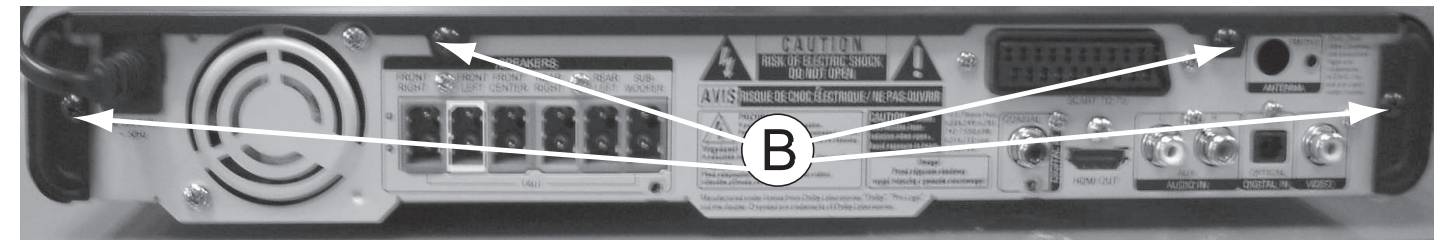


Figure 5

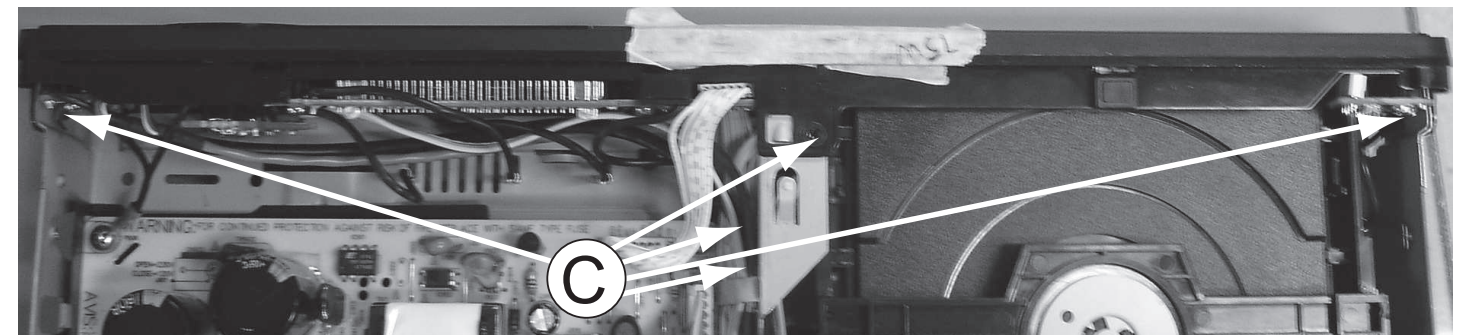


Figure 6

## Dismantling of the DVD Module

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

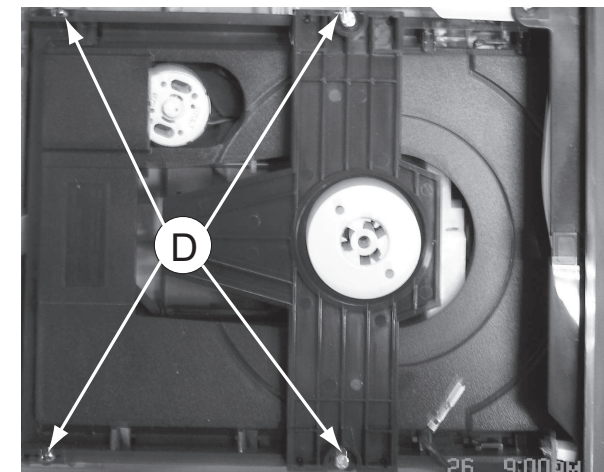


Figure 7

**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.

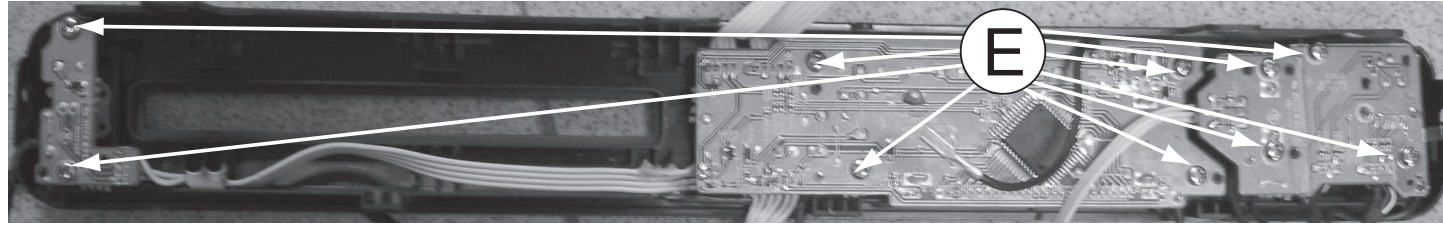


Figure 8

**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.

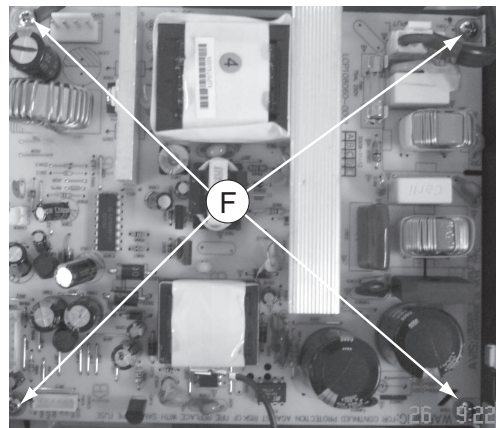


Figure 9

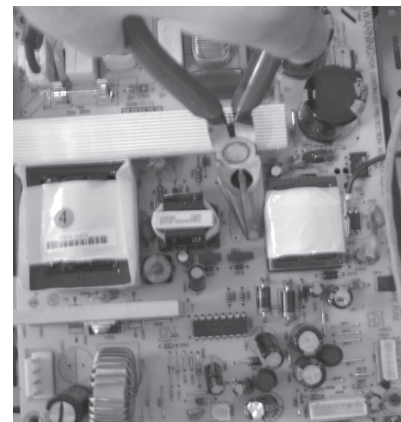


Figure 10

**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 to remove MAIN Board and loosen 2 screw to remove Scart Board as shown in figure 12.

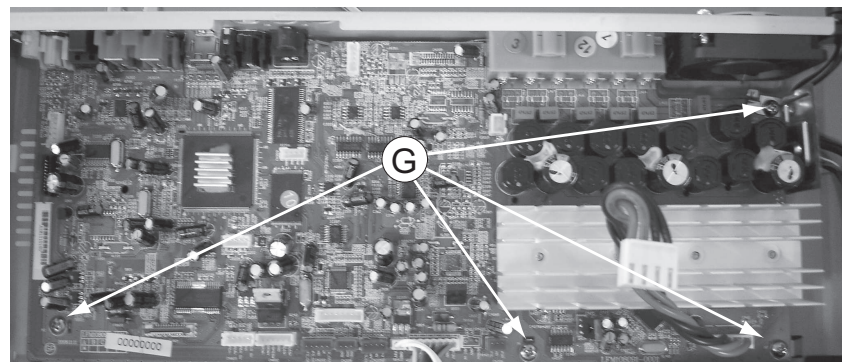


Figure 11

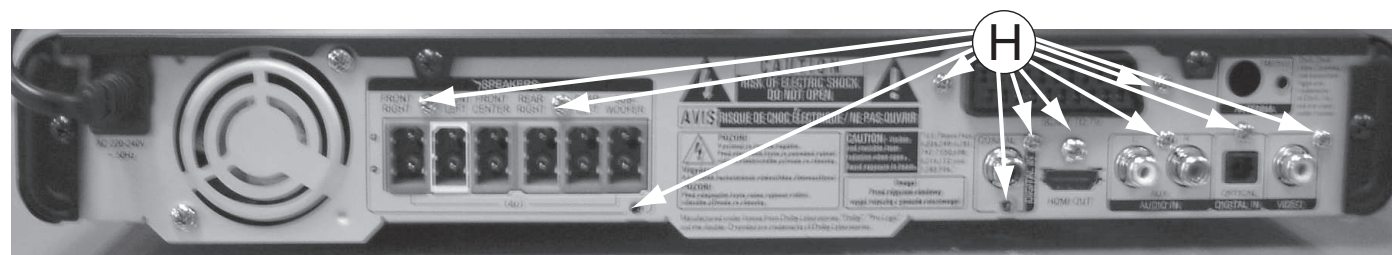
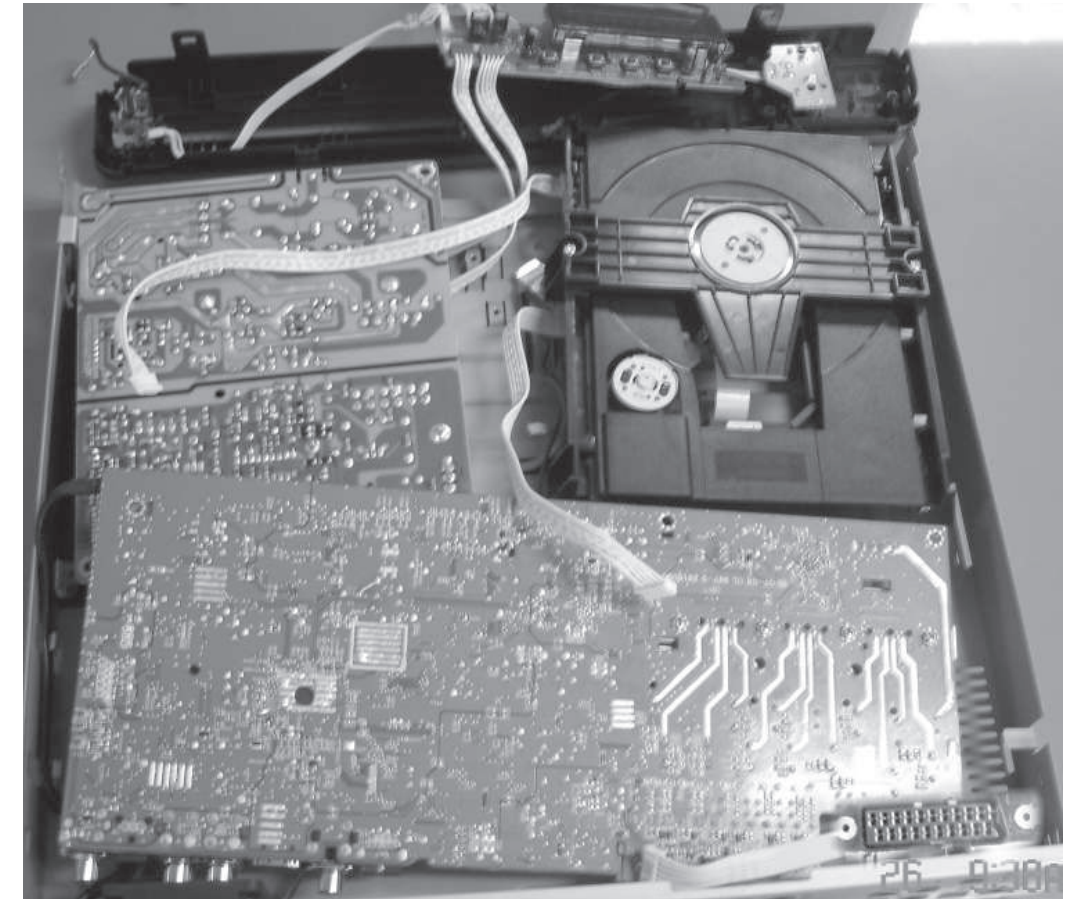


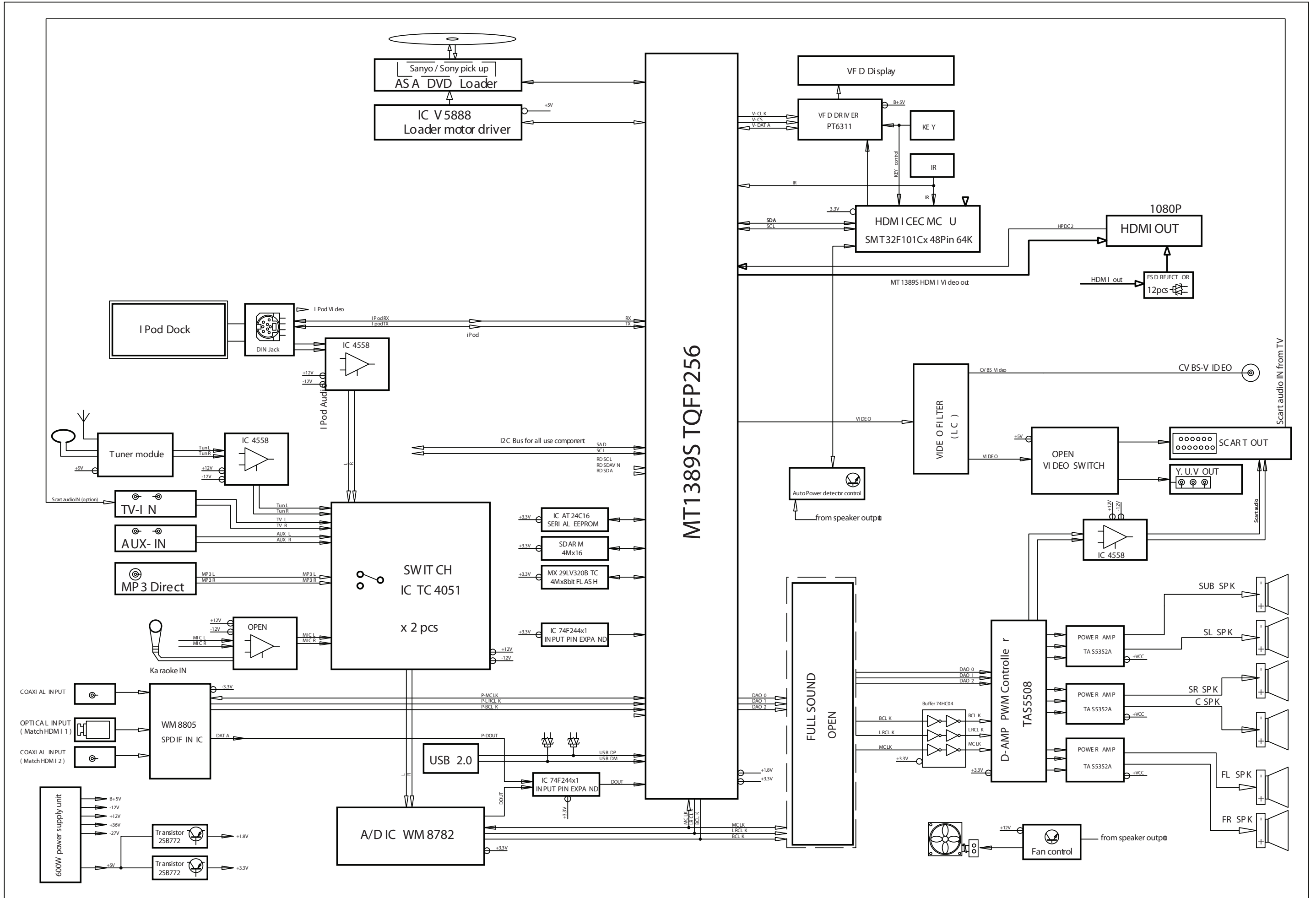
Figure 12

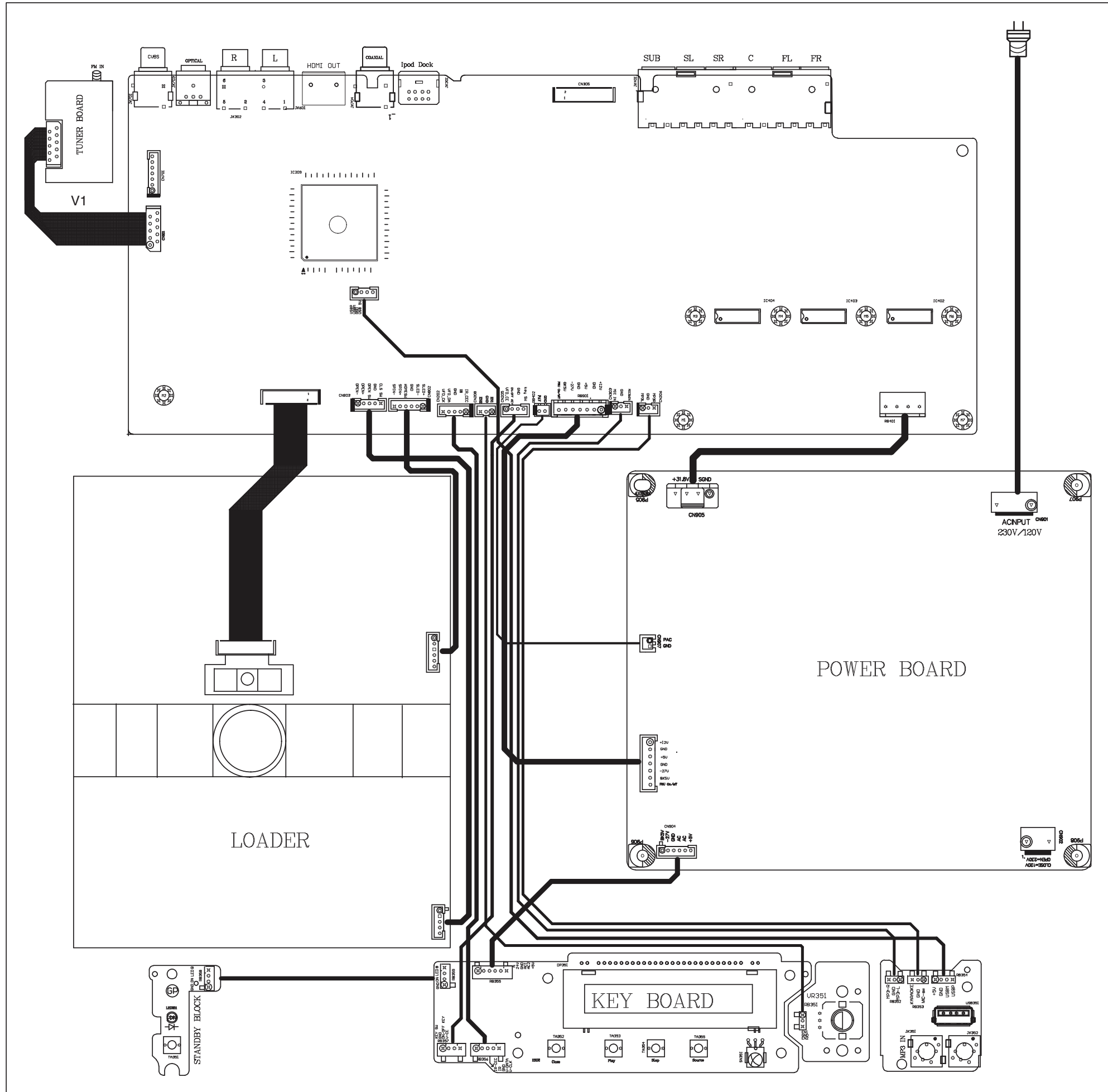
**SERVICE POSITIONS**

Service position A

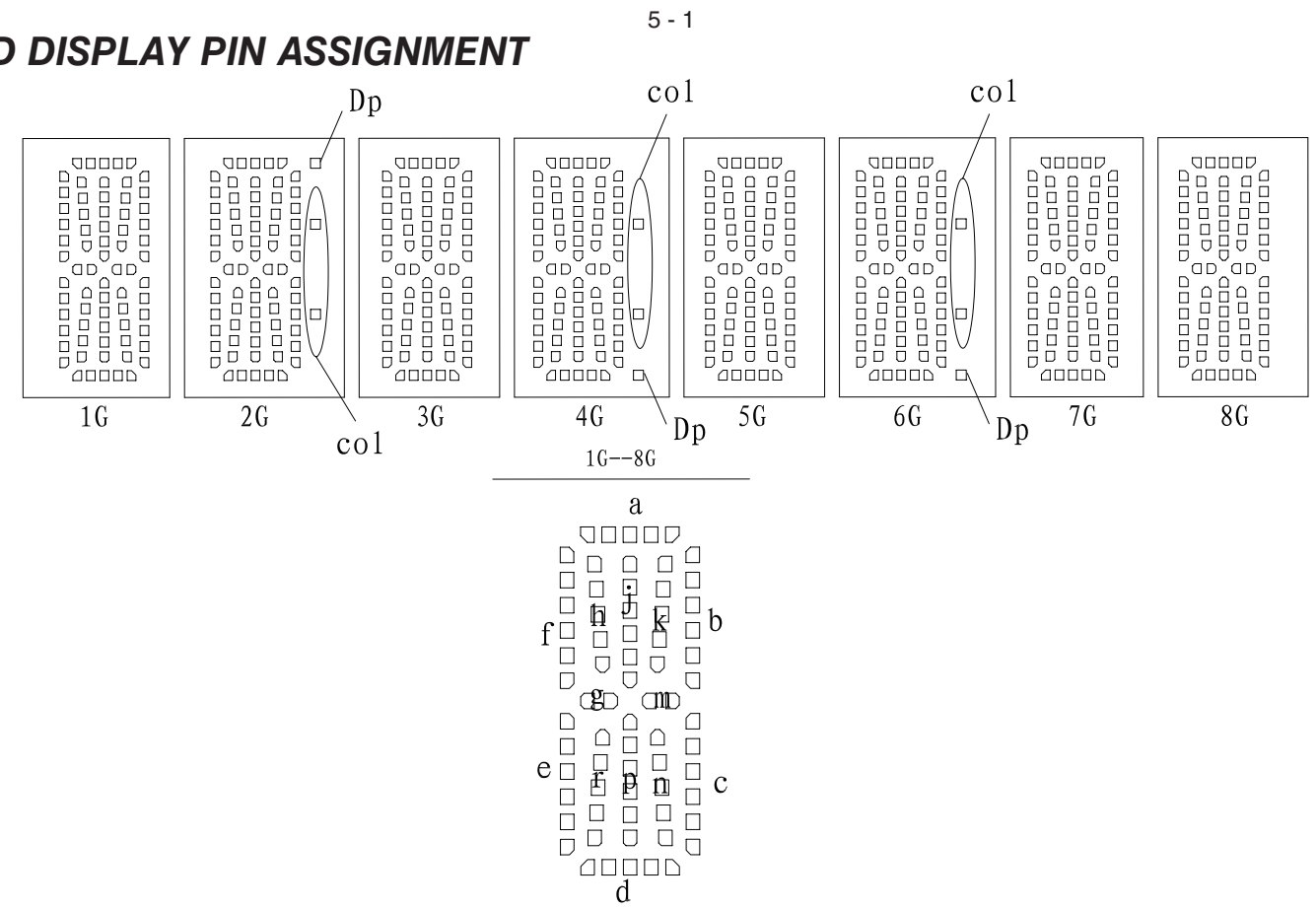


Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.





**FTD DISPLAY PIN ASSIGNMENT**



# DISP+LED+VOL BOARD

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

	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	/	/

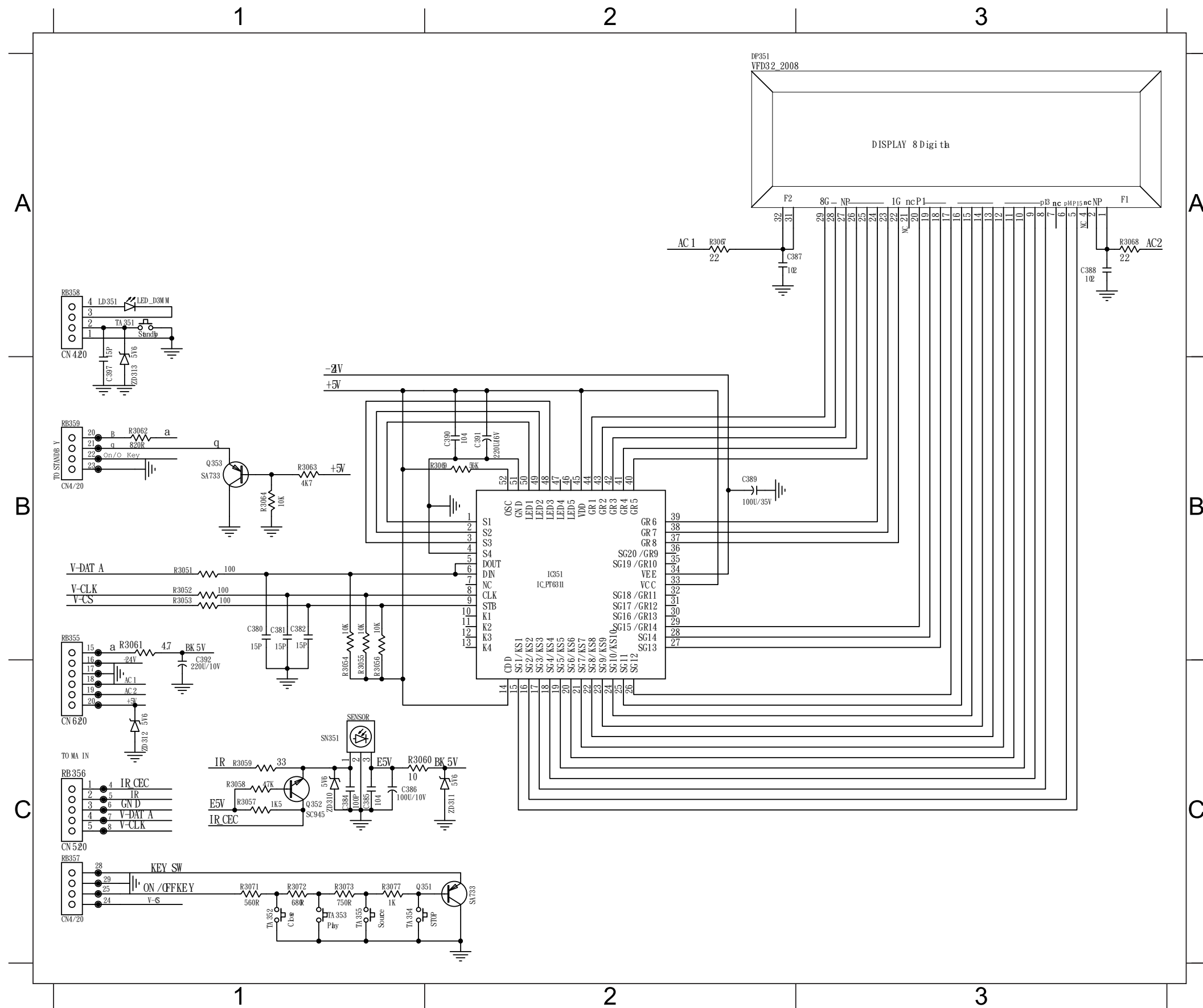
**PIN CONNECTION**

(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)

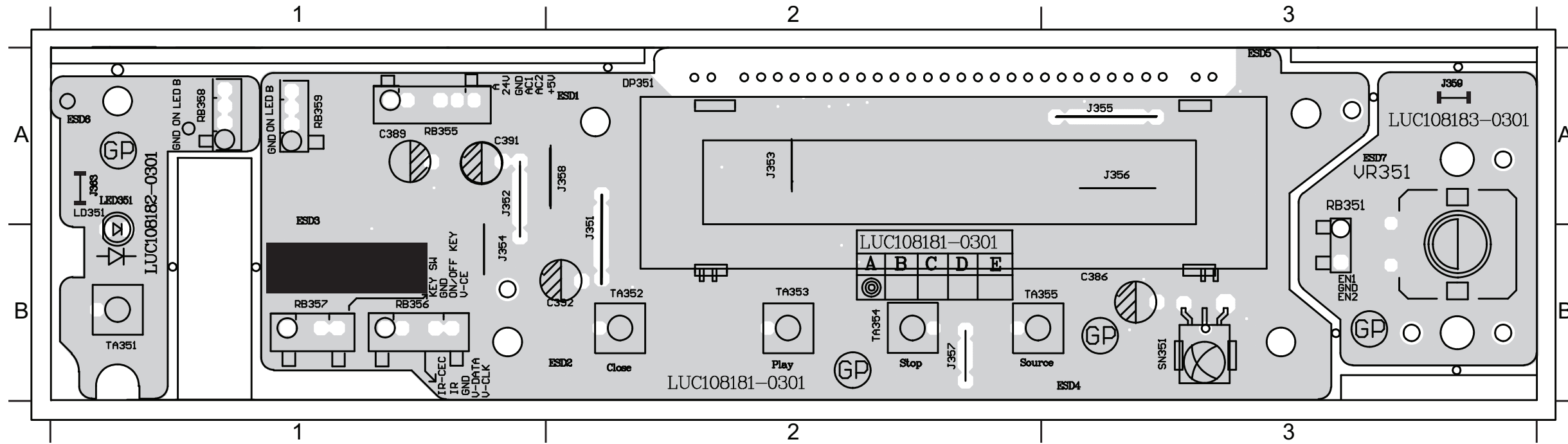


C380 B1 C384 C1 C387 A2 C390 B2 C395 C4 DP351 A2 Q351 C1 R3051 B1 R3054 B1 R3057 C1 R3060 C1 R3063 B1 R3068 A3 R3072 C1 RB351 C4 RB357 C1 TA351 A1 TA354 C1 ZD310 C1 ZD313 B1  
 C381 B1 C385 C1 C388 A3 C391 B2 C396 C4 IC351 B2 Q352 C1 R3052 B1 R3055 B1 R3058 C1 R3061 B1 R3064 B1 R3069 B2 R3073 C1 RB355 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



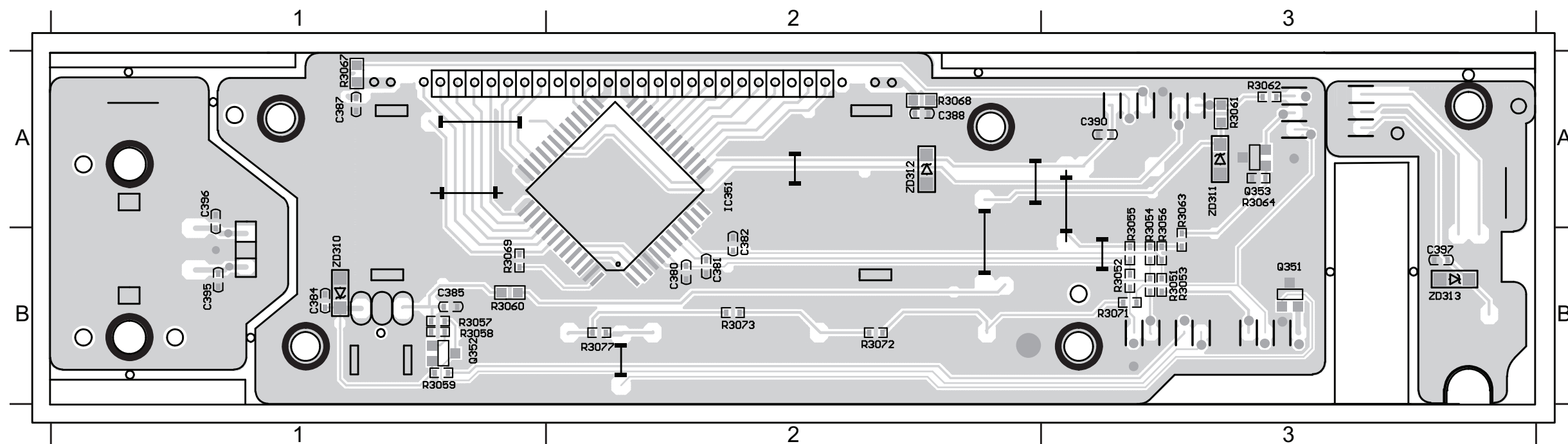
### PCB LAYOUT - TOP VIEW

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

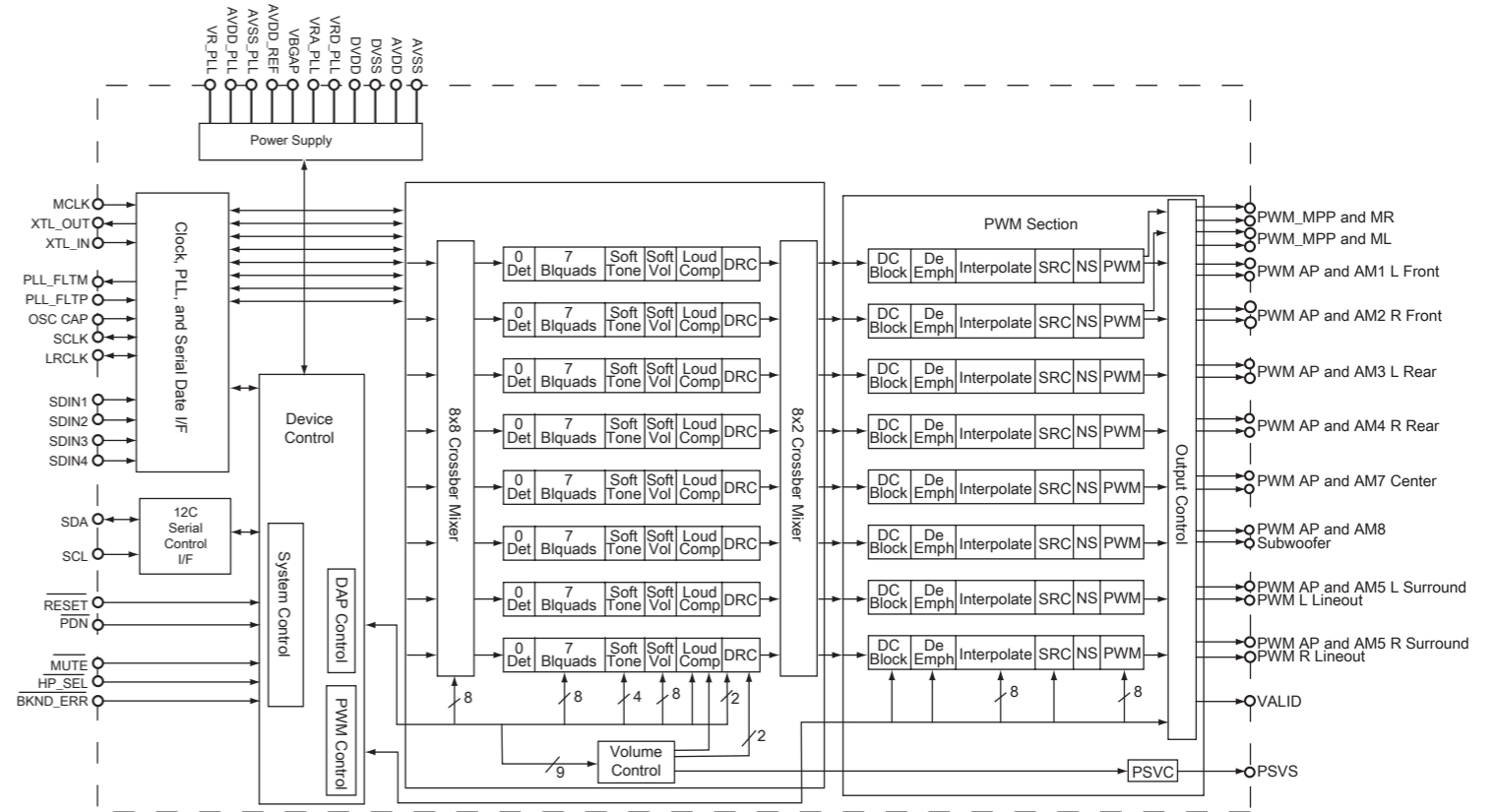


# MAIN BOARD

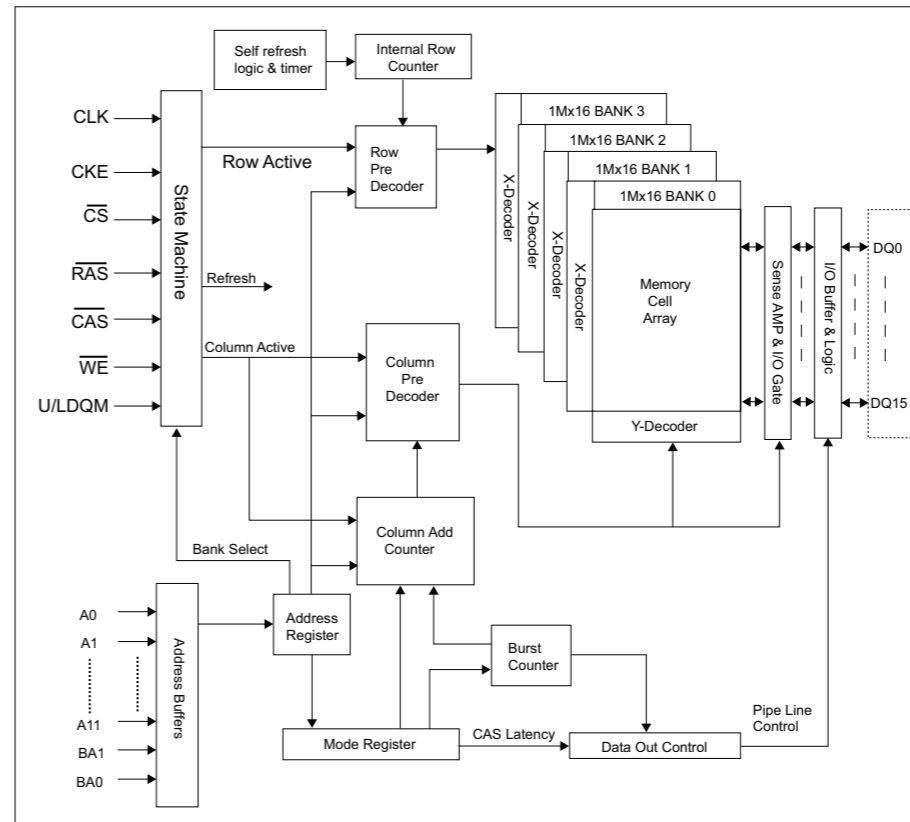
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## INTERNAL IC DIAGRAM - TAS5508B

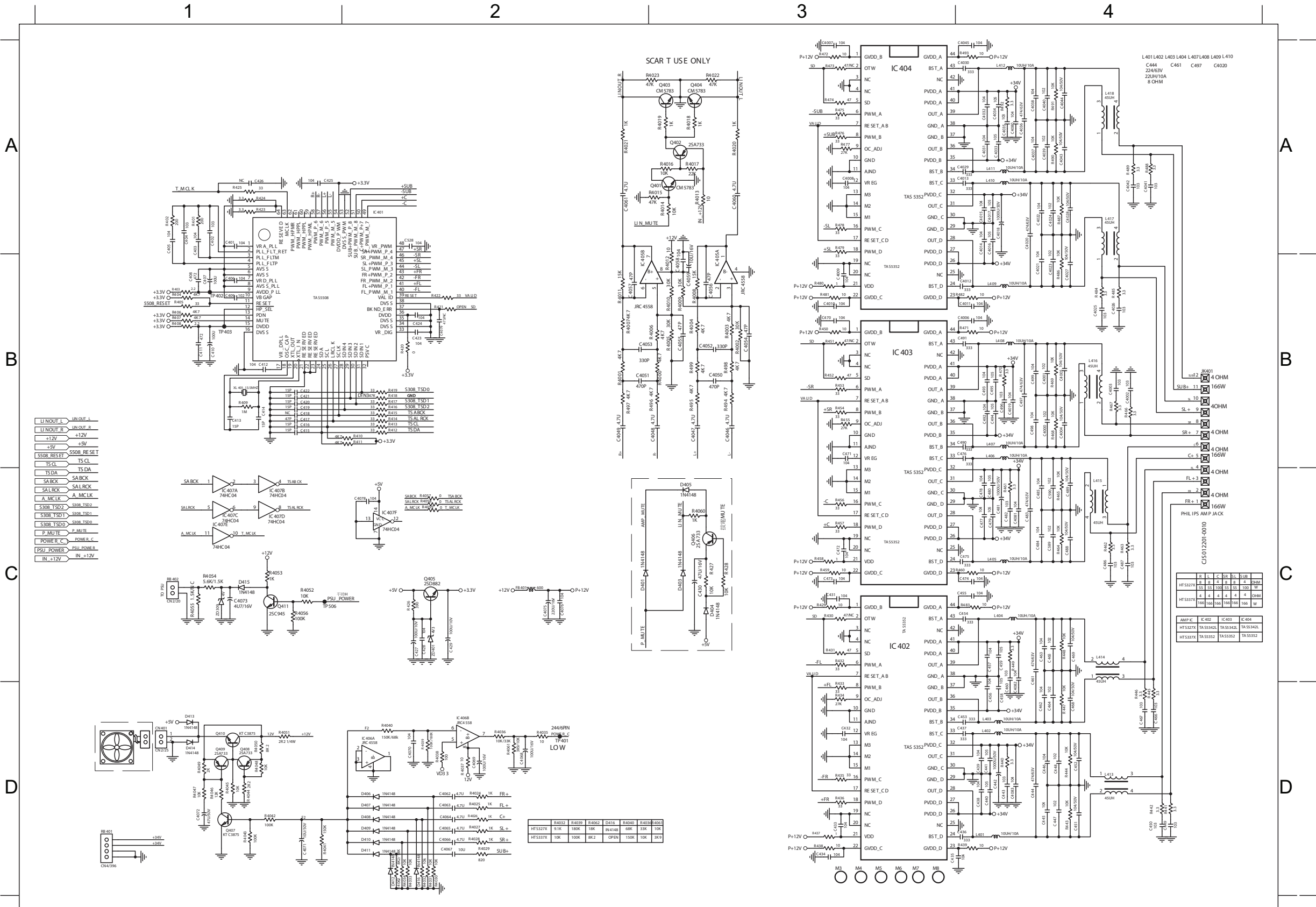


## INTERNAL IC DIAGRAM - HY57V641620F



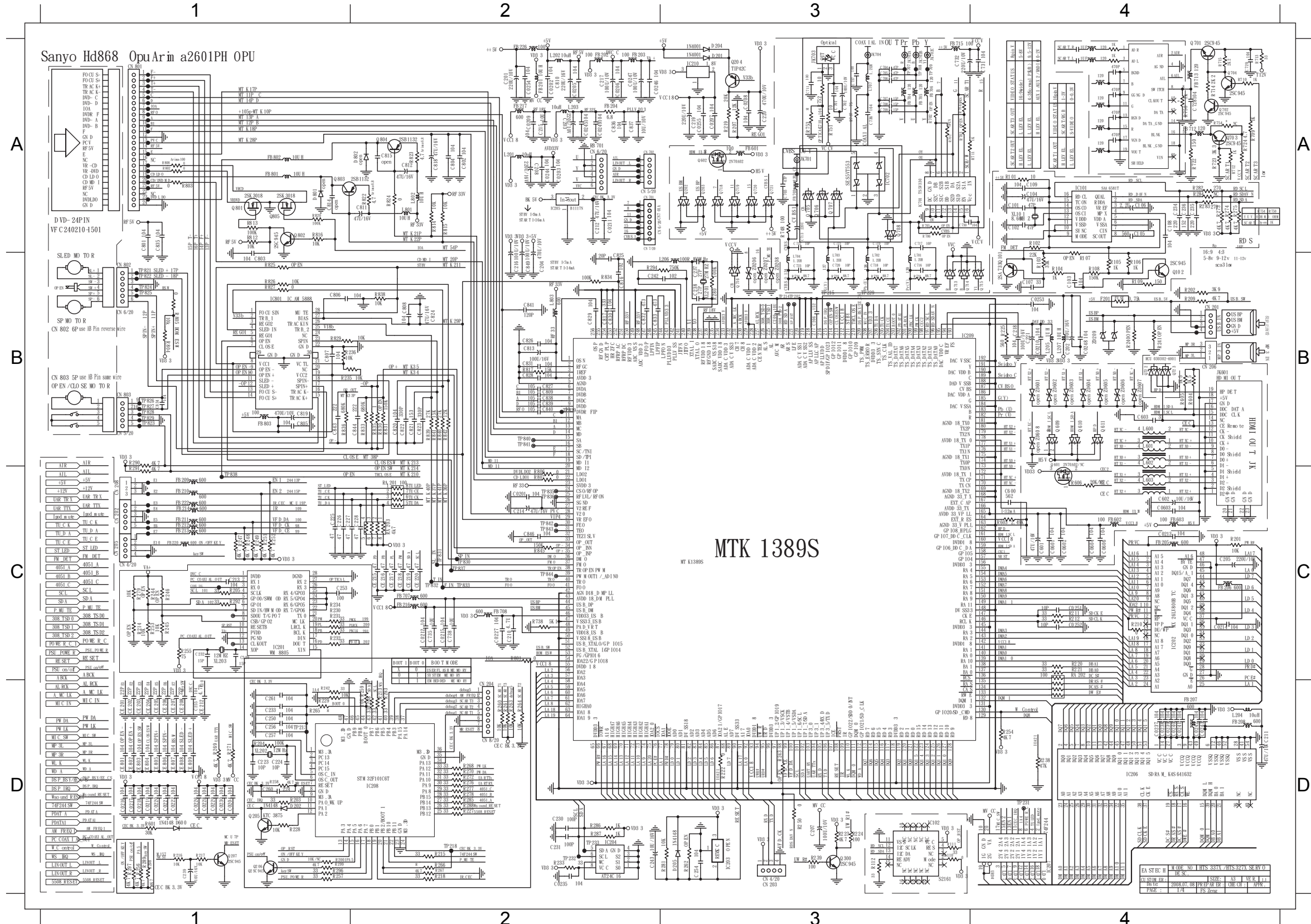
# CIRCUIT DIAGRAM - part one

C401 A1 R425 A1 Q402 A3 R4020 A3 C4013 A4 C4031 A4 C4043 A4 R488 A4 C410 B1 C421 B1 C4049 B2 R411 B2 R421 B2 C4054 B3 R4002 B3 R452 B3 R499 B3 C4021 B4 C496 B4 R466 B4 C4073 C1 RB402 C1 Q405 C2 IC402 C3 R459 C3 C474 C4 C487 C4 R449 C4 CN401 D1 R4044 D1 C4063 D2 D408 D2 R4028 D2 R4038 D2 R435 D3 C443 D4 C453 D4 L413 D4 C402 A1 C4061 A2 Q403 A3 R4022 A3 C4014 A4 C4032 A4 C4044 A4 R489 A4 C411 B1 C422 B1 C4051 B2 R412 B2 R422 B2 C4055 B3 R4003 B3 R453 B3 C4000 B4 C4023 B4 C497 B4 R467 B4 D415 C1 ZD309 C1 R426 C2 Q406 C3 C4081 C4 C475 C4 C488 C4 R460 C4 D413 D1 R4045 D1 C4064 D2 D409 D2 R4029 D2 R4039 D2 R436 D3 C444 D4 C456 D4 R439 D4 C403 A1 C528 A2 Q404 A3 R4023 A3 C4015 A4 C4035 A4 C4045 A4 R490 A4 C412 B1 R403 B1 C4053 B2 R413 B2 R497 B2 C4056 B3 R4004 B3 R454 B3 C4001 B4 C4025 B4 C498 B4 R468 B4 IC407 C1 C4075 C2 ZD401 C2 R427 C3 C454 C4 C477 C4 C489 C4 R461 C4 D414 D1 R4046 D1 C4065 D2 D410 D2 R4030 D2 R4040 D2 R437 D3 C445 D4 C460 D4 R440 D4 C404 A1 IC401 A2 R4013 A3 R472 A3 C4018 A4 C4036 A4 C4080 A4 R491 A4 C413 B1 R404 B1 C4057 B2 R414 B2 R4009 B3 C4058 B3 R4005 B3 R455 B3 C4002 B4 C4026 B4 C499 B4 R469 B4 Q411 C1 C4076 C2 C430 C3 R428 C3 C455 C4 C478 C4 C589 C4 R462 C4 Q407 D1 R4047 D1 C4066 D2 D411 D2 R4031 D2 R4061 D2 R438 D3 C446 D4 C462 D4 R441 D4 C405 A1 R4021 A2 R4014 A3 R474 A3 C4020 A4 C4037 A4 L410 A4 R492 A4 C414 B1 R405 B1 C423 B2 R415 B2 C4010 B3 C4059 B3 R4006 B3 R480 B3 C4003 B4 C4027 B4 JK401 B4 R470 B4 R4052 C1 C4078 C2 C431 C3 R429 C3 C457 C4 C481 C4 C590 C4 R463 C4 Q408 D1 R4048 D1 C4067 D2 D412 D2 R4032 D2 R4062 D2 C435 D4 C447 D4 C466 D4 R442 D4 C425 A1 C4007 A3 R4015 A3 R475 A3 C4022 A4 C4038 A4 L411 A4 R493 A4 C415 B1 R406 B1 C424 B2 R416 B2 C4046 B3 C470 B3 R4008 B3 R481 B3 C4004 B4 C476 B4 L406 B4 R471 B4 R4053 C1 C427 C2 C472 C3 R431 C3 C461 C4 C482 C4 L404 C4 R464 C4 Q409 D1 R4049 D1 C4068 D2 IC406 D2 R4033 D2 C432 D3 C436 D4 C448 D4 C467 D4 R443 D4 R401 A1 C4008 A3 R4016 A3 R476 A3 C4024 A4 C4039 A4 L412 A4 C406 B1 C416 B1 R407 B1 R4001 B2 R417 B2 C4047 B3 C471 B3 R4009 B3 R494 B3 C4005 B4 C490 B4 L407 B4 R482 B4 R4054 C1 C428 C2 C473 C3 R432 C3 C463 C4 C483 C4 L405 C4 R465 C4 Q410 D1 R4050 D1 C4069 D2 R4024 D2 R4034 D2 C433 D3 C437 D4 C449 D4 C468 D4 R444 D4 R402 A1 C4060 A3 R4017 A3 R477 A3 C4028 A4 C4040 A4 L417 A4 C407 B1 C417 B1 R408 B1 R4007 B2 R418 B2 C4008 B3 IC403 B3 R4010 B3 R495 B3 C4006 B4 C491 B4 L408 B4 R484 B4 R4055 C1 C429 C2 D403 C3 R456 C3 C464 C4 C484 C4 L414 C4 R483 C4 R4041 D1 R4051 D1 C4070 D2 R4025 D2 R4035 D2 C434 D3 C438 D4 C450 D4 L401 D4 R445 D4 R423 A1 IC404 A3 R4018 A3 R478 A3 C4029 A4 C4041 A4 L418 A4 C408 B1 C419 B1 R409 B1 R4011 B2 R419 B2 C4050 B3 IC405 B3 R4012 B3 R496 B3 C4011 B4 C492 B4 L409 B4 R485 B4 R4056 C1 D401 C2 D404 C3 R457 C3 C465 C4 C485 C4 L415 C4 C4071 D1 R4042 D1 RB401 D1 D406 D2 R4026 D2 R4036 D2 R433 D3 C439 D4 C451 D4 L402 D4 R446 D4 R424 A1 Q401 A3 R4019 A3 R479 A3 C4030 A4 C4042 A4 R487 A4 C409 B1 C420 B1 XL401 B1 R410 B2 R420 B2 C4052 B3 R4000 B3 R450 B3 R498 B3 C4012 B4 C493 B4 L416 B4 R486 B4 R4060 C1 FB401 C2 D405 C3 R458 C3 C469 C4 C486 C4 R448 C4 C4072 D1 R4043 D1 C4062 D2 D407 D2 R4027 D2 R4037 D2 R434 D3 C442 D4 C452 D4 L403 D4 R447 D4



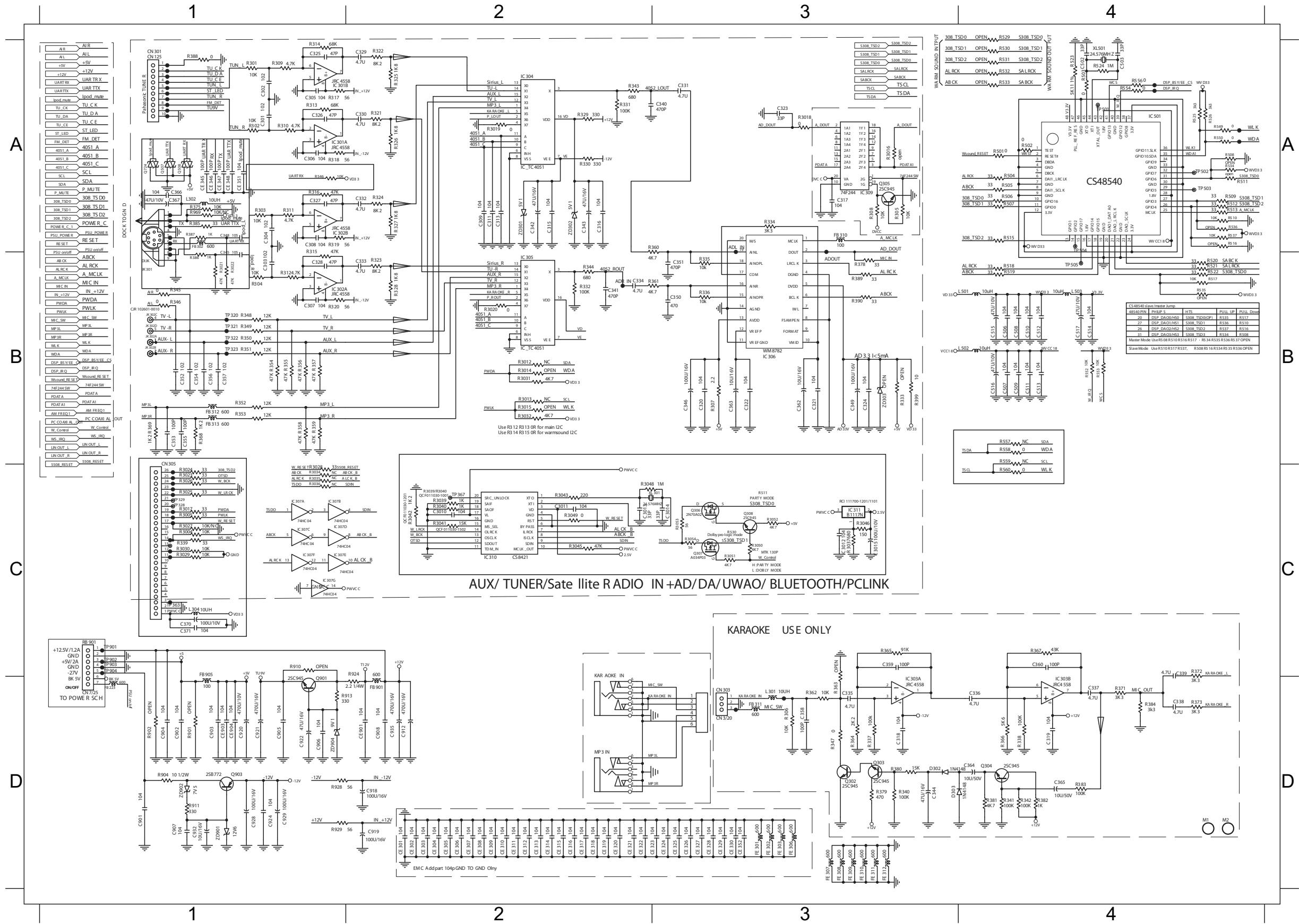
# CIRCUIT DIAGRAM - part two

C0201	C2	C0217	D1	C0240	D4	C0603	C4	C204	B2	C220	A3	C236	A4	C601	C4	C722	A3	C805	B1	C822	B2	C837	A2	CE207	D1	CE807	D1	CO254	A2	FB209	C1	FB707	C2	IC206	D4	L206	B3	Q207	D1	Q803	A1	R205	C1	R222	D3	R239	D3	R260	D2	R279	C1	R296	D1	R715	A4	R803	A1	R824	A2	RA201	C2
C0202	A2	C0218	D1	C0241	D4	C0604	C4	C205	C4	C221	B4	C237	B3	C602	C4	C723	B3	C806	B1	C823	B2	C838	B2	CE208	D1	CE808	D1	D201	A3	FB210	C1	FB708	C2	IC207	D4	L207	B4	Q300	D3	Q804	A2	R207	A3	R223	D3	R242	D1	R261	D2	R280	B3	R297	D1	R722	A4	R804	B1	R826	B1	RA202	C4
C0203	A2	C0219	D1	C0242	D4	C0606	C4	C206	B3	C223	D1	C238	B3	C603	B4	C728	A4	C807	B1	C824	B2	C839	B2	CE212	D1	CE809	D1	D202	D1	FB211	C1	FB713	A4	IC208	D2	L701	B3	Q601	B4	Q805	A1	R208	D2	R224	D3	R245	C1	R263	D2	R281	D3	R298	D1	R724	A4	R805	B1	R827	B1	RA203	C2
C0204	D1	C0220	D1	C0243	D4	C101	A4	C207	D3	C224	D1	C239	D1	C701	A3	C729	A4	C808	B2	C825	A2	C840	B2	CE215	C2	CN201	B4	D204	A3	FB212	C1	FB715	A3	IC209	B3	L702	B3	Q602	A3	R101	A4	R209	B4	R225	B4	R247	C1	R267	D2	R282	A4	R299	D1	R731	B3	R806	C2	R829	B1	XL101	A4
C0205	A1	C0221	D1	C0244	A2	C102	A4	C208	A2	C225	C1	C242	B2	C702	A3	C730	A4	C809	B2	C826	B2	C841	B2	CE216	C2	CN202	C1	D205	D3	FB213	C1	FB715	A3	IC210	A3	L703	B3	Q611	B4	R102	A4	R210	C4	R226	D2	R248	C1	R268	D2	R283	A4	R601	D1	R732	B3	R807	C2	R831	B2	XL201	B3
C0206	A2	C0222	D1	C0245	A2	C103	B4	C209	B3	C226	C1	C243	D2	C703	A3	C731	A4	C810	A2	C827	B2	C843	B1	CE217	C2	CN203	D3	D600	D1	FB214	C1	FB801	A1	IC801	B1	L704	B3	Q701	A4	R103	B4	R211	C4	R228	D1	R249	C1	R269	D1	R285	D2	R603	C4	R733	B3	R808	A1	R833	B2	XL202	D1
C0207	A3	C0226	D1	C0246	A2	C104	A4	C210	C2	C227	C1	C250	D1	C710	A3	C732	A3	C811	A2	C828	B2	C844	B2	CE218	C2	CN204	D2	F201	B4	FB216	C2	FB802	A1	JK601	B4	L707	A3	Q702	A4	R104	B4	R212	C4	R229	D1	R250	D3	R270	D2	R286	D2	R604	B4	R734	B3	R812	A1	R834	B2	XL203	C1
C0208	A3	C0227	C2	C0247	A2	C105	A4	C211	D4	C228	C2	C251	C1	C711	A3	C735	C2	C812	A2	C829	B2	C846	C2	CE219	C2	CN205	C1	FB201	A2	FB217	A2	FB803	B1	JK701	A3	L801	A2	Q703	A4	R105	B4	R213	D2	R230	C1	R251	C1	R271	D1	R287	D2	R605	B4	R737	A3	R813	A1	R835	B2	ZD209	B4
C0209	A2	C0228	D1	C0248	B4	C106	A4	C213	C1	C229	C1	C254	D3	C713	A3	C736	A3	C813	B2	C830	B2	C849	B2	CE220	C2	CN206	B4	FB202	A2	FB220	C1	GT01	D3	JK703	A3	L802	A2	Q704	A4	R106	B4	R215	D2	R231	C1	R252	C1	R272	D2	R288	D2	R606	C4	R738	C2	R814	A2	R836	B1		
C0210	B4	C0229	D1	C0249	A2	C107	B4	C214	C2	C230	D2	C255	D1	C716	B3	C737	A3	C816	B2	C831	B2	CE201	D1	CE801	D1	CN208	C1	FB203	A2	FB222	C1	IC101	A4	JK704	A3	L803	B2	Q705	A3	R108	B4	R216	D1	R232	C1	R253	C1	R273	A4	R289	D1	R702	A3	R748	A3	R815	A2	R838	B2		
C0211	A2	C0230	D1	C0251	C4	C108	A4	C215	A2	C231	D2	C256	D1	C717	A3	C738	C2	C817	B2	C832	B2	CE202	D1	CE802	D1	CN701	A3	FB204	A2	FB226	A2	IC201	D3	L201	A2	Q101	A3	Q706	A3	R109	B4	R217	D1	R233	D2	R254	D4	R274	A4	R290	B1	R704	A3	R750	A4	R816	A1	R839	B2		
C0213	C4	C0235	D2	C0252	C4	C109	A4	C216	B2	C232	C1	C260	D1	C718	B3	C801	A1	C818	A2	C833	B2	CE203	D1	CE803	D1	CN702	A2	FB205	C4	FB601	A3	IC202	C4	L202	A2	Q102	B4	Q707	A3	R201	C4	R218	D2	R234	C1	R256	D1	R275	A4	R291	C1	R705	A3	R751	A3	R817	B2	R840	B2		
C0214	C4	C0237	D4	C0253	B4	C201	A2	C217	A2	C233	D1	C267	D1	C719	A3	C802	A2	C819	B1	C834	B1	CE204	D1	CE804	D1	CN703	A1	FB206	C4	FB602	C4	IC203	D3	L203	A2	Q204	A3	Q708	A3	R202	B4	R219	A3	R235	B1	R257	D1	R276	D2	R292	C1	R712	A4	R752	A3	R820	A1	R841	B2		
C0215	C2	C0238	D4	C0601	C4	C202	B4	C218	B4	C234	A4	C261	D1	C720	B3	C803	B1	C820	B2	C835	A1	CE205	D1	CE805	D1	CN802	B1	FB207	D4	FB603	C4	IC204	D2	L204	D4	Q205	D1	Q801	A1	R203	D1	R220	C4	R236	B1	R258	D1	R277	D2	R293	D2	R713	A4	R801	C2	R822	A2	R842	B2		
C0216	D1	C0239	D4	C0602	C4	C203	A2	C219	A3	C235	A4	C600	C4	C721	A3	C804	A2	C821	B2	C836	A2	CE206	D1	CE806	D1	CN803	B1	FB208	D4	FB703	A3	IC205	A2	L205	B4	Q206	D1	Q802	A1	R204	D1	R221	C4	R238	D4	R259	D2	R278	D2	R294	B2	R714	A4	R802	A1	R823	A2	R845	C2		



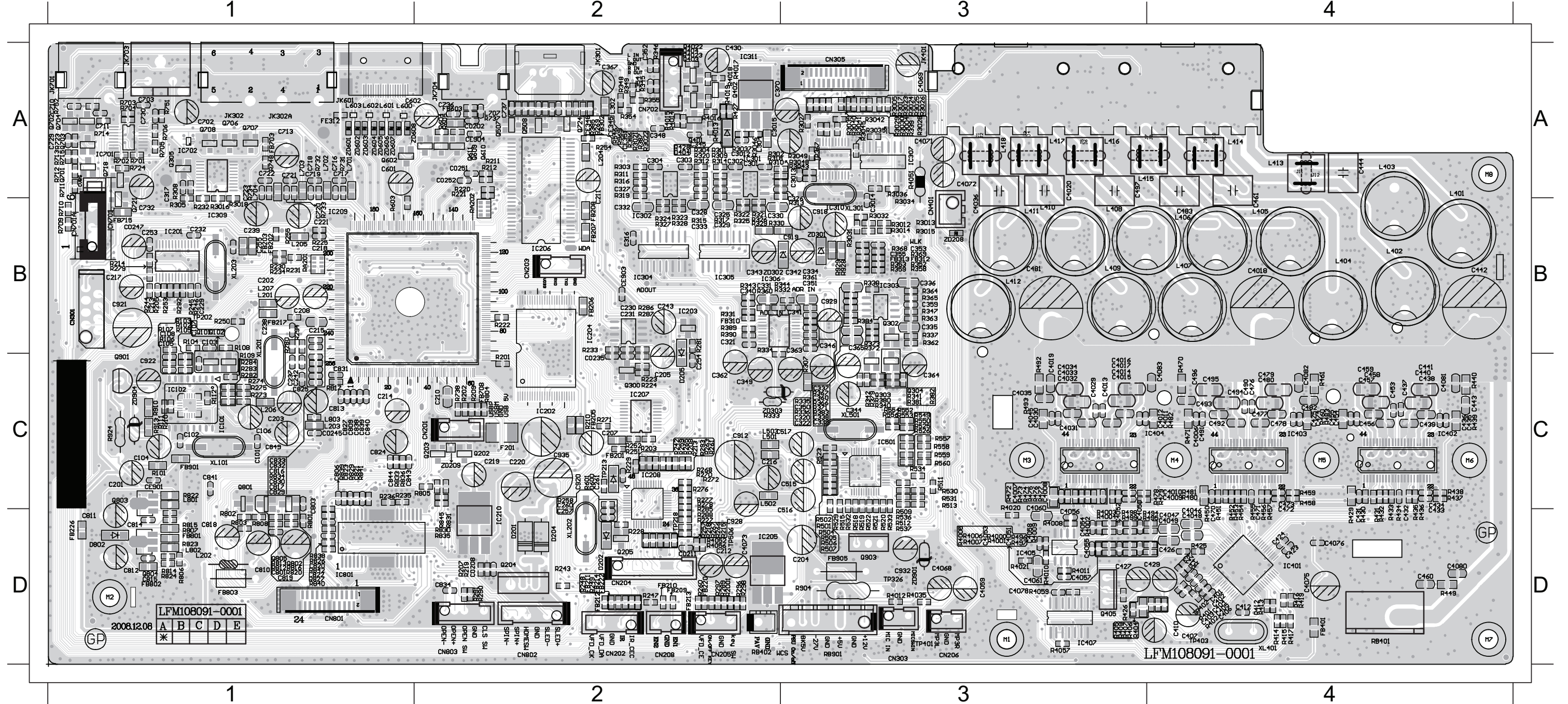
# CIRCUIT DIAGRAM - part three

C301 A1	C317 A3	C326 A1	C346 B3	C357 B1	C511 B4	C903 D1	C920 D1	CE302 D2	CE311 D2	CE320 D2	CE329 D3	FB312 B1	FE309 D3	JK302A B1	R3019 A2	R314 A1	R328 B2	R344 B2	R354 B1	R369 B1	R530 A4	R710 A4	ZD301 A2
C302 A1	C318 D3	C329 A2	C349 B3	C360 C4	C512 B4	C904 D1	C921 D1	CE303 D2	CE312 D2	CE321 D2	CE330 D3	FB313 B1	FE310 D3	L501 B4	R302 A1	R316 A1	R329 A2	R345 B1	R355 B1	R378 B3	R531 A4	R711 A3	ZD302 A2
C305 A1	C319 D4	C330 A2	C350 B3	C362 B3	C513 B4	C905 D1	C922 D1	CE304 D2	CE313 D2	CE322 D2	CE352 D3	FB901 D1	FE311 D3	L502 B4	R3020 B2	R317 A1	R330 A2	R346 B1	R356 B1	R380 D3	R532 A4	R904 D1	ZD901 D1
C306 A1	C320 B3	C331 A3	C351 B3	C363 B3	C514 B4	C906 D1	C924 D1	CE305 D2	CE314 D2	CE323 D2	CE901 D2	FB905 C1	FE312 D3	L503 B4	R305 A3	R318 A1	R331 A3	R348 B1	R357 B1	R388 A1	R533 A4	R911 D1	ZD902 D1
C309 A2	C321 B3	C334 B2	C352 B1	C366 B4	C515 B4	C907 D1	C928 D1	CE306 D2	CE315 D2	CE324 D3	CE903 D1	FE301 D3	IC301 A1	Q305 A3	R307 B3	R321 A2	R332 B2	R349 B1	R358 B1	R389 B3	R552 B4	R913 D1	ZD904 D1
C311 A2	C322 B3	C340 A3	C353 B1	C507 B4	C516 B4	C908 D2	C929 D1	CE307 D2	CE316 D2	CE325 D3	CE904 D1	FE302 D3	IC304 A2	Q901 D1	R308 A3	R322 A2	R334 A3	R350 B1	R359 B1	R390 B3	R553 B4	R924 C2	
C313 A2	C323 A3	C341 B2	C354 B1	C508 B4	C517 B4	C912 D2	C932 D1	CE308 D2	CE317 D2	CE326 D3	CN301 A1	FE306 D3	IC305 B2	Q903 D1	R309 A1	R325 A2	R335 B3	R351 B1	R360 A2	R399 B3	R558 B4	R928 D1	
C315 A2	C324 B3	C342 A2	C355 B1	C509 B4	C901 D1	C918 D2	C935 D2	CE309 D2	CE318 D2	CE327 D3	FB223 D1	FE307 D3	IC306 B3	R301 A1	R310 A1	R326 A2	R336 B3	R352 B1	R361 B3	R523 A4	R560 C4	R929 D1	
C316 A2	C325 A1	C343 A2	C356 B1	C510 B4	C902 D1	C919 D2	CE301 D2	CE310 D2	CE319 D2	CE328 D3	FB310 A3	FE308 D3	IC309 A3	R3018 A3	R313 A1	R327 A2	R343 A2	R353 B1	R368 B1	R529 A4	R709 A4	RB901 C1	



# PCB LAYOUT - TOP VIEW

C317	A1	JK701	A1	R711	A1	C736	A2	R254	A2	R4018	A2	L416	A3	C218	B1	L201	B1	R292	B1	C331	B2	R286	B2	C342	B3	R352	B3	R722	B4	C825	C1	L501	C1	R834	C1	C912	C2	R209	C2	R601	C2	IC404	C3	C4006	C4	C470	C4	R433	C4	R471	C4	IC801	D1	R826	D1	FB209	D2	R257	D2	C4051	D3	IC407	D3	R405	D3	C4046	D4	R412	D4		
C601	A1	JK703	A1	R712	A1	C737	A2	R269	A2	R4019	A2	L417	A3	C221	B1	L205	B1	R294	B1	C340	B2	R287	B2	C346	B3	R353	B3	C0245	C1	C827	C1	L801	C1	R836	C1	C920	C2	R210	C2	R738	C2	R268	C2	C4009	C4	C471	C4	R434	C4	R478	C4	L202	D1	R827	D1	FB210	D2	R260	D2	C4052	D3	Q405	D3	R406	D3	C4047	D4	R414	D4		
C602	A1	L701	A1	R714	A1	CE904	A2	R301	A2	R4022	A2	L418	A3	C229	B1	L207	B1	R3018	B1	C343	B2	R317	B2	C351	B3	R358	B3	C101	C1	C829	C1	L803	C1	R839	C1	C935	C2	R213	C2	R804	C2	R307	C3	C4010	C4	C472	C4	R435	C4	R479	C4	L802	D1	R838	D1	FB211	D2	R267	D2	C4053	D3	Q903	D3	R407	D3	C4048	D4	R413	D4		
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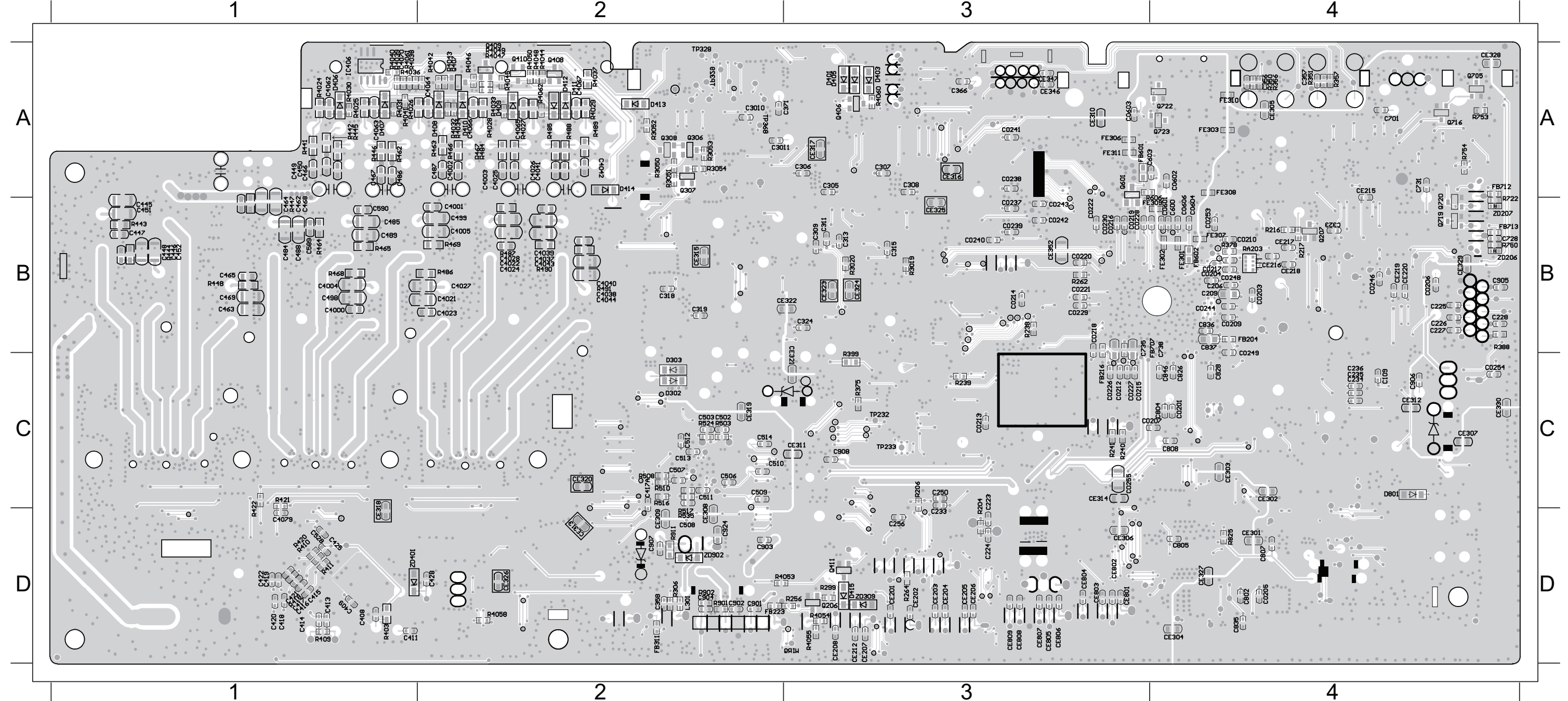


# PCB LAYOUT - BOTTOM VIEW

6 - 6

6 - 6

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R4025	A1	C4002	A2	D412	A2	R4043	A2	R489	A2	Q406	A3	R356	A4	C469	B1	C318	B2	C4044	B2	C0228	B3	CE321	B3	C0217	B4	C323	B4	FB707	B4	R421	C1	C0212	C3	C234	C4	C409	D1	R410	D1	CE326	D2	CE212	D3	R299	D3		
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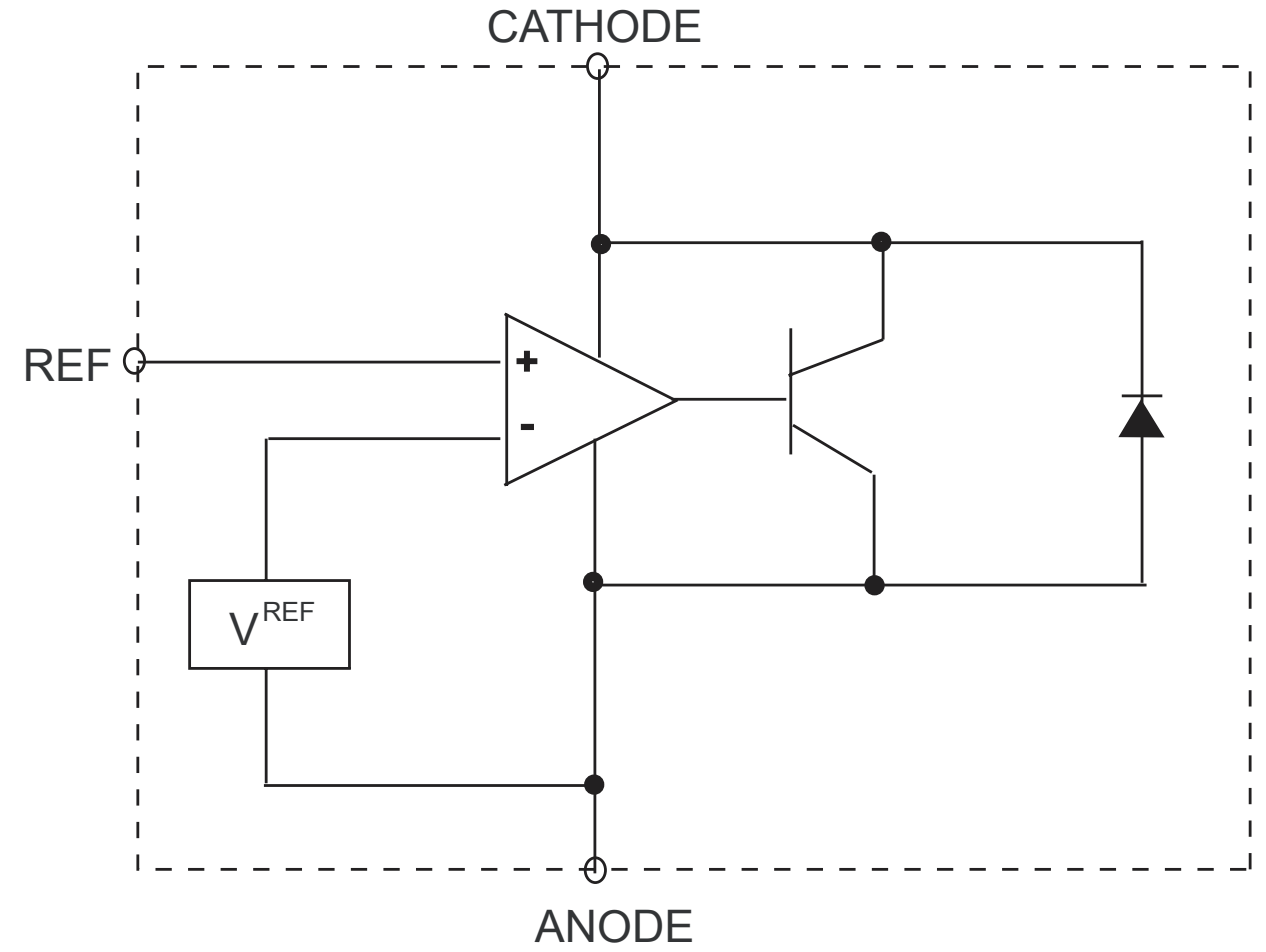
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# POWER BOARD

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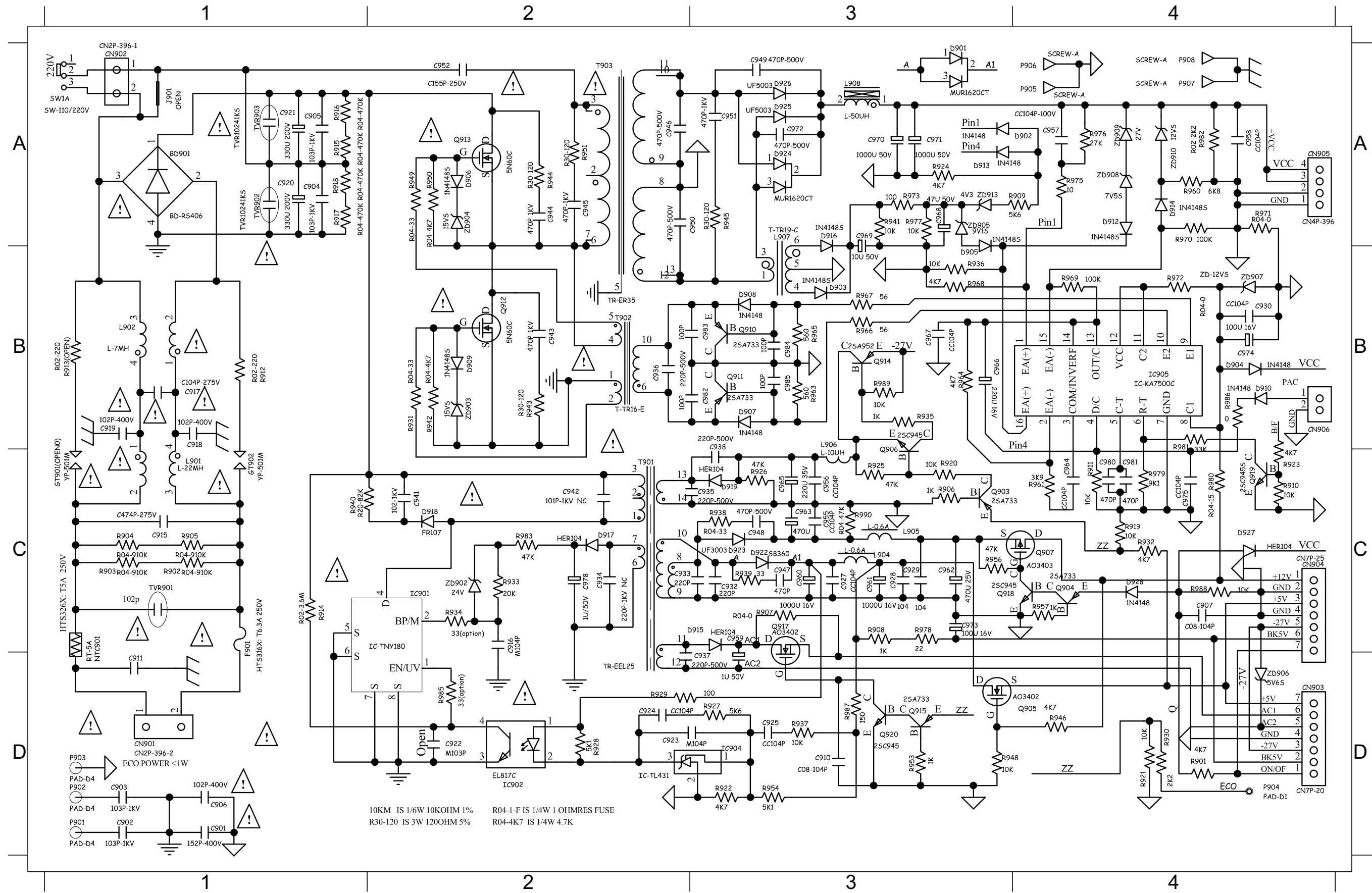
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# CIRCUIT DIAGRAM

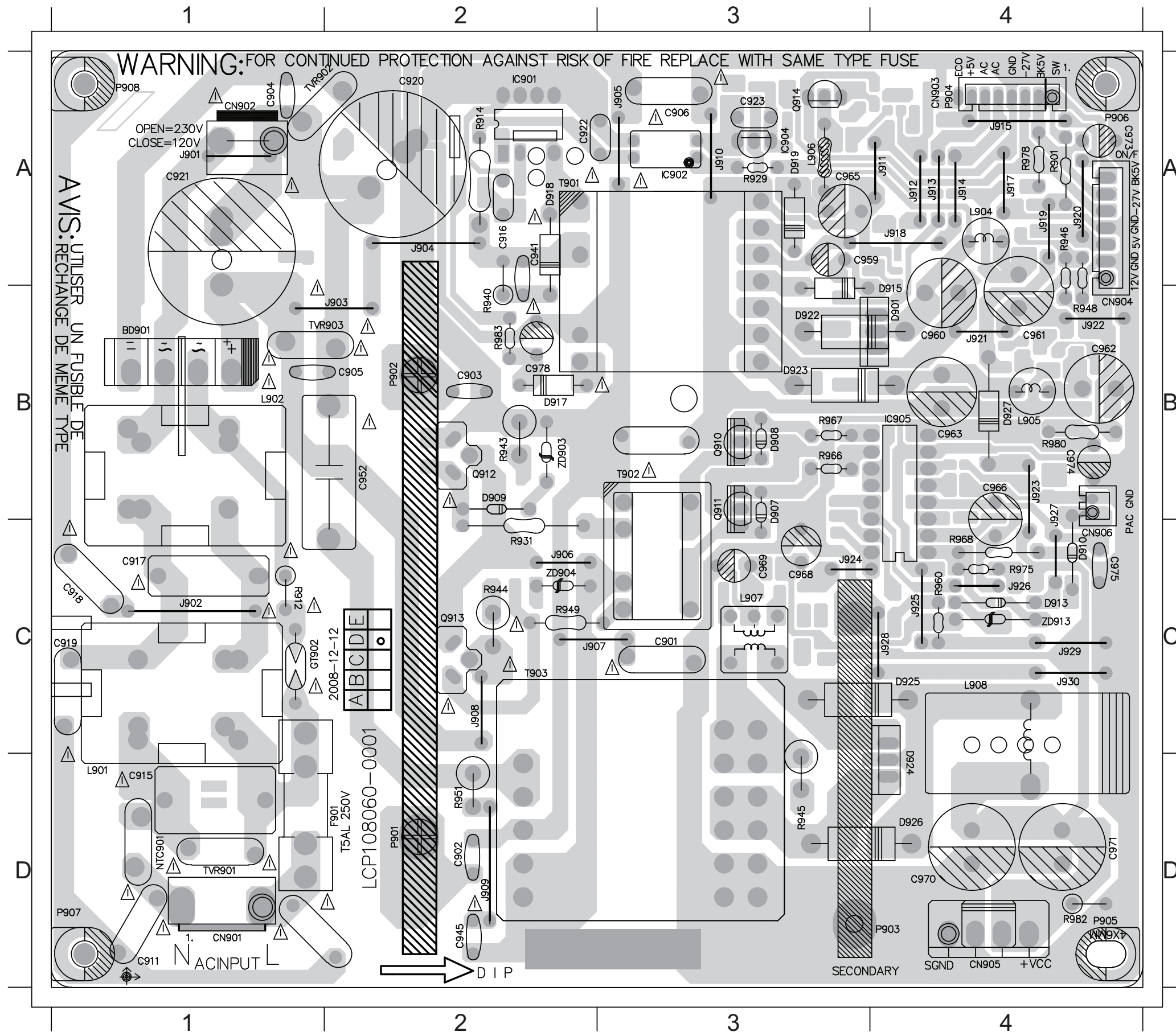
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10KM IS 1/6W 10KOHM 1% R04-1-F IS 1/4W 1 OHMRES FUSE  
 R30-120 IS 3W 120OHM 5% R04-4K7 IS 1/4W 4.7K

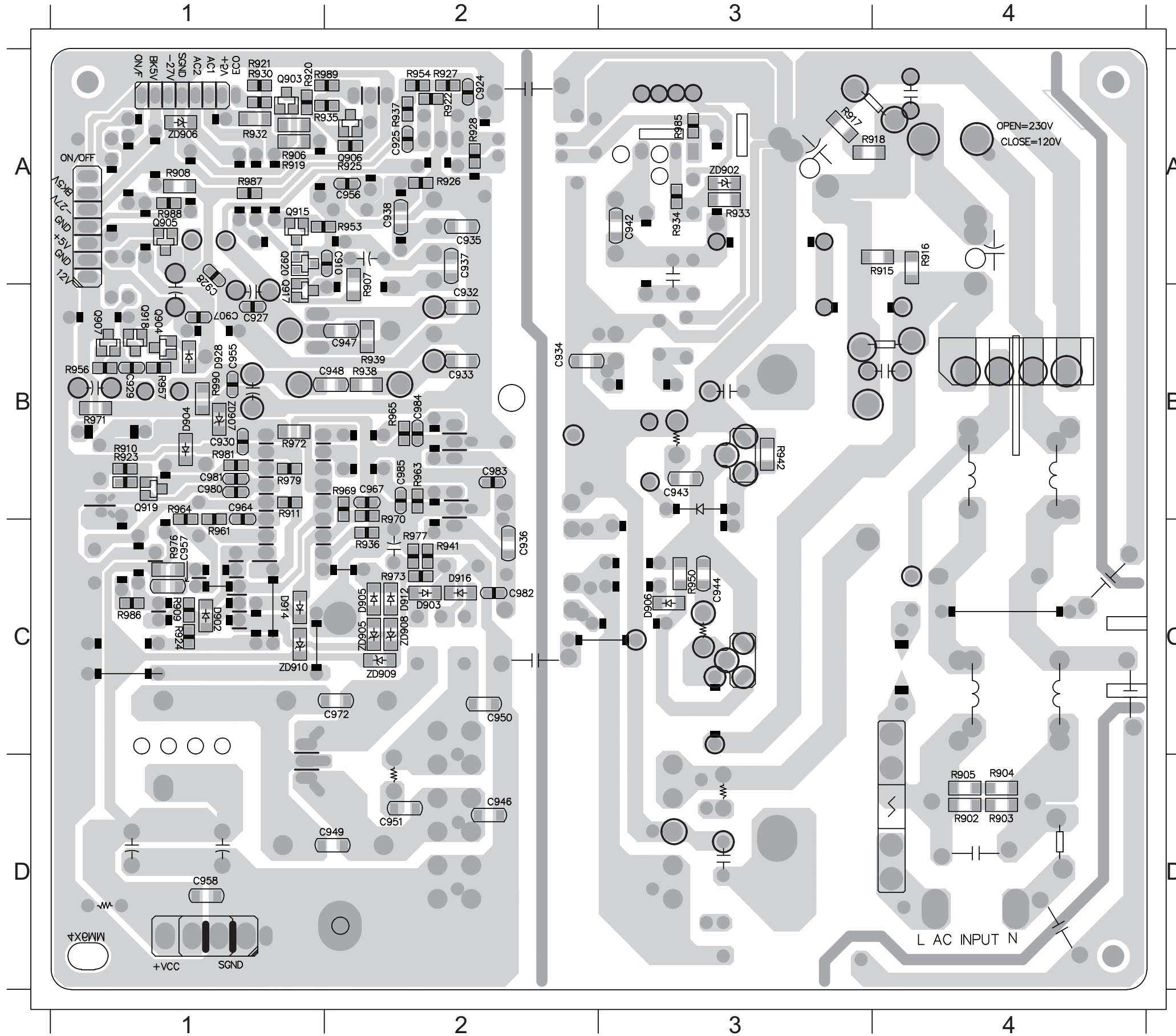
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 C901 C3 C915 D1 C921 A1 C960 B4 C968 C3 C978 B2 D907 B3 D918 A1 F901 D2 J902 C1 J908 C2 J914 A4 J921 B4 J927 B4 L904 A4 Q910 B3 R912 C1 R944 C2 R960 C4 R980 B4 TVR901D1  
 C902 D2 C916 A2 C923 A3 C961 B4 C969 C3 CN901D1 D908 B3 D919 A3 GT902C1 J903 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



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# MP3 IN BOARD

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# CIRCUIT DIAGRAM

8-2

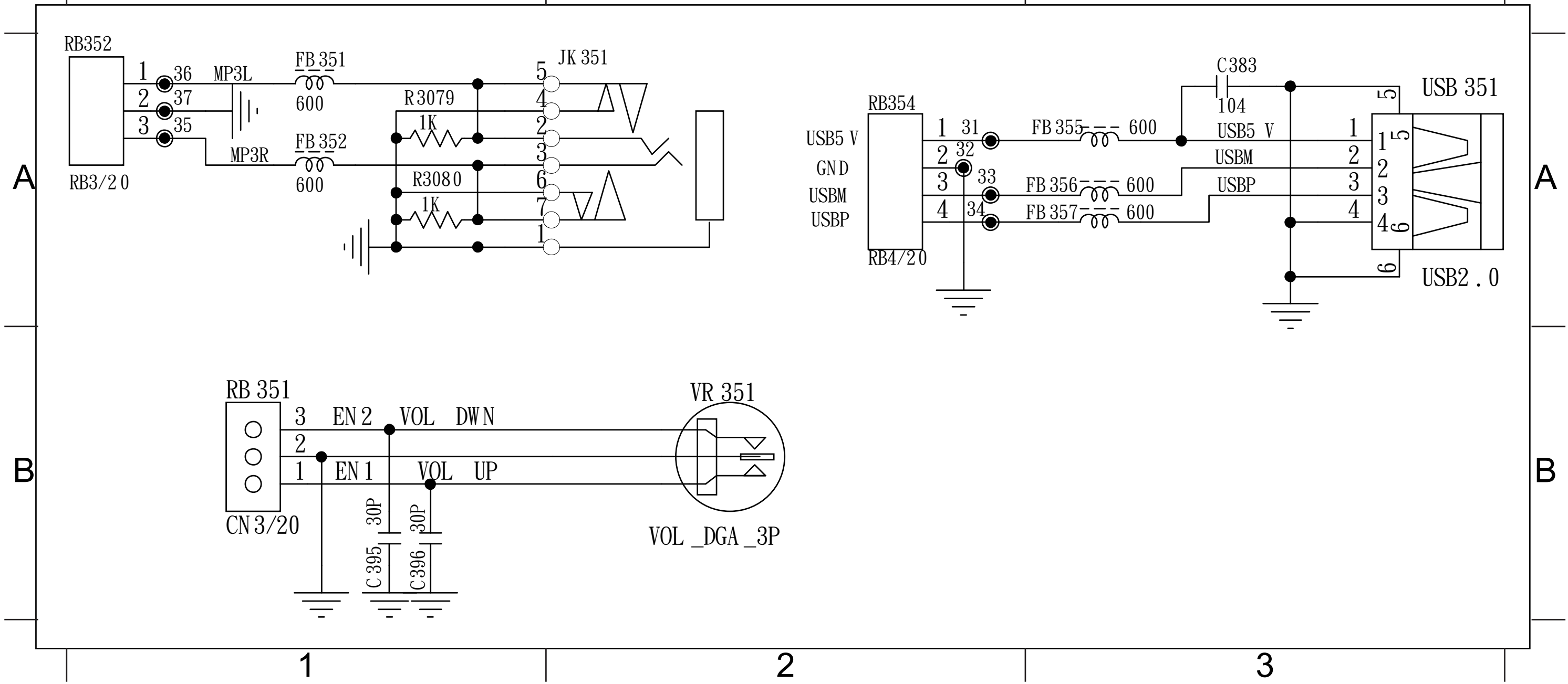
8-2

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

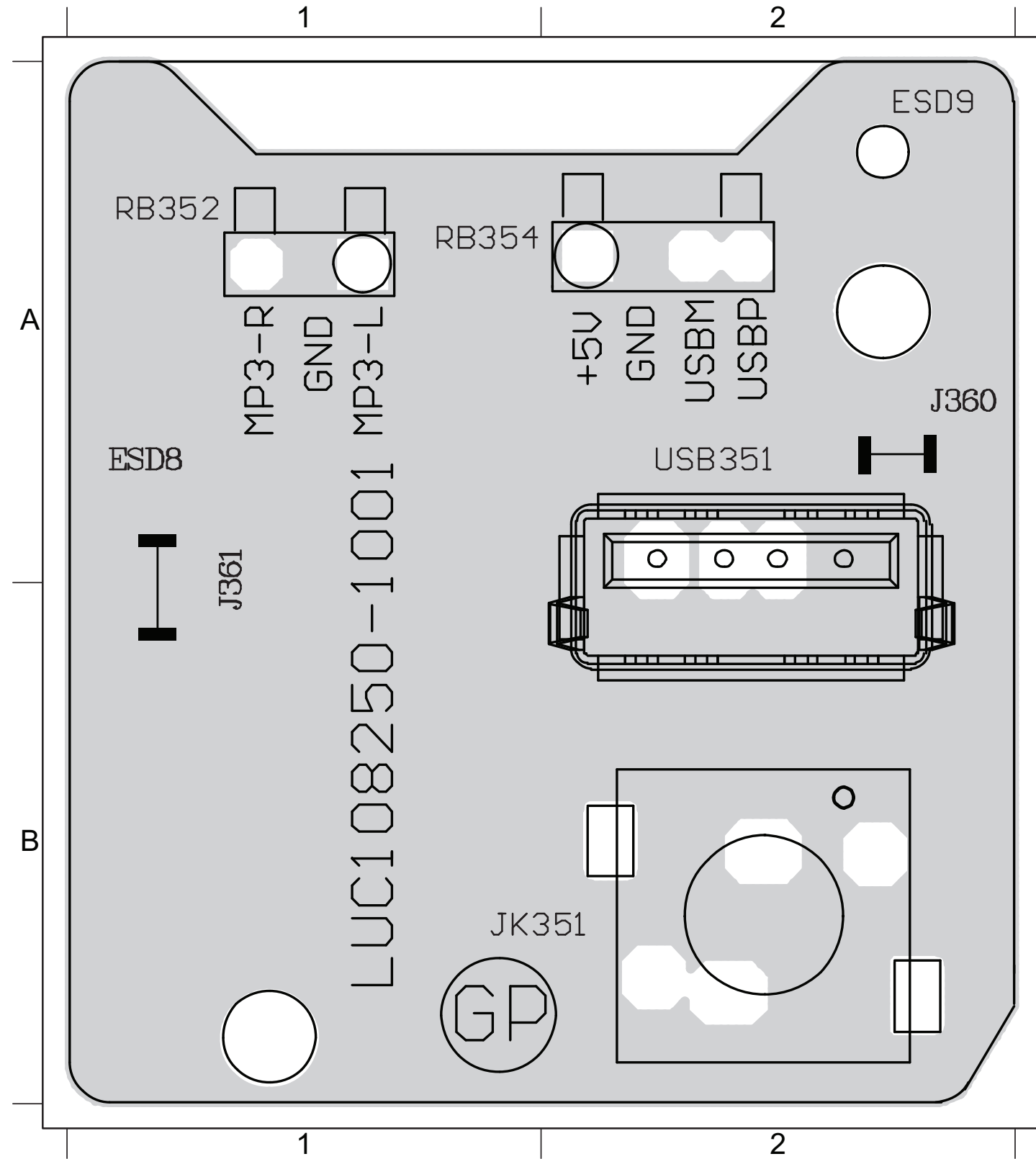
3



# PCB LAYOUT - TOP VIEW

8-3

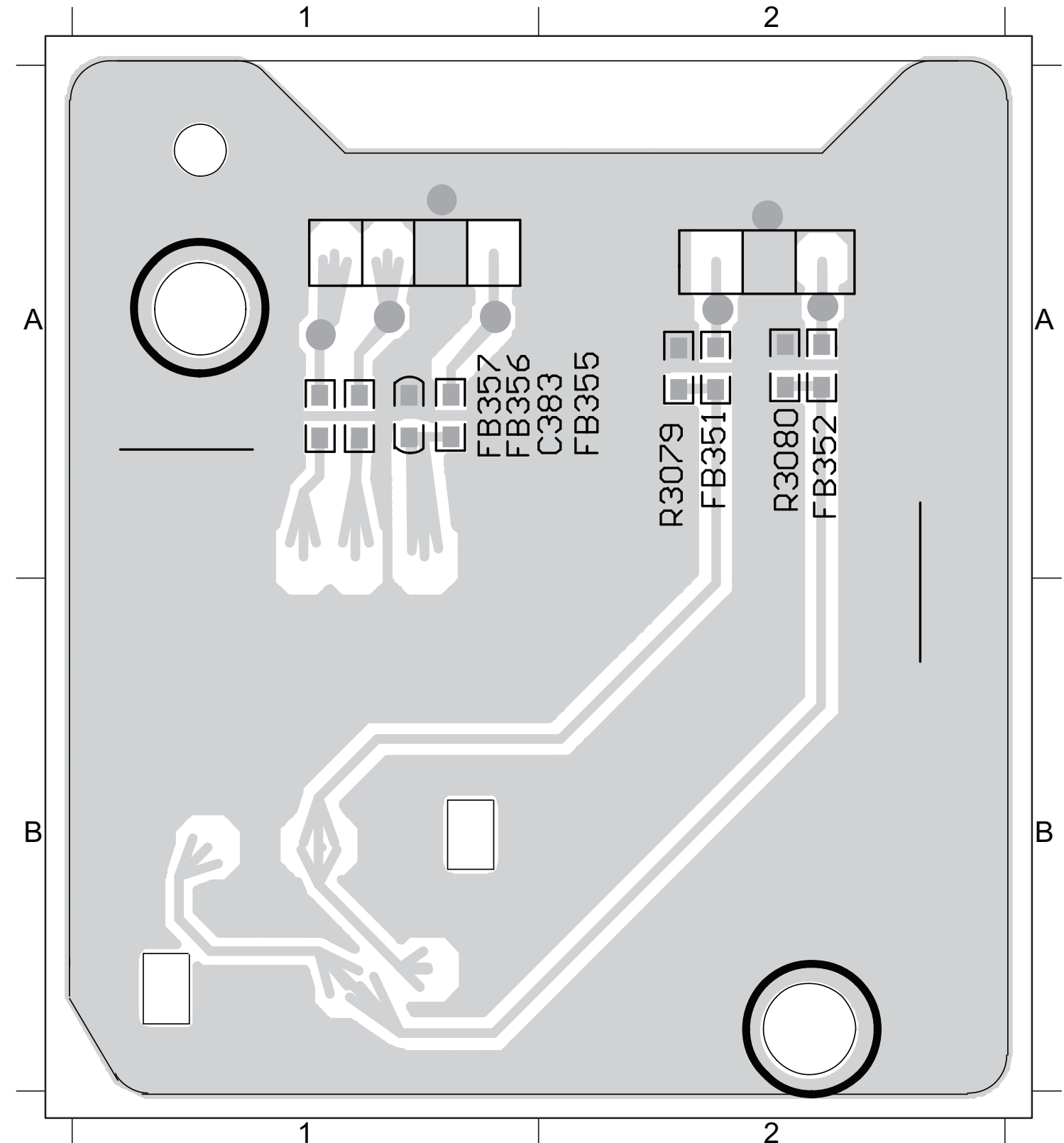
J360 A2 J361 A1 JK351 B1 RB352 A1 RB354 A1 USB351 A2



# PCB LAYOUT - BOTTOM VIEW

8-3

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



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# SCART BOARD

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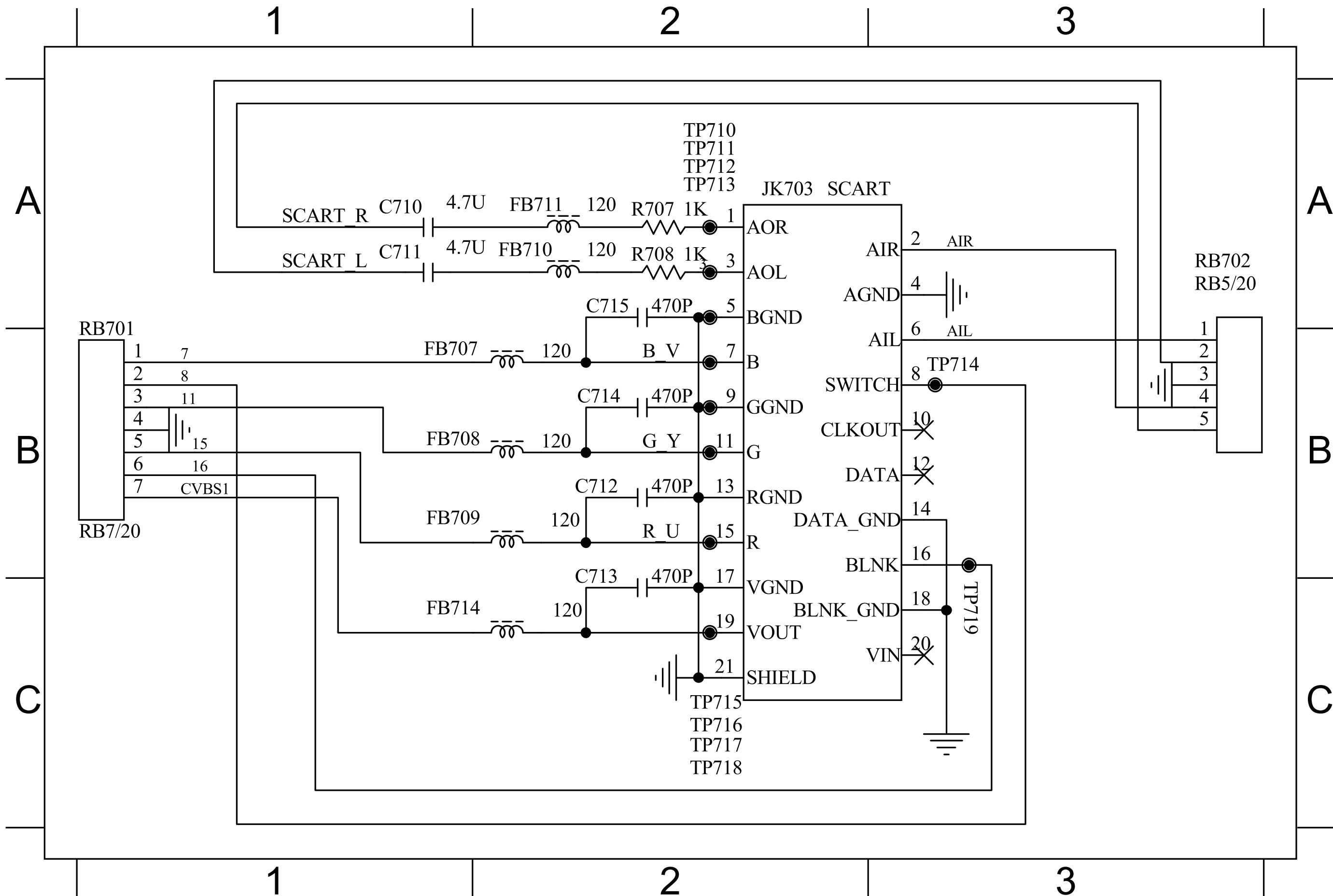
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CIRCUIT DIAGRAM

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

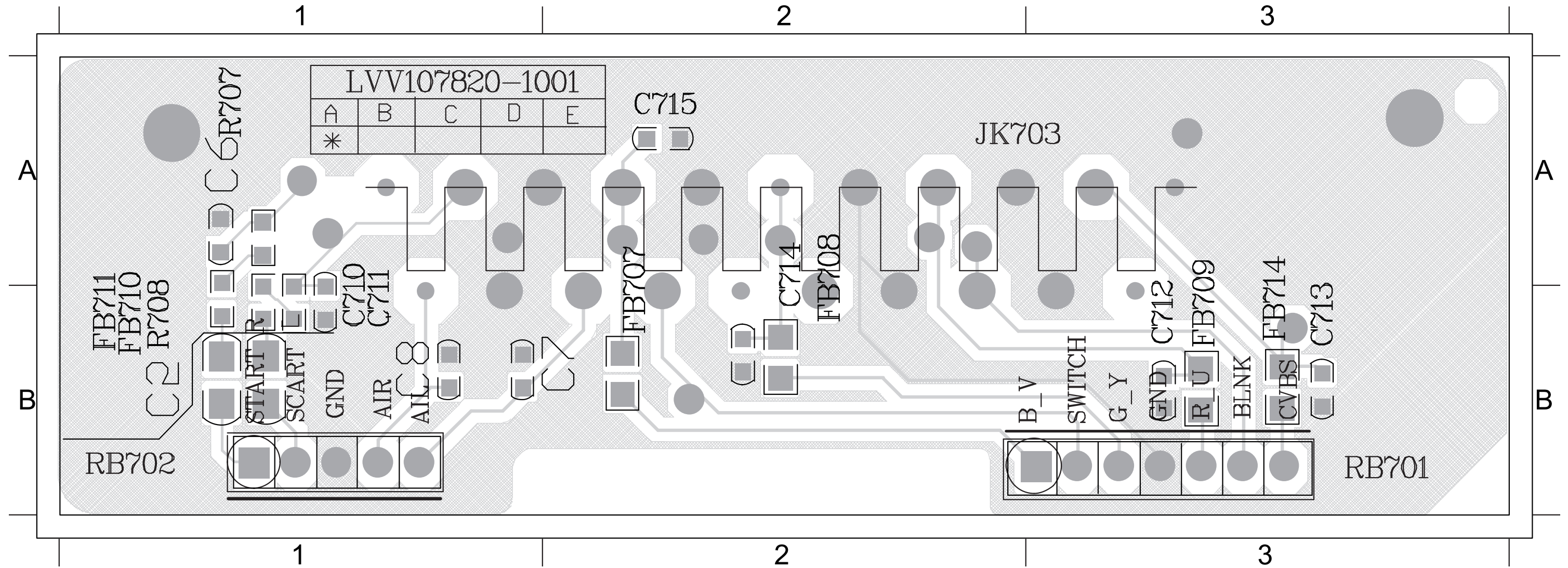


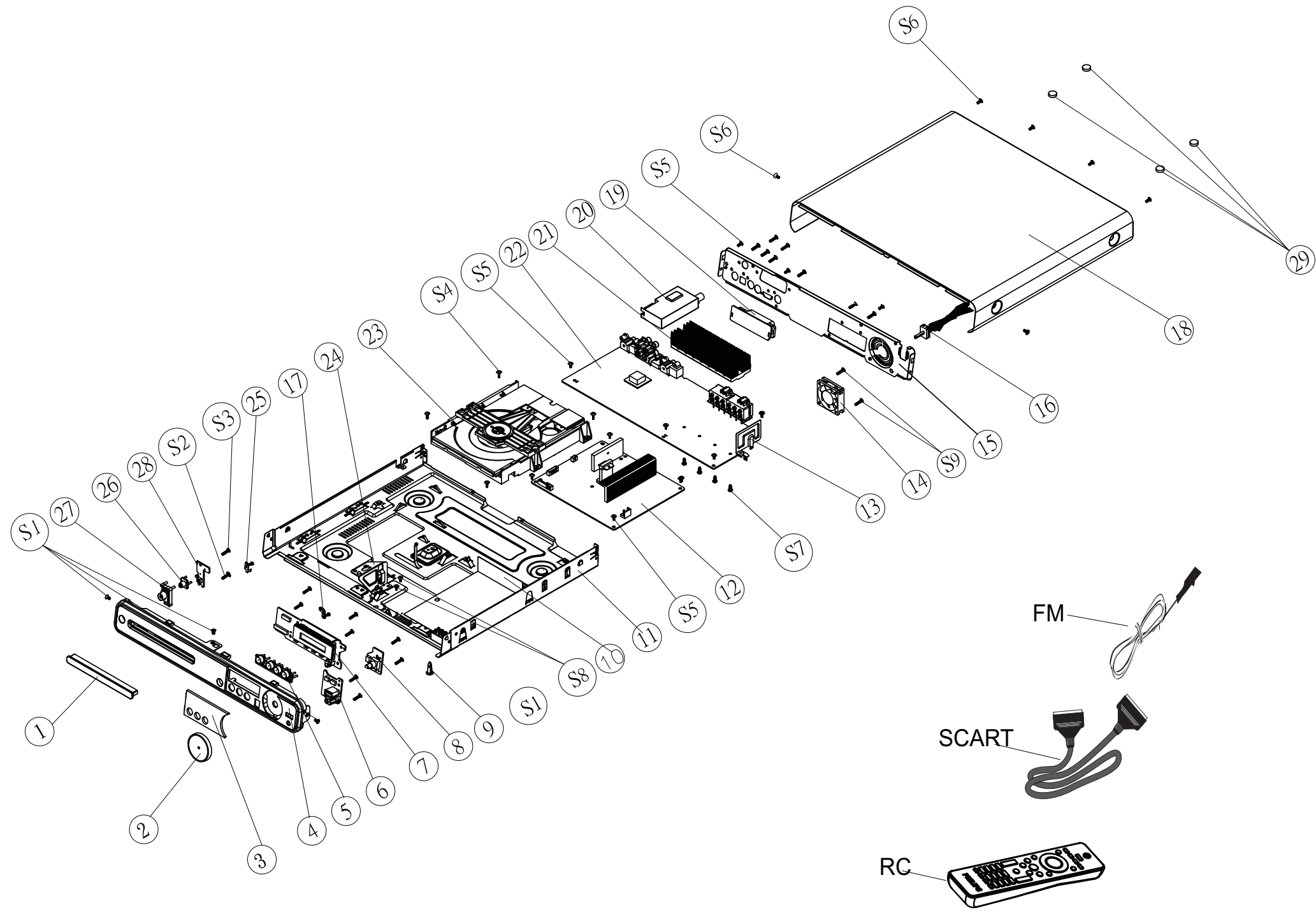
# PCB LAYOUT - SCART PCB VIEW

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





$$A=7+28+8$$

## PART LIST

Loc.	Alt Part No.	safety Description
<b>MAIN UNIT</b>		
1	996510028817	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	996510027084	REAR PANEL SECC T=0.6mm
16	996510001638	POWER CORD
18	996510027086	TOP COVER SECC
19	996510021058	SCART PCB ASSY
20	# 996510011275	TUNER PACK
20	# 996510018486	TUNER PACK KST-MT004FS
22	996510028826	MAIN PCB ASSY
23	996510021248	DVD LOADER
26	996510021064	STANDBY LENS
27	996510021069	STANDBY KNOB
29	996510021942	RUBBER FOOT D14xH4.2
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 10P100mmUL2079
<b>SPEAKER</b>		
RFC	996510001599	RUBBER FOOT -CENTER SPK
RFS	996510010854	RUBBER FOOT -SUB
RFSPK	996510012224	RUBBER FOOT - REAR
SPKC	996510028823	SPEAKER BOX-center
SPKFL	996510028815	SPEAKER BOX F-L
SPKFR	996510028818	SPEAKER BOX F-R
SPKS	996510028814	SPEAKER BOX-SUB
SPKSL	996510028821	SPEAKER BOX S-L
SPKSR	996510028813	SPEAKER BOX S-R
<b>SCREW</b>		
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
<b>MAIN PCB</b>		
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
CN802	996500015901	CONNECTOR 6 PIN P=2.0MM
CN803	996500015895	CONNECTOR 5 PIN P=2.0MM
IC101	996510021063	IC 16P SAA6581T SO16 PHILIPS
IC201	996510012499	IC 28P
IC202	996510028825	IC 48P EN29LV320B-70TCP

Loc.	Alt Part No.	safety Description
<b>MAIN PCB</b>		
IC203	# 994000005209	IC 3P AZ809NSTR-E1 SOT23
IC203	# 996500041284	IC 3P STM809SWX6F 3.0V
IC204	996510004289	IC 8P TU24C16CS2 SOIC
IC205	# 996510021062	IC3P LD1117ADJ SOT223 3.3V
IC205	# 996510027042	IC 3P LD1117AL-33-AA3 3.3V
IC206	# 996510009895	IC 54P A641604L-6T TSOP II
IC206	# 996510016601	IC 54P HY57V641620F(L/S)TP-6
IC207	996510012500	IC 20 PIN SN74HC244PWR
IC208	996510021936	IC 48P STM32F101C6A
IC209	996510021082	IC 256P MT1389FXE/SN LQFP
IC210	# 996500027090	IC 3 PIN AP1117E18LA 1.8V
IC210	# 996510027889	IC 3P LD1117AL-18-AA3
IC301	# 996500029611	IC 8P CO4558A SO8 CERAMAT
IC301	# 996510020341	IC 8P D4558 SOP SILICORE
IC304	996510012503	IC 16P CD4051BM SOIC TI
IC305	996510012503	IC 16P CD4051BM SOIC TI
IC306	996510021056	IC 20P WM8781GEDS SSOP
IC309	996510012500	IC 20 PIN SN74HC244PWR TSS
IC401	996510021092	IC 64P TAS5508APAG TQFP TI
IC402	996510021081	IC 44P TAS5352ADDV HTSSOP
IC403	996510021081	IC 44P TAS5352ADDV HTSSOP
IC404	996510021081	IC 44P TAS5352ADDV HTSSOP
IC405	# 996500029611	IC 8P CO4558A SO8 CERAM
IC405	# 996510020341	IC 8P D4558 SOP SILICORE
IC406	# 996500029611	IC 8P CO4558A SO8 CERAM
IC406	# 996510020341	IC 8P D4558 SOP SILICORE
IC407	996500023948	IC 14PIN 74HCU04D PHILIPS
IC801	996510010380	Motor Drive IC
JK302A	996510016616	RCA JACK2PWHT-RED RCA
JK401	996510013837	GPSPK JAC12P RD-WT-GRN
JK701	996510012481	RCA JACK 1P YELLOW W/GND
JK703	996510015645	TOSL JA PLR131/T2 RECEIVER
JK704	996500017363	RCA JACK 1P W/GND P
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
Q204	996510012508	XISTR PNP TIP42C
Q405	996500028742	XISTR NPN 2SD882P PB<100M
Q903	996500026946	XISTR PNP 2SB772P/Q NEC
XL401	996510021233	X'TAL 13.5MHz 15ppm 20pF
<b>POWER PCB</b>		
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 20%
YC919	996500027115	CAP.SAFTY Y1 102PF 250V 20%
C920	# 996510012472	COND ELEC 330uF 200V 20%
C920	# 996510028093	COND ELECT 330uF 200V
C921	# 996510012472	COND ELEC 330uF 200V 20%
C921	# 996510028093	COND ELECT 330uF 200V

Loc.	Alt Part No.	safety Description
<b>POWER PCB</b>		
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'
CN906	996500015898	CONNECTOR 2 PIN PITCH
D907	996500026949	DIODE SW 1N4148 PB<1000PP
D908	996500026949	DIODE SW 1N4148 PB<1000PP
D909	996500026949	DIODE SW 1N4148 PB<1000PP
D910	996500026949	DIODE SW 1N4148 PB<1000PP
D915	996510012516	DIODEHER105 DO-411A400V50
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-220
F901	996500042572	⚠ FUSE 5A 250V SLOW
GT902	996510021084	SURGE PROTECTOR DSP-501
IC901	996510021079	IC 8P(P3=N.C) TNY180PN DIP
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 D0.65MM
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 50A
TVR902	996510021072	SURGEORBER :VCR-10D241
TVR903	996510021072	SURGEORBER :VCR-10D241
ZD903	994000002067	DIODE ZENR 14.5-15.1V 0.5W
ZD904	994000002067	DIODE ZENR 14.5-15.1V 0.5W

Loc.	Alt Part No.	safety Description
<b>DISP+LED+VOL PCB</b>		
DP351	996510021249	VFD 32P 20075-2A24(D1068WA)
IC351	# 996500029614	IC 52 PIN PT6311(PTC)
IC351	# 996500041280	IC 52P ET16311 VFD DRIVER
LD351	# 996510004102	LED 3 DIA RED ROUND
LD351	# 996510020167	LED 3 DIA ULTRA RED TINT
SN351	994000005472	IRT RECEIVER IRM-2638AF4
VR351	996510027019	ENCODER L15x7mm

**MP3 IN PCB**

JJK351	996510004129	KARAOKE JACK D3.6MM 7P
USB351	996510013742	USB JACK 4P

**SCART PCB PCB**

JK703	996510021054	SCART SOCKET 21P P3.81mm
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# REVISION LIST

Version 1.0

\*Initial release

#=Alternative Codes

=Safety Symbol