

Service  
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**Service**



# Service Manual



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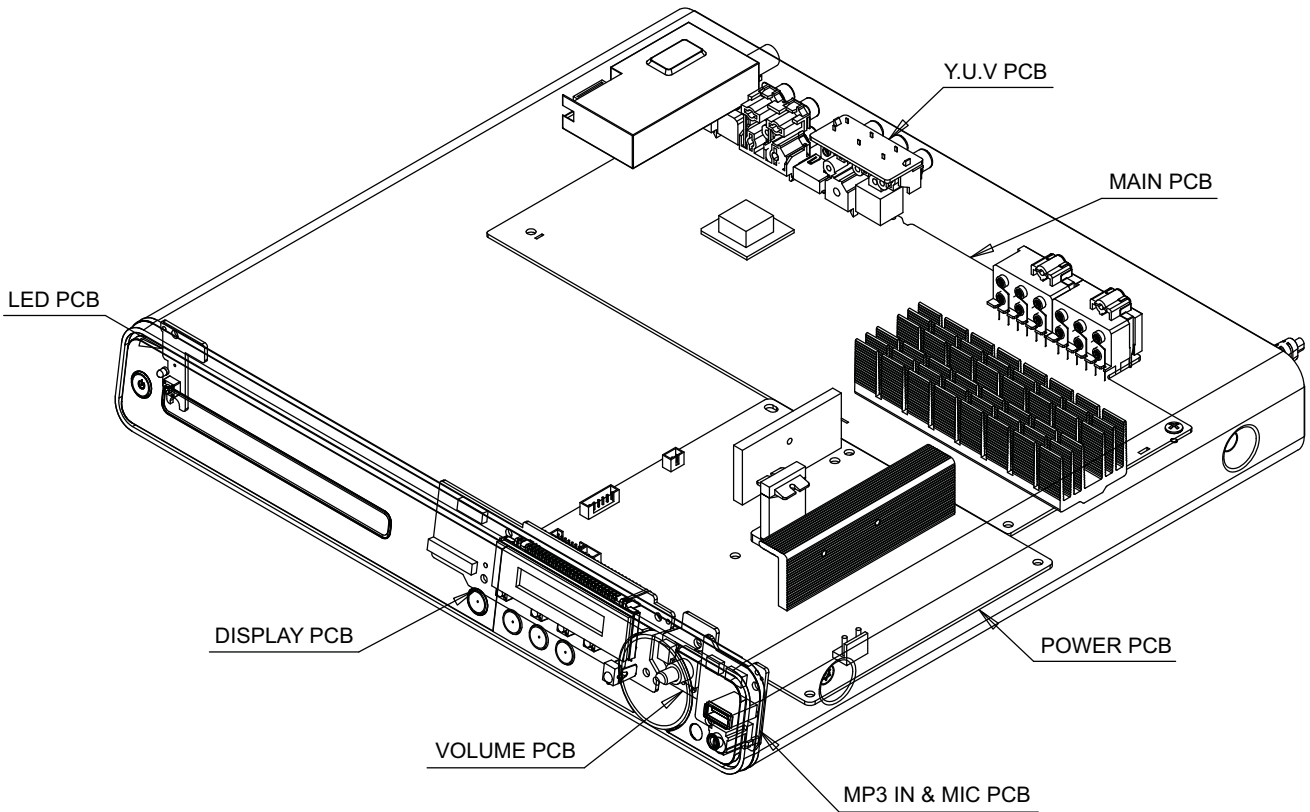
GB 3139 785 35160

Version 1.0



# PHILIPS

# LOCATION OF PCB BOARDS



## VERSION VARIATION:

Type/Versions	HTS3371
<b>Features</b>	<b>/94</b>
Output Power - 1000W	X
Voltage (220-240V)	X

## SERVICE SCENARIO MATRIX:

Type/Versions	HTS3371
<b>Board in used</b>	<b>/94</b>
MAIN+Y.U.V Board	C
Power Board	C
DISP+LED+VOL Board	C
MP3 IN+MIC Board	C

\*C = Component Level Repair

# SPECIFICATIONS

## Playback media

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

## Amplifier

Total output power.....  
 Home theatre mode..... 1000 W RMS (6 X 167)  
 Frequency response.....40 Hz ~ 20 kHz  
 Signal-to-noise ratio.....> 60 dB (A-weighted)  
 Input sensitivity.....  
 .....AUX1: 400 mV  
 .....AUX2: 400 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 (50/100 kHz)  
 26 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 / ±6dB  
 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.....220-240V;~50Hz switchable  
 Power consumption..... 180 W  
 Standby power consumption..... < 1 W  
 Dimensions (WxHxD)..... 360 x 57 x 331 (mm)  
 Weight..... 3.01 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/rear..... 103 x 203 x 71 (mm)  
 Weight.....  
 Centre..... 0.85 kg  
 Front..... 0.58 kg  
 Rear..... 0.55 kg

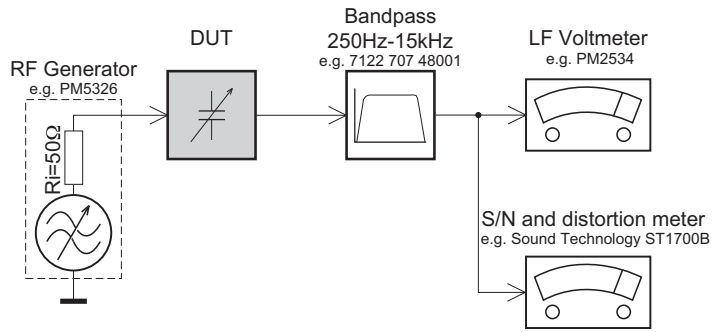
## Subwoofer

Impedance..... 4 ohm  
 Speaker drivers..... 165 mm (6.5") woofer  
 Frequency response.....40 Hz ~ 150 Hz  
 Dimensions (WxHxD)..... 163 x 363 x 369 (mm)  
 Weight..... 4.7 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

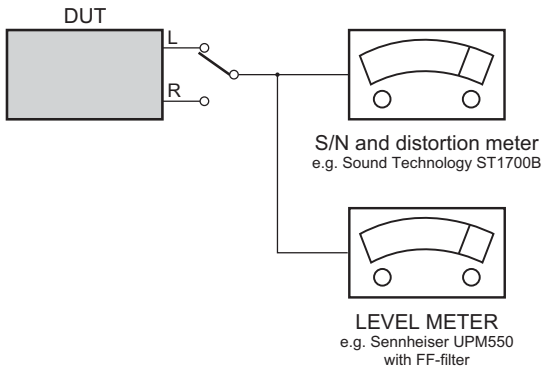
## Tuner FM



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

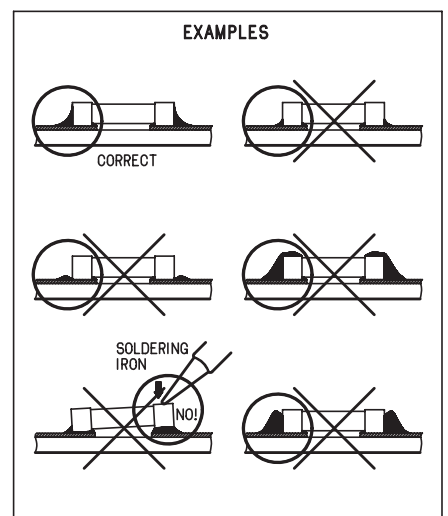
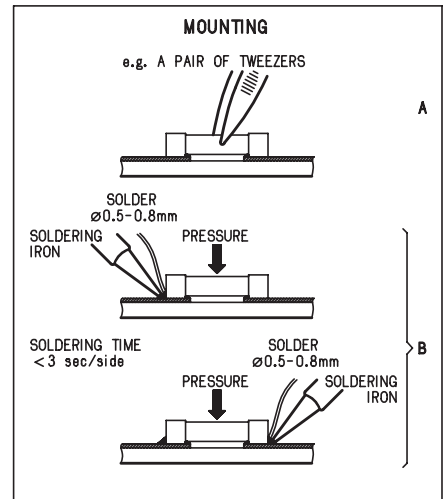
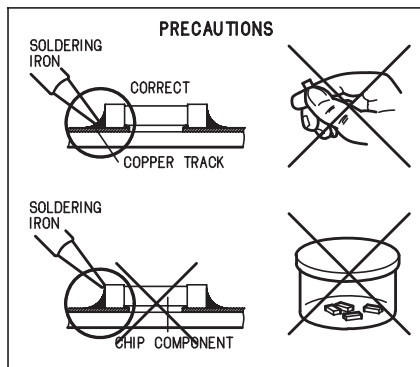
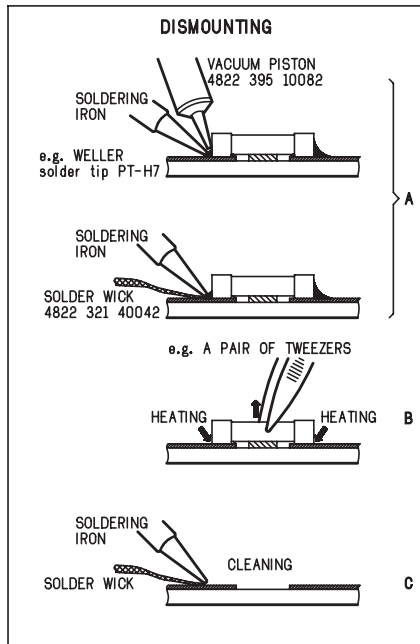
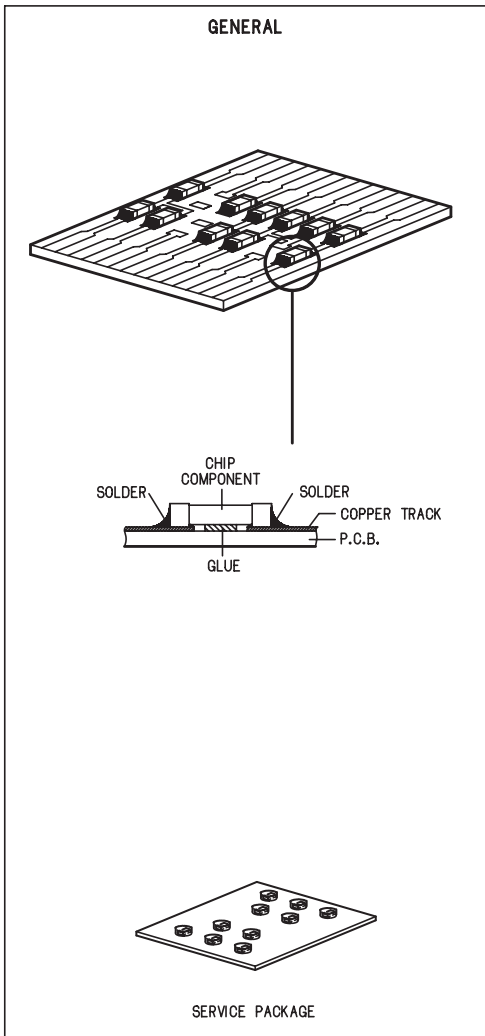
## Service Tools:

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.

Componenty 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 suojalukituksen 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 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](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

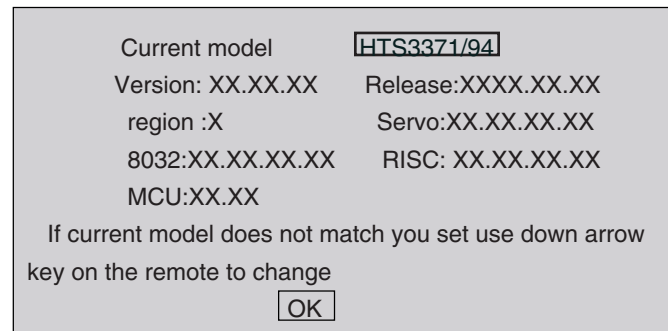
### **2)Region Code Change**

- 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"

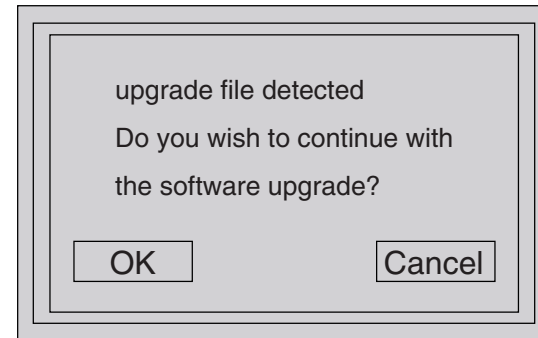
### **7) Upgrading new software**

- 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:

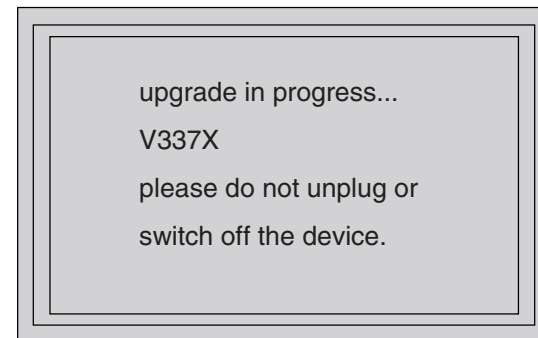
"Loading"  
 "Erase" -- erase the flash memory  
 "Writing" about 1 minute  
 "done "

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

- OSD will show:



- Select "OK", OSD will show:

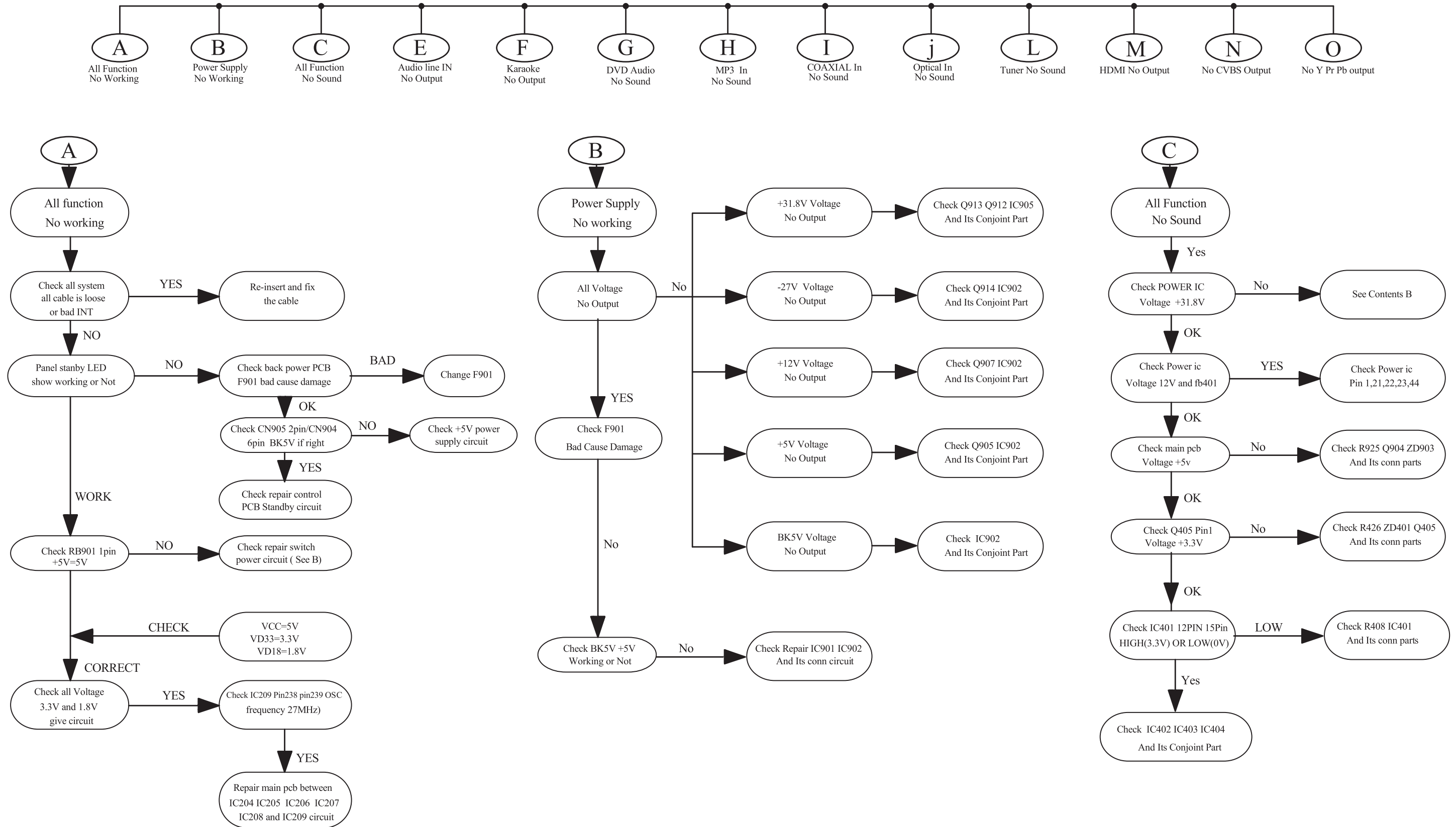


### **CAUTION!**

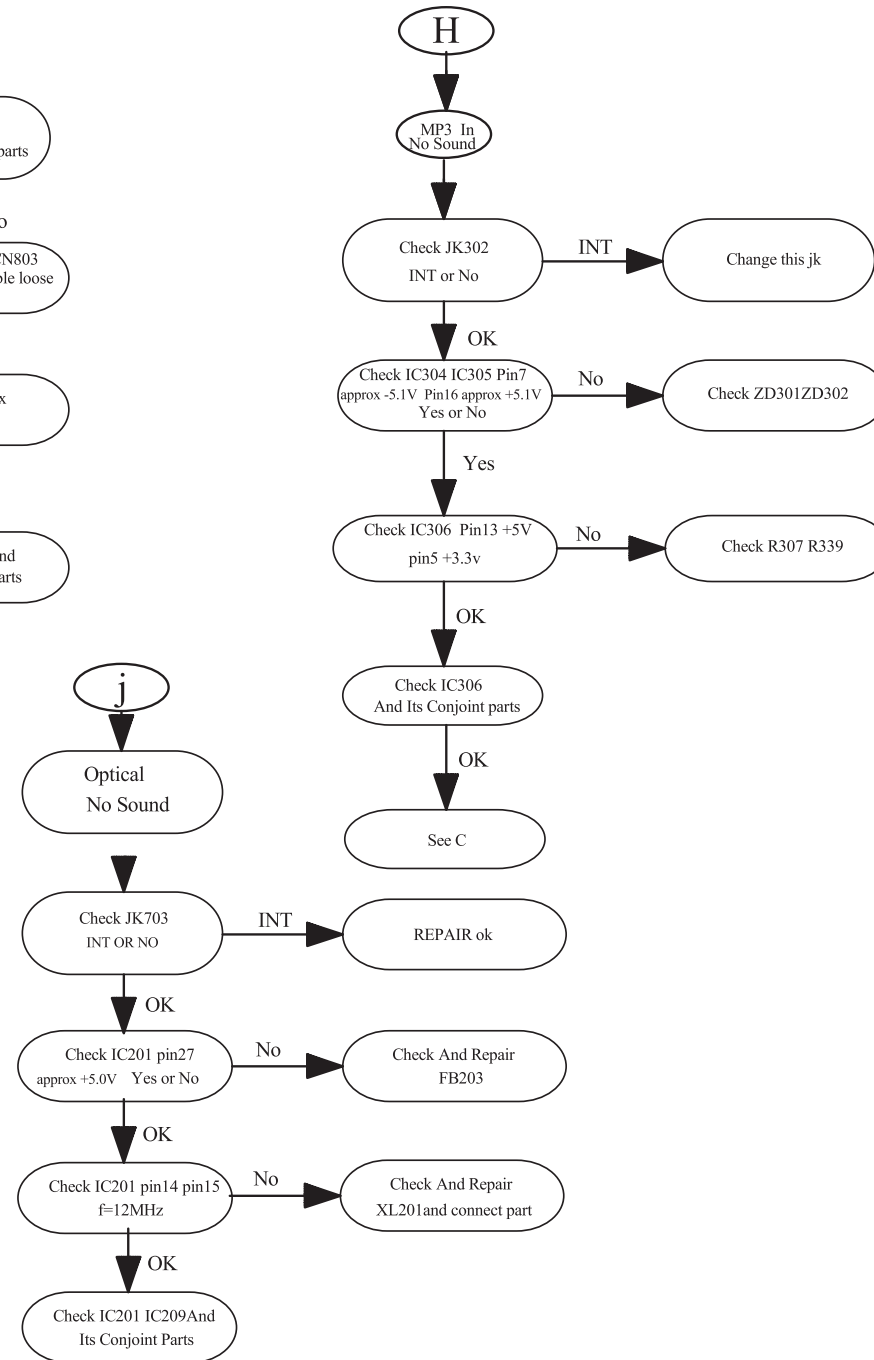
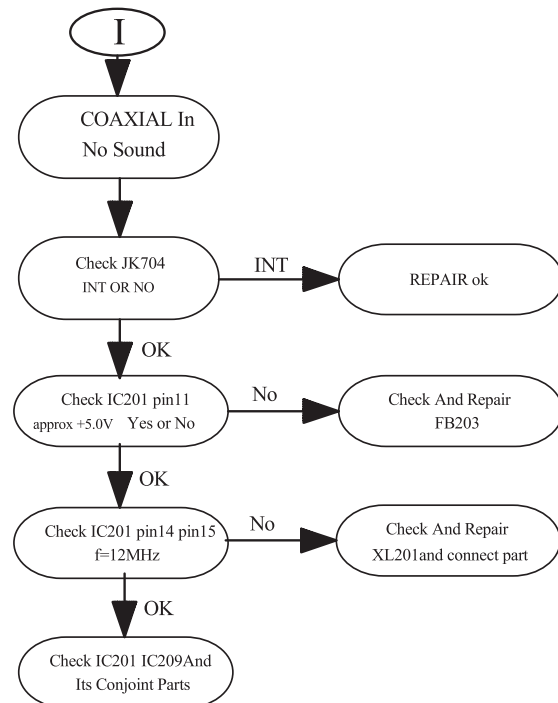
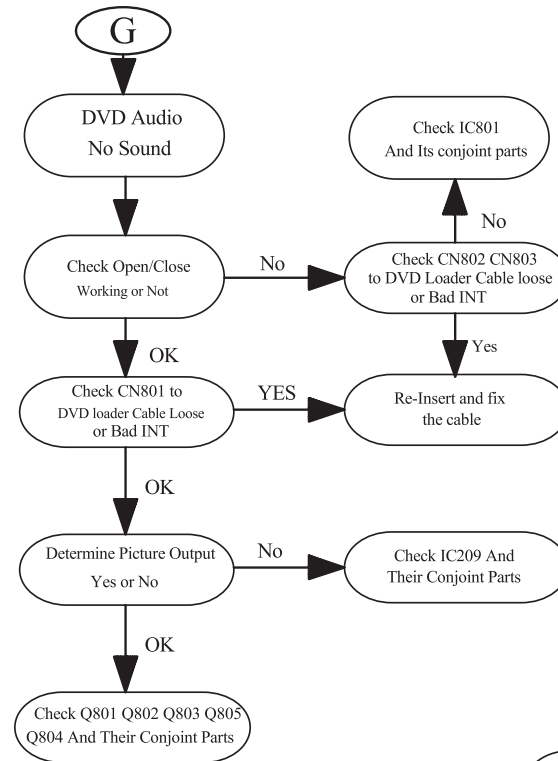
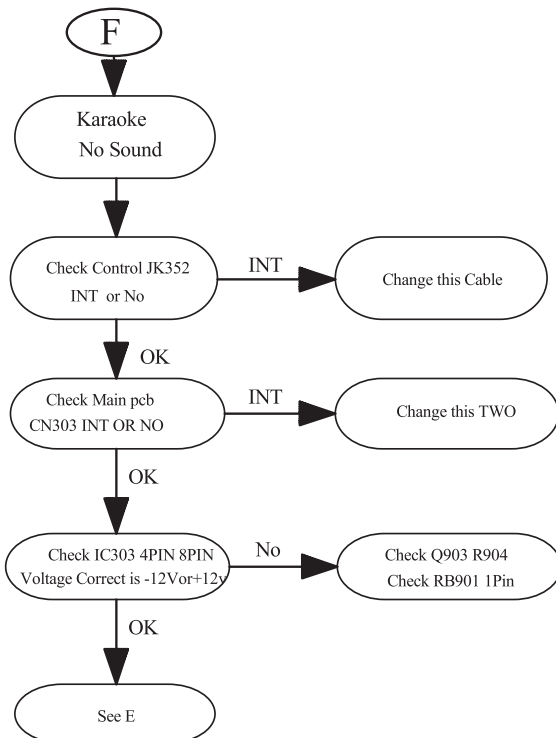
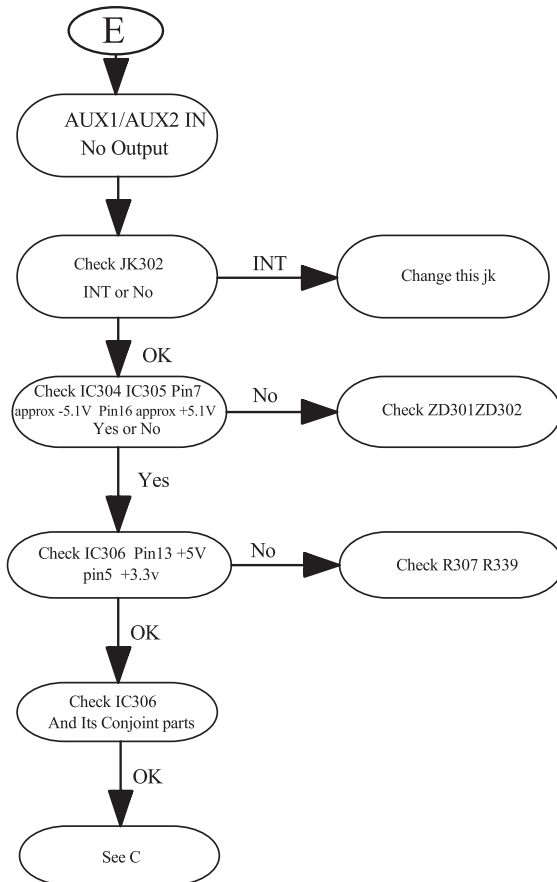
This information is confidential and may not be distributed.Only a qualified service person should reprogram the Region Code.



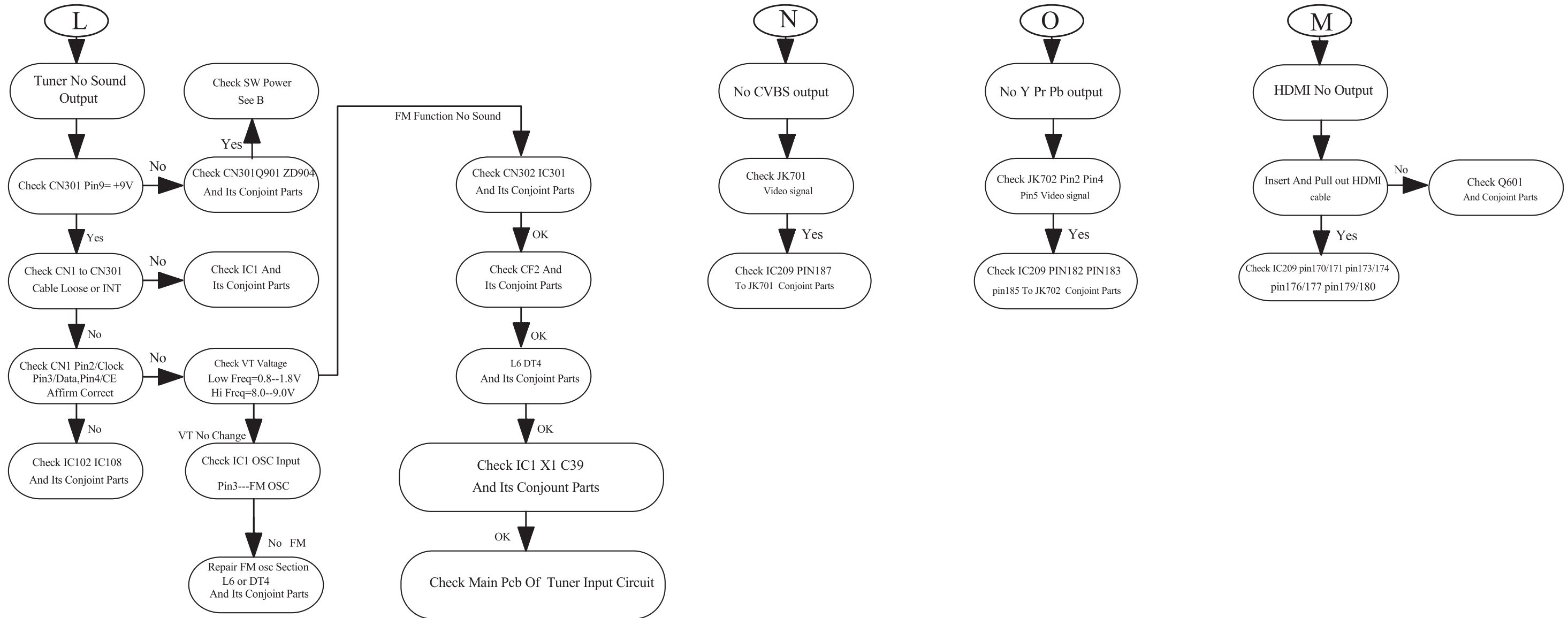
# MAIN UNIT REPAIR CHART 1/3



### 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.

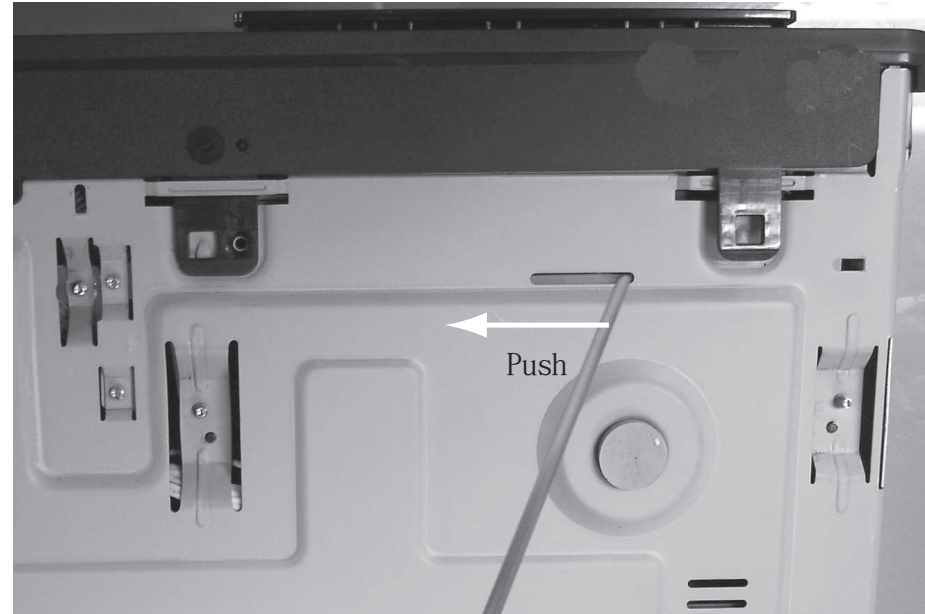


Figure 1

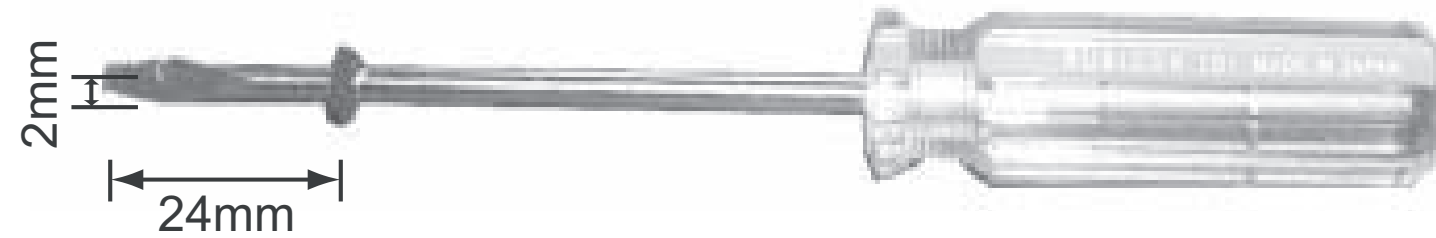


Figure 2

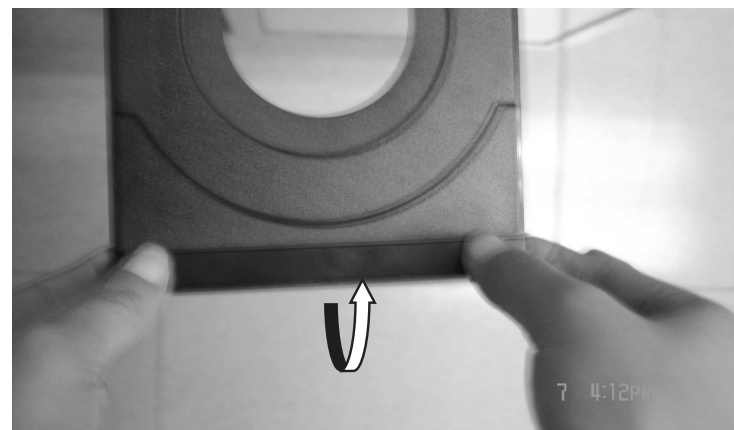


Figure 3

- 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.

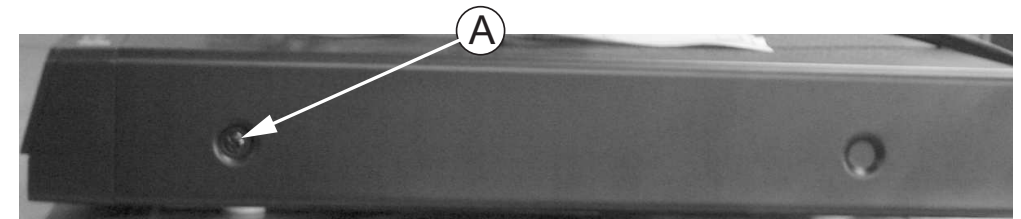


Figure 4

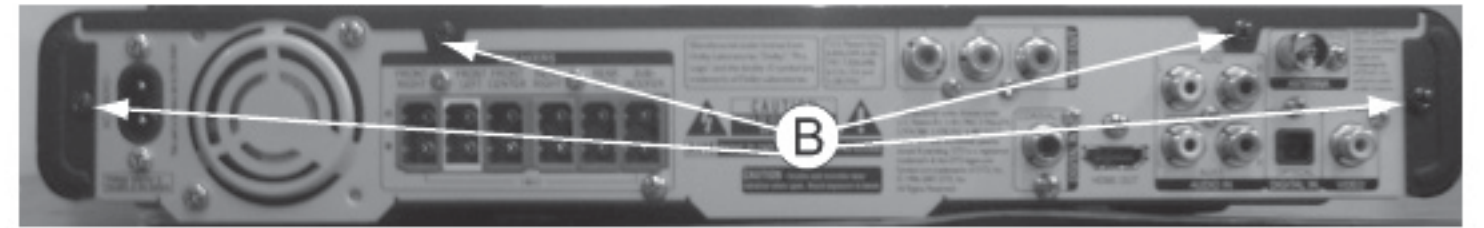


Figure 5

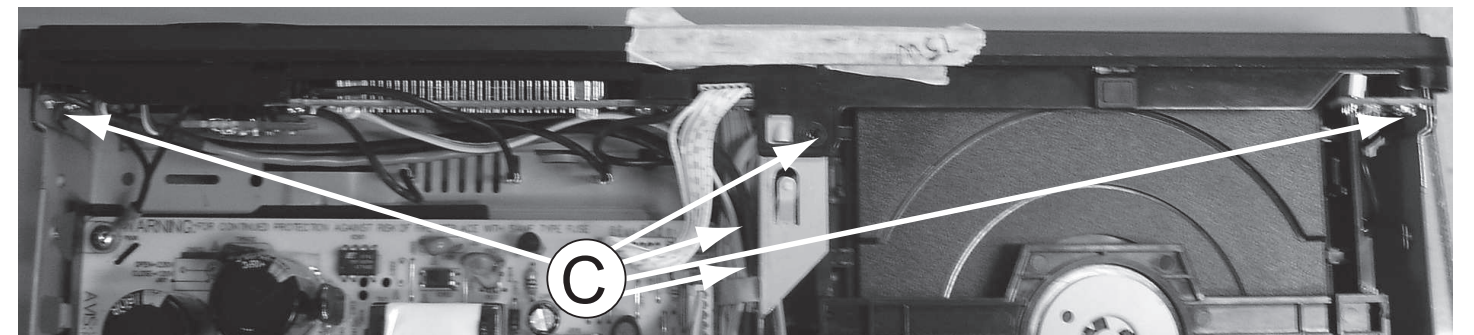


Figure 6

## Dismantling of the DVD Module

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

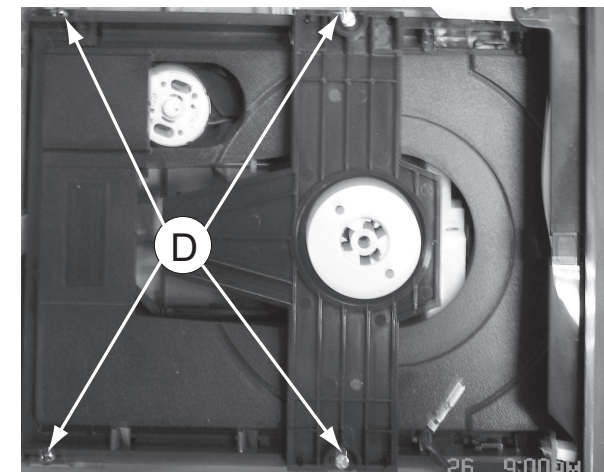


Figure 7

**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.

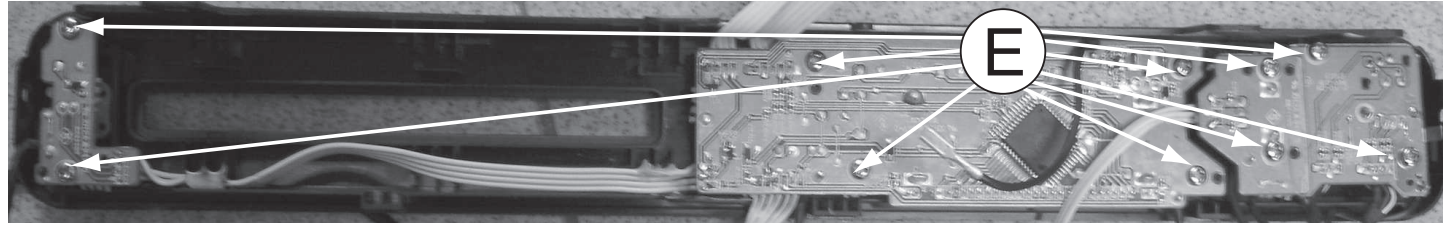


Figure 8

**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.

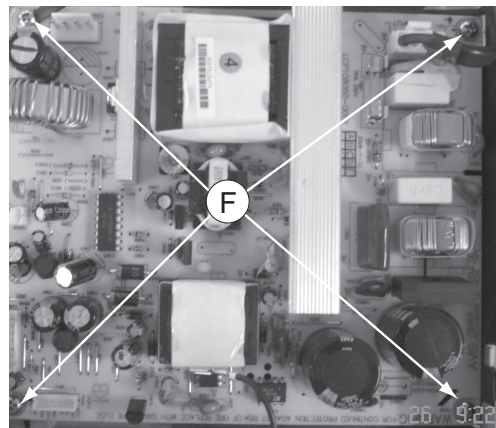


Figure 9

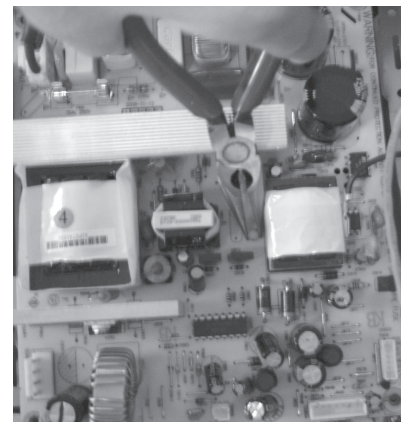


Figure 10

**Dismantling of the MAIN+SCART Board**

- 1) Loosen 4 screws "G" on the top of Main Board as shown in figure 11.
- 2) Loosen 11 screws at the back panel as shown in figure 12.

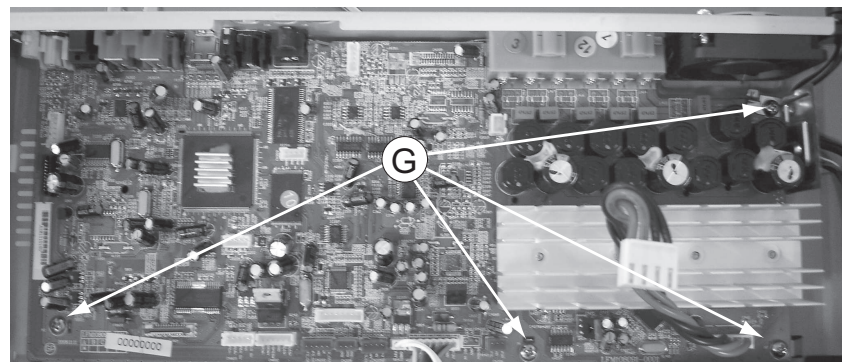


Figure 11

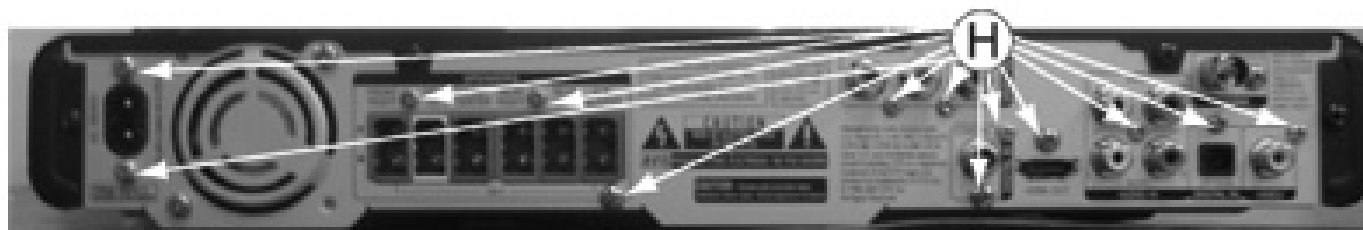
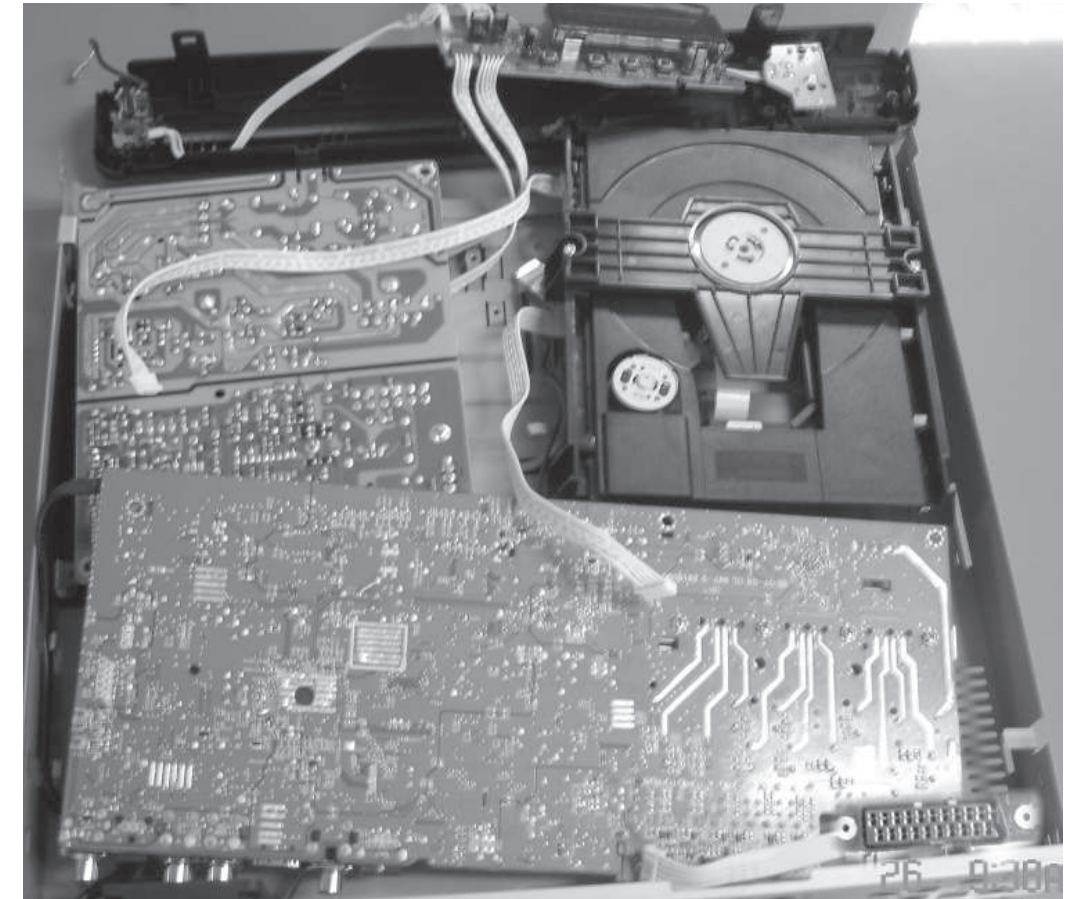


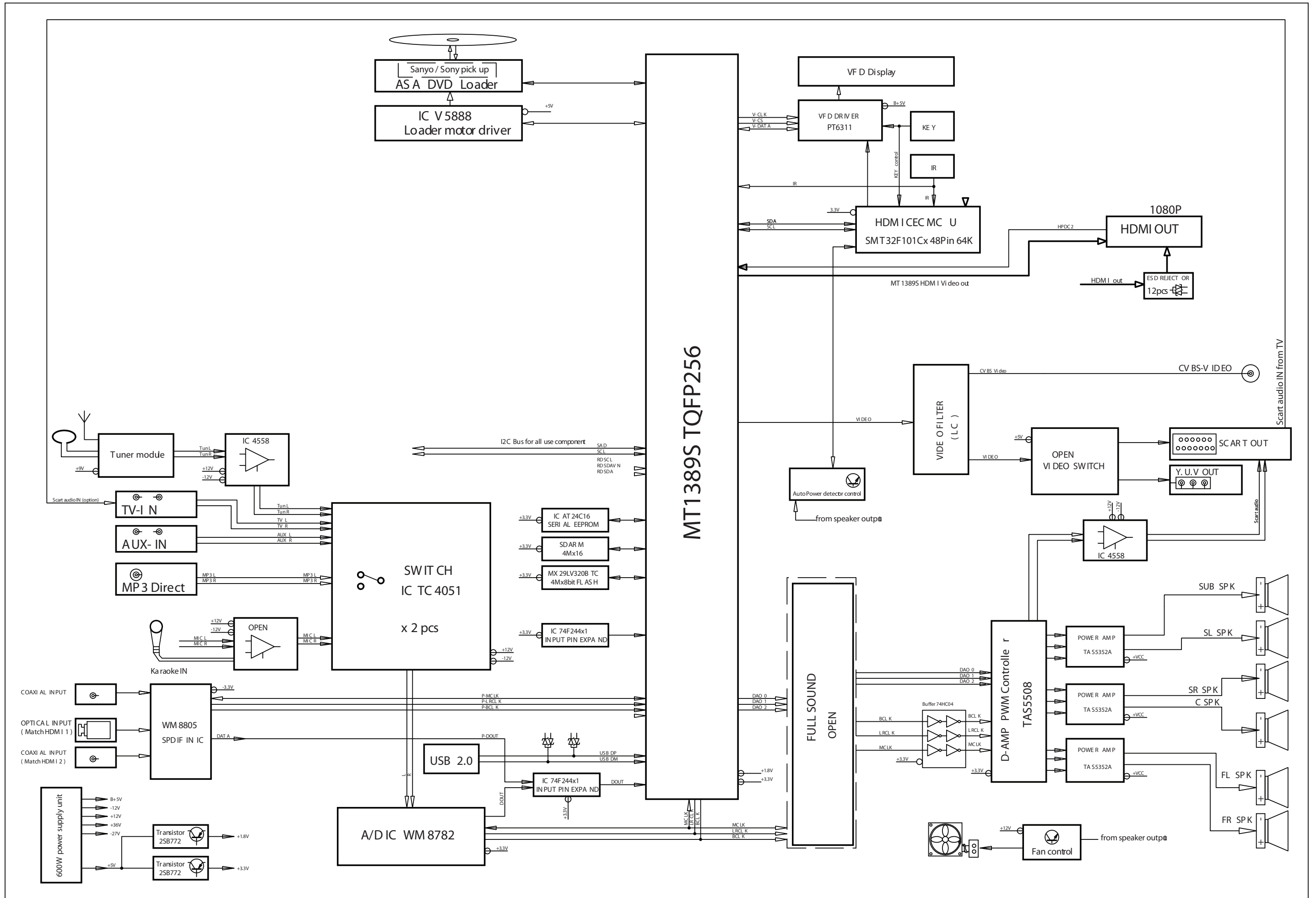
Figure 12

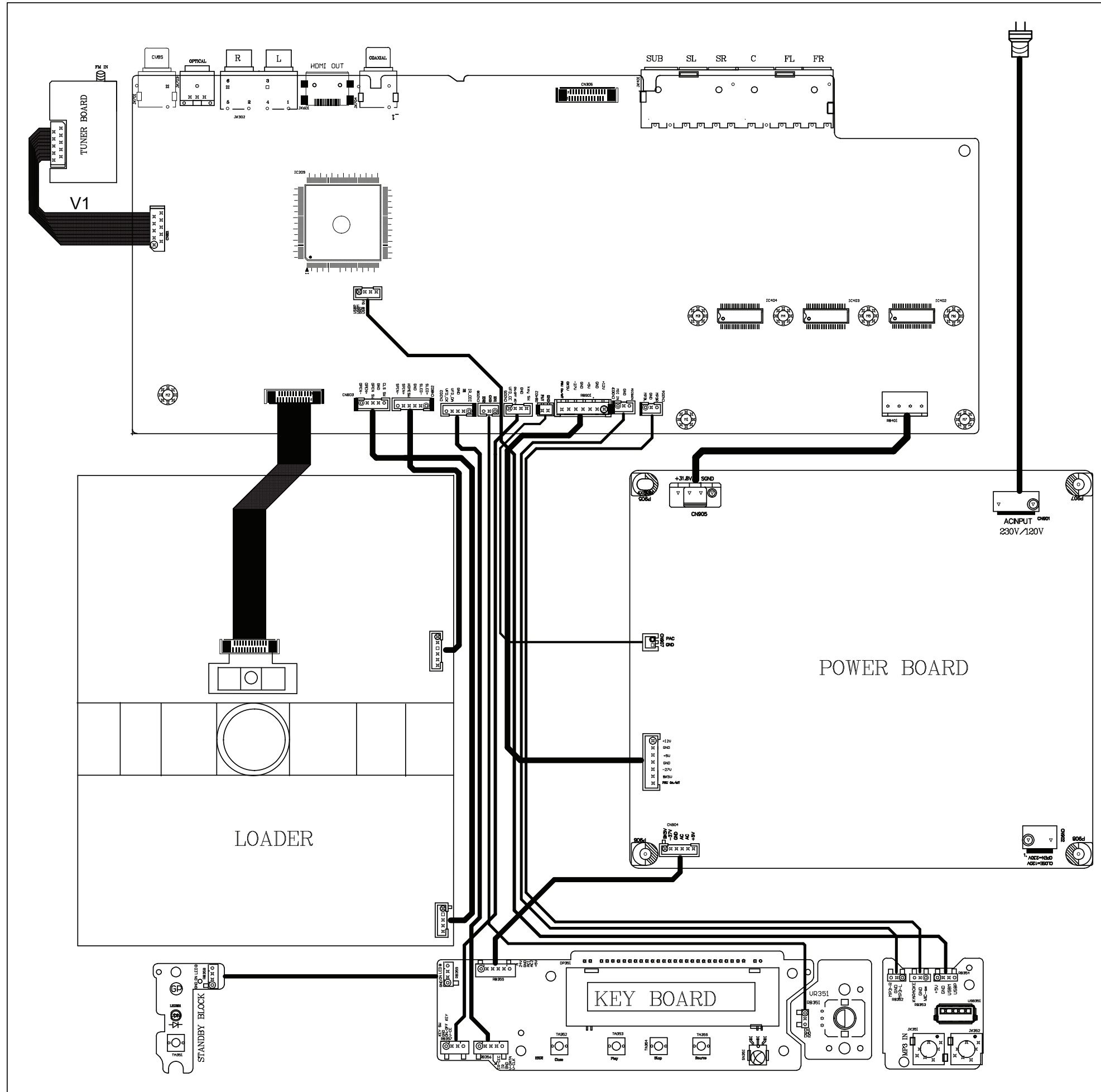
**SERVICE POSITIONS**

Service position A

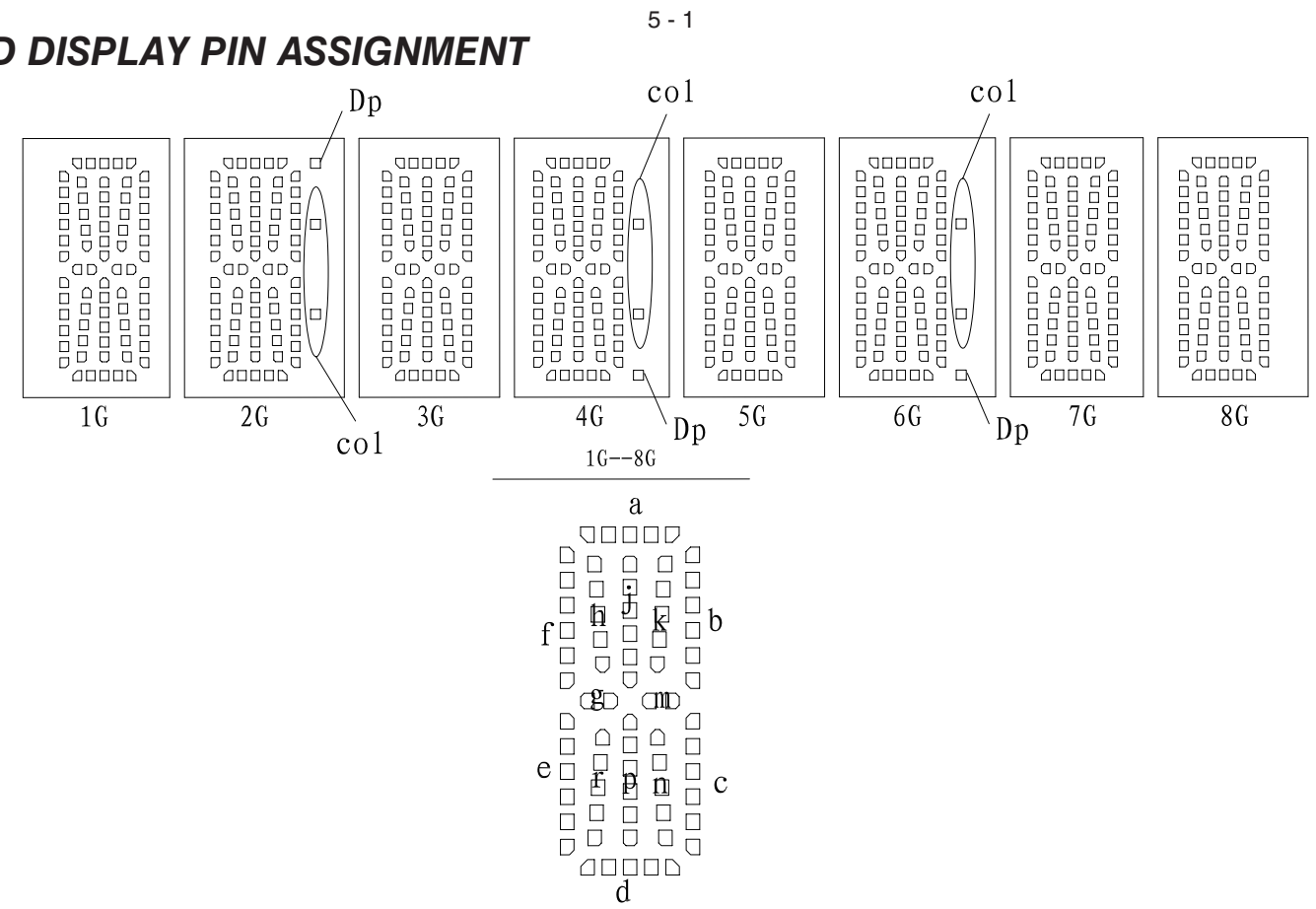


Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.





**FTD DISPLAY PIN ASSIGNMENT**



**VFD+JACK+VOL+STANDBY 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	/	/

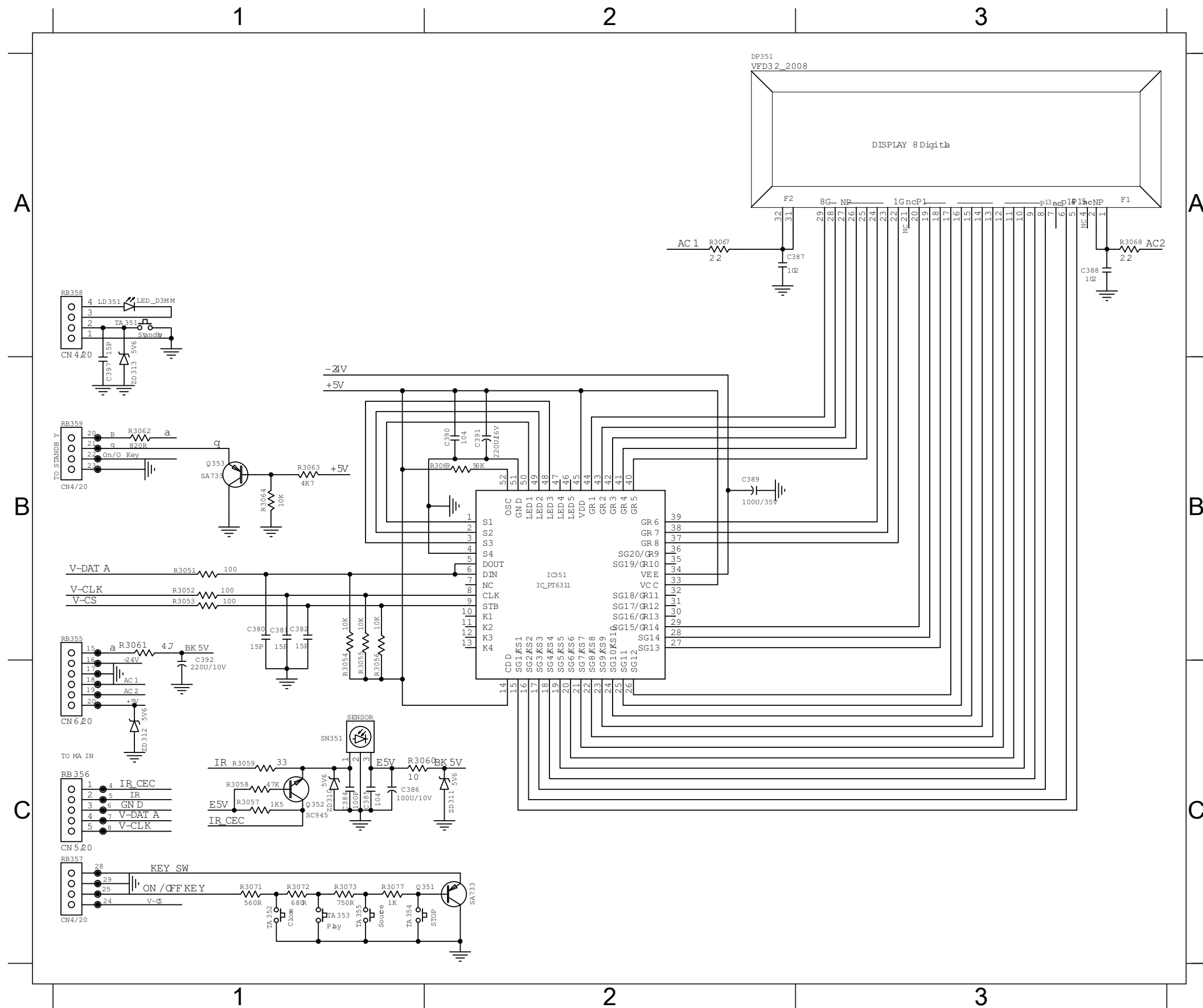
PIN CONNECTION

(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)

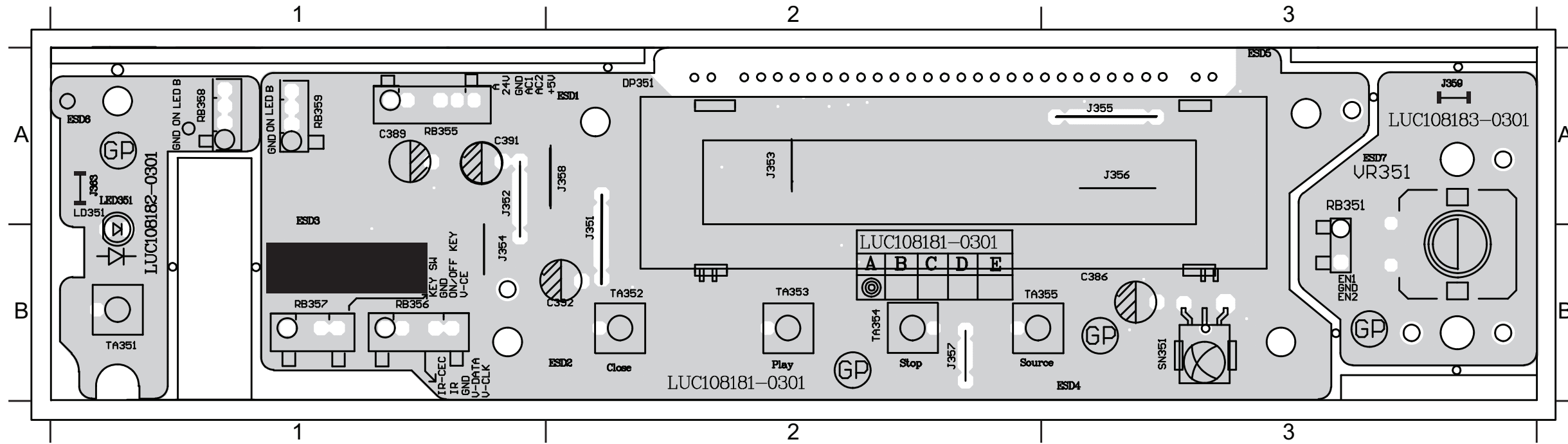


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 C381 B1 C385 C1 C388 A3 C391 B2 C396 C4 IC351 B2 Q352 C1 R3052 B1 R3055 B1 R3058 C1 R3061 B1 R3064 B1 R3069 B2 R3073 C1 RB355 B1 RB359 B1 TA352 C1 TA355 C1 ZD311 C2  
 C382 B1 C386 C1 C389 B2 C392 B1 C397 B1 LD351 A1 Q353 B1 R3053 B1 R3056 B1 R3059 C1 R3062 B1 R3067 A2 R3071 C1 R3077 C1 RB356 C1 SN351 C1 TA353 C1 VR351 C4 ZD312 C1



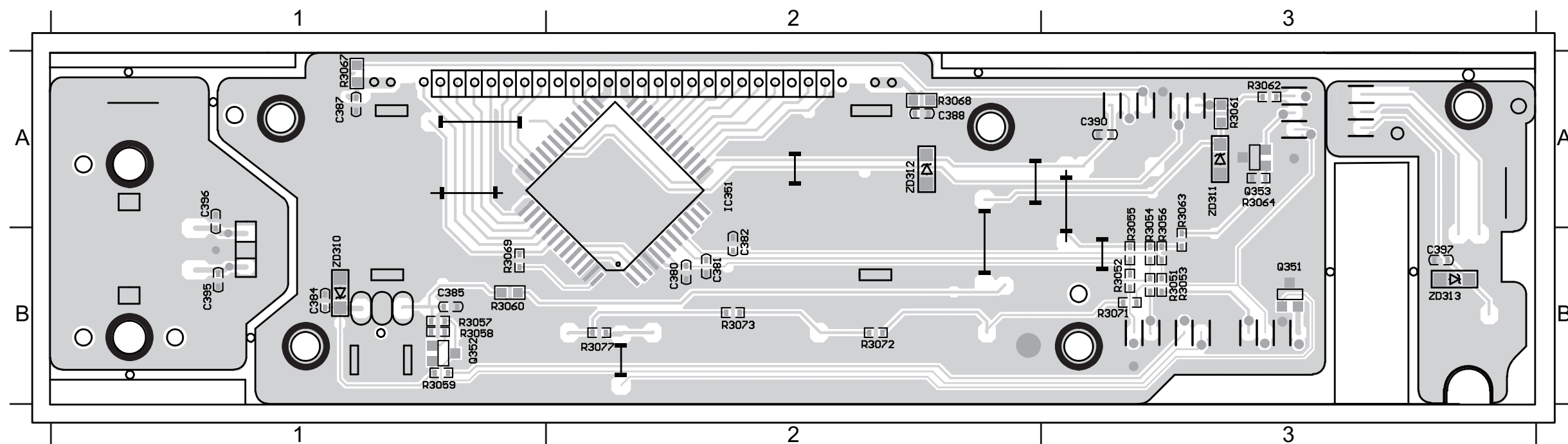
### PCB LAYOUT - TOP VIEW

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

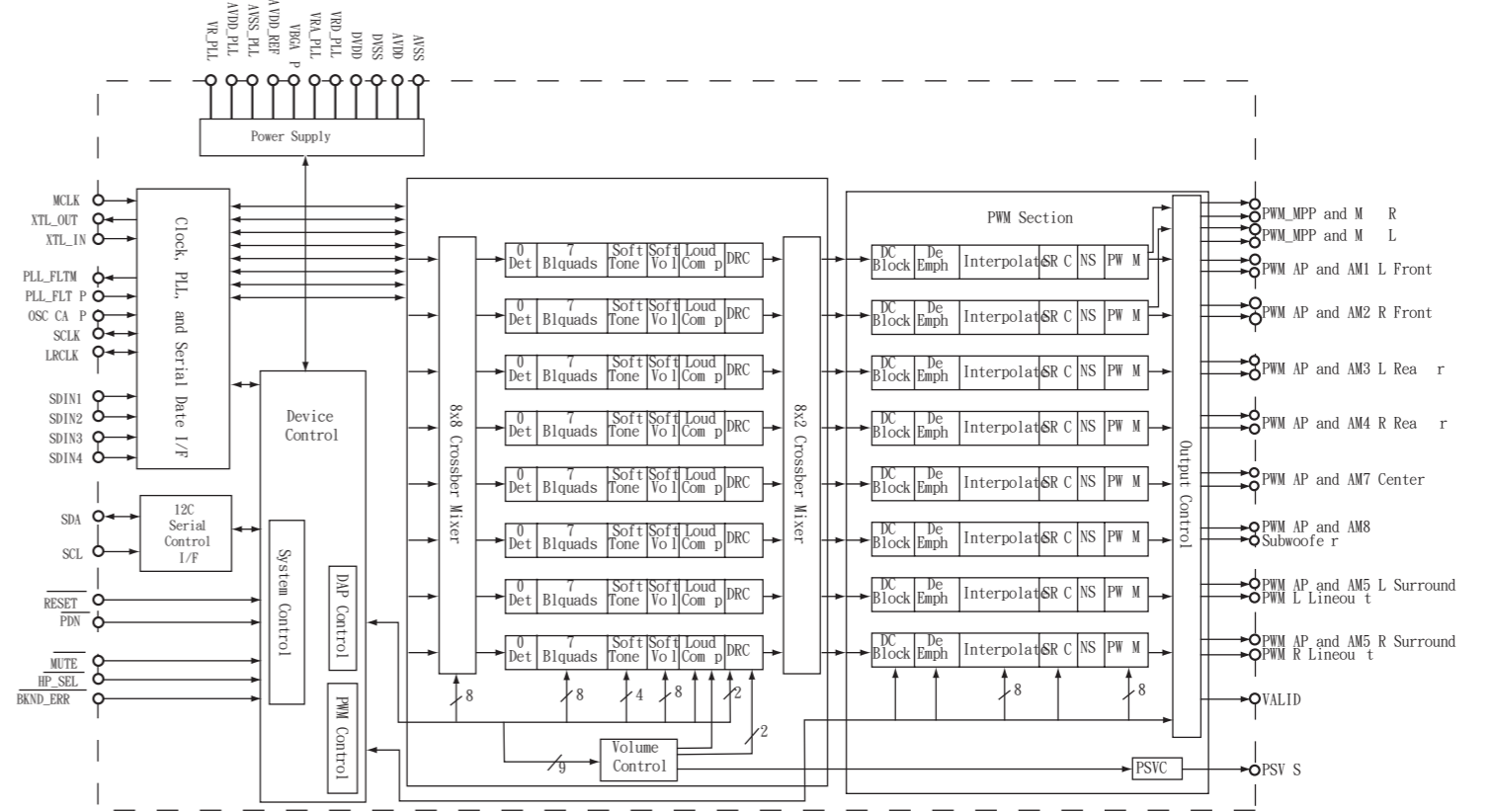


# MAIN BOARD

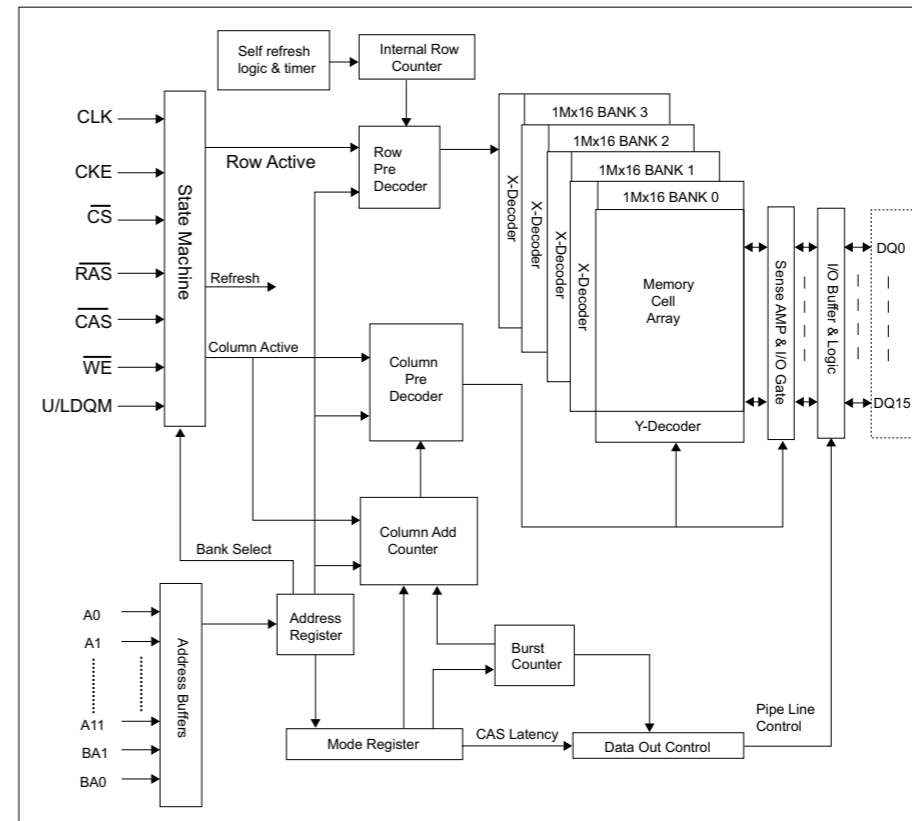
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## INTERNAL IC DIAGRAM - TAS5508B

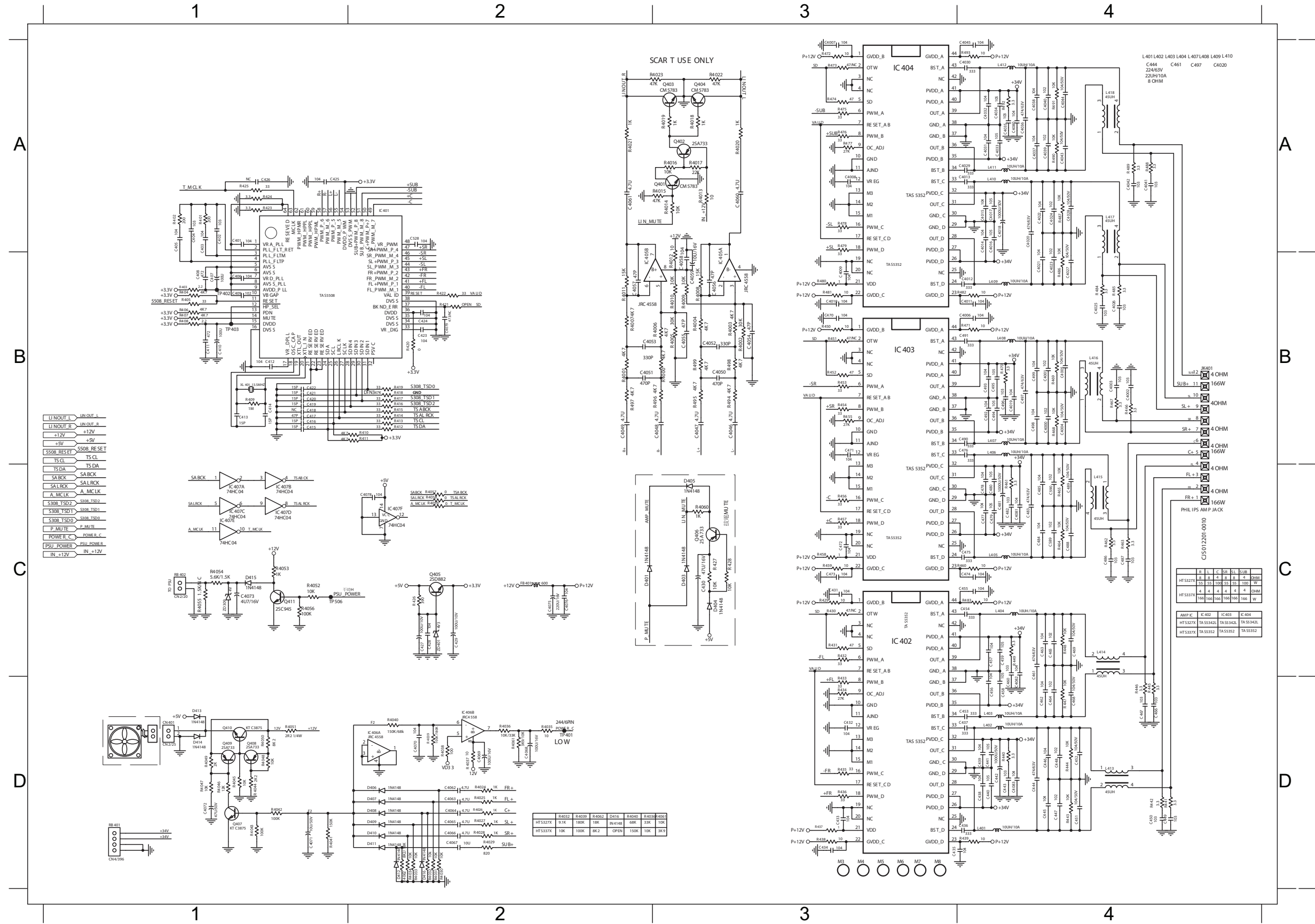


## INTERNAL IC DIAGRAM - HY57V641620F



# CIRCUIT DIAGRAM - part one

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 C4001 B4 C4011 B4 C4024 A4 C4036 A4 C405 A1 C4070 D2 C410 B1 C422 B1 C435 D4 C448 D4 C461 C4 C472 C3 C485 C4 C498 B4 D411 D2 IC407 C1 L410 A4 R4024 D2 R4034 D2 R4044 D1 R4054 C1 R412 B2 R423 A1 R437 D3 R448 C4 R460 C4 R471 B4 R483 C4 RB401 D1  
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 C4003 B4 C4013 A4 C4026 B4 C4038 A4 C4062 D2 C4072 D1 C412 B1 C424 B2 C437 D4 C450 D4 C463 C4 C474 C4 C487 C4 C528 A2 D413 D1 L401 D4 L412 A4 R4026 D2 R4036 D2 R4046 D1 R4056 C1 R414 B2 R425 A1 R439 D4 R450 B3 R462 C4 R474 A3 R485 B4 XL401 B1  
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 C401 A1 C4022 A4 C4032 A4 C4044 A4 C4069 D2 C4081 C4 C420 B1 C433 D3 C446 D4 C457 C4 C470 B3 C483 C4 C496 B4 D409 D2 IC404 A3 L408 B4 R401 A1 R4032 D2 R4042 D1 R4052 C1 R410 B2 R421 B2 R435 D3 R446 D4 R458 C3 R469 B4 R481 B3 R492 A4



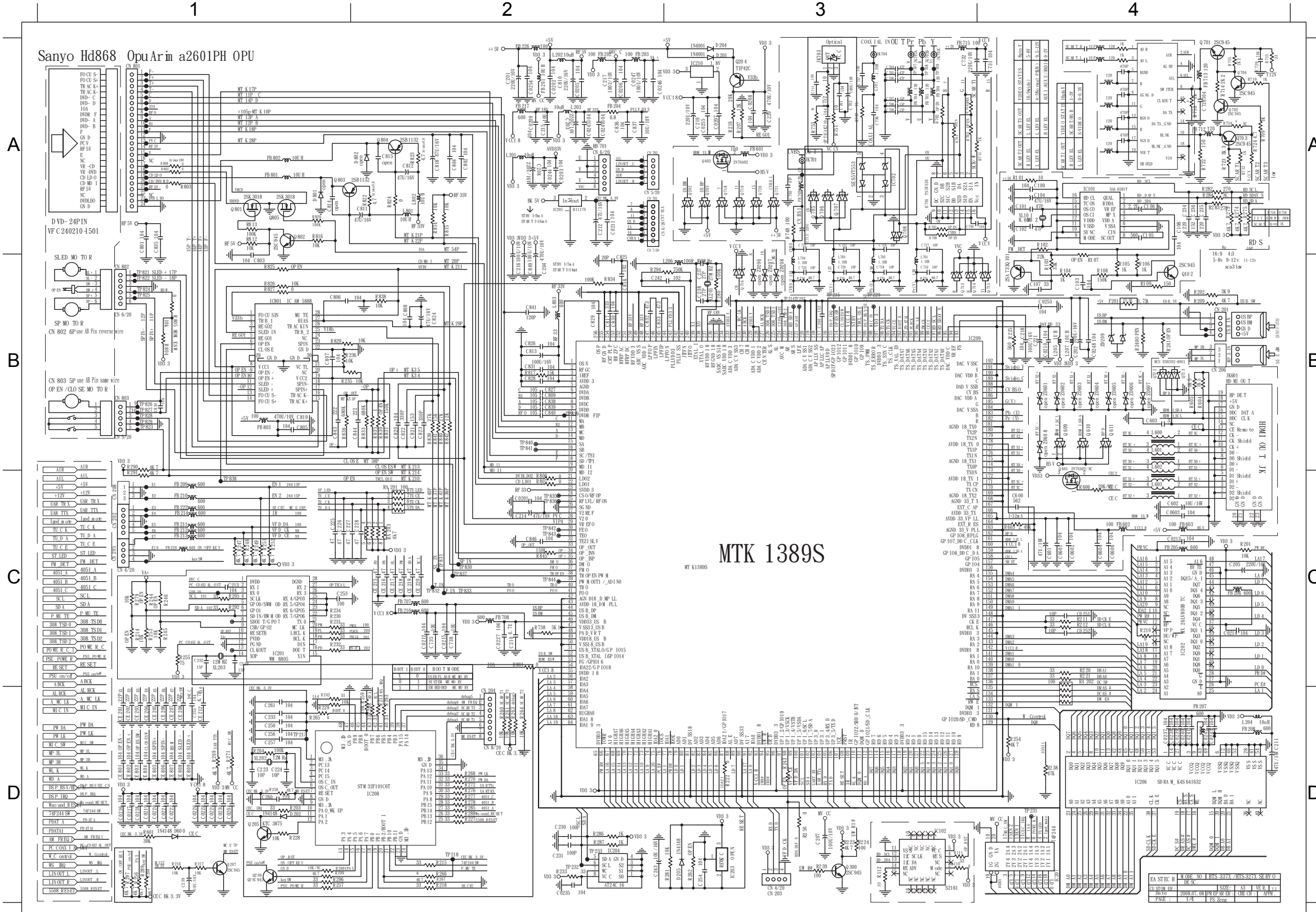
LI NOUT	INOUT_A
LI NOUT RL	INOUT_B
+12V	+12V
+5V	+5V
S508 RESET	S508_RESET
TS DA	TS DA
SABCK	SABCK
SALBCK	SALBCK
A_MCLK	A_MCLK
S308_TSD2	S308_TSD2
S308_TSD1	S308_TSD1
S308_TSD0	S308_TSD0
P_MUTE	P_MUTE
POWER_C	POWER_C
PSU_POWER	PSU_POWER
IN +12V	IN +12V

R4032	R4039	R4053	D415	R4002	R4028	R4030
HT5337X	10K	100K	10K	10K	10K	10K
HT5337X	10K	100K	10K	OPEN	100K	10K
					10K	10K

HT5337X	IC403	IC403	IC404
HT5337X	TA55342L	TA55342L	TA55342L
HT5337X	TA55352	TA55352	TA55352

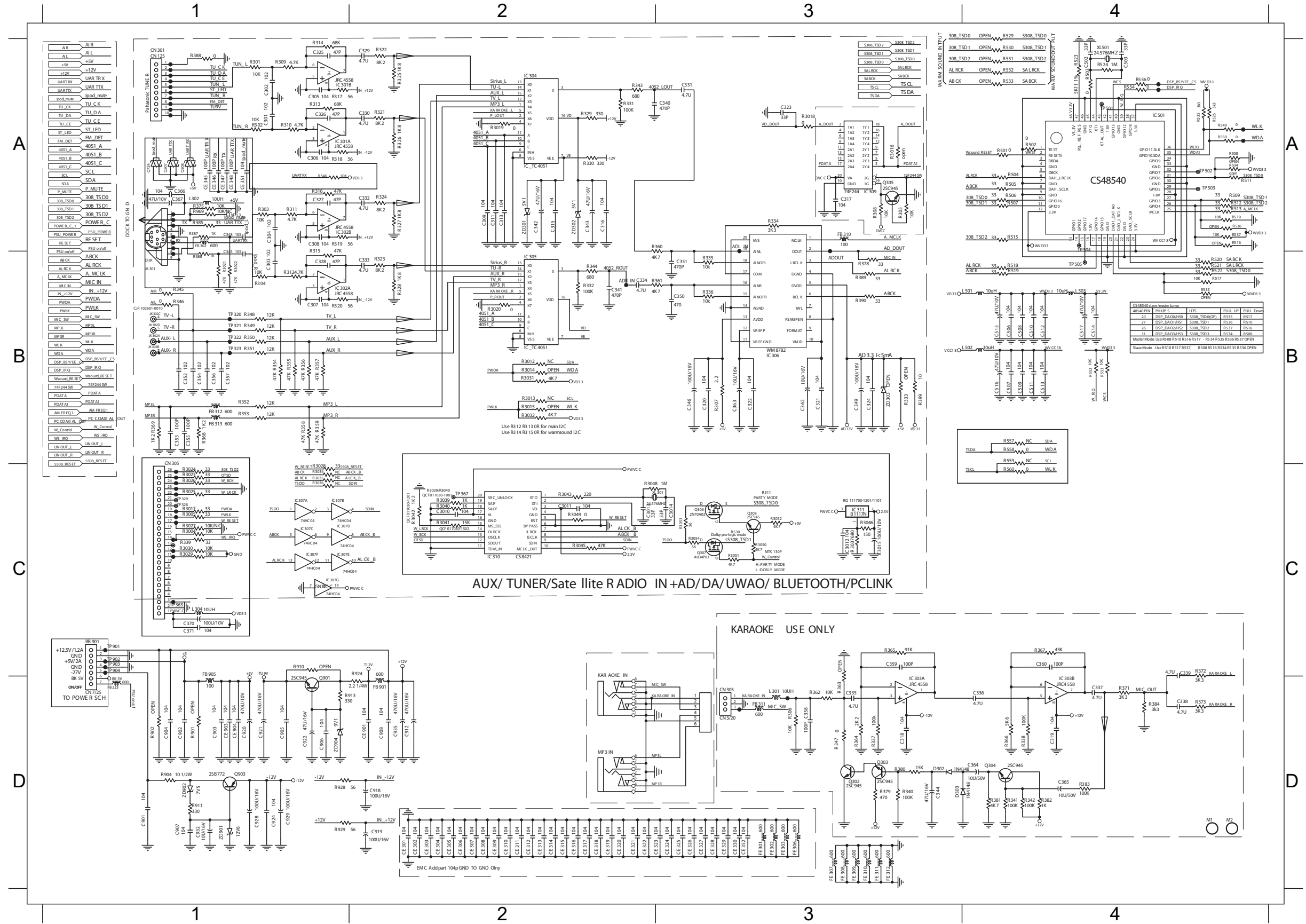
# CIRCUIT DIAGRAM - part two

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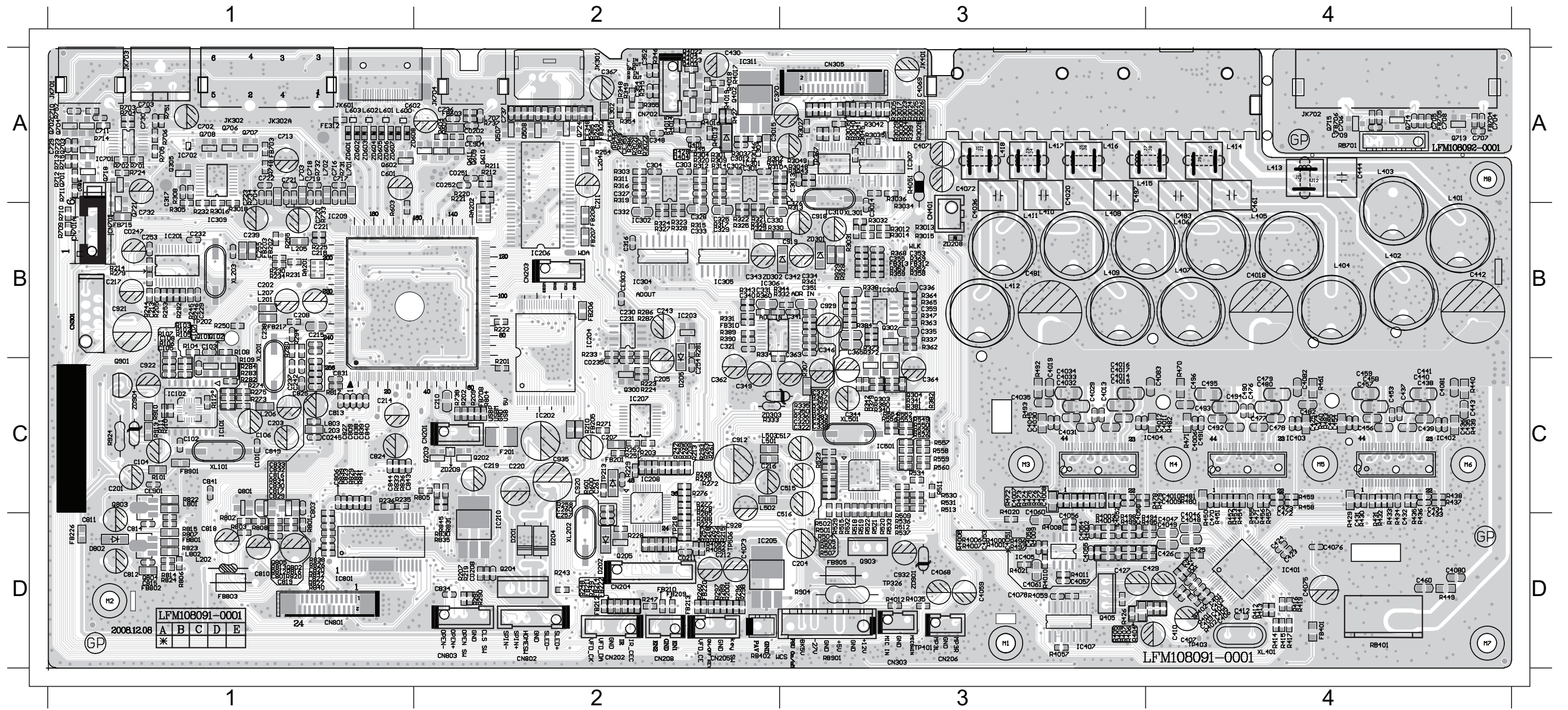
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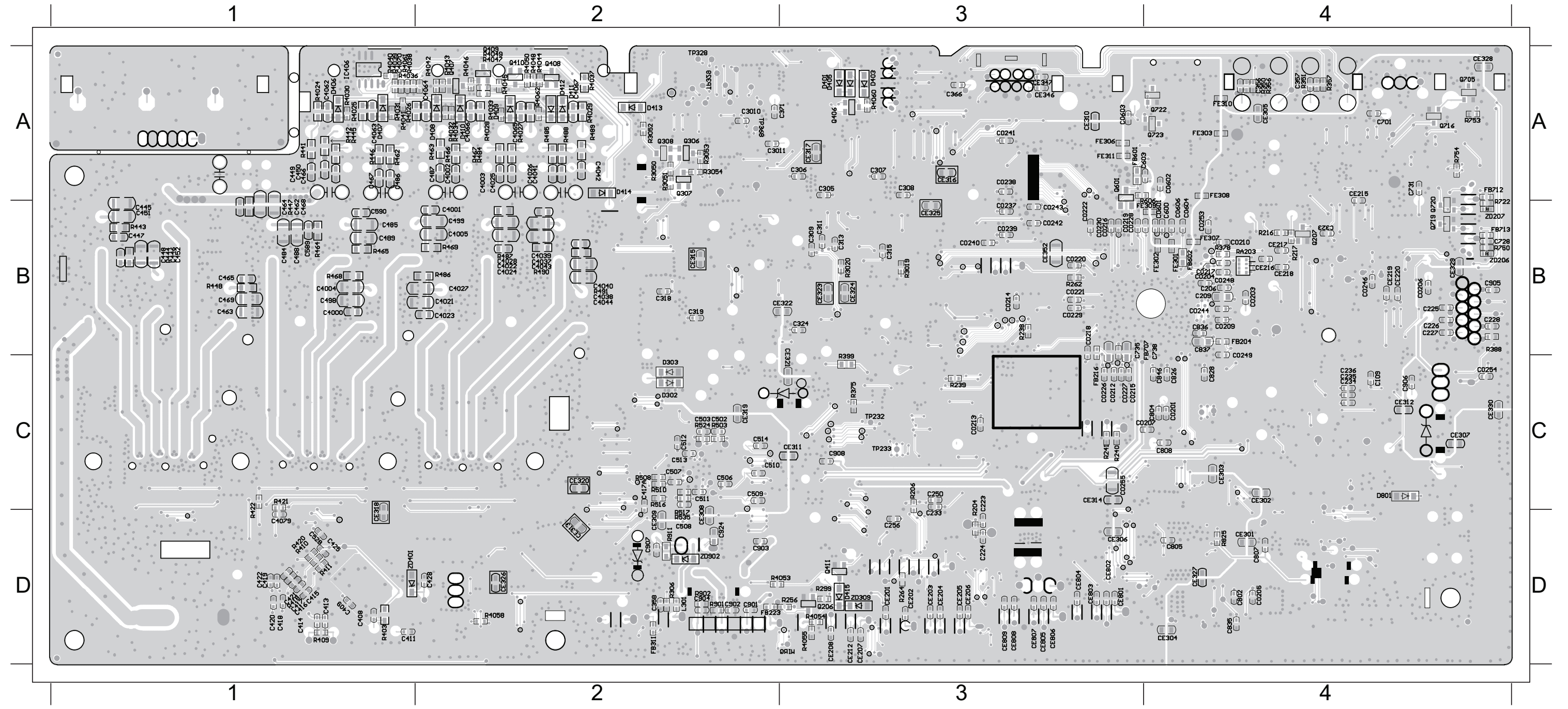
### PCB LAYOUT - TOP VIEW

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C0208	D2	C215	B1	C301	A2	C344	C3	C4011	C4	C4071	A3	C439	C4	C483	B4	C713	A1	C817	C1	C849	C1	CN303	D3	FB211	D2	FB901	C1	IC403	C4	JK703	A4	L501	C1	Q706	A1	R218	D2	R250	B1	R280	B1	R308	A1	R340	C3	R372	B3	R413	D4	R450	C4	R482	C4	R526	C2	R734	A1	R823	D1	RA202	A2
C0211	D2	C216	C2	C302	A2	C346	B3	C4012	C4	C4072	A3	C442	B4	C490	C4	C716	A1	C818	D1	C912	C2	CN401	A3	FB212	D2	FB905	D3	IC404	C3	JK704	A2	L502	C2	Q707	A1	R219	D2	R251	C2	R281	B2	R309	A2	R341	C3	R373	B3	R414	D4	R452	C4	R483	C4	R537	D2	R737	A2	R824	D1	RB401	D4
C0235	C2	C217	B1	C316	B2	C349	C2	C4013	C3	C4073	D2	C443	C4	C491	C4	C717	A1	C819	D1	C918	B3	CN701	A1	FB213	D2	FE312	A1	IC407	D3	L201	B1	L503	C2	Q708	A1	R220	A2	R252	C2	R285	D2	R310	A2	R342	C3	R379	C3	R415	D4	R453	C4	R492	C3	R546	A2	R738	C2	R826	D1	RB402	D2
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C107	B1	C232	B1	C330	B2	C359	B3	C4030	C3	C423	D4	C461	A3	C601	A1	C732	B1	C829	C1	C935	C2	D205	C2	FB313	B3	IC207	C2	J3	A3	L401	A4	L803	C1	R201	C2	R229	C2	R263	C2	R293	C2	R326	B2	R354	A2	R401	D4	R429	C4	R461	C4	R509	D2	R560	C3	R805	C2	R838	D1	ZD209	C2
C201	C1	C237	C1	C331	B2	C360	C3	C4031	C3	C424	D4	C470	C4	C602	A1	C736	A2	C830	C1	CE901	C1	D600	C2	FB401	D4	IC208	C2	J4	A3	L402	B4	Q204	D2	R202	C2	R230	B2	R267	D2	R294	B1	R327	B2	R355	A2	R402	D4	R431	C4	R470	C4	R512	D2	R601	C2	R806	D1	R839	C1	ZD301	B3
C202	B1	C238	B1	C334	B3	C362	C2	C4032	C3	C427	D3	C471	C4	C702	A1	C737	A2	C831	C1	CE903	B2	F201	C2	FB603	A2	IC209	B1	J5	A3	L403	A4	Q205	D2	R203	C2	R231	B1	R268	C3	R296	D2	R328	B2	R358	B3	R4035	D3	R432	C4	R471	C4	R513	C2	R603	A1	R807	D1	R840	D1	ZD302	B2
C203	C1	C239	B1	C335	B3	C363	B3	C4035	C3	C429	D3	C472	C4	C703	A1	C801	D1	C832	C1	CE904	A2	FB201	C2	FB703	A1	IC210	D2	J6	A3	L404	B4	Q300	C2	R205	B1	R232	B1	R269	A2	R297	D2	R329	B2	R359	B3	R404	D3	R433	C4	R472	C3	R515	D2	R604	A2	R808	D1	R841	C1	ZD901	D3
C204	D3	C242	C1	C336	B3	C364	C3	C4036	A3	C431	C4	C473	C4	C704	A4	C803	C1	C833	C1	CN201	C2	FB202	B1	FB704	A4	IC301	A2	J7	A4	L405	B4	Q302	B2	R207	D2	R233	B2	R270	C2	R298	D2	R330	B2	R360	B2	R405	D3	R434	C4	R474	C3	R518	D2	R605	A2	R812	D1	R842	D1	ZD904	C1
C205	C2	C243	B2	C337	C3	C365	B3	C404	D4	C432	C4	C474	C4	C705	A4	C806	C1	C834	D2	CN202	D2	FB203	B1	FB705	A4	IC303	B3	J8	A4	L406	B4	Q303	C3	R208	C2	R234	B2	R271	C2	R301	A2	R331	B2	R361	B3	R4051	A3	R435	C4	R475	C3	R519	D2	R702	A1	R813	D1	R845	D2		
C207	C2	C253	B1	C338	C3	C4006	C4	C4045	C3	C433	D4	C475	C4	C706	A4	C809	C1	C838	C1	CN203	B2	FB205	C2	FB706	A4	IC304	B2	J9	A4	L407	B4	Q304	C3	R209	C2	R235	C1	R272	C2	R3018	B1	R332	B3	R362	B3	R4052	D2	R436	C4	R476	C3	R520	D2	R704	A1	R814	D1	R904	D3		
C208	B1	C254	C2	C339	C3	C4007	C3	C405	D4	C434	D4	C476	C4	C707	A4	C810	D1	C839	C1	CN204	D2	FB206	B2	FB708	C2	IC305	B2	JK302	A1	L408	B3	Q305	A1	R210	C2	R236	C1	R274	C1	R302	A2	R334	B2	R364	B3	R4056	D2	R437	C4	R477	C3	R521	D2	R705	A1	R815	D1	R913	C1		
C210	C2	C255	B1	C340	B2	C4008	C3	C406	D4	C435	C4	C477	C4	C708	A4	C811	D1	C840	C1	CN205	D2	FB207	B2	FB715	B1	IC306	B2	JK401	A3	L409	B3	Q405	D3	R211	A2	R242	C2	R276	C2	R3021	A2	R335	C3	R365	B3	R406	D3	R438	C4	R478	C4	R522	D2	R724	A1	R816	D1	R924	C1		
C211	A2	C257	D2	C341	B3	C4009	C4	C4068	D3	C436	C4	C478	C4	C709	A4	C812	D1	C841	C1	CN206	D3	FB208	B2	FB801	D1	IC309	B1	JK601	A1	L410	B3	Q602	A1	R212	A2	R245	B1	R277	C2	R3022	A2	R336	C3	R366	C3	R407	D3	R439	C4	R479	C4	R523	C2	R731	A1	R817	C1	R928	B3		
C213	B1	C260	C2	C342	B3	C401	D4	C4069	A3	C437	C4	C481	B3	C710	A1	C813	C1	C843	C1	CN208	D2	FB209	D2	FB802	D1	IC401	D4	JK701	A1	L411	B3	Q611	A2	R213	C2	R248	D2	R278	C2	R305	B1	R337	B3	R367	C3	R408	D3	R440	C4	R480	C4	R524	D2	R732	A1	R820	D1	R929	B3		



# PCB LAYOUT - BOTTOM VIEW

C0201	C4	C0218	B3	C0241	A1	C206	B4	C308	A3	C4002	A2	C4039	B2	C409	D1	C446	B1	C469	B1	C509	C2	C735	B3	C902	D2	CE207	D3	CE307	C4	CE321	B3	CE802	D3	D409	A2	FB712	A4	Q409	A2	R306	D2	R403	D1	R4044	A2	R411	D1	R463	A2	R491	B2
C0203	B4	C0219	B3	C0242	B3	C209	B4	C309	B3	C4003	A2	C4040	B2	C411	D1	C447	B1	C484	B1	C510	C2	C738	B4	C903	D2	CE212	D3	CE308	C2	CE322	B3	CE803	D3	D410	A2	FE301	B4	Q410	A2	R350	A4	R4030	A1	R4045	A2	R418	D1	R464	B1	R503	C2
C0204	B4	C0220	B3	C0243	B3	C223	C3	C311	B3	C4004	B1	C4041	A2	C413	D1	C448	B1	C485	B1	C511	C2	C802	D4	C904	D2	CE215	A4	CE309	D2	CE323	B3	CE804	D3	D411	A2	FE302	B4	Q411	D3	R351	A4	R4031	A1	R4046	A2	R420	D1	R465	B1	R510	C2
C0205	D4	C0221	B3	C0244	B4	C224	D3	C313	B3	C4005	B2	C4042	A2	C414	D1	C449	A1	C486	A1	C512	C2	C804	C4	C905	B4	CE216	B4	CE310	A3	CE324	B3	CE805	D3	D412	A2	FE306	A3	Q601	A3	R356	A4	R4032	A2	R4047	A2	R421	C1	R466	A2	R517	D2
C0206	B4	C0222	B3	C0246	B4	C225	B4	C315	B3	C4021	B2	C4043	B2	C415	D1	C450	A1	C487	A2	C513	C2	C805	D4	C906	C4	CE217	B4	CE311	C2	CE325	B3	CE806	D3	D413	A2	FE307	B4	R204	C3	R357	A4	R4033	A2	R4048	A2	R422	C1	R467	A2	R606	B4
C0207	C3	C0226	C3	C0248	B4	C226	B4	C318	B2	C4022	B2	C4044	B2	C416	D1	C451	B1	C488	B1	C514	C2	C807	D4	C907	D2	CE218	B4	CE312	C4	CE326	D2	CE807	D3	D414	A2	FE308	A4	R216	B4	R378	B4	R4034	A2	R4049	A2	R441	A1	R468	B1	R750	B4
C0209	B4	C0227	C3	C0249	B4	C227	B4	C319	B2	C4023	B2	C4062	A1	C417	D1	C452	B1	C489	B1	C528	D1	C808	C4	C908	C3	CE219	B4	CE313	D2	CE327	D4	CE808	D3	D415	D3	FE309	B4	R217	B4	R388	B4	R4036	A1	R4050	A2	R442	A1	R469	B2	R754	A4
C0210	B4	C0228	B3	C0253	B4	C228	B4	C323	B4	C4024	B2	C4063	A1	C419	D1	C462	B1	C498	B1	C589	B1	C826	C4	C924	D2	CE220	B4	CE314	C3	CE328	A4	CE809	D3	FB204	B4	FE310	A4	R238	B3	R399	B3	R4037	A2	R4053	D2	R443	B1	R484	A2	R911	D2
C0212	C3	C0229	B3	C0601	B4	C233	D3	C324	B3	C4025	A2	C4064	A2	C420	D1	C463	B1	C499	B2	C590	B1	C828	C4	CE201	D3	CE301	D4	CE315	B2	CE329	B4	CO254	C4	FB216	C3	FE311	A3	R239	C3	R4024	A1	R4038	A1	R4054	D3	R444	B1	R485	A2	RA203	B4
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C0214	B3	C0237	B3	C0603	A3	C256	D3	C357	A4	C4027	B2	C4066	A2	C422	D1	C465	B1	C503	C2	C603	A3	C836	B4	CE203	D3	CE303	C4	CE317	A3	CE346	A3	D303	C2	FB311	D2	Q206	D3	R264	D3	R4026	A1	R4040	A1	R4061	A1	R446	A1	R487	B2	ZD902	D2
C0215	C3	C0238	B3	C0604	B4	C305	A3	C366	A3	C4028	B2	C4067	A2	C425	D1	C466	A1	C506	C2	C701	A4	C837	B4	CE204	D3	CE304	D4	CE318	C1	CE347	A3	D406	A1	FB601	A3	Q207	B4	R299	D3	R4027	A2	R4041	A1	R4062	A2	R447	B1	R488	A2		
C0216	B3	C0239	B3	C0606	B4	C306	A3	C4000	B1	C4037	B2	C4070	A1	C428	D2	C467	A1	C507	C2	C728	B4	C846	C4	CE205	D3	CE305	A4	CE319	C2	CE352	B3	D407	A1	FB602	B4	Q407	A2	R3019	B3	R4028	A2	R4042	A2	R409	D1	R448	B1	R489	A2		
C0217	B4	C0240	B3	C109	C4	C307	A3	C4001	B2	C4038	B2	C408	D1	C445	B1	C468	B1	C508	D2	C731	A4	C901	D2	CE206	D3	CE306	D3	CE320	C2	CE801	D3	D408	A2	FB707	B4	Q408	A2	R3020	B3	R4029	A2	R4043	A2	R410	D1	R462	A1	R490	B2		





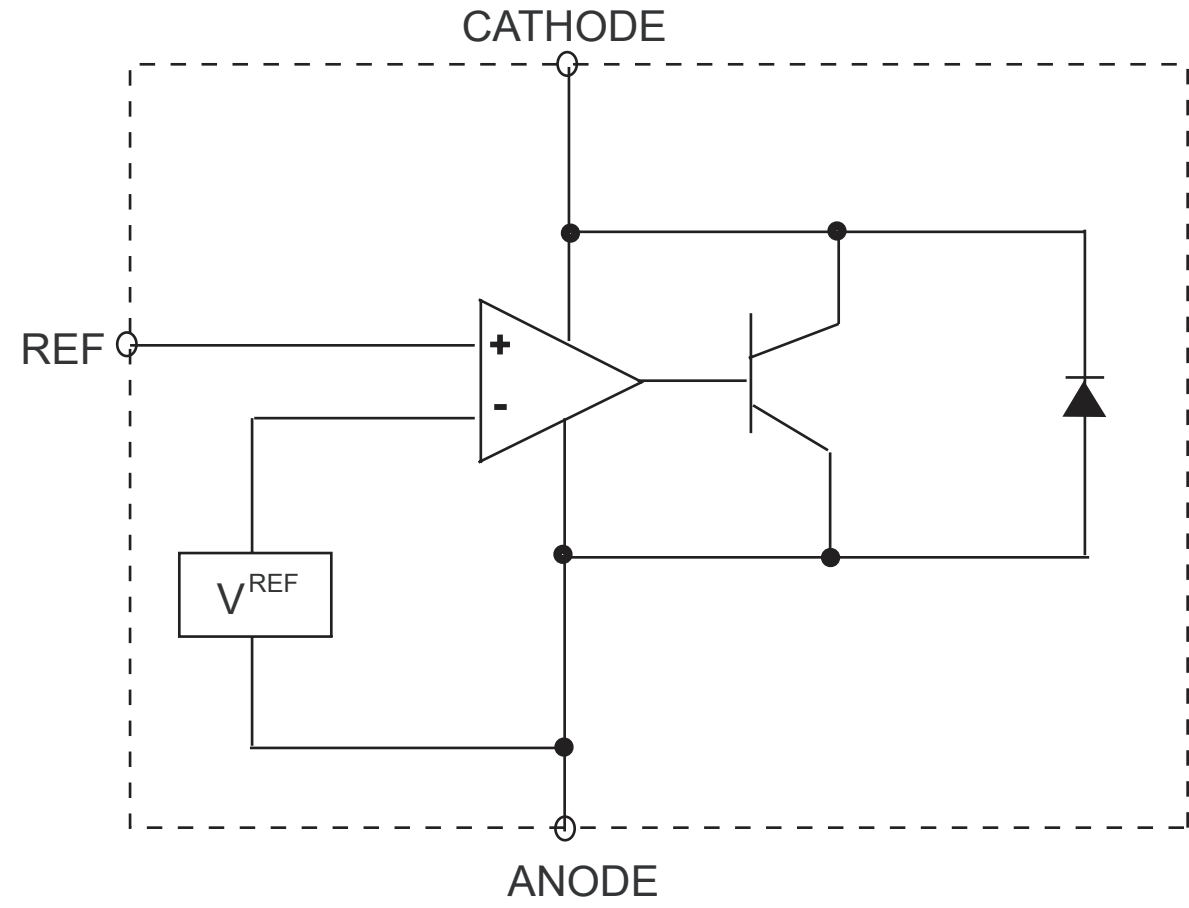
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# POWER BOARD

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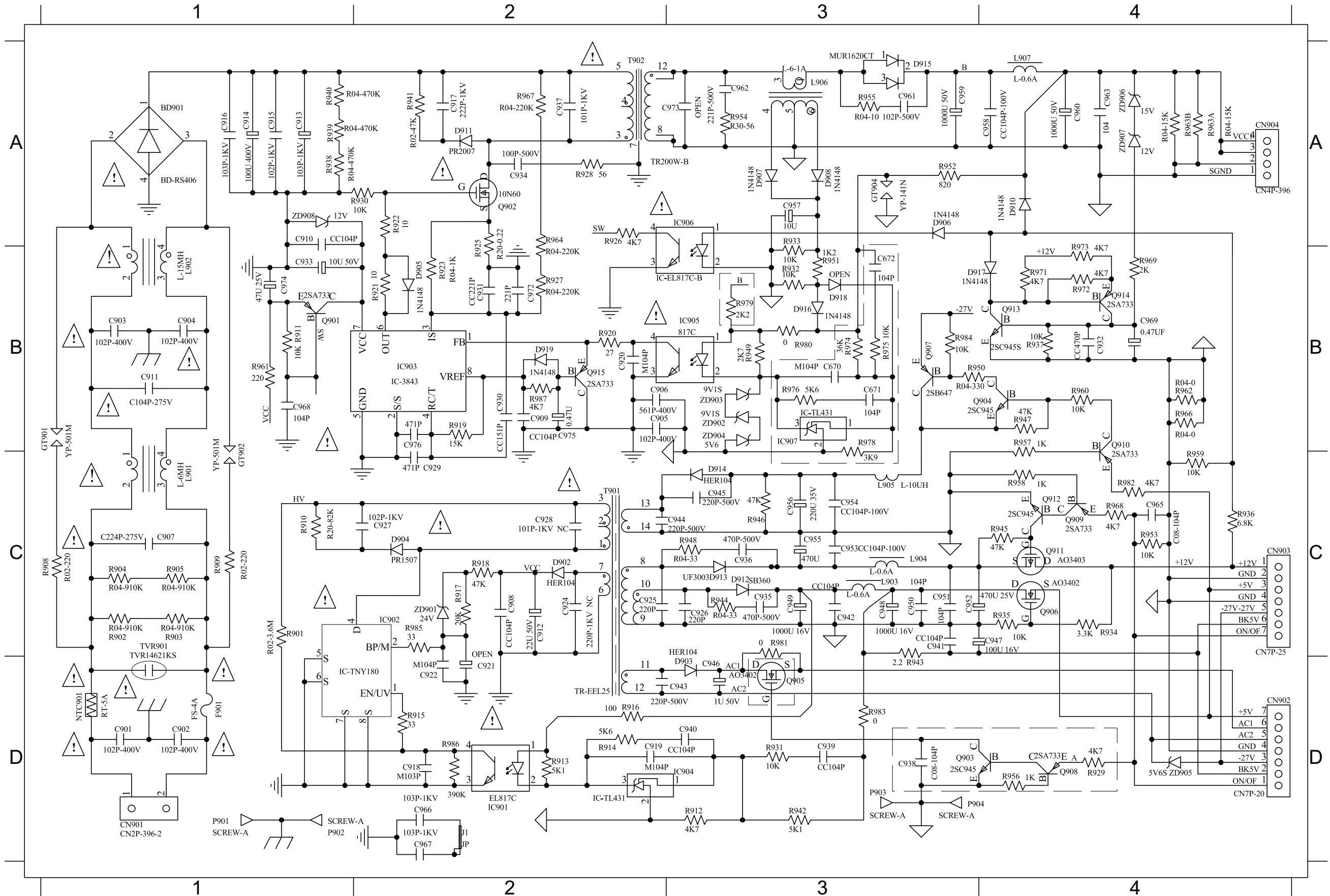
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# CIRCUIT DIAGRAM

BD901A1 C910 D3 C923 D2 C936 B2 C947 C3 C957 A4 C965 C3 C974 B4 C985 B3 D903 B3 D914 A4 D924 A3 IC905 B4 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  
C901 D1 C915 C1 C924 D2 C938 C3 C948 C3 C958 A4 C966 B3 C975 C4 CN901D1 D904 B4 D915 C2 D927 C4 J901 A1 NTC901C1 Q912 B2 R905 C1 R915 A1 R925 C3 R934 C2 R942 B2 R951 A2 R965 B3 R973 A3 R983 C2 TVR901C1 ZD908A4  
C902 D1 C916 C2 C925 D3 C941 C2 C949 A3 C959 C3 C967 B3 C978 C2 CN901A1 D906 A2 D916 A3 D928 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  
C903 D1 C917 B1 C927 C3 C942 C2 C950 A2 C960 C3 C968 A3 C980 C4 CN903D4 D907 B3 D917 C2 F901 C1 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  
C904 A1 C918 B1 C928 C3 C943 B2 C951 A3 C961 C3 C969 A3 C981 C4 CN904C4 D908 B3 D918 C2 GT902C1 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  
C905 A1 C919 B1 C929 C3 C944 A2 C952 A2 C962 C3 C971 A3 C982 B3 CN905A4 D909 B2 D919 C3 IC901C2 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  
C906 D1 C920 A1 C930 B4 C945 A2 C955 C3 C963 C3 C972 A3 C983 B3 CN906B4 D910 B4 D922 C3 IC902D2 L906 C3 Q907 C4 R902 C1 R911 C4 R920 C3 R931 B2 R939 C3 R948 D3 R961 C4 R970 A4 R979 C4 T901 C2 ZD904A2  
C907 C4 C921 A1 C934 C2 C946 A2 C956 C3 C964 C4 C973 C3 C984 B3 D902 A4 D912 A4 D923 C3 IC904D3 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

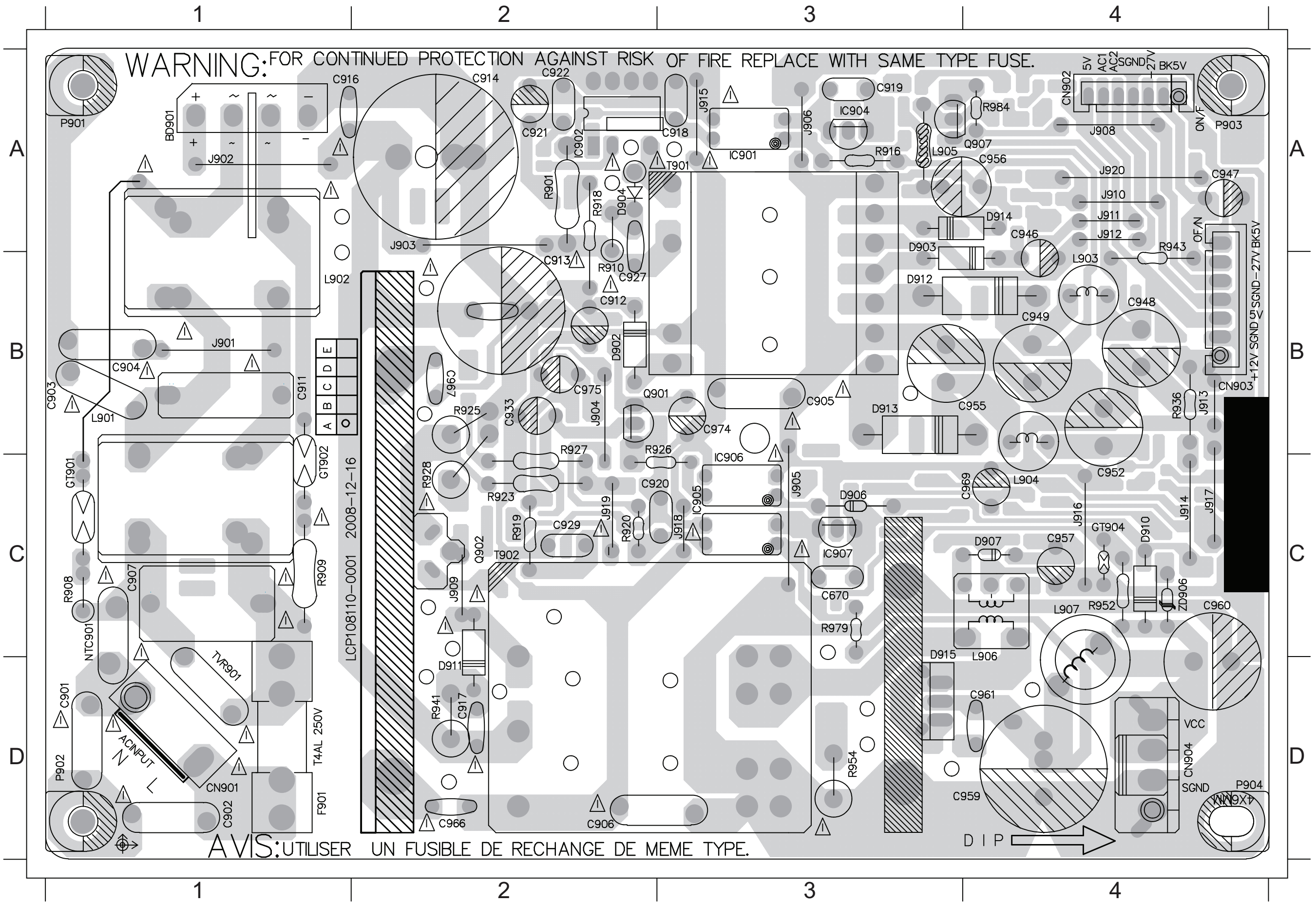


# PCB LAYOUT - TOP VIEW

7-3

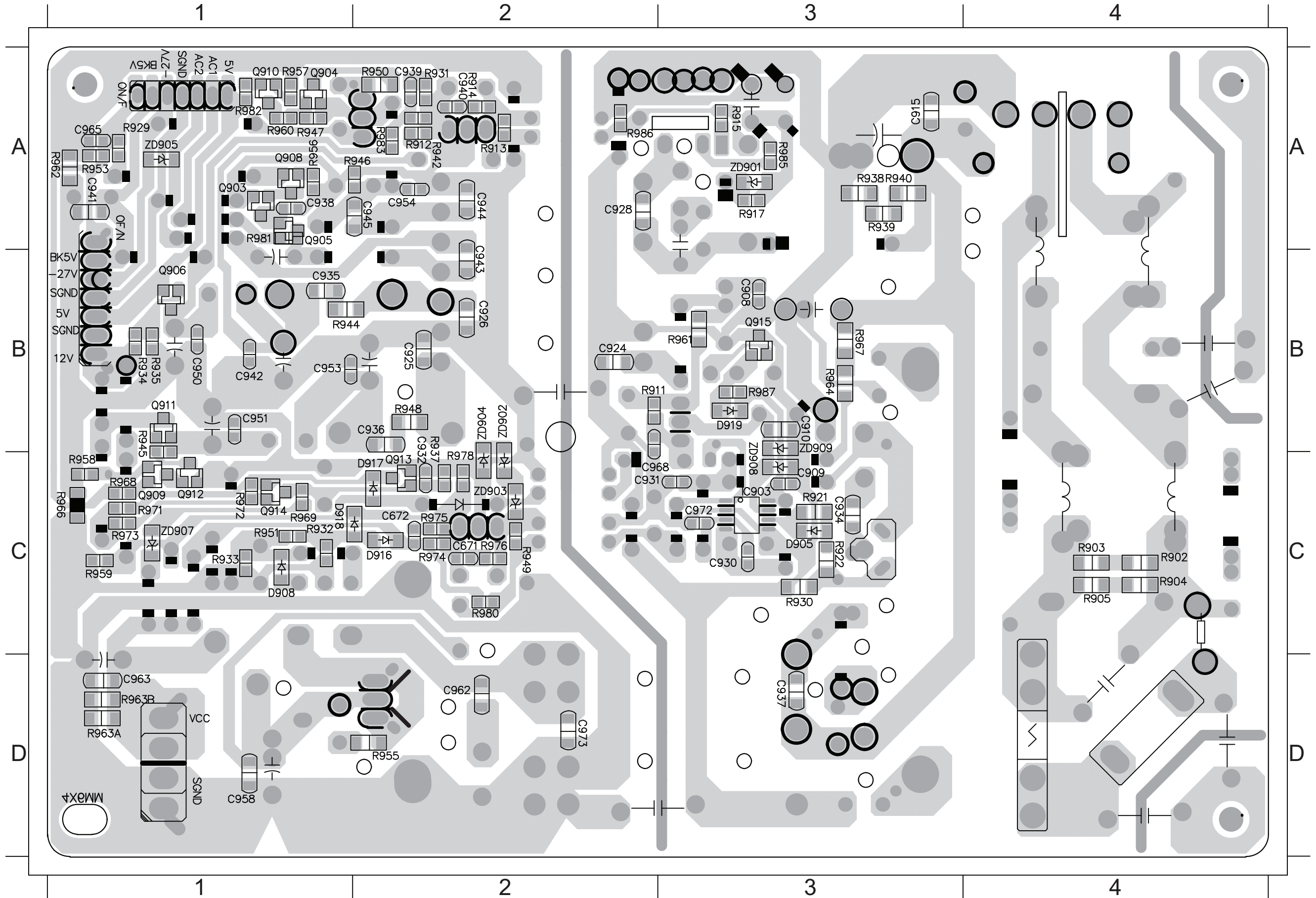
7-3

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C903 B2 C916 A2 C921 A1 C959 A3 C965 A3 C973 A4 CN902A1 D907 B3 D917 B2 D924 D4 IC902 A3 J904 A2 J909 D2 J914 A4 J920 A4 J925 C4 J930 C4 L906 A3 Q911 B3 R912 C1 R943 B2 R949 C2 R968 C4 R983 B2 TVR902A1  
C904 A1 C917 C1 C923 A3 C960 B4 C966 B4 C974 B4 CN903A4 D908 B3 D918 A1 D927 B4 IC904 A3 J905 A3 J910 A3 J915 A4 J921 B4 J926 C4 L901 D4 L907 C3 Q912 B2 R914 A2 R944 C2 R951 D2 R975 C4 T901 A1 TVR903B1



# 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+MIC BOARD

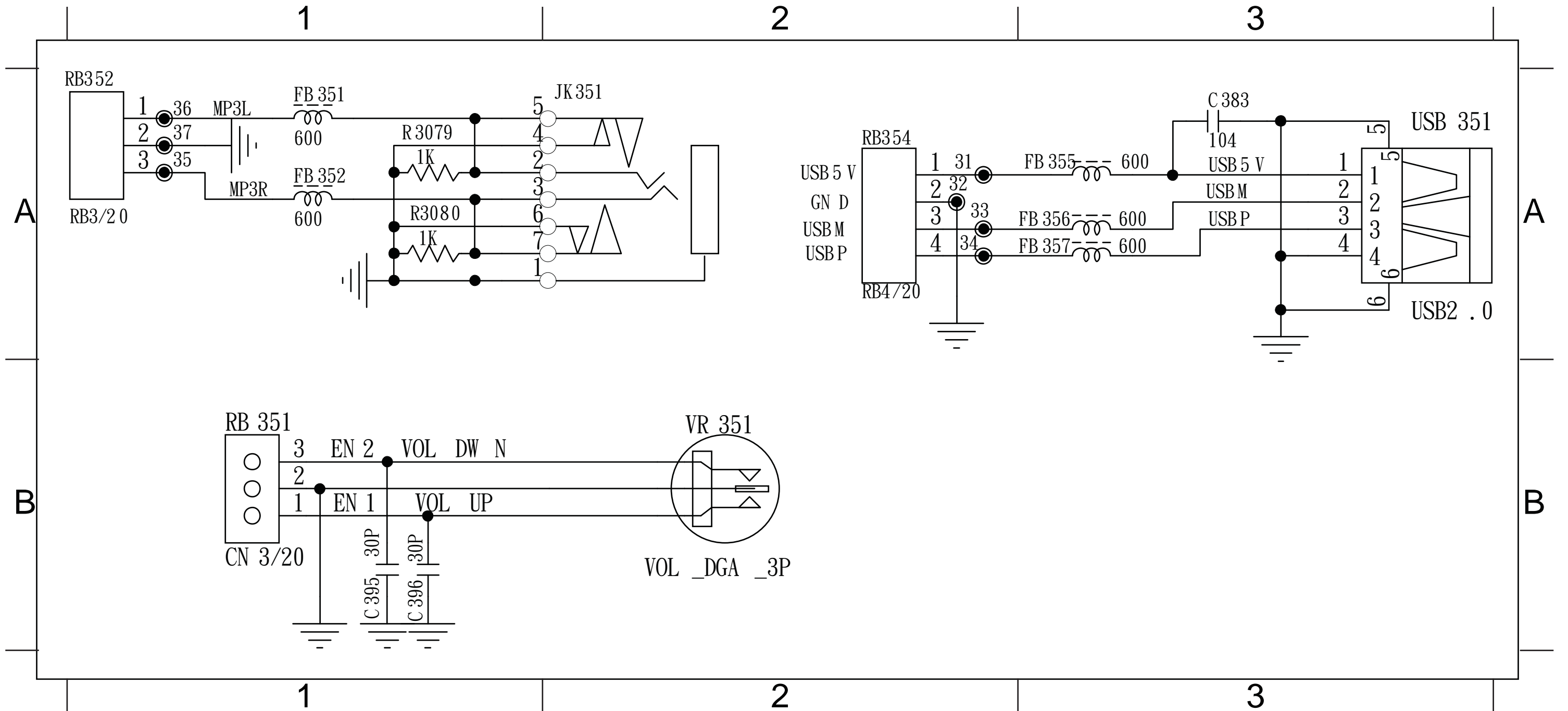
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### CIRCUIT DIAGRAM

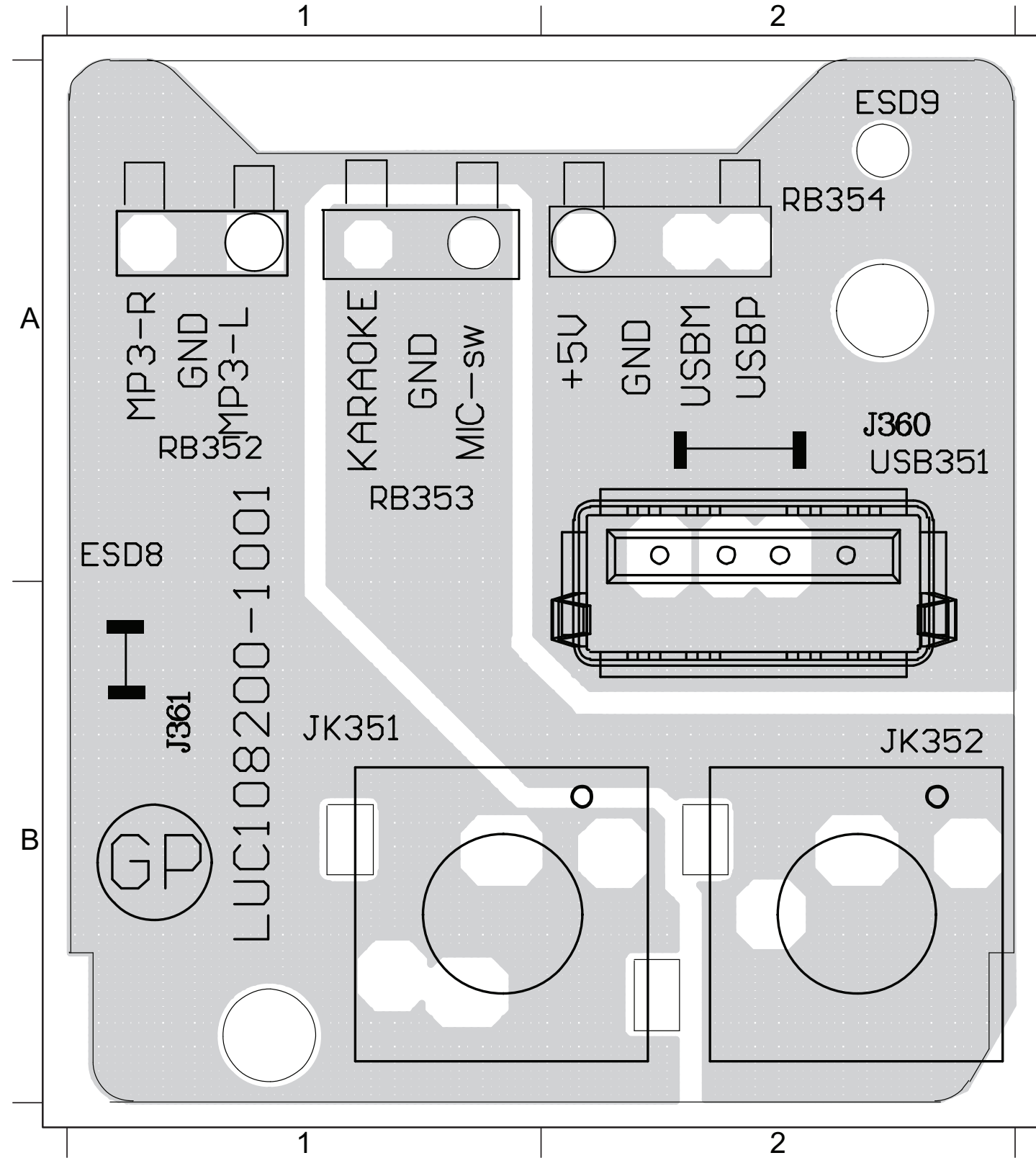
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# PCB LAYOUT - TOP VIEW

8-3

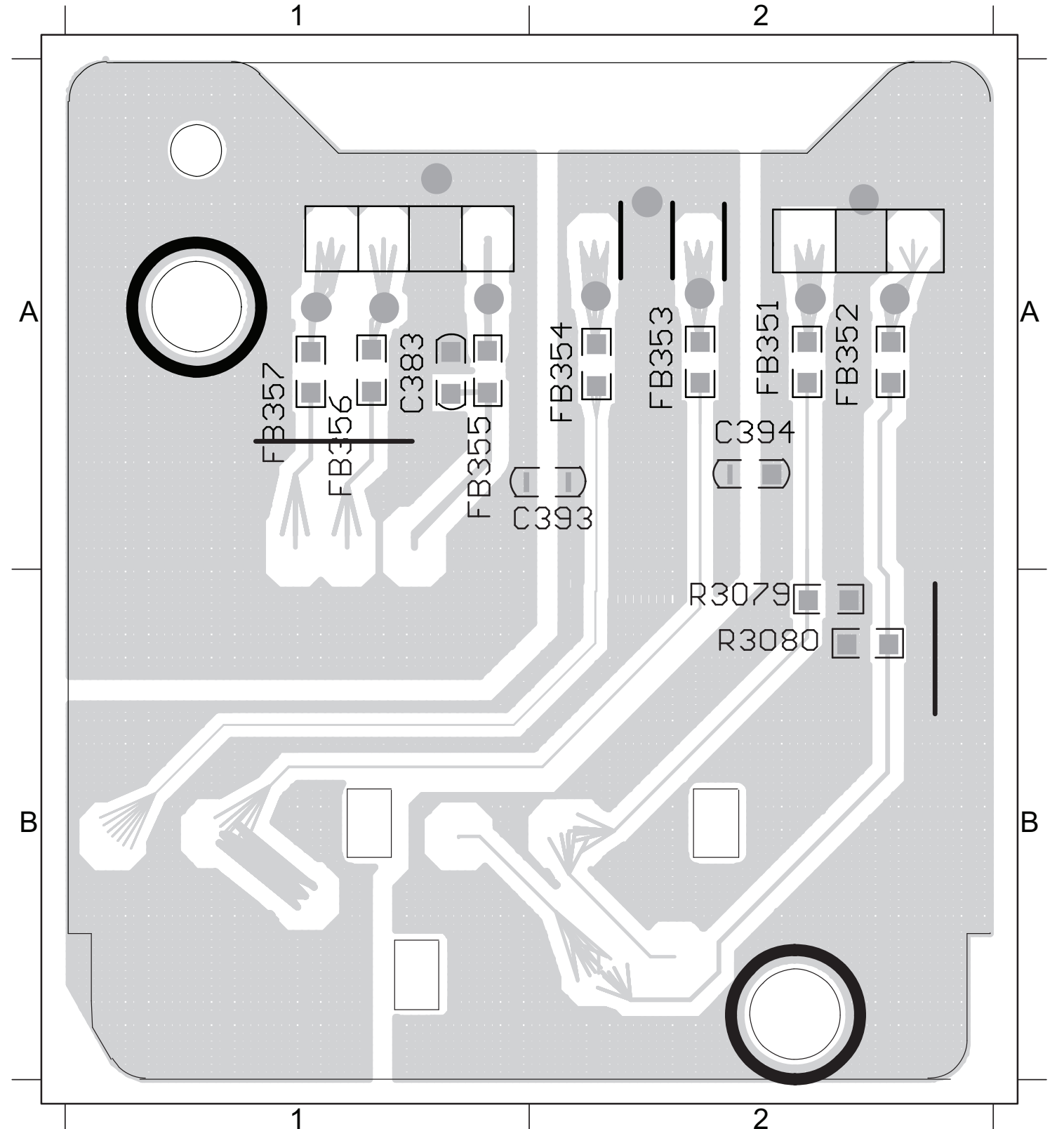
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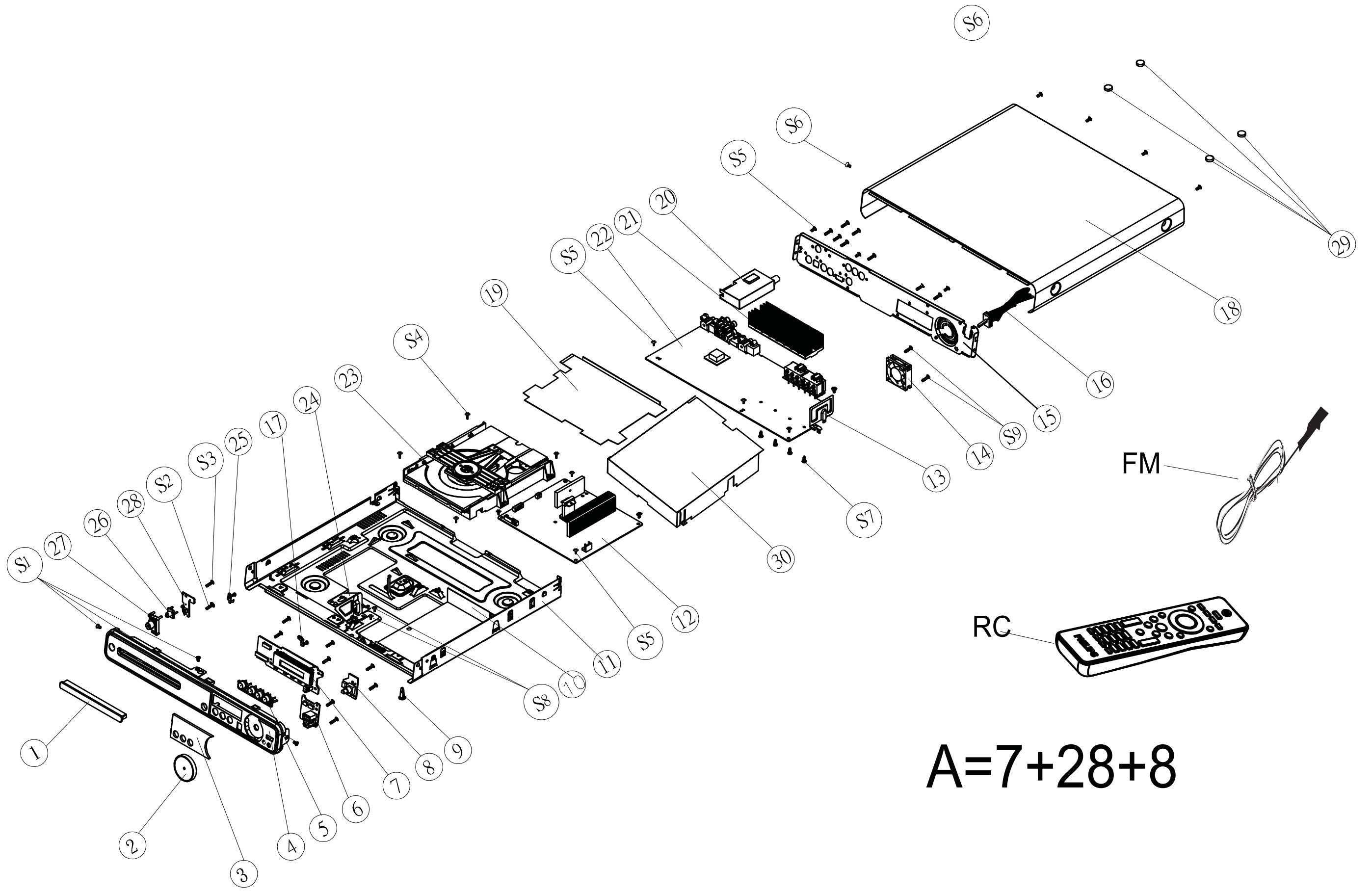


# PCB LAYOUT - BOTTOM VIEW

8-3

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$$A=7+28+8$$



## PART LIST

Loc.	Alt Part No.	safety Description
<b>MAIN UNIT</b>		
1	996510021366	DVD DOOR
2	996510021087	VOLUME KNOB
3	996510021093	DISPLAY LENS
4	996510021245	FRONT PANEL
5	996510021068	FUNCTION KNOB
6	996510021203	MP3 IN +MIC PCB ASSY
11	996510021945	BOTTOM CABINET T0.6mm
12	996510028864	POWER PCB ASSY 1000W
14	996510021076	FAN DC12V 0.55A
15	996510028822	REAR PANEL SECC T=0.6mm
16	996510028861	PWR CORD 2P 1788mm
18	996510021944	TOP CABINET
20	# 996510011275	TUNER PACK
20	# 996510018486	TUNER PACK KST-MT004FS1
22	996510029646	MAIN+Y.U.V PCB ASS'Y
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
CABLE	996500013058	RCA CABLE 2P 1.2M
FM	996510004177	T ANTENNA FEMALE PLUG
RC	996510021186	REMOTE CONTROL
V1	996510007429	FFCCBLE 10P100mm

**SPEAKER**

RFF	996510027049	RUBBER FOOT
RFS	996510010854	RUBBER FOOT -SUB
SPKC	996510021124	SPEAKER BOX-CENTER
SPKFL	996510021123	SPEAKER BOX-FRONT LEFT
SPKFR	996510021125	SPEAKER BOX-FRONT RIGHT
SPKRL	996510021126	SPEAKER BOX-REAR LEFT
SPKRR	996510021127	SPEAKER BOX-REAR RIGHT
SUBW	996510021118	SUBWOOFER

**SCREW**

S1	--	SCREW T2.6xP0.91xL8mm
S2	--	SCREW T2.0x0.63PxL5mm
S3	--	SCREW T3.0x1.06PxL8mm
S4	--	SCREW M3.0x0.5PxL6mm
S6	--	SCREW L10xP2.12xT5.0mm
S7	--	SCREW M3.0x0.5PxL6mm
S8	--	SCREW M3.0x0.5PxL6mm
S9	--	T3.5x1.06PxL8mm

**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
CN303	996500015900	CONNECTOR 3 PIN P=2.0MM
CN401	996500015862	CONNECTOR B2B-XH-A 2 PIN
CN701	996500015901	CONNECTOR 6 PIN P=2.0MM
CN802	996500015901	CONNECTOR 6 PIN P=2.0MM
CN803	996500015895	CONNECTOR 5 PIN P=2.0MM
IC201	996510012499	IC 28P
IC202	996510029647	IC 48P EN29LV320B-70TCP
IC203	# 994000005209	IC 3P AZ809NSTR-E1 SOT23
IC203	# 9965000041284	IC 3P STM809SWX6F 3.0V

Loc.	Alt Part No.	safety Description
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**MAIN PCB**

IC204	996510004289	IC 8P TU24C16CS2 SOIC TURB
IC205	# 996510021062	IC3P LD1117ADJ SOT223 3.3V
IC205	# 996510027042	IC 3P LD1117AL-33-AA3 3.3V
IC206	996510009895	IC 54P A641604L-6T TSOP II
IC207	996510012500	IC 20 PIN SN74HC244PWR TSS
IC208	996510021936	IC 48P STM32F101C6A
IC209	996510021082	IC 256P MT1389FXE/SN LQFP
IC210	# 996500027090	IC 3 PIN AP1117E18LA 1.8V SO
IC210	# 996510027889	IC 3P LD1117AL-18-AA3
IC301	# 996500029611	IC 8P CO4558A SO8 CERAM
IC301	# 996510020341	IC 8P D4558 SOP SILICORE
IC303	# 996500029611	IC 8P CO4558A SO8 CERAM
IC303	# 996510020341	IC 8P D4558 SOP SILICORE
IC304	996510012503	IC 16P CD4051BM SOIC TI ANA
IC305	996510012503	IC 16P CD4051BM SOIC TI ANA
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
IC406	# 996500029611	IC 8P CO4558A SO8 CERAMA
IC406	# 996510020341	IC 8P D4558 SOP SILICORE
IC407	996500023948	IC 14PIN 74HCU04D PHILIPS
IC501	996510012505	IC 48P CS48540-CQZ LQFP CIR
IC801	996510010380	Motor Drive IC
JK302	996510027067	RCA JACK 4P
JK401	996510013837	SPK JAC12P RD-WT-GRN-G
JK701	996510012481	RCA JACK 1P YELLOW W/GND
JK702	996500012609	RCA JACK R/G/B
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<1000
Q903	996500026946	XISTR PNP 2SB772P/Q NEC PB
XL401	996510021233	X'TAL 13.5MHz 15ppm 20pF

**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 20%
C902	996500018042	COND DISC 0.01UF 1KV 20%
C903	996500018042	COND DISC 0.01UF 1KV 20%
C904	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%
C919	996500027115	CAP.SAFTY Y1 102PF 250V 20%
C920	996510028862	CAP ELECT 330uF 250V 20%
C921	996510028862	CAP ELECT 330uF 250V 20%
C923	996510004633	COND MYLAR 0.1 uF 100V 5%
C941	996510021078	COND DISC 1000 pF 1KV 10%
C945	996500020264	COND DISC 470PF 1KV 10%

Loc.	Alt Part No.	safety	Description
<b>POWER PCB</b>			
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=2
D924	994000005346		RECTIFIER UF1602CT TO-220A
F901	996500042572	⚠	FUSE 5A 250V SLOW
IC901	996510028863		IC 8P TNY280P DIP PI
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
L907	996500027102		TOROID COIL S1=1TS D0.65MM
L908	996510012474		COMMON COIL75uH10%1KHz
NTC901	994000005232		THERMIST. NTC 5R 5A
Q910	996500026946		XISTR PNP 2SB772P/Q NEC PB
Q911	996500026946		XISTR PNP 2SB772P/Q NEC PB
Q912	996510021085		MOSFET STK1060F TO220F
Q913	996510021085		MOSFET STK1060F TO220F
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-10D241K
TVR903	996510021072		SURGEORBER :VCR-10D241K
C905	996500018042		COND DISC 0.01UF 1KV 20%

**MP3 IN +MIC PCB ASSY**

JJK351	996510004129	KARAOKE JACK D3.6MM 7P
JK352	996510004129	KARAOKE JACK D3.6MM 7P
USB351	996510013742	USB JACK 4P

**DISP+LED+VOL PCB ASSY**

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 L15xF7mm

# REVISION LIST

Version 1.0

\*Initial release

#=Alternative Codes

△=Safety Symbol