

Service
Service
Service



Service Manual



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Published by RY0939 Service Audio Printed in The Netherlands Subject to modification

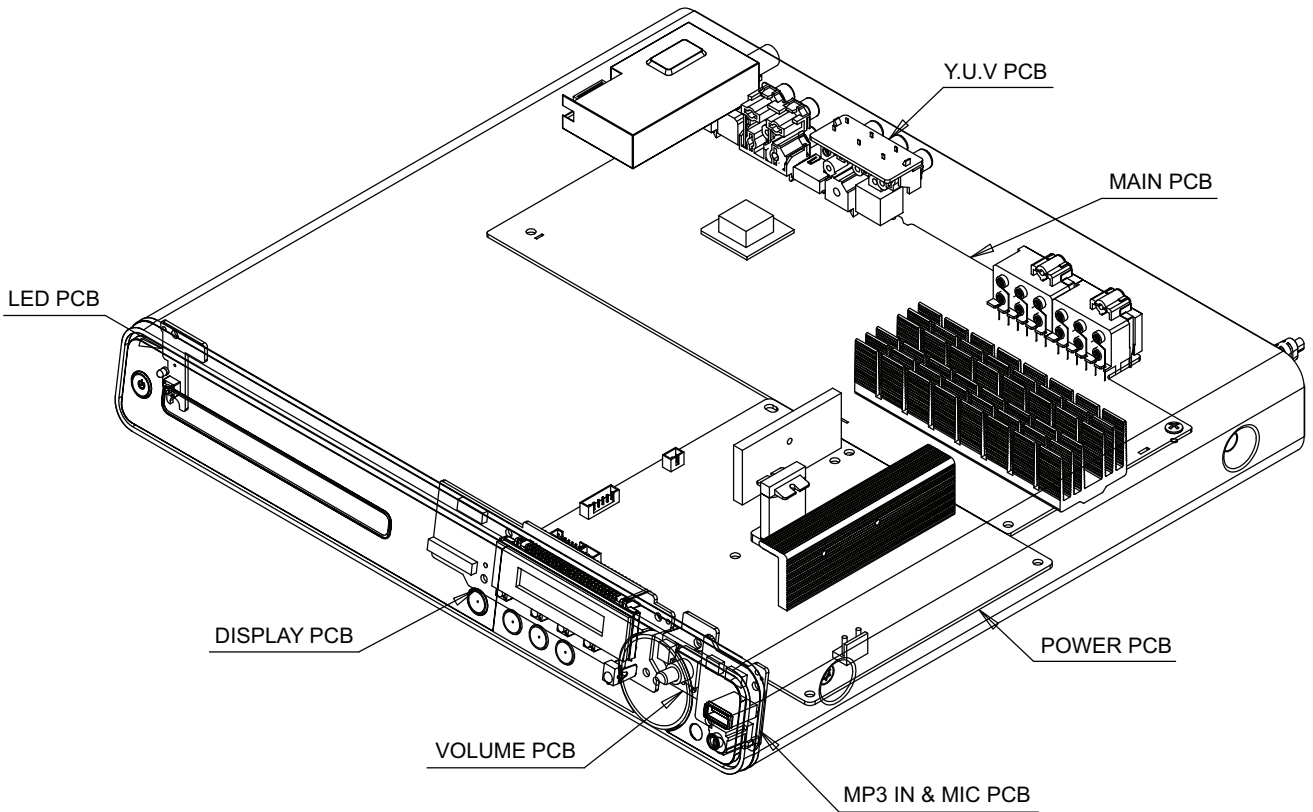
GB 3139 785 35151

Version 1.1



PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

Type/Versions	HTS3375X
Features	/78
Output Power - 1000W	X
Voltage (110~127V)	X
Voltage (220~240V)	X

SERVICE SCENARIO MATRIX:

Type/Versions	HTS3375X
Board in used	/78
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 110-127V/220-240V;
~50-60Hz 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

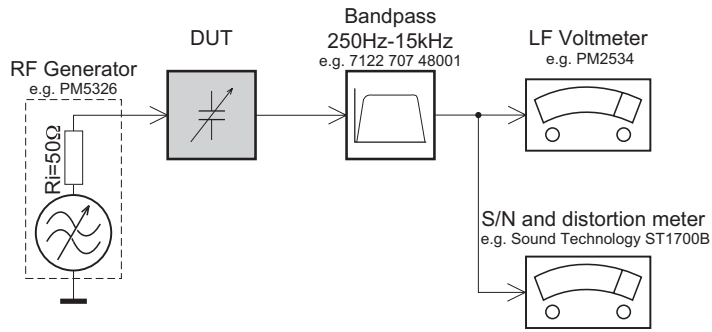
Subwoofer

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 GaAIAs (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

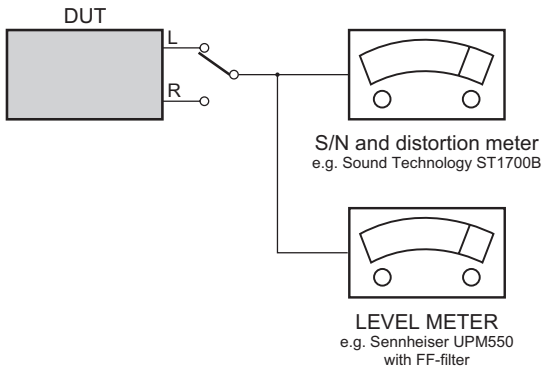
Tuner FM



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

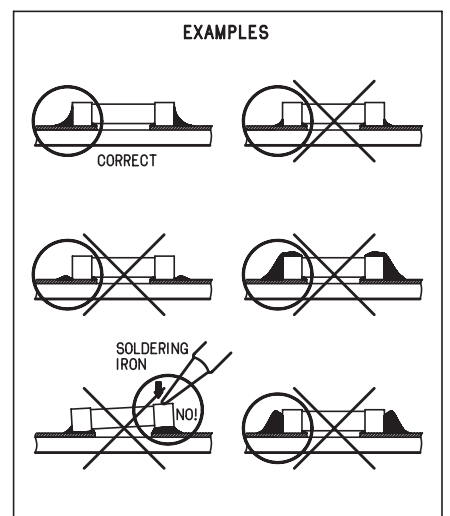
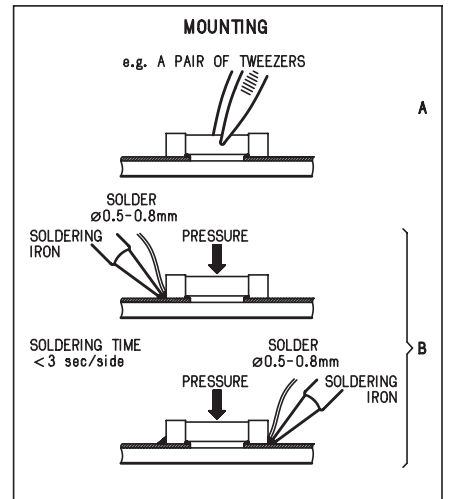
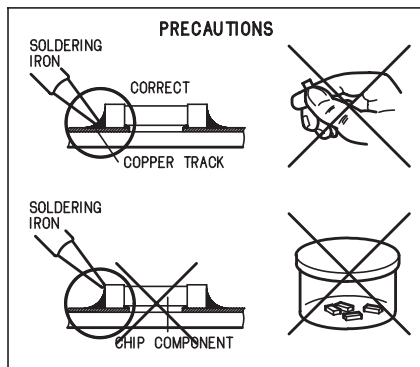
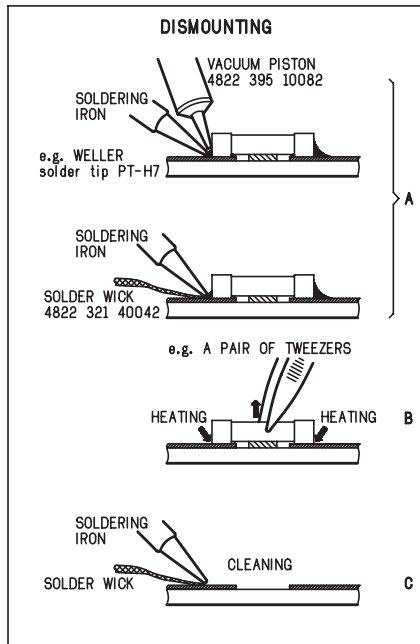
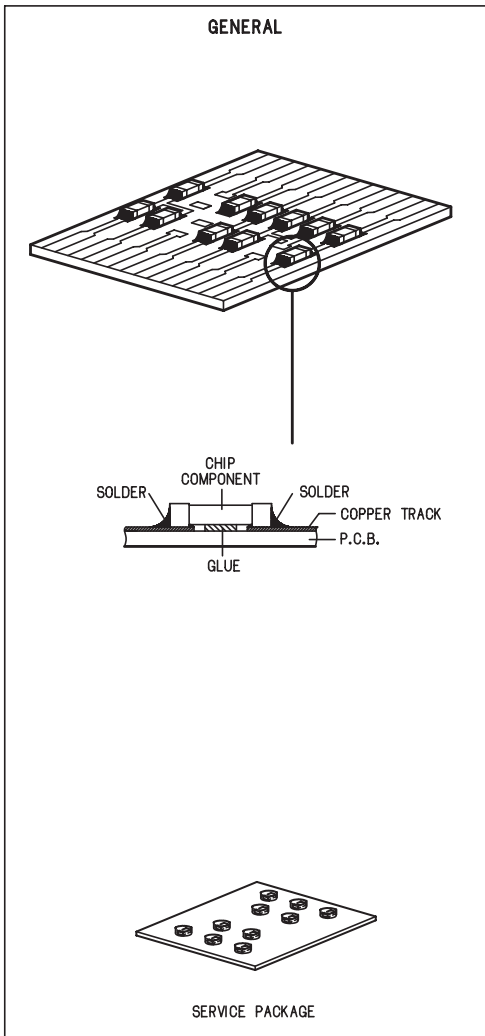
Service Tools:

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



ESD**(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 ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) 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 Δ .

(NL)

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

De Veiligheidsonderdelen zijn aangeduid met het symbol Δ .

(F)

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

Less composants de sécurité sont marqués Δ .

(D)

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

Sicherheitsbauteile sind durch das Symbol Δ markiert.

(I)

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

Componenty di sicurezza sono marcati con Δ .

(GB)

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

**(GB) Warning !**

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

(S) Varning !

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

(SF) Varoitus !

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

(DK) Advarsel !

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


(F)

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

Pb(Lead) Free Solder

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

IDENTIFICATION:

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 (leaded/ 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 leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded 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 leaded solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website www.atyourservice.ce.Philips.com you find more information to:
 - BGA-de-/soldering (+ baking instructions)
 - Heating-profiles of BGAs and other ICs used in Philips-sets

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

For additional questions please contact your local repair-helpdesk.

System , Region Code , etc. Setting Prochure

1)System Reset

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

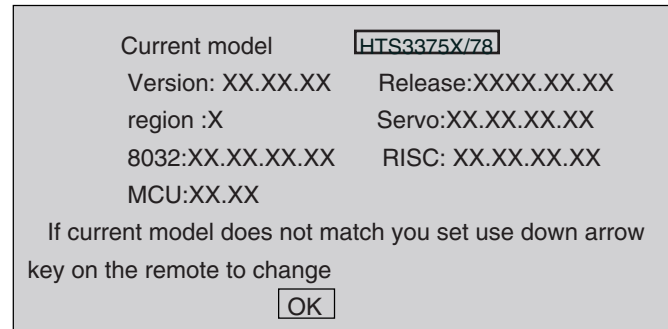
2)Region Code Change

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

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

3)Version Control Change

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



4)Password Change

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

5)Check on the Software Version

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

6)Trade model

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

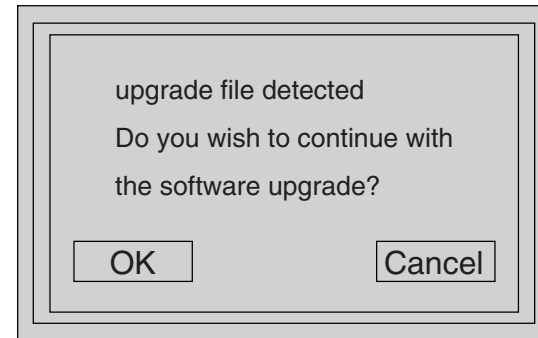
7) Upgrading new software

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

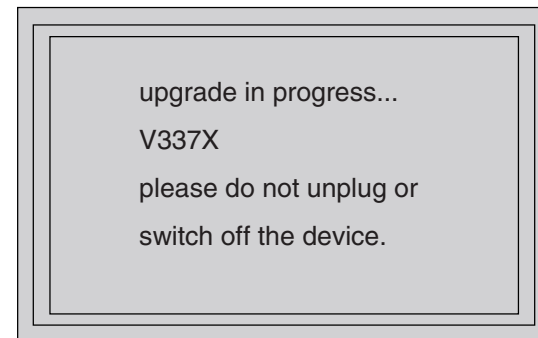
"Loading"
 "Erase" -- erase the flash memory
 "Writing" about 1 minute
 "done "

* the system will switch off and on again automatically.

- OSD will show:



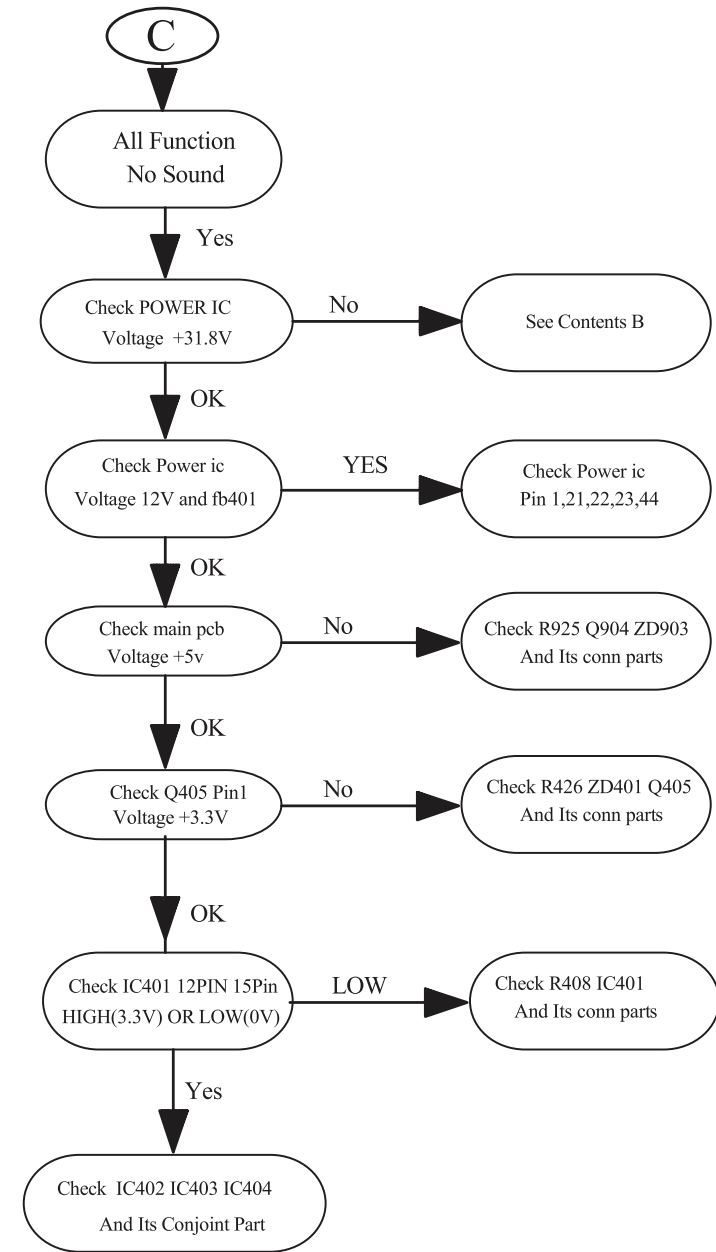
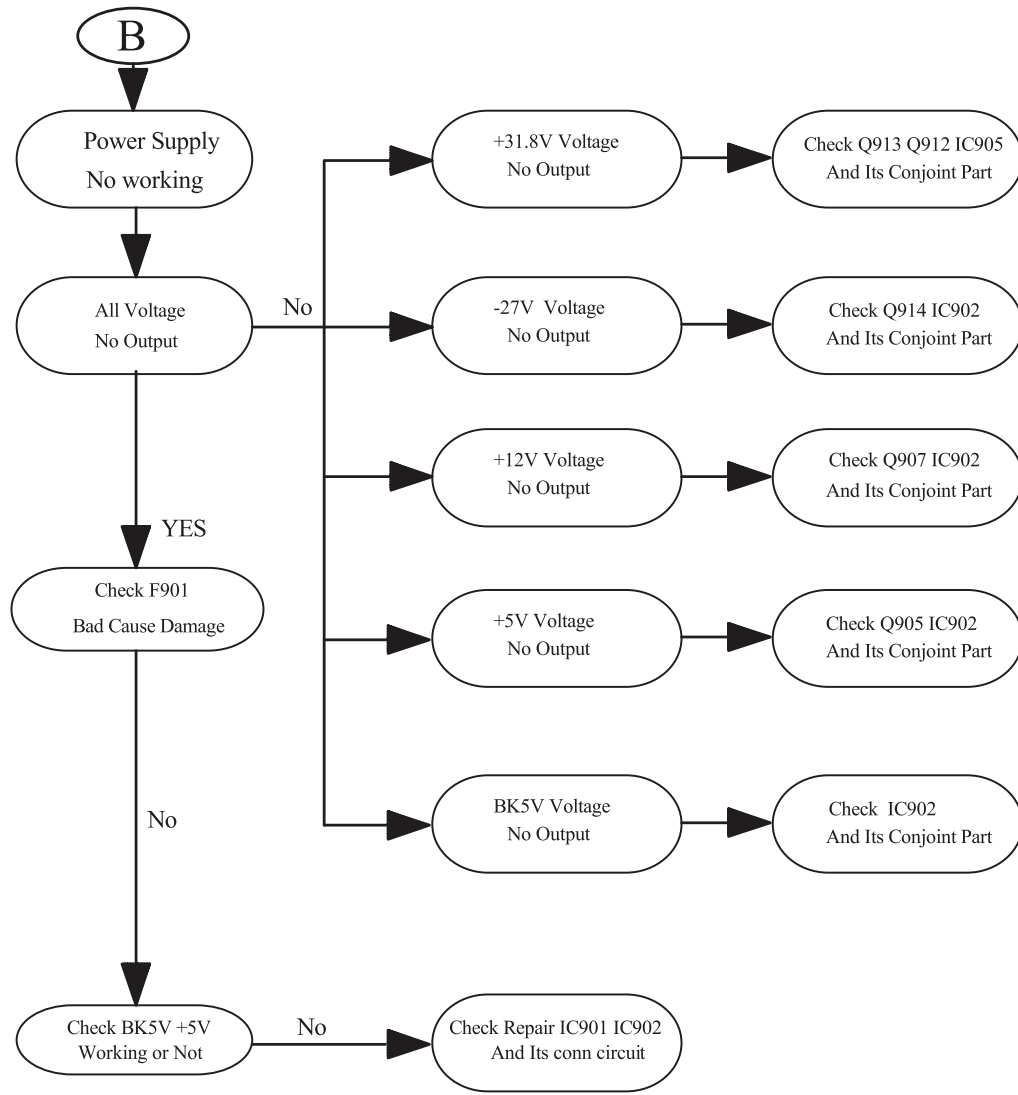
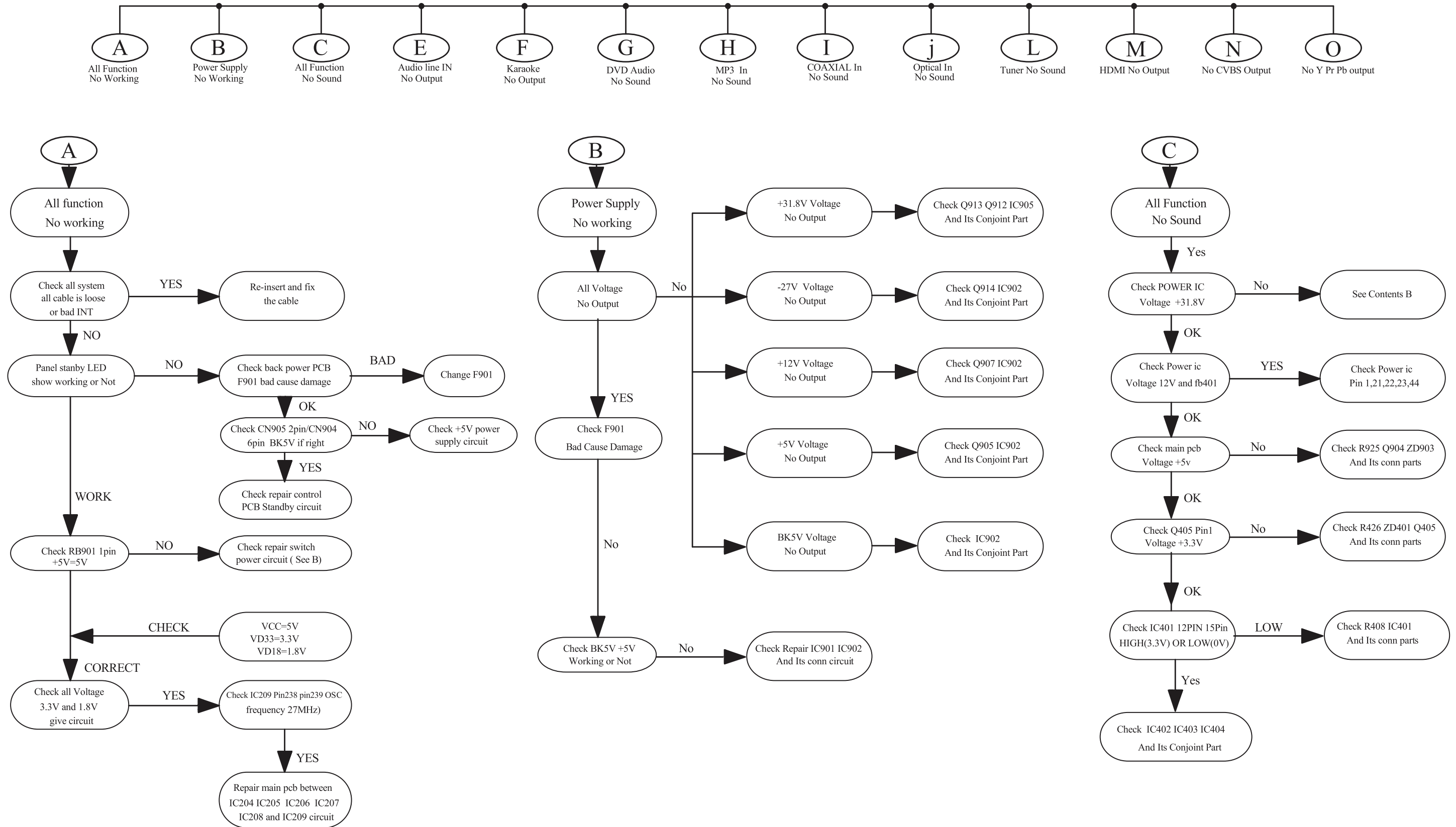
- Select "OK", OSD will show:



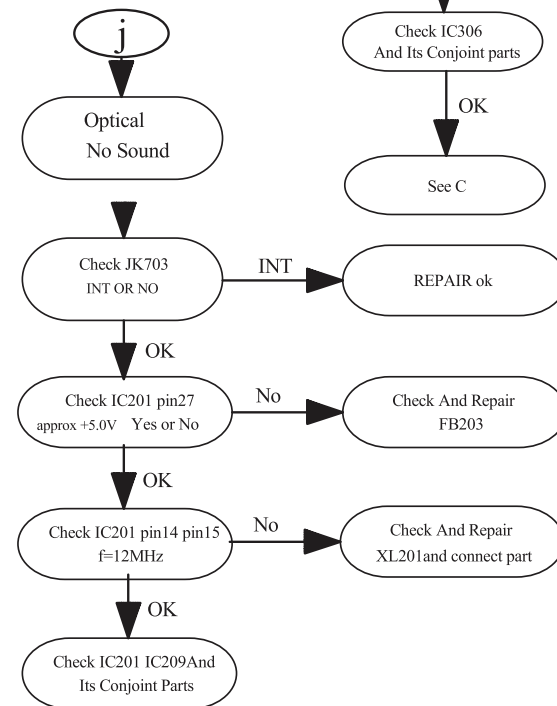
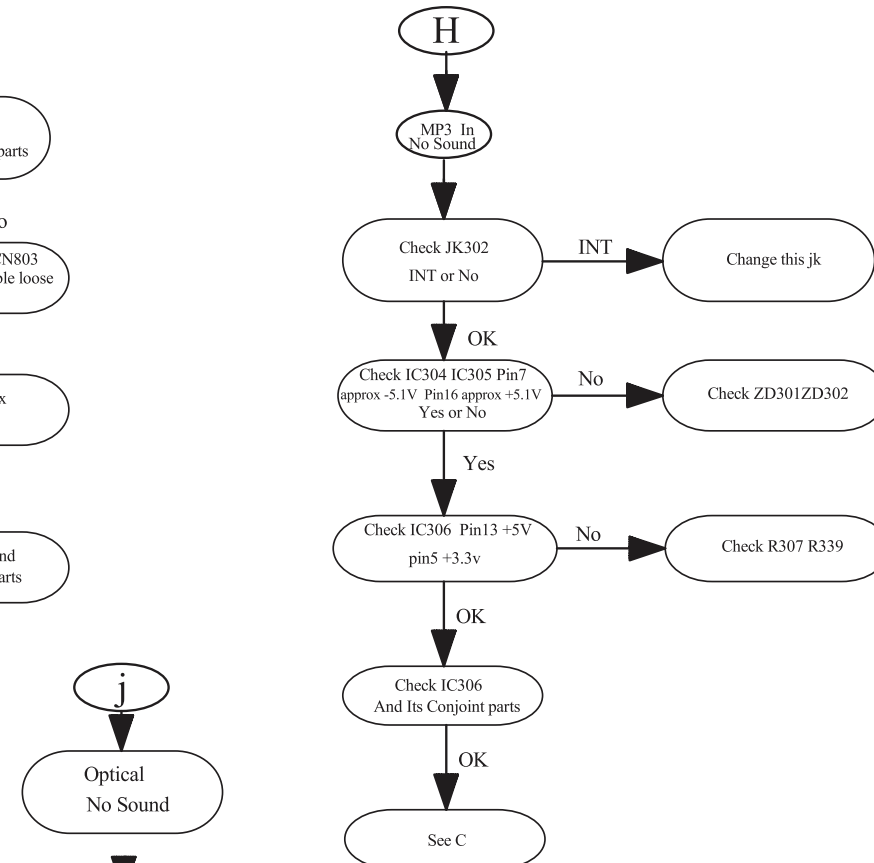
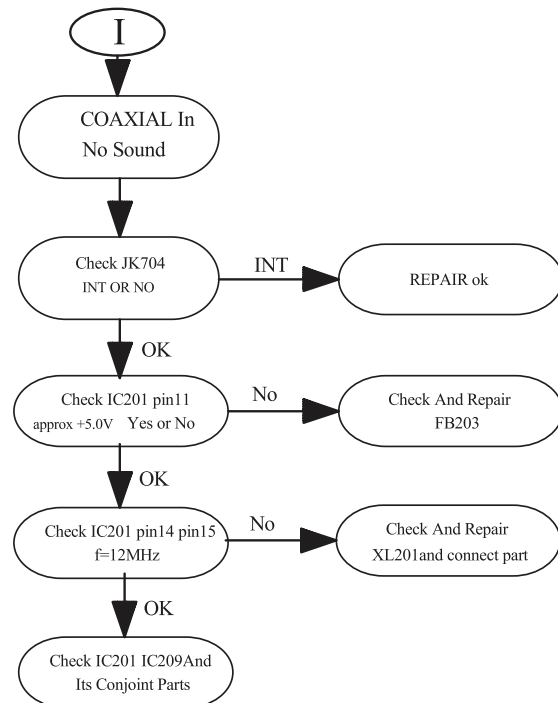
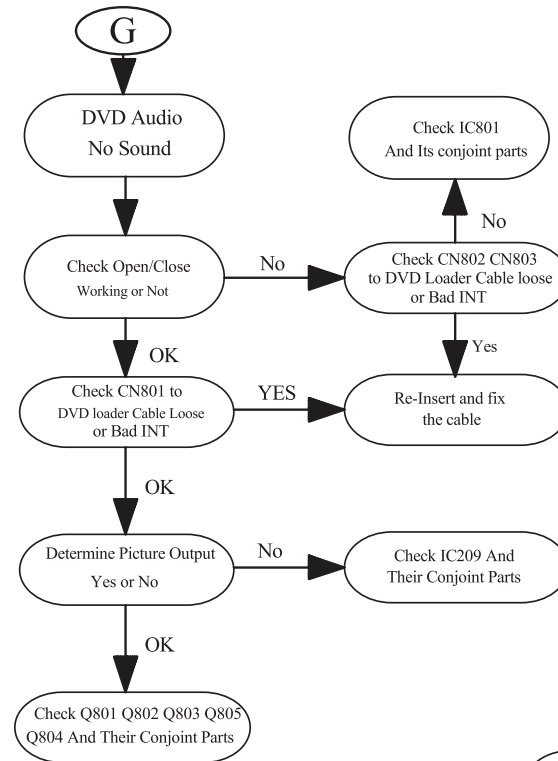
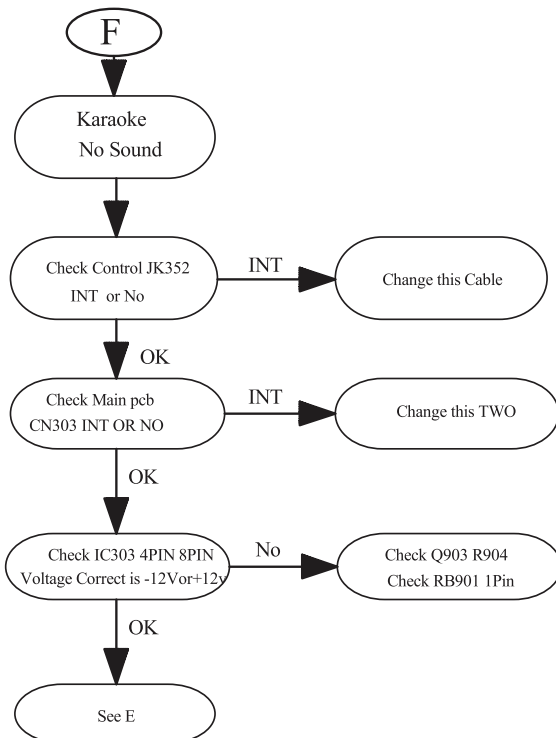
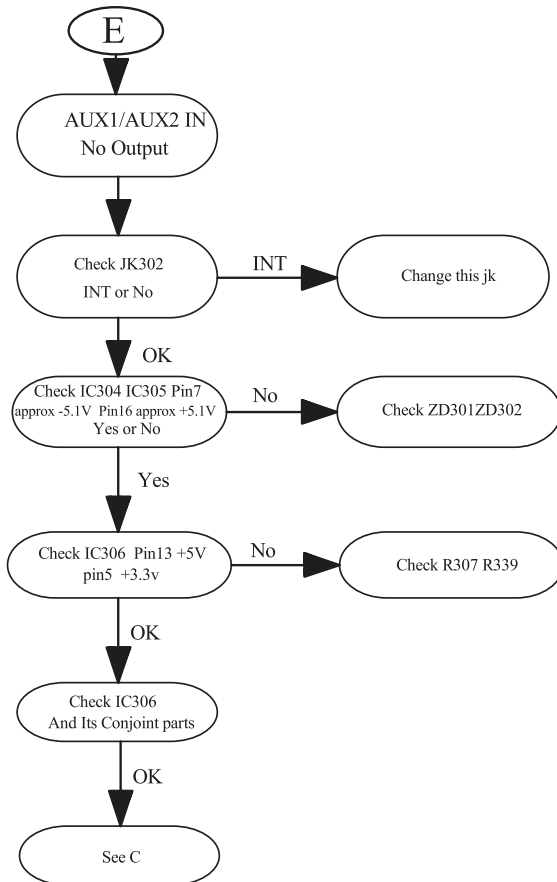
CAUTION!

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

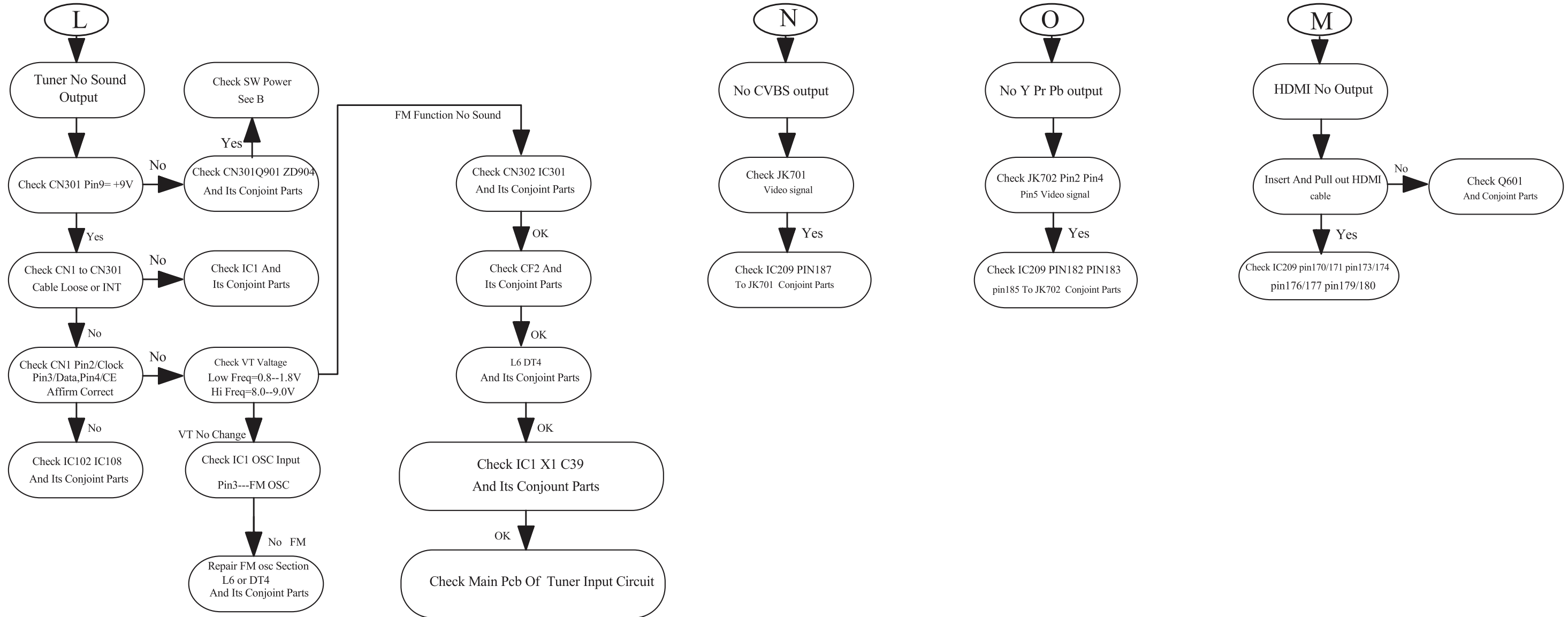
MAIN UNIT REPAIR CHART 1/3



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.

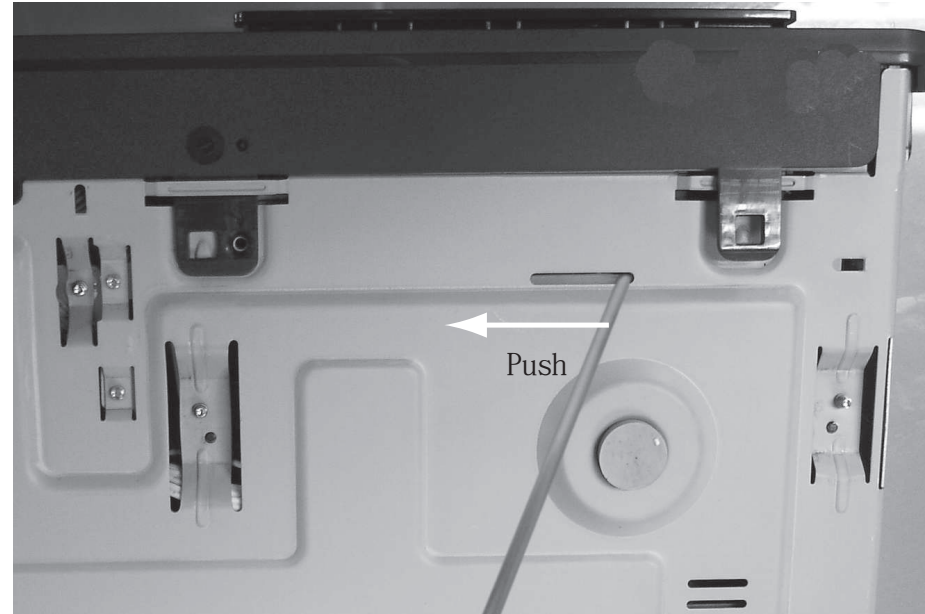


Figure 1



Figure 2

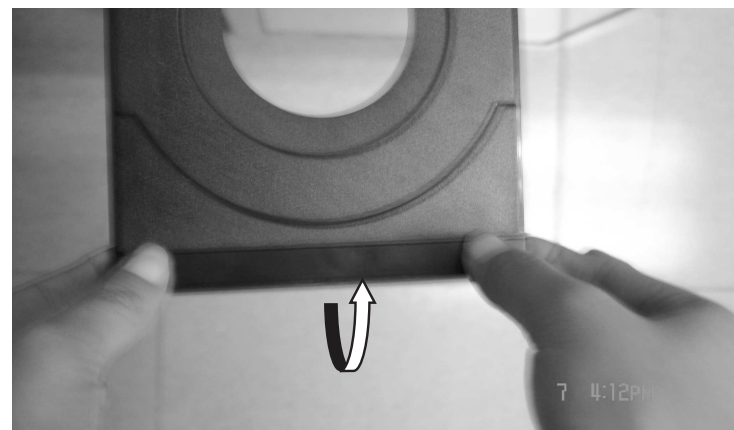


Figure 3

- 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.

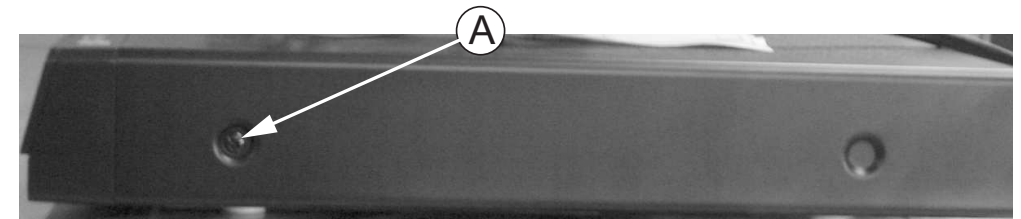


Figure 4

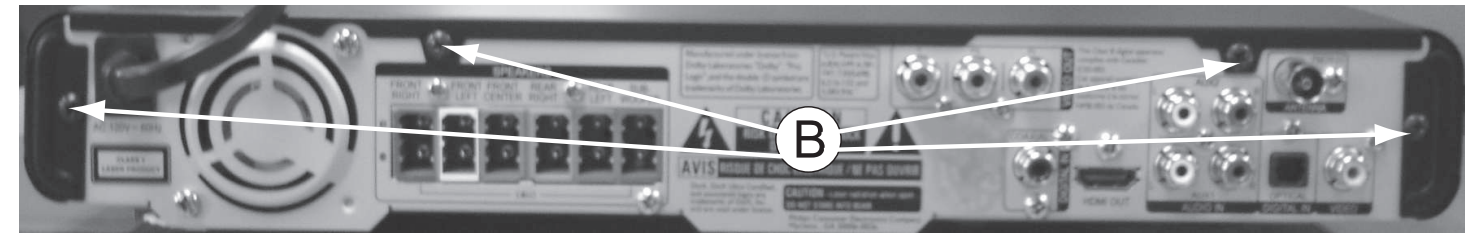


Figure 5

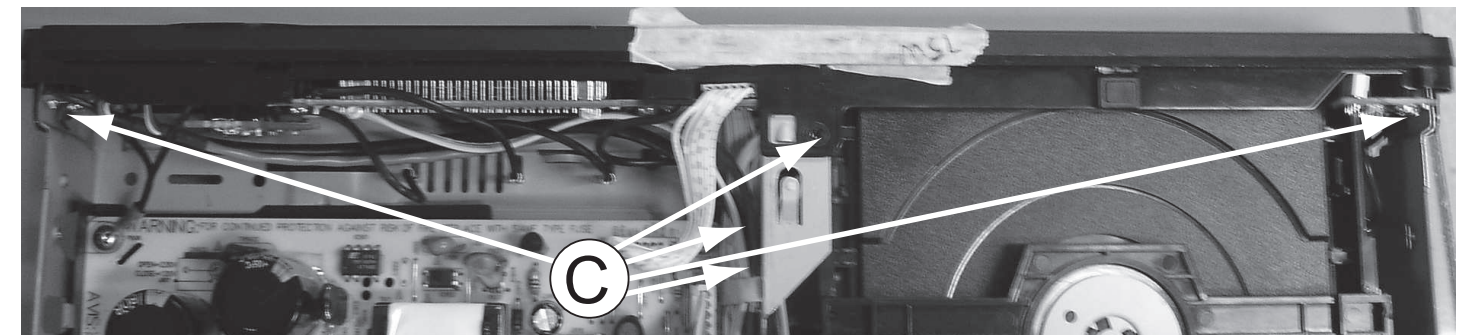


Figure 6

Dismantling of the DVD Module

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

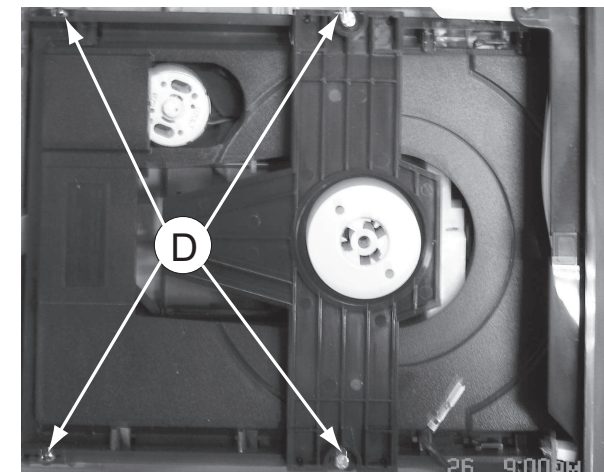


Figure 7

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.

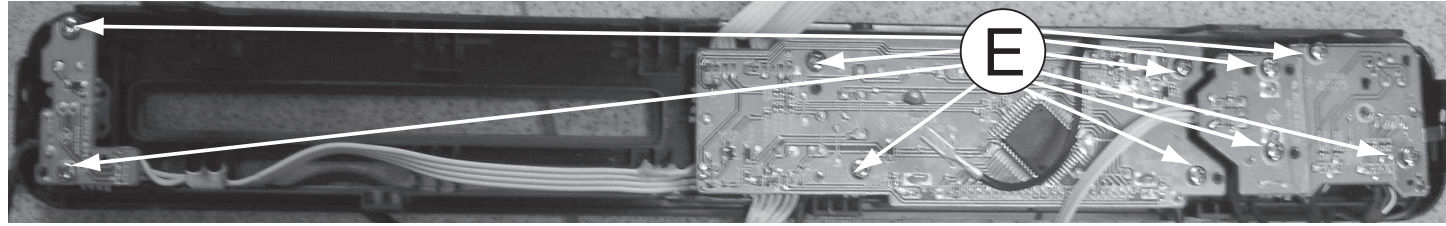


Figure 8

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.

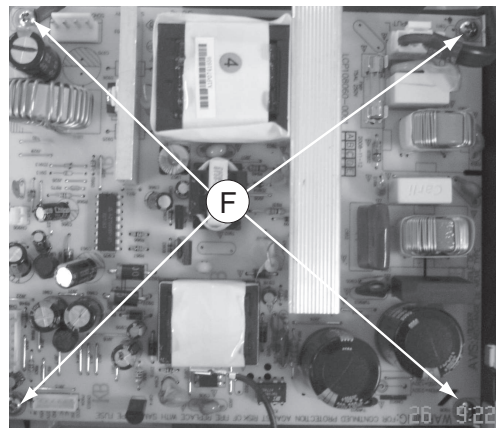


Figure 9

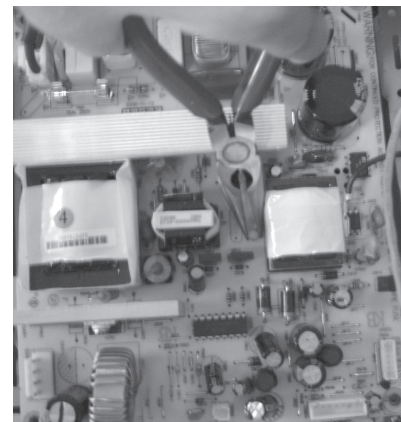


Figure 10

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.

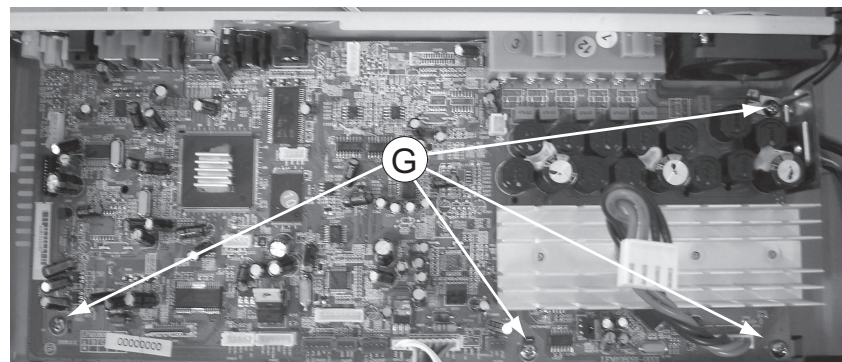


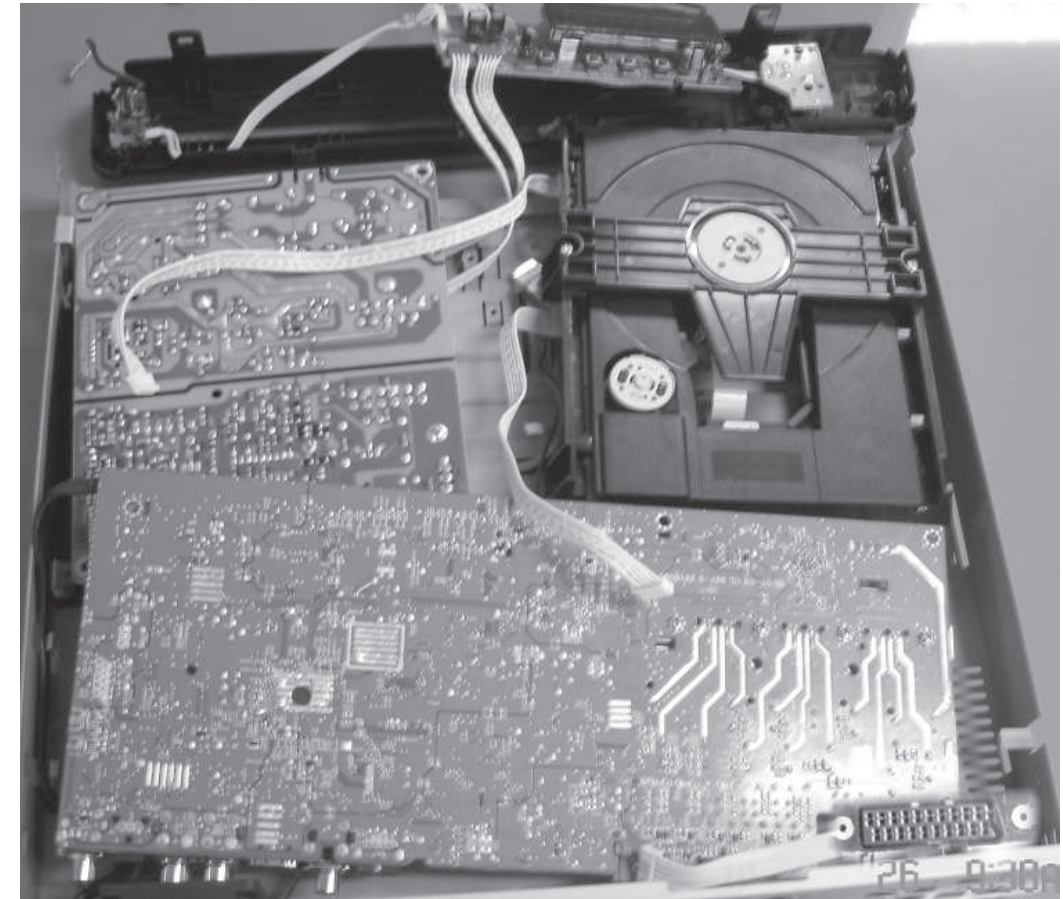
Figure 11



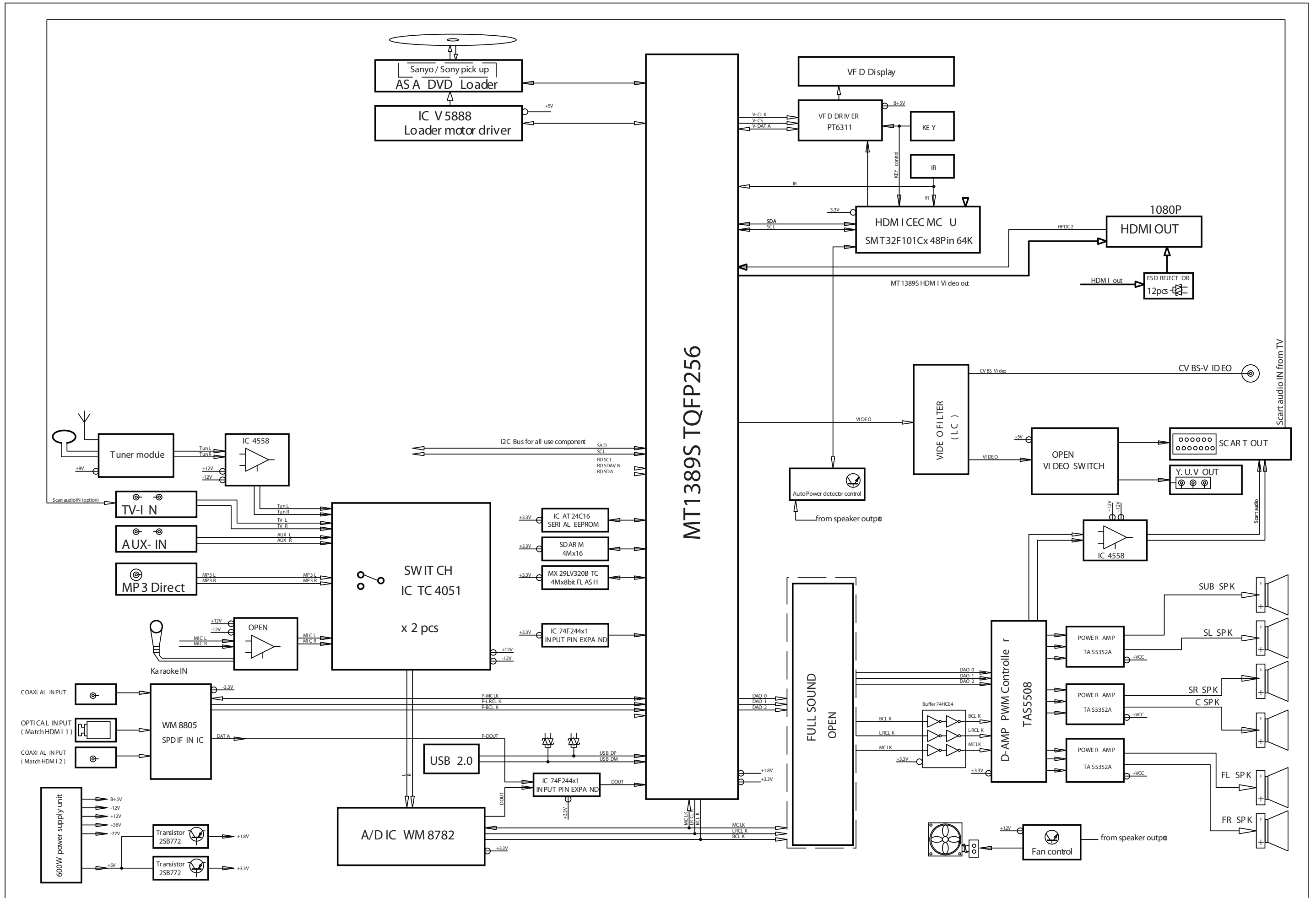
Figure 12

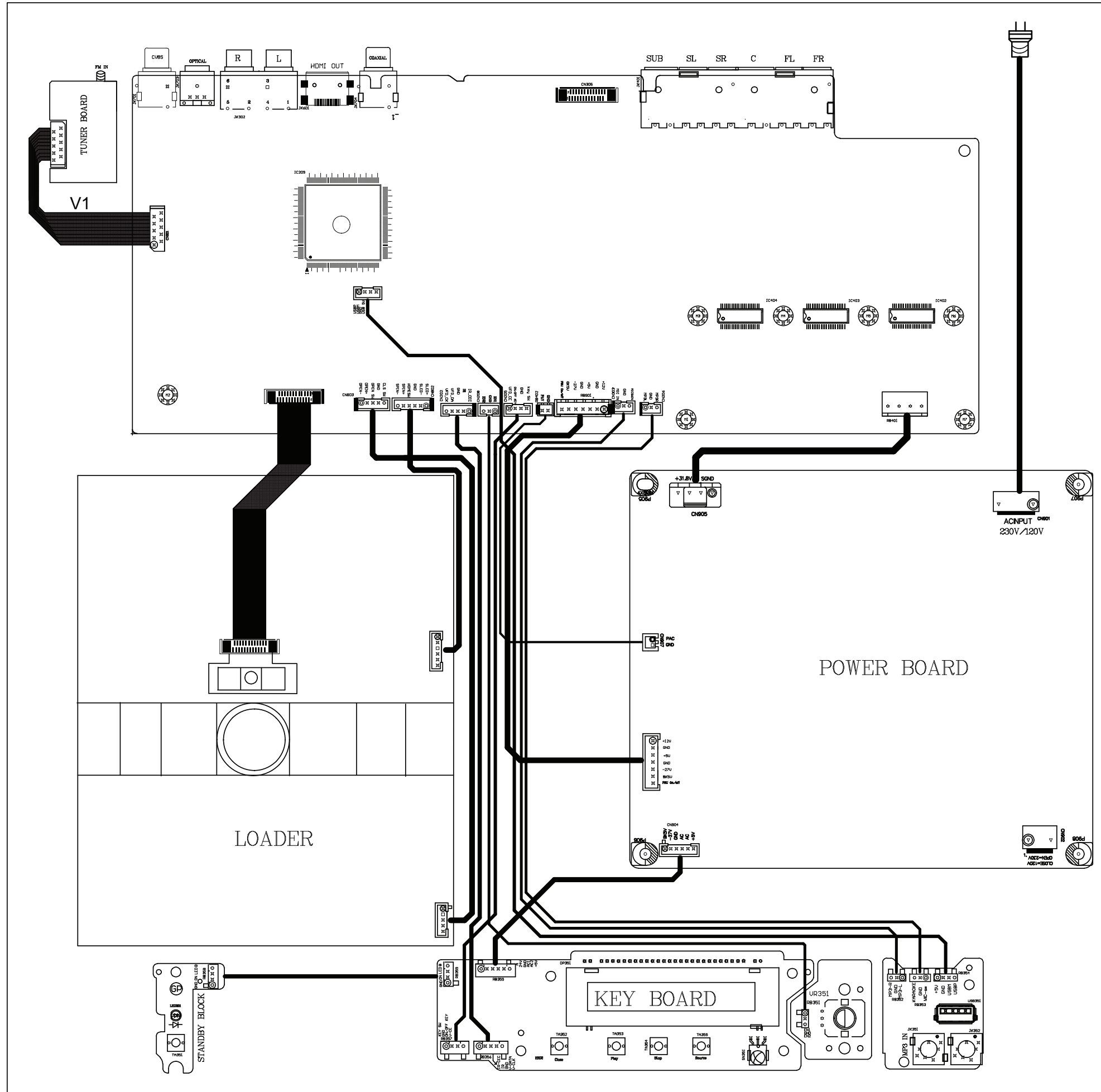
SERVICE POSITIONS

Service position A

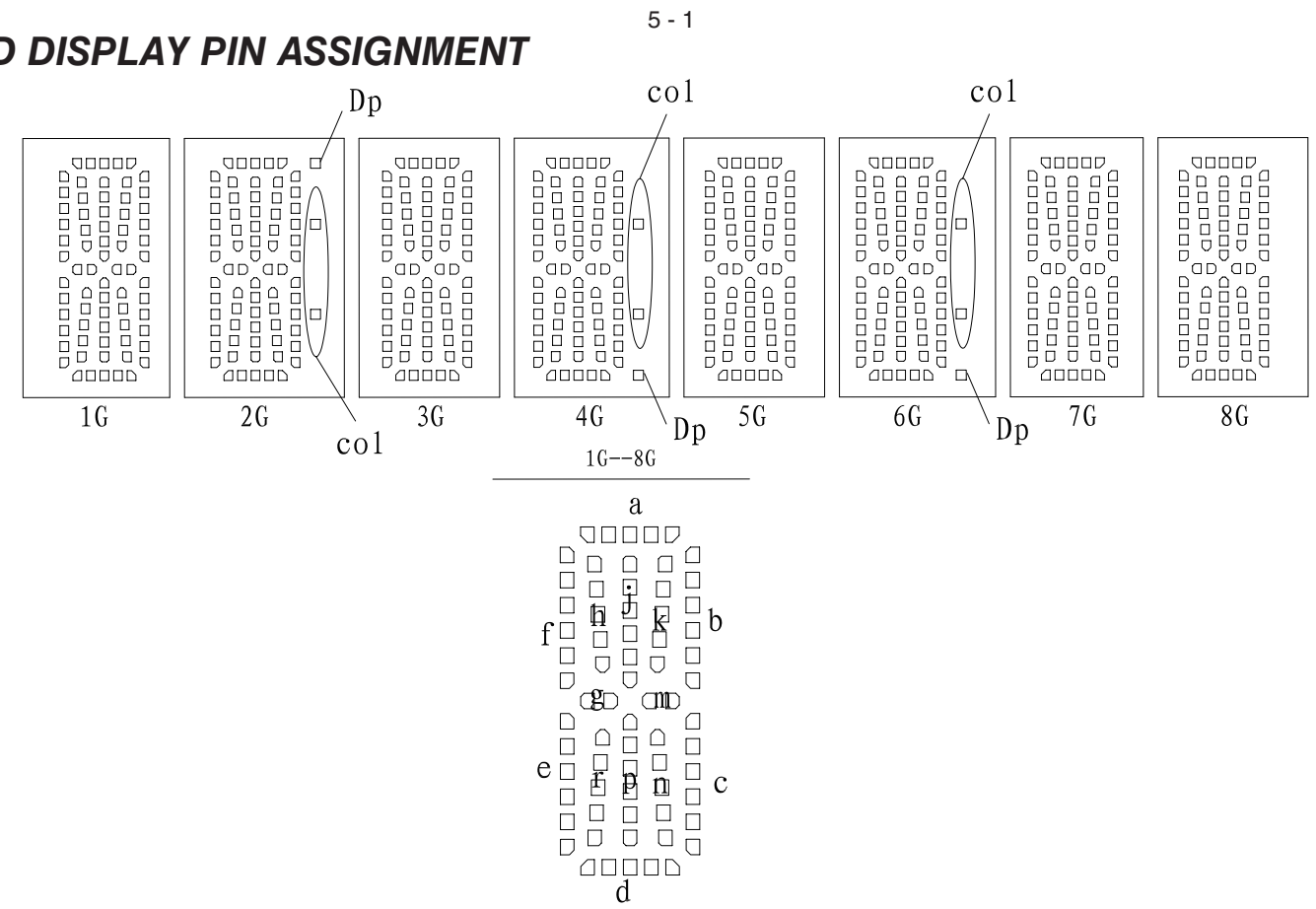


Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.





FTD DISPLAY PIN ASSIGNMENT



DISP+LED+VOL BOARD

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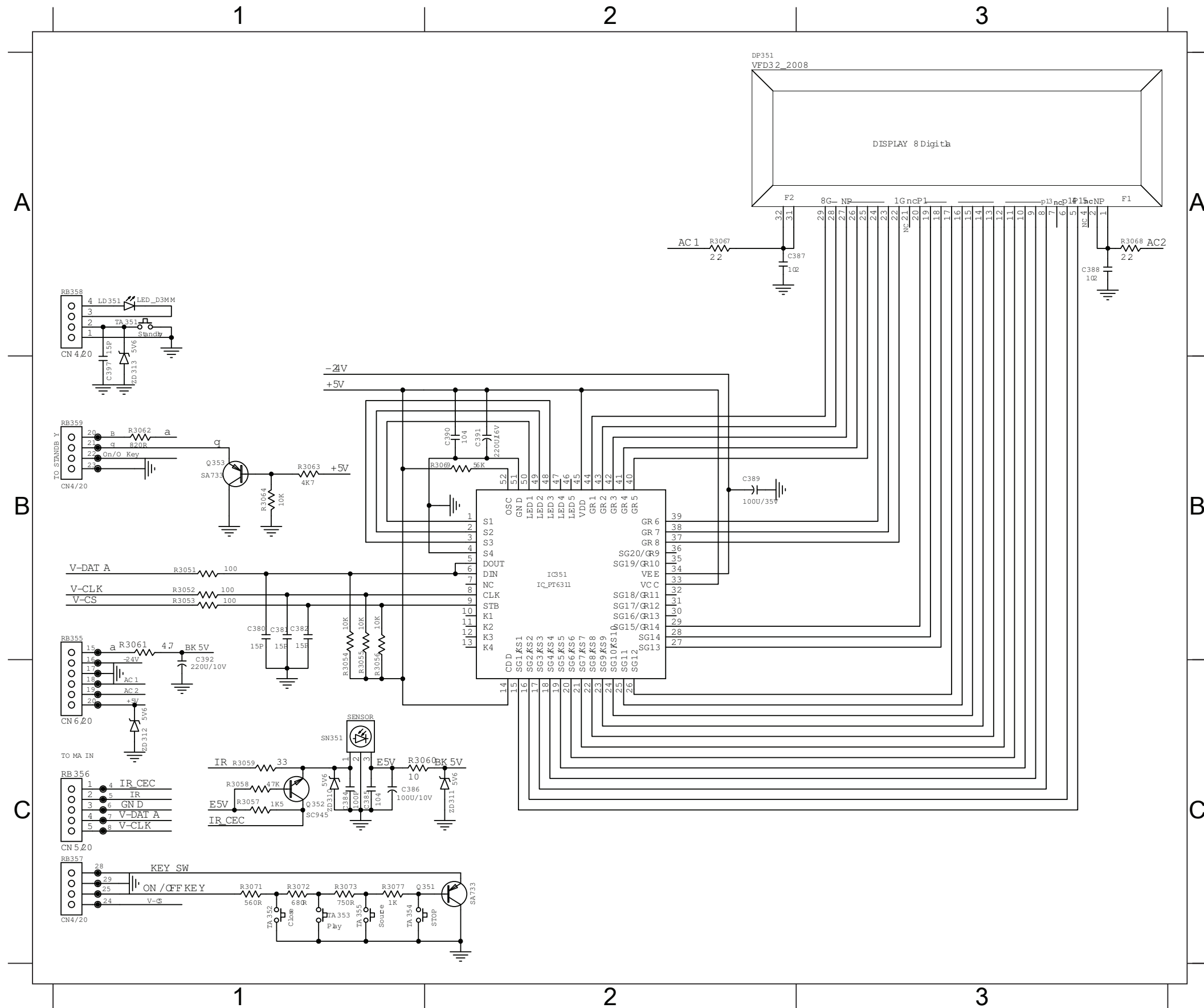
	1G	2G	3G	4G	5G	6G	7G	8G
P1	a	a	a	a	a	a	a	a
P2	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14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

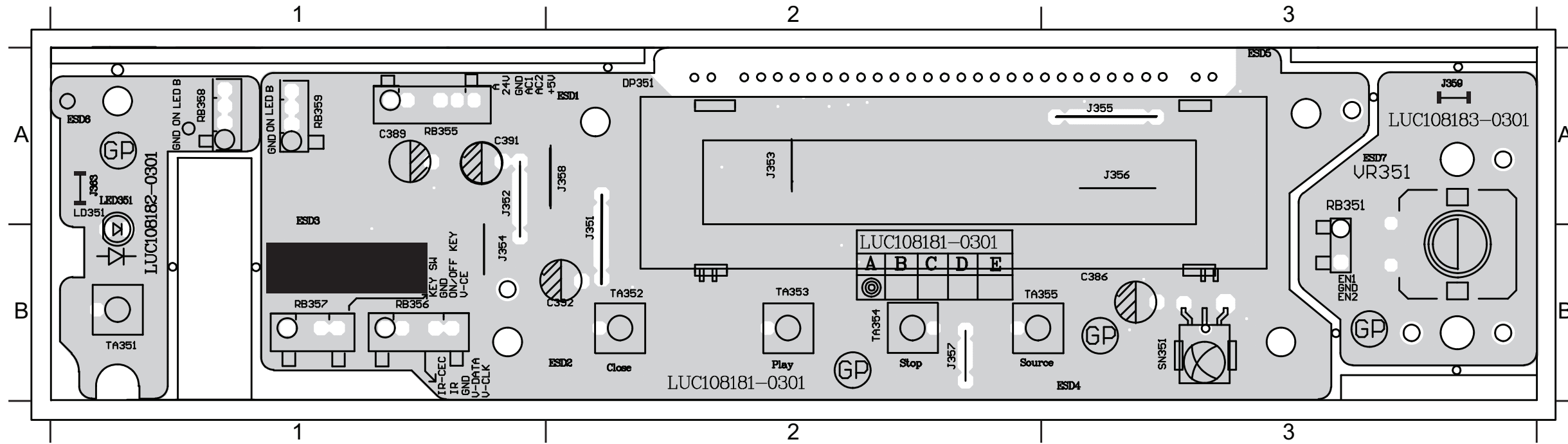
(Notes) : Fn : (Filament Pin) nG : (Grid Pin)
 Pn : (Anode Pin) NP : (No Pin)
 NC : (No connection Pin)

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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



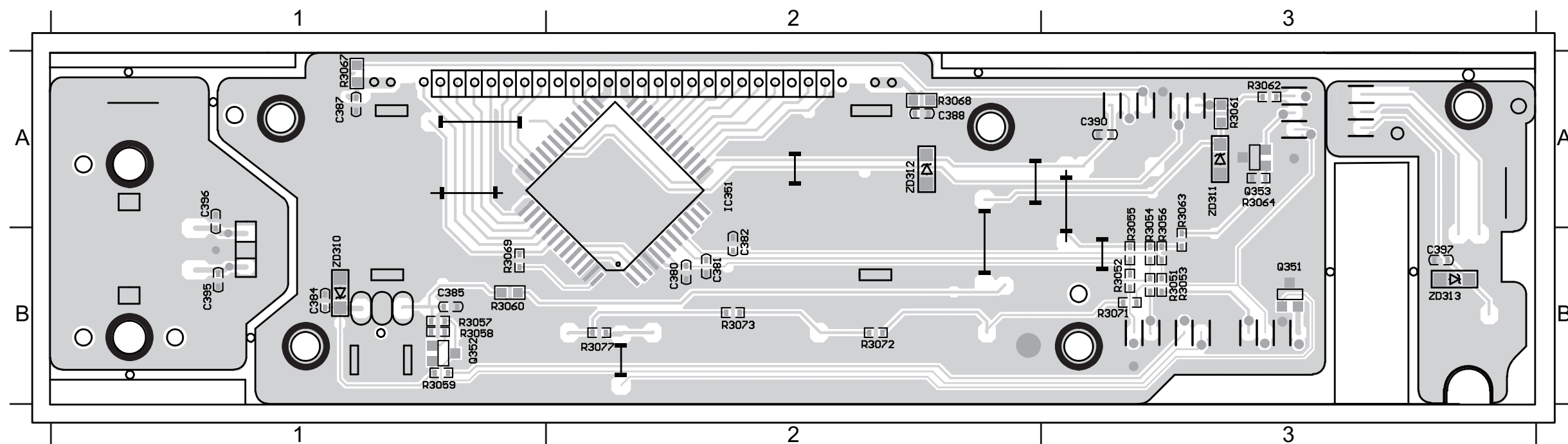
PCB LAYOUT - TOP VIEW

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 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



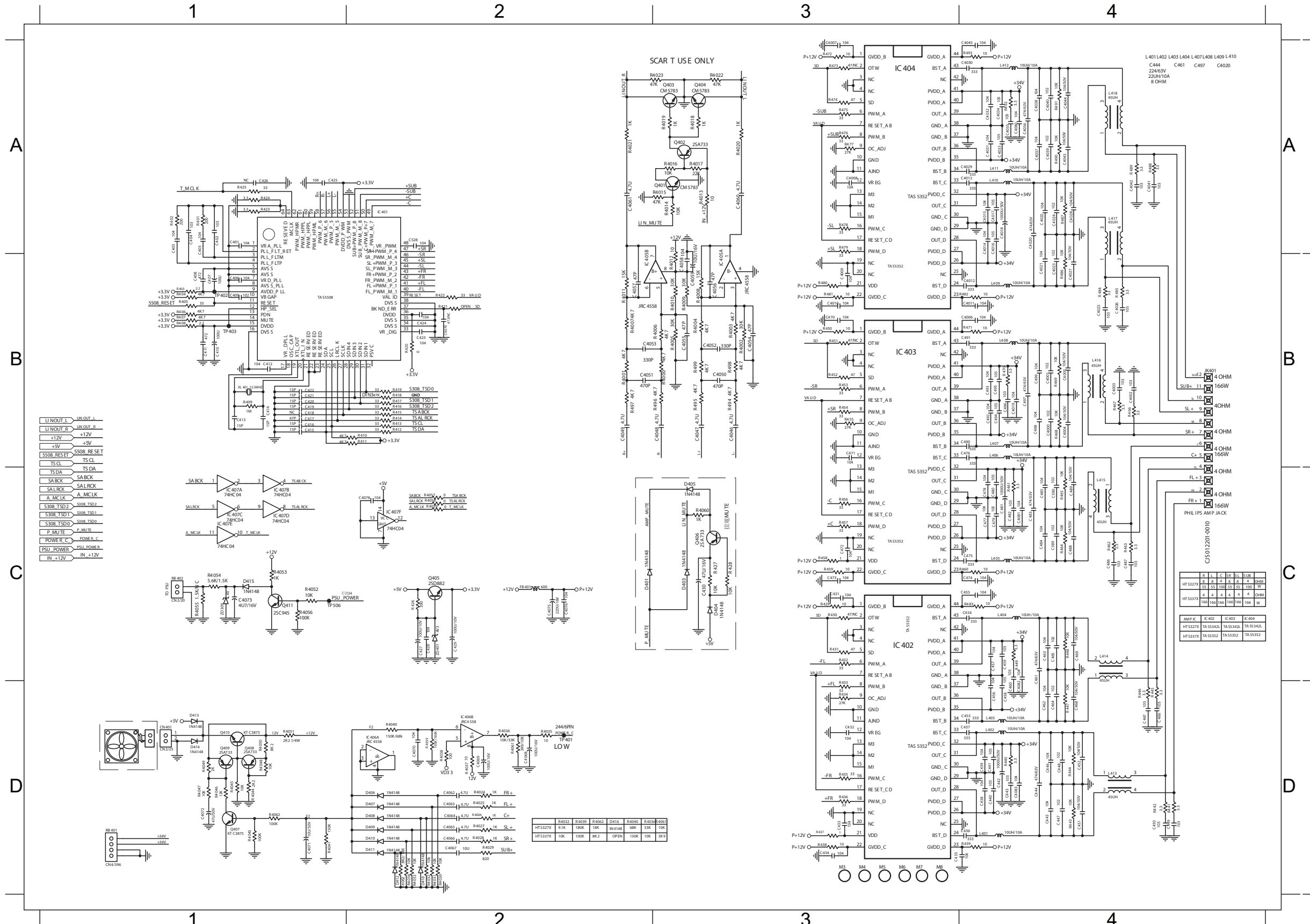
PCB LAYOUT - BOTTOM VIEW

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 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



CIRCUIT DIAGRAM - part one

- C4000 B4 C4010 B3 C4023 B4 C4035 A4 C4045 A4 C407 B1 C409 B1 C421 B1 C434 D3 C447 D4 C460 D4 C471 B3 C484 C4 C497 B4 D410 D2 IC406 D2 L409 B4 R402 A1 R4033 D2 R4043 D1 R4053 C1 R411 B2 R422 B2 R436 D3 R447 D4 R459 C3 R470 B4 R482 B4 R493 A4
- 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
- C4002 B4 C4012 B4 C4025 B4 C4037 A4 C406 B1 C4071 D1 C411 B1 C423 B2 C436 D4 C449 D4 C462 D4 C473 C3 C486 C4 C499 B4 D412 D2 JK401 B4 L411 A4 R4025 D2 R4035 D2 R4045 D1 R4055 C1 R413 B2 R424 A1 R438 D3 R449 C4 R461 C4 R472 A3 R484 B4 RB402 C1
- 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
- C4004 B4 C4014 A4 C4027 B4 C4039 A4 C4063 D2 C4073 C1 C413 B1 C425 A1 C438 D4 C451 D4 C464 C4 C475 C4 C488 C4 C589 C4 D414 D1 L402 D4 Q405 C2 R4027 D2 R4037 D2 R4047 D1 R406 B1 R415 B2 R426 C2 R440 D4 R452 B3 R463 C4 R475 A3 R486 B4 ZD401 C2
- C4005 B4 C4015 A4 C4028 A4 C404 A1 C4064 D2 C4075 C2 C414 B1 C427 C2 C439 D4 C452 D4 C465 C4 C476 B4 C489 C4 C590 C4 D415 C1 L403 D4 Q407 D1 R4028 D2 R4038 D2 R4048 D1 R4061 D2 R416 B2 R429 C3 R441 D4 R453 B3 R464 C4 R476 A3 R487 A4
- C4006 B4 C4018 A4 C4029 A4 C4040 A4 C4065 D2 C4076 C2 C415 B1 C428 C2 C442 D4 C453 D4 C466 D4 C477 C4 C490 B4 CN401 D1 FB401 C2 L404 C4 Q408 D1 R4029 D2 R4039 D2 R4049 D1 R4062 D2 R417 B2 R431 C3 R442 D4 R454 B3 R465 C4 R477 A3 R488 A4
- C4007 A3 C402 A1 C403 A1 C4041 A4 C4066 D2 C4078 C2 C416 B1 C429 C2 C443 D4 C454 C4 C467 D4 C478 C4 C491 B4 D406 D2 IC401 A2 L405 C4 Q409 D1 R403 B1 R404 B1 R405 B1 R407 B1 R418 B2 R432 C3 R443 D4 R455 B3 R466 B4 R478 A3 R489 A4
- C4008 A3 C4020 A4 C4030 A4 C4042 A4 C4067 D2 C408 B1 C417 B1 C431 C3 C444 D4 C455 C4 C468 D4 C481 C4 C492 B4 D407 D2 IC402 C3 L406 B4 Q410 D1 R4030 D2 R4040 D2 R4050 D1 R408 B1 R419 B2 R433 D3 R444 D4 R456 C3 R467 B4 R479 A3 R490 A4
- C4009 B3 C4021 B4 C4031 A4 C4043 A4 C4068 D2 C4080 A4 C419 B1 C432 D3 C445 D4 C456 D4 C469 C4 C482 C4 C493 B4 D408 D2 IC403 B3 L407 B4 Q411 C1 R4031 D2 R4041 D1 R4051 D1 R409 B1 R420 B2 R434 D3 R445 D4 R457 C3 R468 B4 R480 B3 R491 A4
- 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



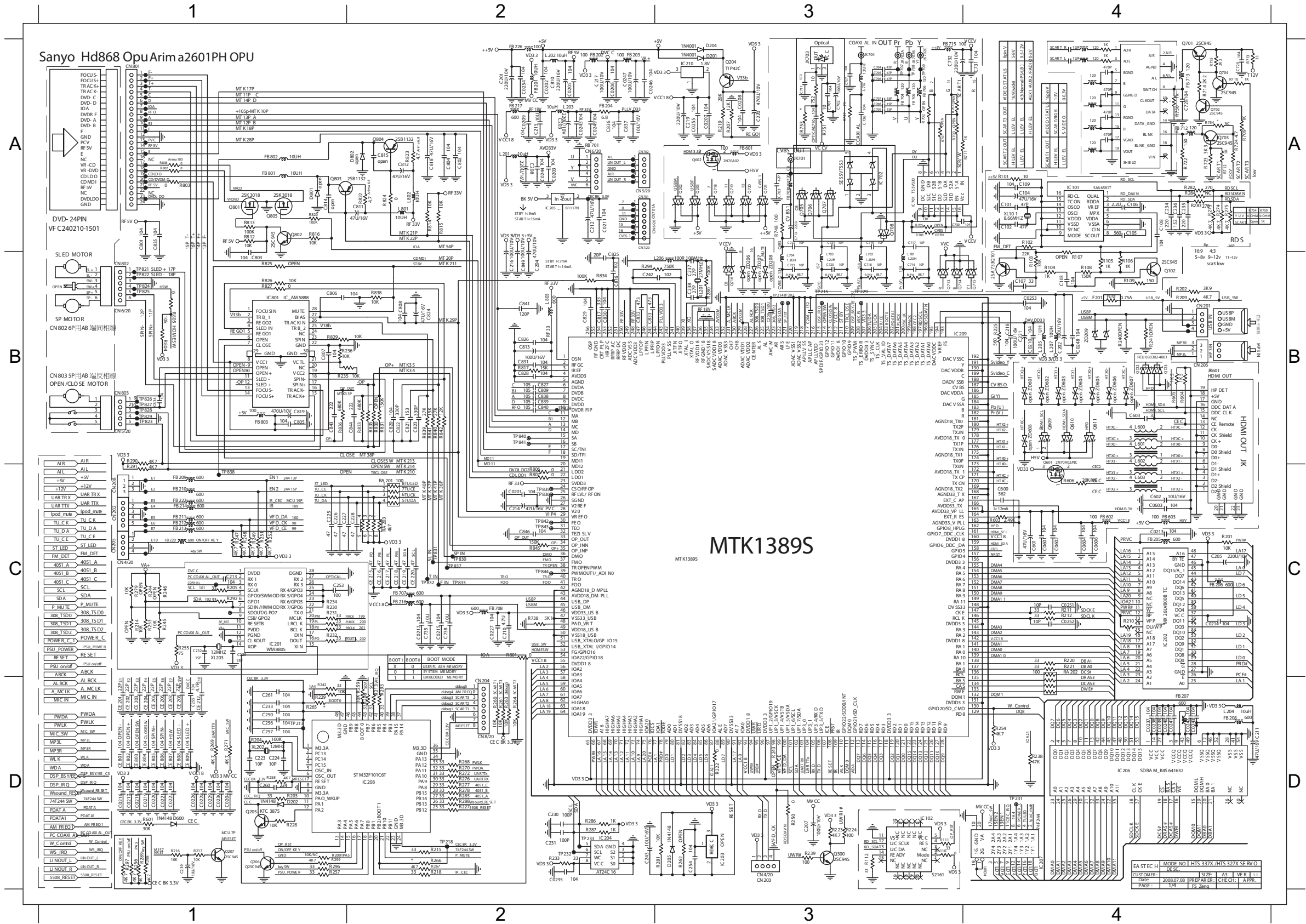
- LI NOUT INOUT_A
- LI NOUT RL INOUT_B
- +12V
- +5V
- +3V
- SS0B_RESET
- TS DA
- TS DA
- SABCK
- SALBCK
- A_MCLK
- SS0B_TS02
- SS0B_TS01
- SS0B_TS00
- P_MUTE
- A_MCLK
- PSU_POWER_C
- PSU_POWER_B
- IN +12V
- IN +12V

R4032	R4039	R4053	D415	R4040	R4038	R4039
HT5337X	10K	100K	10K	10K	10K	10K
HT5337X	10K	100K	10K	10K	10K	10K

HT5337X	IC403	IC404	IC404
HT5337X	TA5350B	TA5350B	TA5350B
HT5337X	TA5352	TA5352	TA5352

CIRCUIT DIAGRAM - part two

Component list table with columns for component IDs (e.g., C0201, C2 C0215, D4 C0252) and their corresponding values or types.



Sanyo Hd868 Opu Arima2601PH OPU

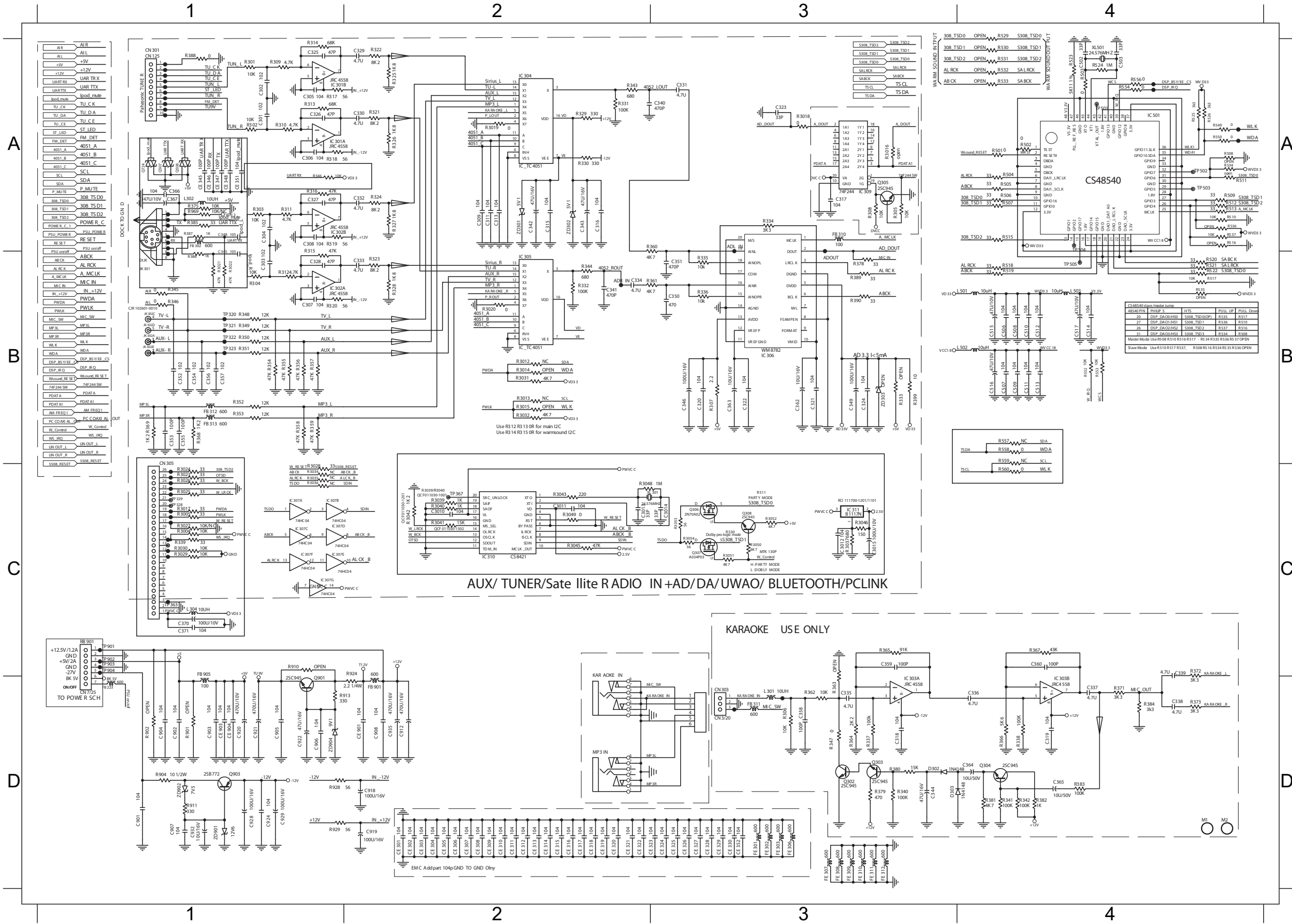
MTK1389S

- Pin headers and connector lists: DVD-24PIN, SLED MOTOR, SP MOTOR, CN802 6P, CN803 5P, etc.

EA ST EC H... MODE NO.1 HPS 337X / HPS 337X SE R/O... CUSTOMER... DATE... PREPARED... CHECK... APPRO...

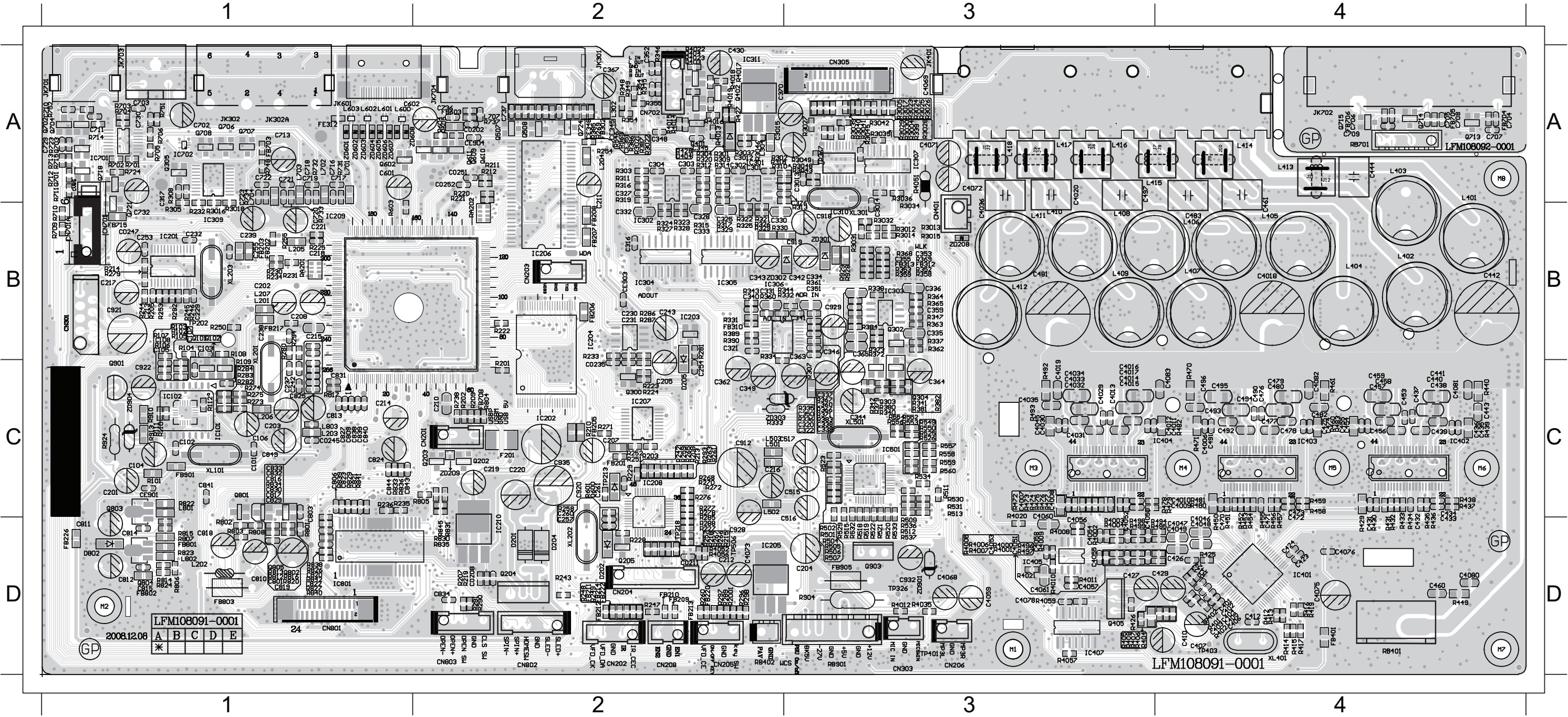
CIRCUIT DIAGRAM - part three

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 C302 A1 R302 A1 R388 A1 C342 A2 R330 A2 FB310 A3 R529 A4 C354 B1 R348 B1 R357 B1 R344 B2 C362 B3 R390 B3 RB901 C1 C907 D1 CE904D1 R929 D1 CE301D2 CE310D2 CE319D2 CE326D3 FE307 D3
 C305 A1 R309 A1 R546 A1 C343 A2 R343 A2 IC309 A3 R530 A4 C355 B1 R349 B1 R358 B1 C320 B3 C363 B3 R399 B3 R924 C2 C920 D1 FB223 D1 ZD901 D1 CE302D2 CE311D2 CE320D2 CE327D3 FE308 D3
 C306 A1 R310 A1 C309 A2 IC304 A2 R360 A2 Q305 A3 R531 A4 C356 B1 R350 B1 R359 B1 C321 B3 IC306 B3 R552 B4 R560 C4 C921 D1 FB901 D1 ZD902 D1 CE303D2 CE312D2 CE321D2 CE328D3 FE309 D3
 C325 A1 R313 A1 C311 A2 R3019 A2 ZD301 A2 R3018 A3 R532 A4 C357 B1 R351 B1 C334 B2 C322 B3 R307 B3 R553 B4 C901 D1 C922 D1 Q901 D1 ZD904 D1 CE304D2 CE313D2 CE322D2 CE329D3 FE310 D3
 C326 A1 R314 A1 C313 A2 R321 A2 ZD302 A2 R305 A3 R533 A4 FB312 B1 R352 B1 C341 B2 C324 B3 R335 B3 R558 B4 C902 D1 C924 D1 Q903 D1 C908 D2 CE305D2 CE314D2 CE323D2 CE330D3 FE312 D3
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 IC301 A1 R317 A1 C329 A2 R326 A2 C331 A3 R334 A3 C352 B1 R345 B1 R355 B1 R328 B2 C350 B3 R378 B3 R3031 C1 C905 D1 C932 D1 R913 D1 C919 D2 CE308D2 CE317D2 CE324D3 FE302 D3



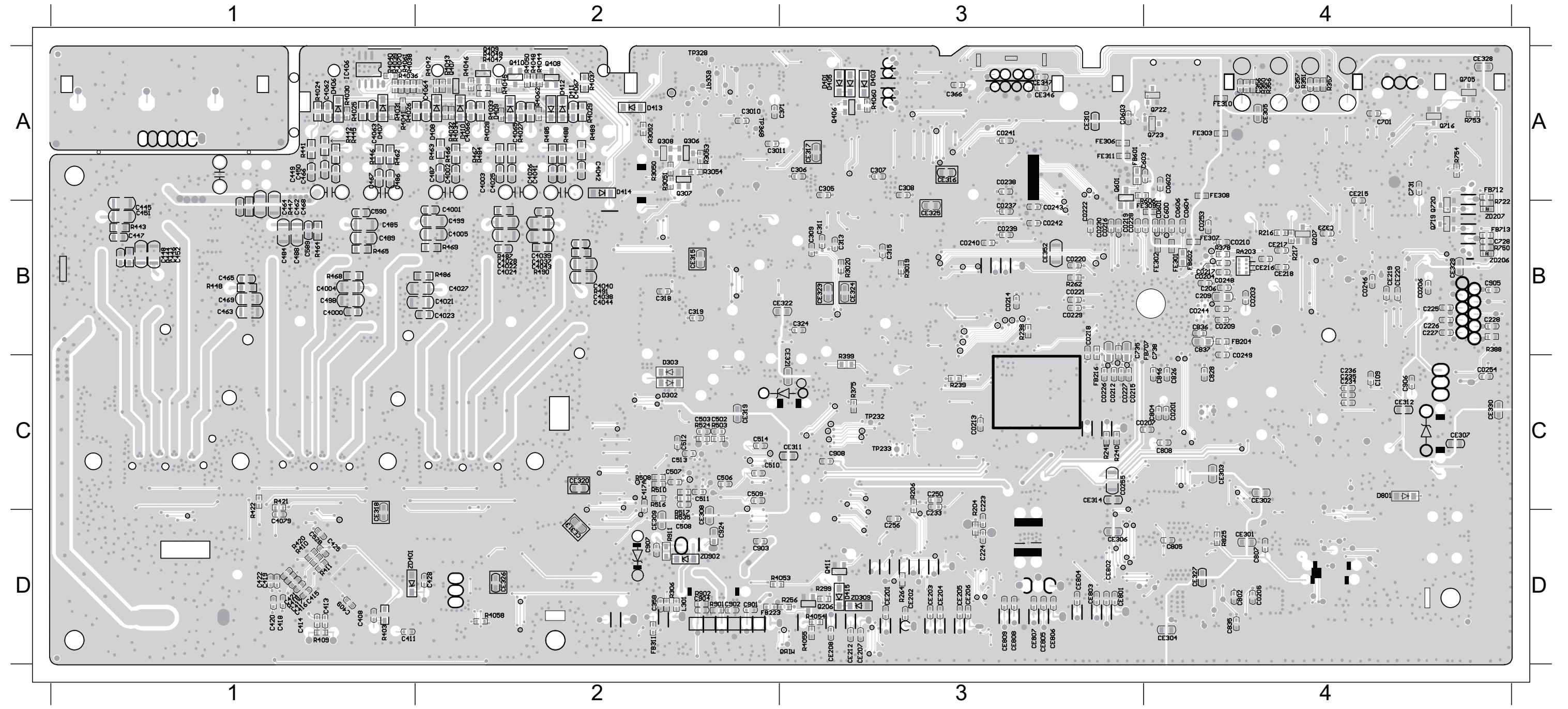
PCB LAYOUT - TOP VIEW

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 C0235 C2 C217 B1 C316 B2 C349 C2 C4013 C3 C4073 D2 C443 C4 C491 C4 C717 A1 C819 D1 C918 B3 CN701 A B1 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
 C0245 C1 C218 B1 C317 A1 C350 C3 C4014 B4 C4075 D4 C444 A4 C492 C4 C718 A1 C820 D1 C919 B3 CN702 A2 FB214 D2 GT01 B1 IC501 C3 L202 D1 L701 A1 Q801 C1 R221 A2 R253 B1 R286 B2 R313 B3 R343 B2 R380 C3 R416 D4 R454 C4 R493 C3 R549 C3 R748 A1 R827 D1 RB701 A4
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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 B3 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 C4 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 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

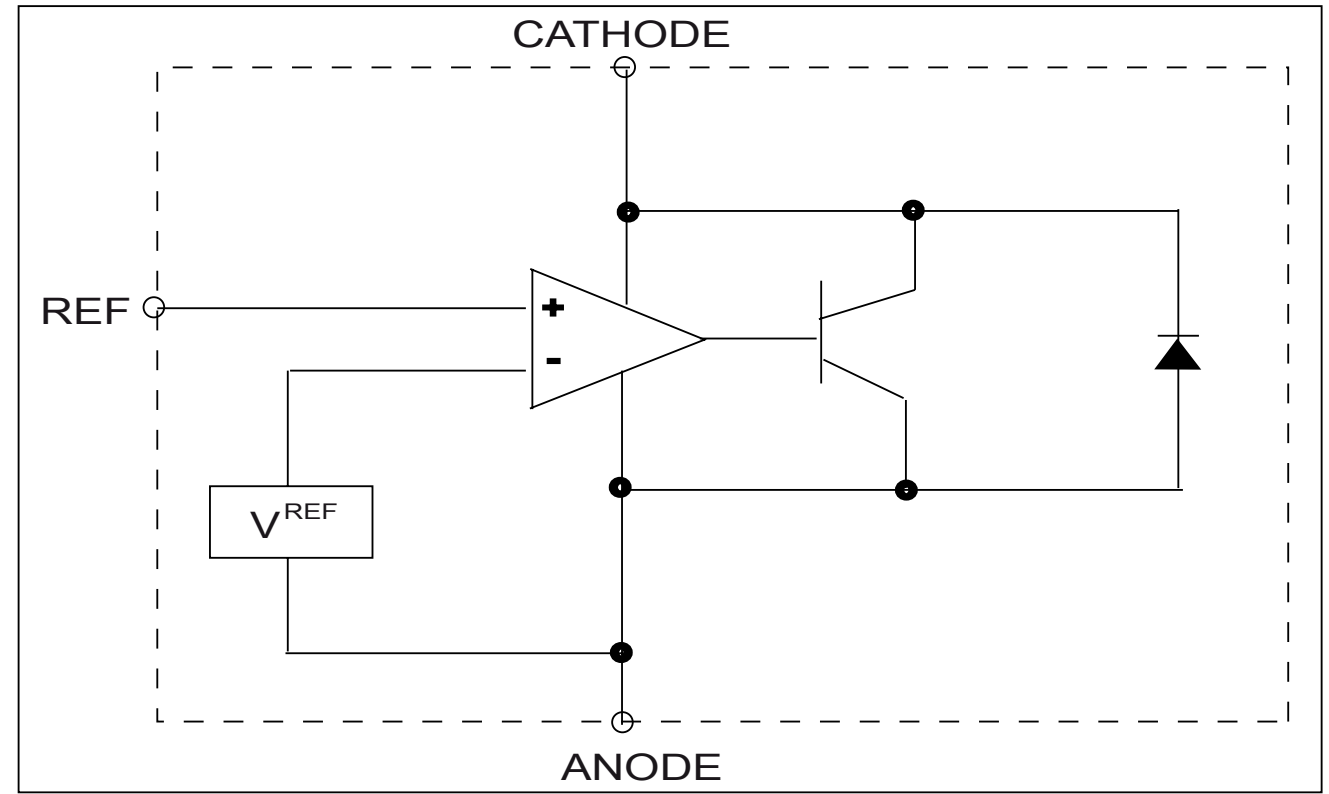
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C0203	B4	C0219	B3	C0242	B3	C209	B4	C309	B3	C4003	A2	C4040	B2	C411	D1	C447	B1	C484	B1	C510	C2	C738	B4	C903	D2	CE212	D3	CE308	C2	CE322	B3	CE803	D3	D410	A2	FE301	B4	Q410	A2	R350	A4	R4030	A1	R4045	A2	R418	D1	R464	B1	R503	C2
C0204	B4	C0220	B3	C0243	B3	C223	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
C0213	C3	C0230	B3	C0602	A3	C250	D3	C356	A4	C4026	A2	C4065	A2	C421	D1	C464	B1	C502	C2	C600	B4	C835	D4	CE202	D3	CE302	C4	CE316	A3	CE330	C4	D302	C2	FB223	D2	IC406	A1	R256	D3	R4025	A1	R4039	A1	R4055	D3	R445	A1	R486	B2	ZD401	D1
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		
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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		



POWER BOARD

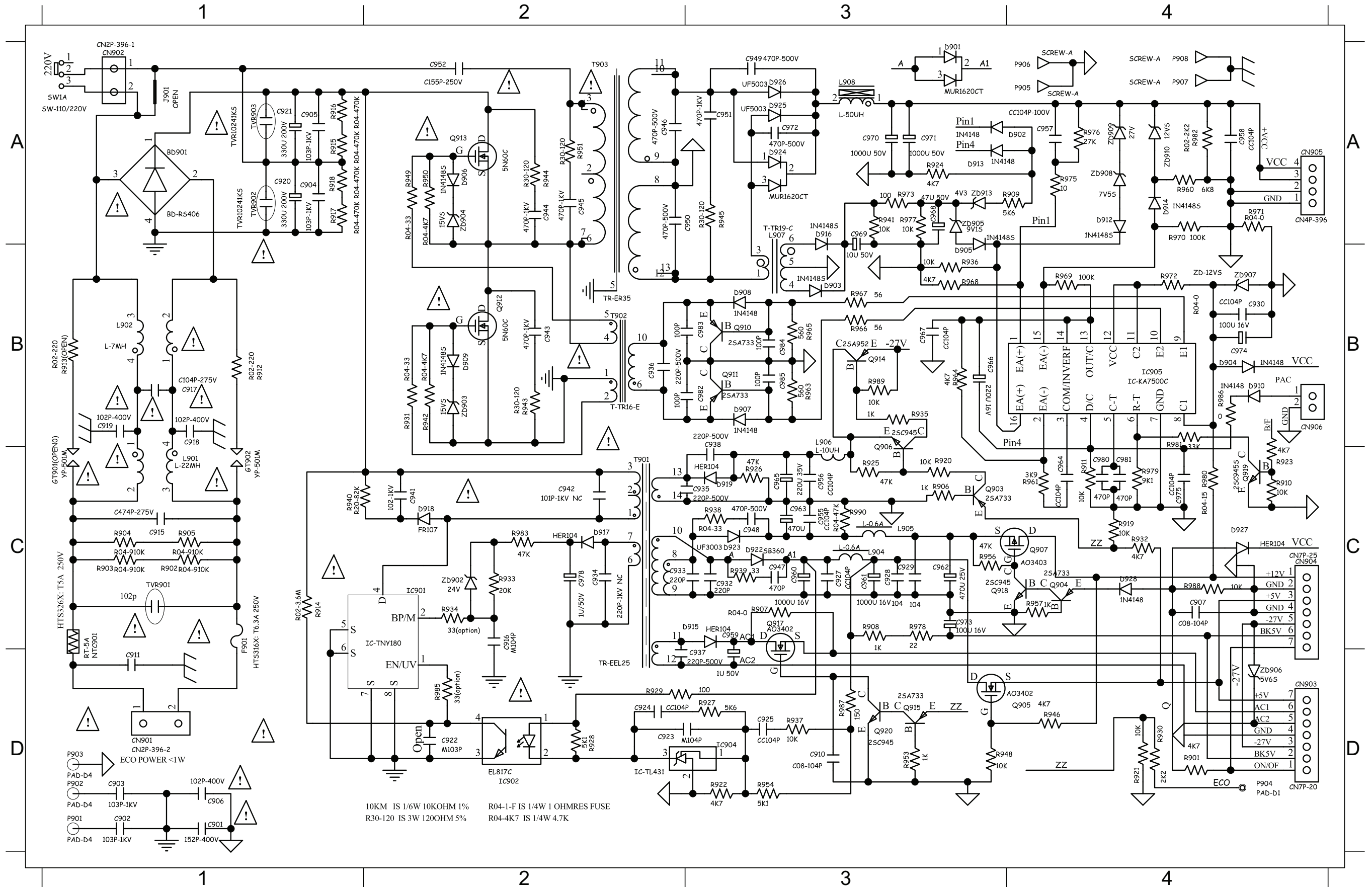
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CIRCUIT DIAGRAM

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

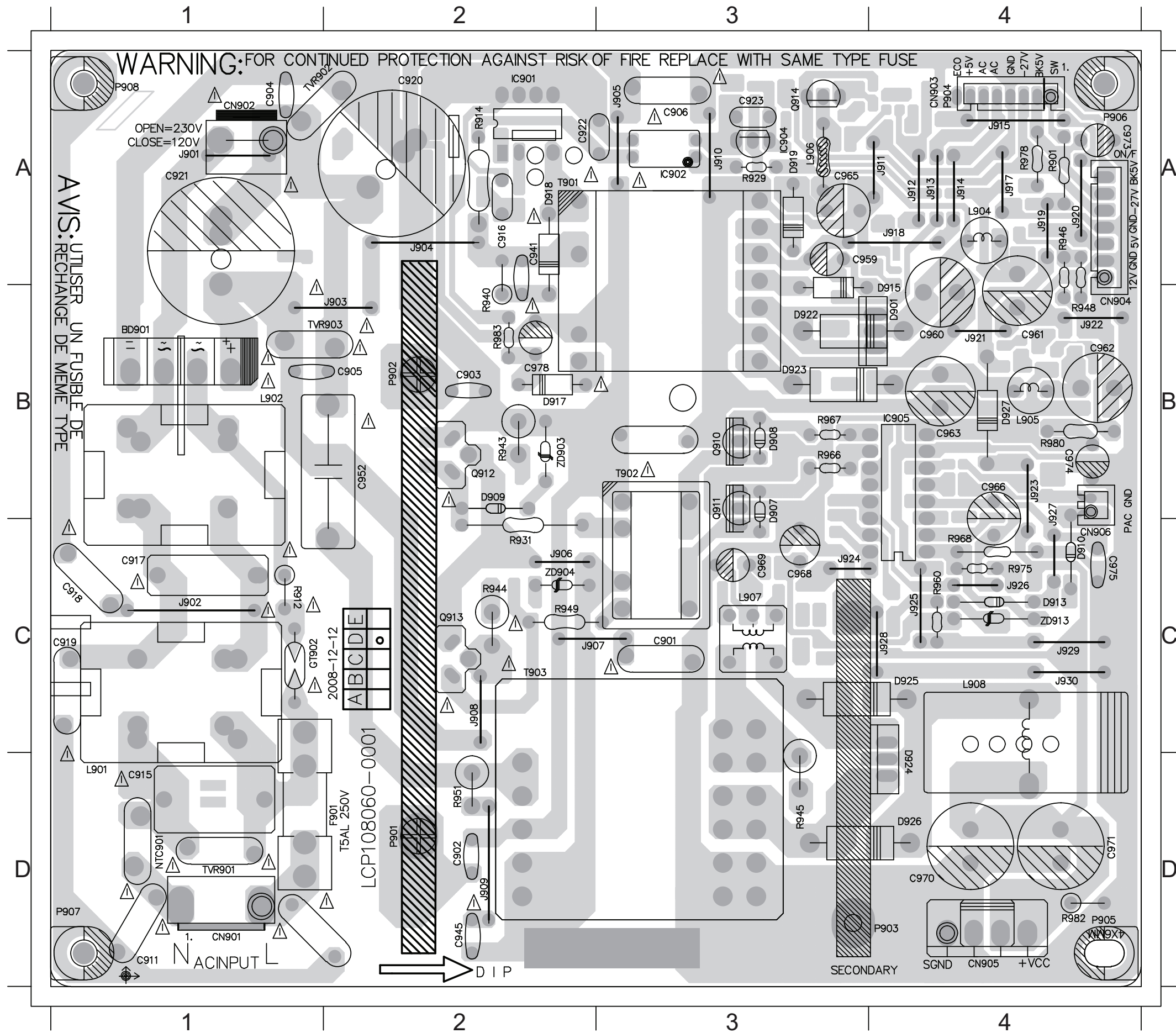


PCB LAYOUT - TOP VIEW

7 - 3

7 - 3

BD901B1 C905 B2 C918 C1 C941 A2 C961 B4 C968 C3 C975 C4 CN904B4 D909 B2 D919 A3 F901 D2 IC905 B4 J906 C2 J911 A4 J917 A4 J922 B4 J927 B4 L902 B1 L908 C4 Q913 C2 R929 A3 R945 D3 R960 C4 R978 A4 T902 B3 ZD903B2
 C901 C3 C906 A3 C919 C1 C945 D2 C962 B4 C969 C3 C978 B2 CN905D4 D910 C4 D922 B3 GT902C1 J902 C1 J907 C2 J912 A4 J918 A4 J923 B4 J928 C4 L904 A4 NTC901D1 Q914 A3 R931 C2 R946 A4 R966 B3 R980 B4 T903 C2 ZD904C2
 C902 D2 C915 D1 C920 A2 C952 B2 C963 B4 C971 D4 CN901D1 CN906C4 D915 B4 D923 B3 IC901 A2 J903 B1 J908 C2 J913 A4 J919 A4 J924 C3 J929 C4 L905 B4 Q910 B3 R901 A4 R940 B2 R948 B4 R967 B3 R982 D4 TVR901D1 ZD913C4
 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

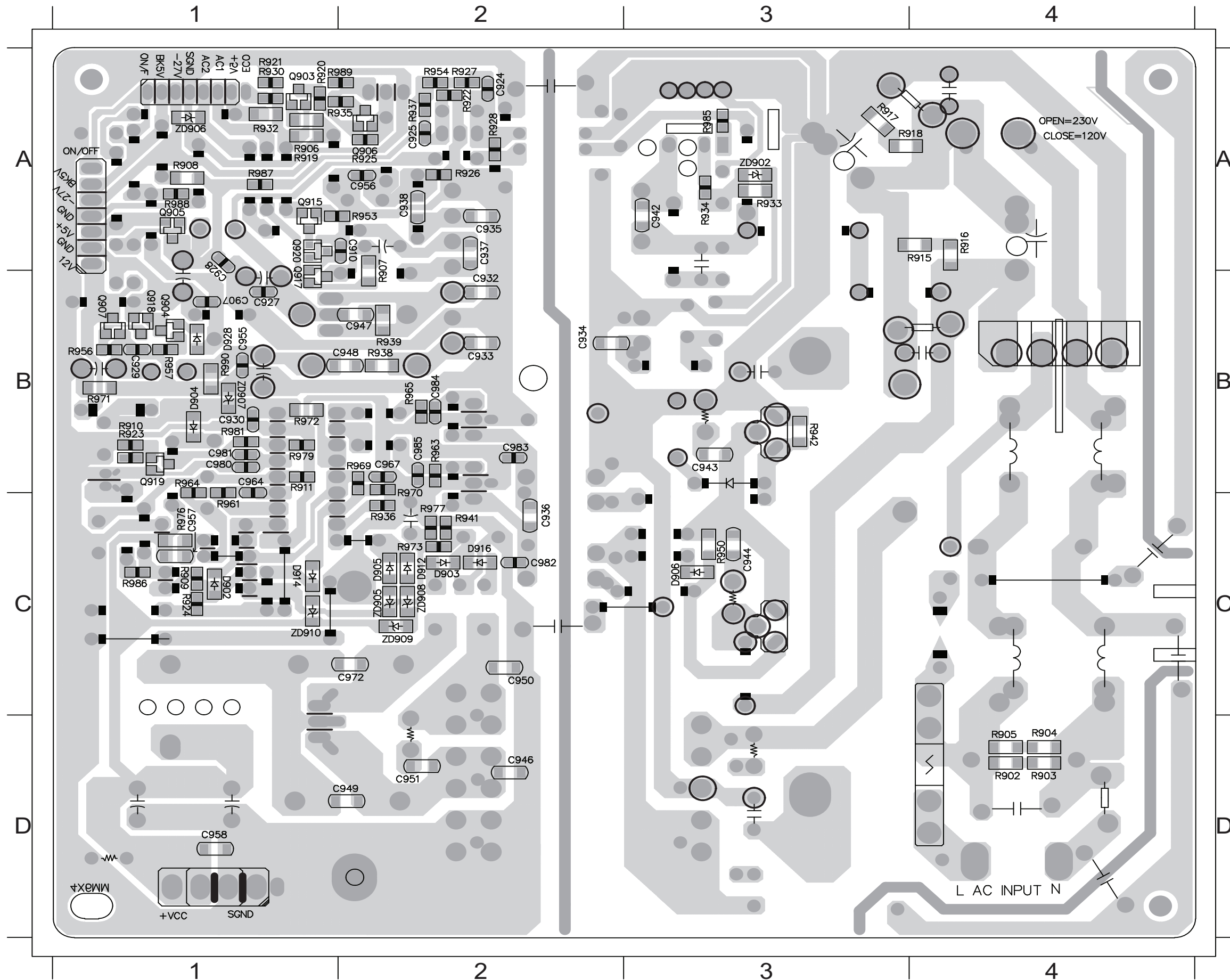


PCB LAYOUT - BOTTOM VIEW

7-4

7-4

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



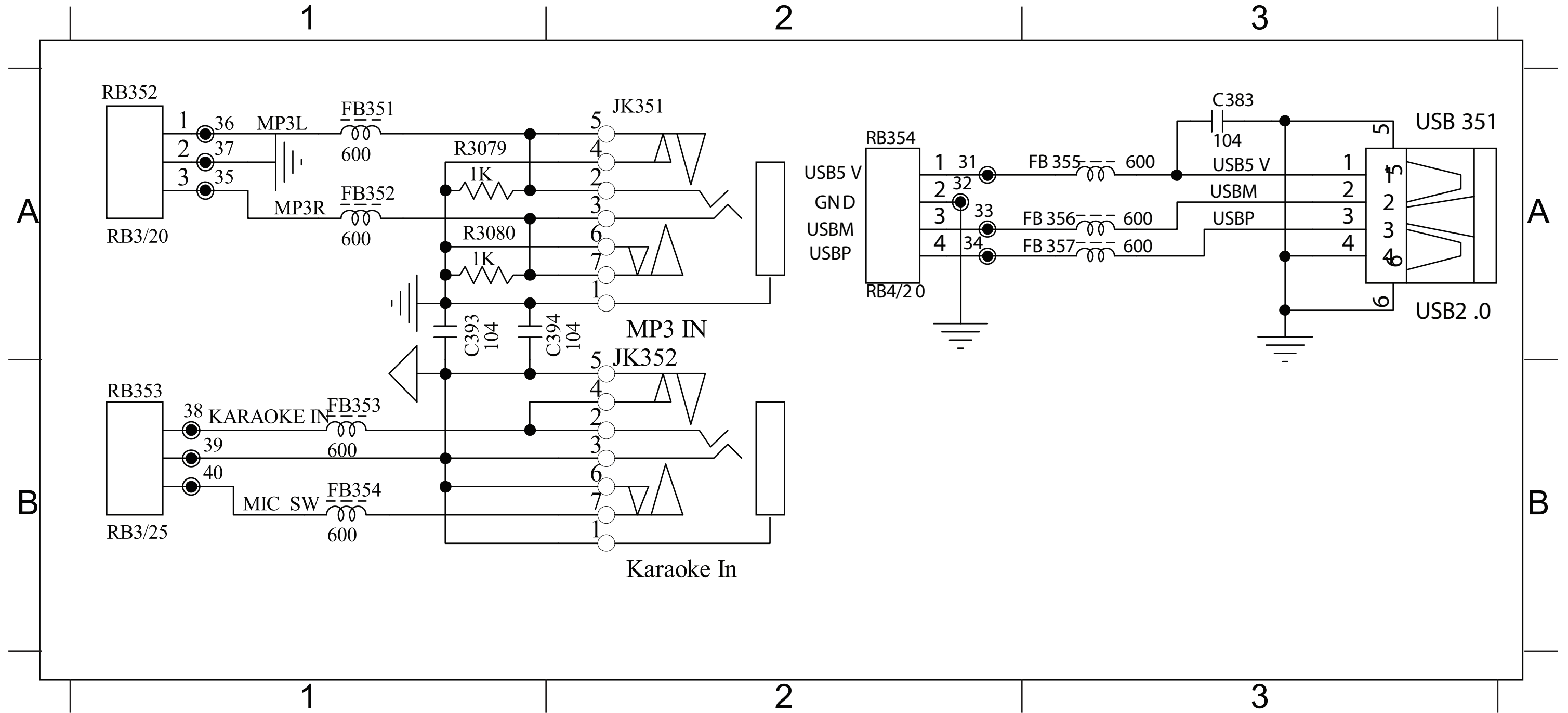
MP3 IN+MIC BOARD

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CIRCUIT DIAGRAM

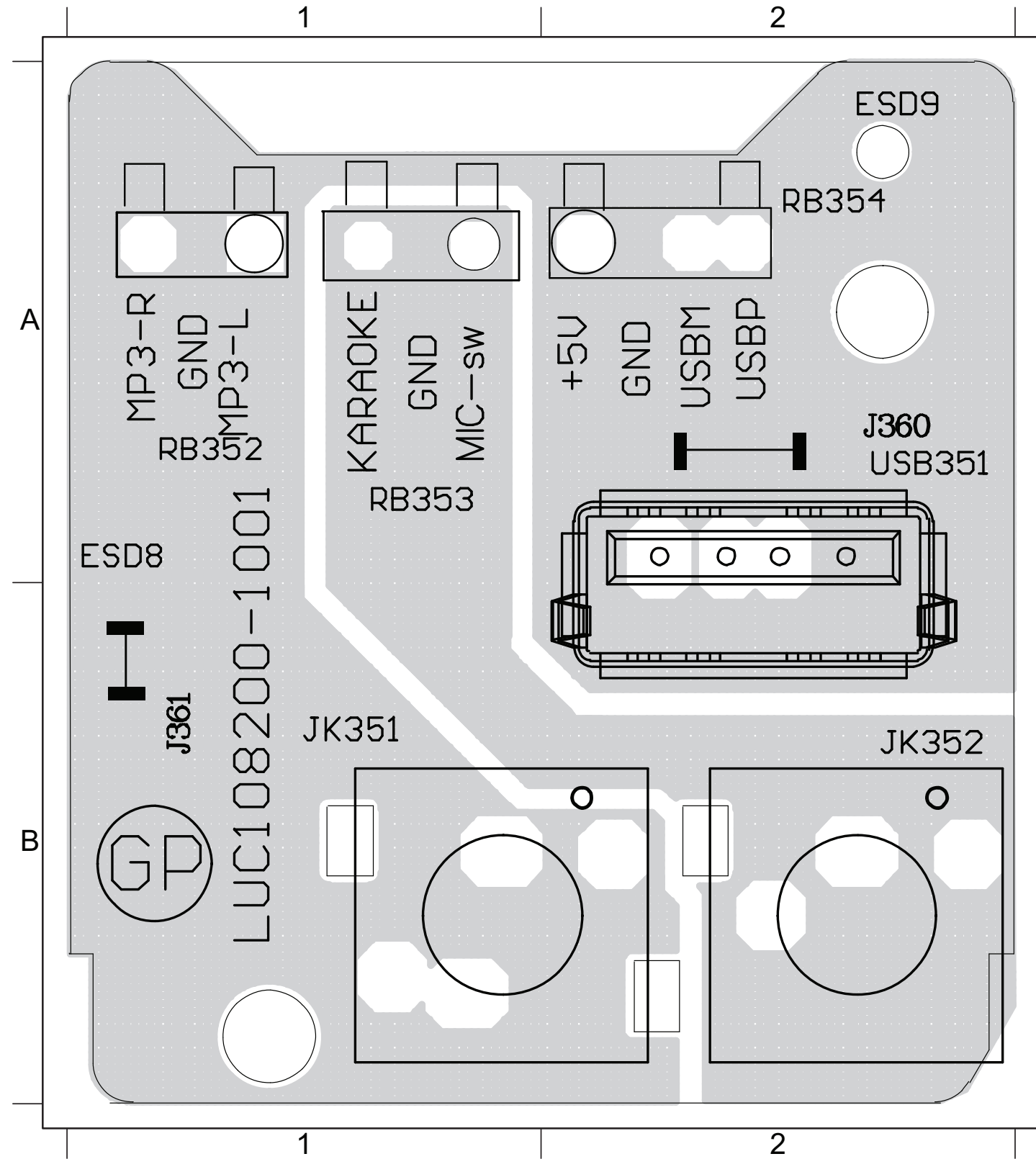
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PCB LAYOUT - TOP VIEW

8-3

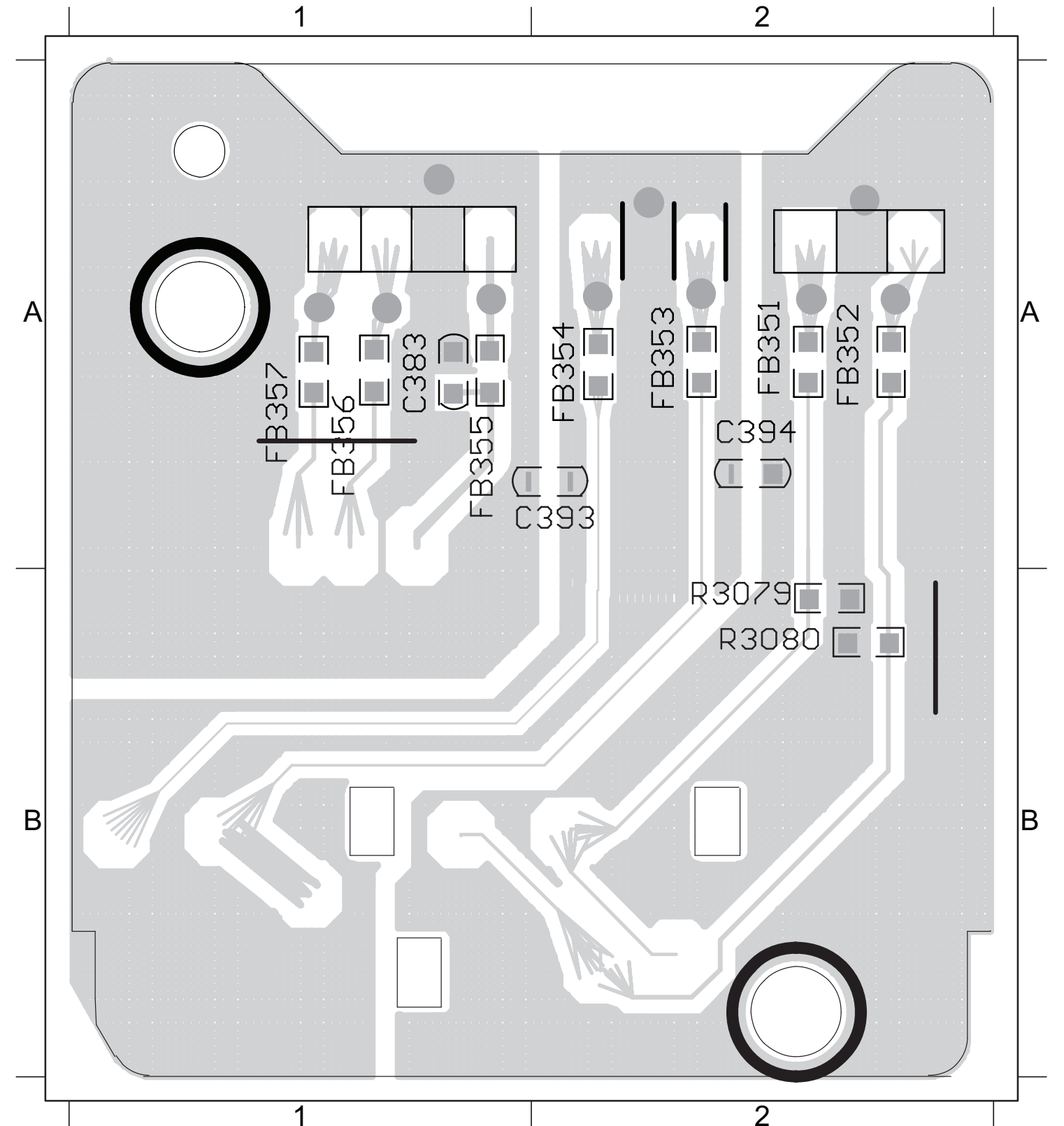
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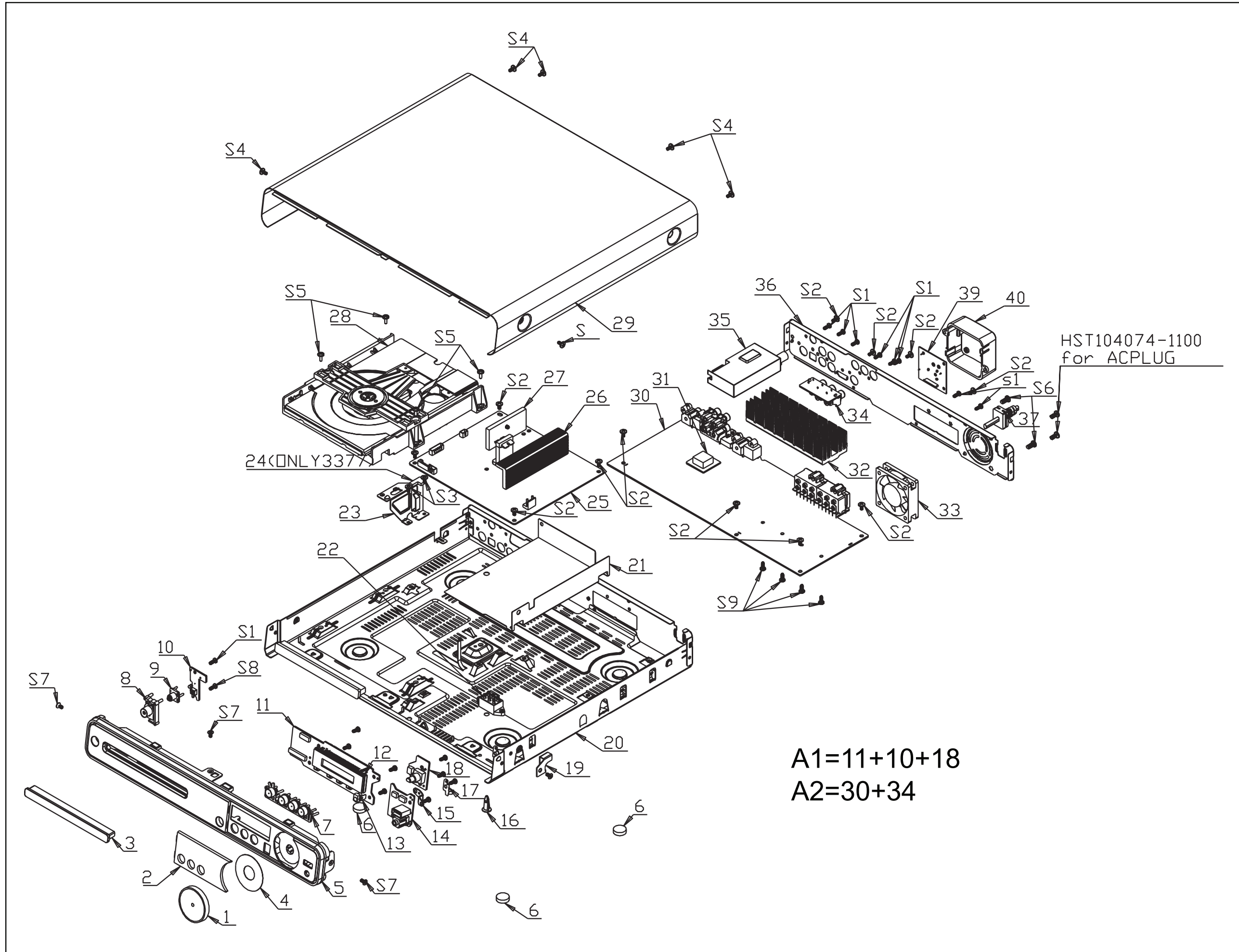


PCB LAYOUT - BOTTOM VIEW

8-3

C383 A1 C393 A2 C394 A2 FB351 A2 FB352 A2 FB353 A2 FB354 A2 FB355 A1 FB356 A1 FB357 A1 R3079 B2 R3080 B2





PART LIST

Loc.	Alt Part No.	safety Description
MAIN UNIT		
1	996510029661	VOLUME KNOB AB
2	996510029663	DISPLAY LENPMMA
3	996510029672	DVD DOOR AB BLK
5	996510029687	FRONT PANEL AB
6	996510010842	RUBBER FOOT
7	996510029665	FUNCTION KNOB AB
8	996510029671	STANDBY KNOB AB
9	996510029659	STANDBY LENPMMA
10	996510029677	LED PCB ASSY
11	996510029678	DISPLAY PCB ASSY
14	996510021203	MP3 IN +MIC PCB ASSY
15	996510029662	VOLUME BKT SECC
18	996510029674	VOL PCB ASSY
20	996510029673	BTM CAB SECC T=0.6mm
22	996510029679	SW SLIDE 6P UL 12A
25	996510021257	△ POWER PCB ASSY 1000W
28	996510029667	DVD LOADER ASL110013-0003
29	996510029666	TOP COVER SECC
30	996510029664	MAIN PCB PCB ASSY
33	996510021076	△ FAN DC12V 0.55A
34	996510029669	Y.U.V PCB PCB ASSY
35	996510017572	TUNERPACK KST-MT001FS0
36	996510029686	△ REAR PANEL SECC T0.6
FM	996510008251	FM ANT
HDMI	996510020159	HDMI CABLE 1500 20276#30
RC	996510021186	REMOTE CONTROL
V1	996510007429	GP FCCBLE
VIDEO	996500013058	RCA CABLE 2P 1.2M

SPEAKER

RFC	996510001599	RUBBER FOOT -CENTER SPK
RFFR	996510001601	RUBBER FOOT - REAR SPK
RFS	996510010854	RUBBER FOOT -SUB
SPKC	996510021251	SPEAKER BOX-CENTER
SPKFL	996510021252	SPEAKER BOX-FRONT LEFT
SPKFR	996510021258	SPEAKER BOX-FRONT RIGHT
SPKRL	996510021256	SPEAKER BOX-REAR LEFT
SPKRR	996510021253	SPEAKER BOX-REAR RIGHT
SPKS	996510021255	SPEAKER BOX-SUB

SCREW

S1	--	T3.0x1.06PxL8mm NICKEL
S2	--	M3.0x0.5PxL6mm NICKEL
S3	--	M3.0x0.5PxL4mm NICKEL
S4	--	M3x6x0.5P
S5	--	M3.0x0.5PxL8mm NICKEL
S6	--	STEEL
S7	--	M3xP0.5xL6mm NICKEL
S8	--	T3.0x1.06PxL10mm
S9	--	T3.0x1.06PxL8mm NICKE

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

Loc.	Alt Part No.	safety Description
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MAIN PCB

CN701A	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	996510029668	IC 48P EN29LV320B-70TCP
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
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
IC301	# 996510020341	IC 8P D4558 SOP SILICORE
IC303	# 996500029611	IC 8P CO4558A SO8
IC303	# 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
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
IC406	# 996510020341	IC 8P D4558 SOP SILICORE
IC407	996500023948	IC 14PIN 74HCU04D PHILIPS
IC501	996510012505	IC 48P CS48540-CQZ LQFP
IC801	996510010380	Motor Drive IC
JK302	996510027067	RCA JACK 4P
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
Q903	996500026946	XISTR PNP 2SB772P/Q NEC
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
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
C917	994000005343	△ COND SAFETY 0.22UF 275V
C918	996500027115	△ CAP.SAFTY Y1 102PF 250V 20%

Loc.	Alt Part No.	safety	Description
POWER PCB			
C919	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
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=3.96mm
CN902	996510018267		CONNECTOR 3P P=3.96mm
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
CN906	996500015898		CONNECTOR 2 PIN
D907	996500026949		DIODE SW 1N4148
D908	996500026949		DIODE SW 1N4148
D909	996500026949		DIODE SW 1N4148
D910	996500026949		DIODE SW 1N4148
D915	996510012516		DIODEHER105 DO
D917	996510012516		DIODEHER105 DO
D918	994000000938	⚠	DIODE PR1507 1.5A 1000V
D919	996510012516		DIODEHER105 DO
D922	994000005249		DIODE SB360 3A 60V DO-201AD
D923	994000000943		DIODE UF3003 3A 200V
D924	994000005346		RECTIFIER UF1602CT
D927	996510012516		DIODEHER105 DO-411A400V
F901	996500042572	⚠	FUSE 5A 250V SLOW
IC901	996510021079	⚠	IC 8P(P3=N.C) TNY180PN
IC902	994000000946	⚠	OPTICAL SENSOR 4P
IC904	# 994000000952		IC 3PIN TL431
IC904	# 994000001572		IC 3P TL431
IC905	996510008293		IC 16P AZ7500BP-E1
L901	# 996510021083		COMMON COIL 6mH 21.5Ts
L901	# 996510027021		COMMON COIL 6mH 20.5Ts
L902	# 996510021053		COMMON COIL 15mH 37.5Ts
L902	# 996510027023		COMMON COIL 15mH 36.5Ts
L904	996500016694		6UH 13.5TS 2UEW
L905	996500016694		6UH 13.5TS 2UEW
L907	996500027102		TOROID COIL S1=1TS
L908	996510012474		COMMON COIL75uH10%1KHz
NTC901	994000005232		THERMIST. NTC 5R 5A
Q903	994000000921		XISTR PNP 2SA812
Q904	994000000921		XISTR PNP 2SA812
Q905	996510008289		FET AO3402 SOT23 30V/4A
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	996510004282		XISTR NPN SMT (2SC945)
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
T901	# 996510021071	⚠	TRASFO EEL25 7+7P 40W
T901	# 996510021236	⚠	TRASFO. EEL-25 7+7P 40W
T901	# 996510027028	⚠	SW TRANS EEL-25 7+7P
T902	# 994000001057	⚠	SW. MODEL TRANSFORMER
T902	# 996510021088	⚠	TRASFO EEL19 5+5P 100KHz
T902	# 996510022032	⚠	TRASFO EEL-19 5+5P
T903	# 996510012478	⚠	SW TRANS ERL-35 7+7P
T903	# 996510012479	⚠	SW TRANS ERL-35/42 7+7P
T903	# 996510021086	⚠	TRASFO ERL35 7+7P 150W
TVR901	996510011373		METAL OXIDE VARISTOR
TVR902	996510021072		SURGEORBER :VCR-

Loc.	Alt Part No.	safety	Description
POWER PCB			
TVR903	996510021072		SURGEORBER :VCR-
ZD903	994000002067		DIODE ZENR 14.5-15.1V 0.5W
ZD904	994000002067		DIODE ZENR 14.5-15.1V 0.5W

DISP+LED+VOL PCB

DP351	996510021249		VFD 32P 20075-2A24(D1068WA)
IC351	# 994000001564		IC 52P PT6311
IC351	# 996500041280		IC 52P ET16311 VFD DRIVER
SN351	994000005472		IRT RECEIVER IRM-2638AF4
LD351	# 996510004102		LED 3 DIA RED ROUND
LD351	# 996510020167		LED 3 DIA ULTRA RED TINT
RB358	996500015859		CONNECTOR 4PIN P2.0MM
VR351	996510027019		ENCODER L15x7mm

MP3 IN +MIC PCB

JK351	996510004129		KARAOKE JACK D3.6MM 7P
JK352	996510004129		KARAOKE JACK D3.6MM 7P
USB351	996510013742		USB JACK 4P

Y.U.V PCB PCB

JK702	996500012609		RCA JACK R/G/B
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REVISION LIST

Version 1.0

*Initial release

Version1.1

*Correction Circuit & Layout drawing for chapter 7