Service
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Service Manual

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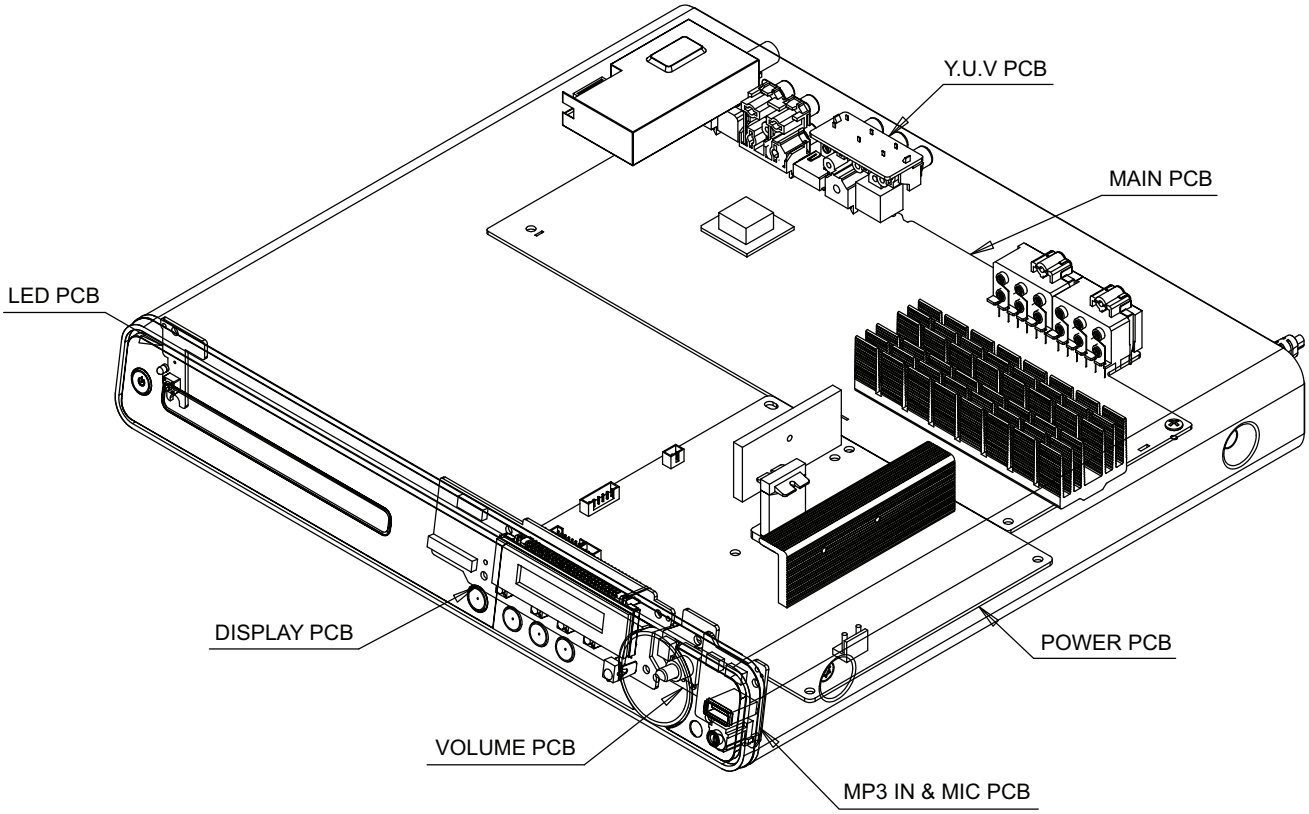
Version 1.1

PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

Type/Versions / Features	HTS3375 /55
Output Power - 1000W	X
Voltage (110~127V)	X
Voltage (220~240V)	X

SERVICE SCNARIO MATRIX:

Type/Versions / Board in used	HTS3375 /55
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 decording ..... 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

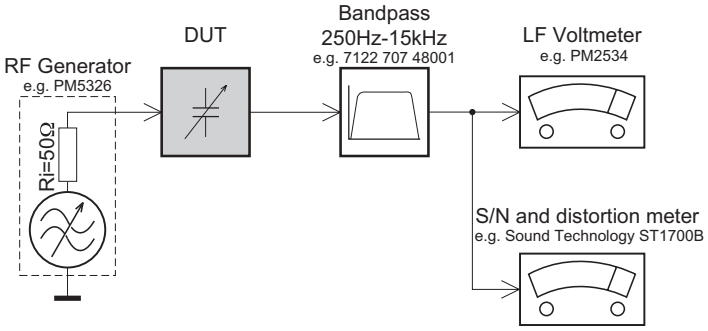
Subwoofer

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 specifi cation
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

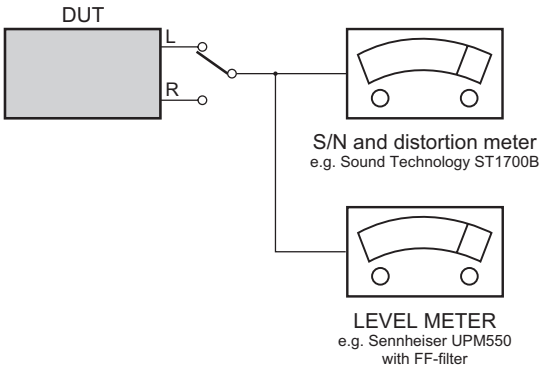
Tuner FM



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

CD

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



SERVICE AIDS

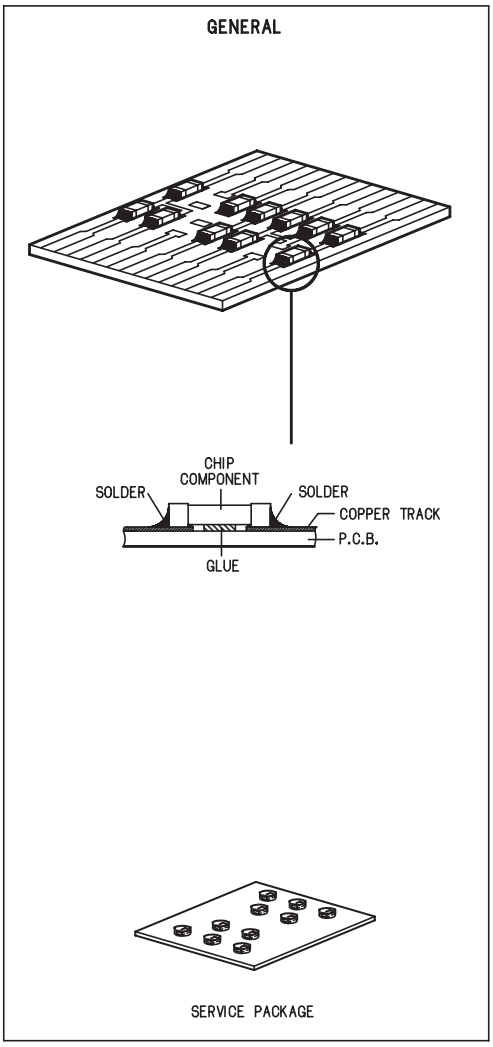
Service Tools:

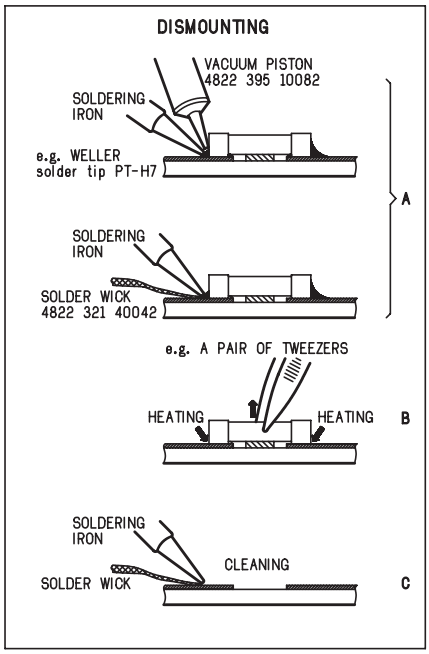
Universal Torx driver holder 4822 395 91019
Torx bit T10 150mm 4822 395 50456
Torx driver set T6-T20 .....4822 395 50145
Torx driver T10 extended 4822 395 50423

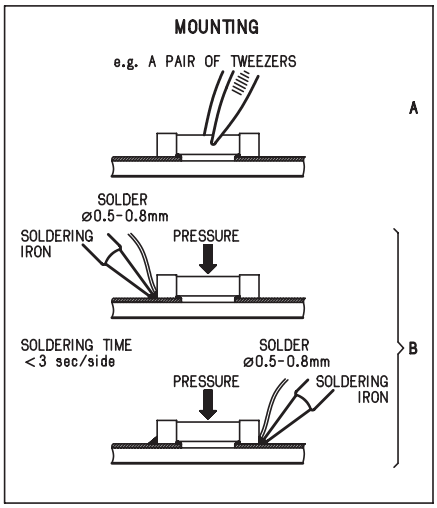
Compact Disc:

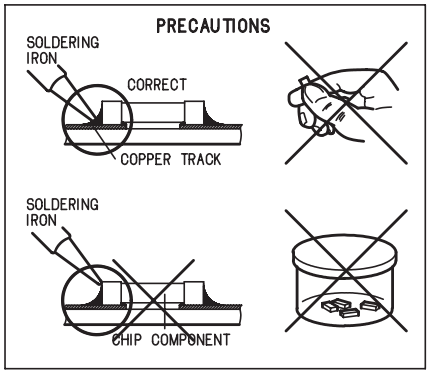
SBC426/426A Test disc 5 + 5A 4822 397 30096
SBC442 Audio Burn-in test disc 1kHz 4822 397 30155
SBC429 Audio Signals disc 4822 397 30184
Dolby Pro-logic Test Disc 4822 395 10216

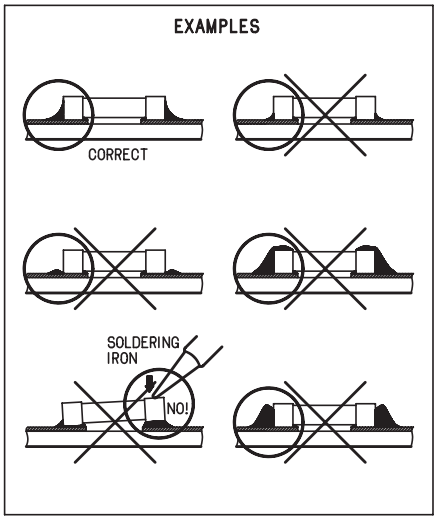
HANDLING CHIP COMPONENTS











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.

NL WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

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 kan 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.

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 ⚠ .

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 ⚠ .

F

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

Less composants de sécurité sont marqués ⚠ .

D

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

Sicherheitsbauteile sind durch das Symbol ⚠ 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 ⚠ .

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 Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse 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 (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.

2 - 1

System , Region Code , etc. Setting Produre

1)System Reset

a) Press “SETUP“ button on R/C,TV will show setup menu
b) Select the menu using the▼ and ► on R/C
c) Go preference page to do system reset

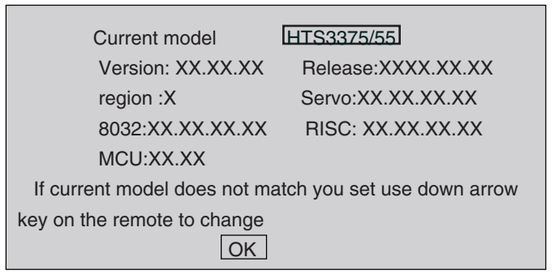
2)Region Code Change

a) In open mode, press”9” “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

a) In open mode, press “1“ “5“ “9“ on R/C
b) Press “ok” button to confirm
c) TV will show message as below:



4)Password Change

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

5)Check on the Software Version

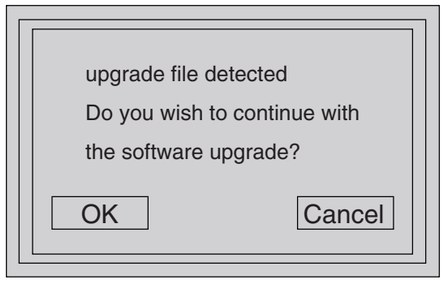
a) Open the CD Door
b) Press “INFO“ button on R/C
c) TV will show the version on screen

6)Trade model

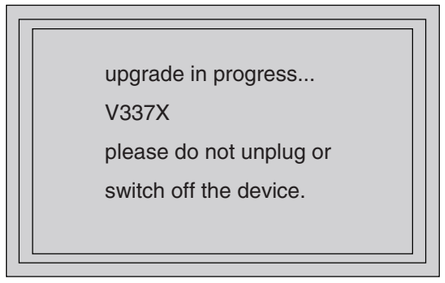
a) Press “Open/Close “ button on R/C
b) Press “2” “5” “9” on R/C,VFD will display “TRA ON “ or “TRA OFF“

7) Upgrading new software

a) Copy “software files” into a CD-R
b) Open the CD Door,then insert the CD-R program disc
c) Close the CD Door
d) VFD will show:
“Loading“
“Erase” -- erase the flash memory
“Writing” about 1 minute
“done “
* the system will switch off and on again automatically.
e) OSD will show:



f) Select “OK”, OSD will show:



CAUTION!

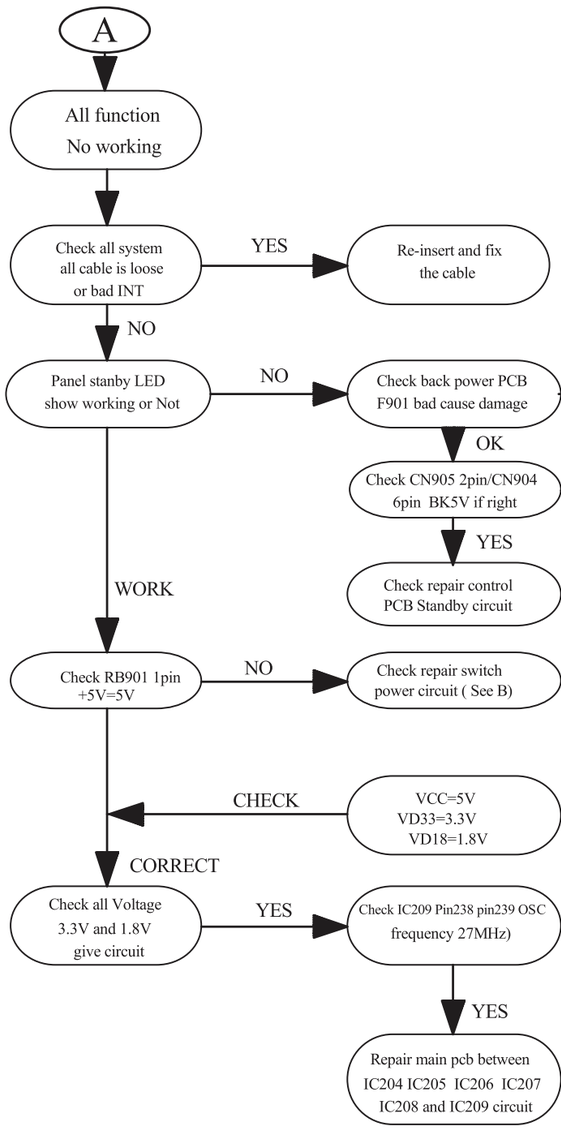
This information is confidential and may not be distributed.Only a qualified service person should reprogram the Region Code.

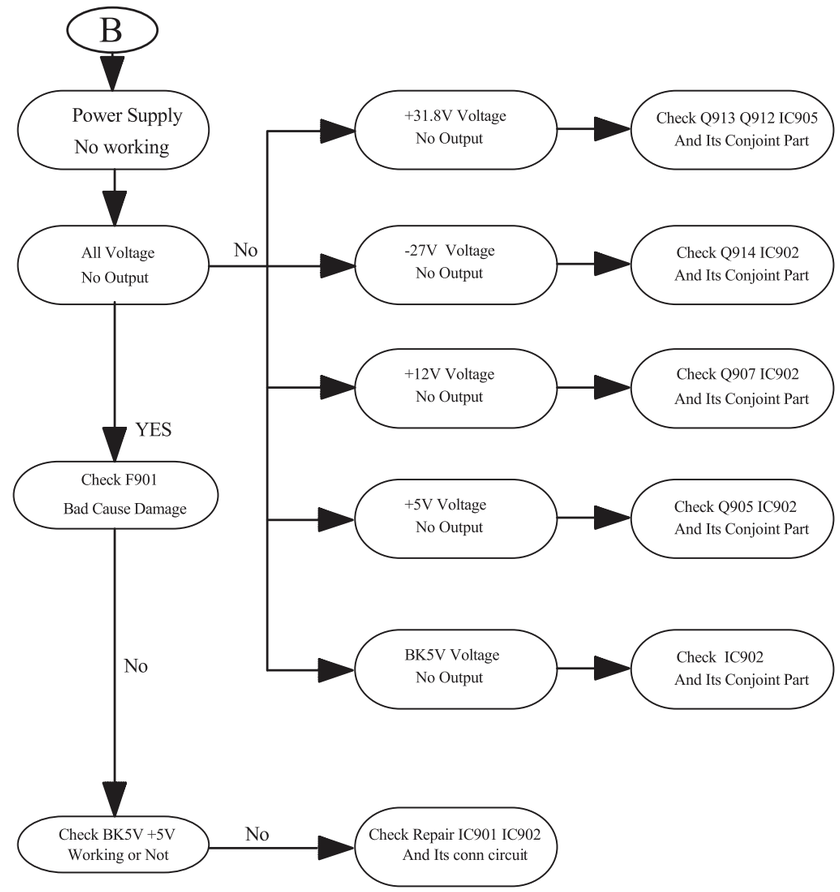
2 - 2

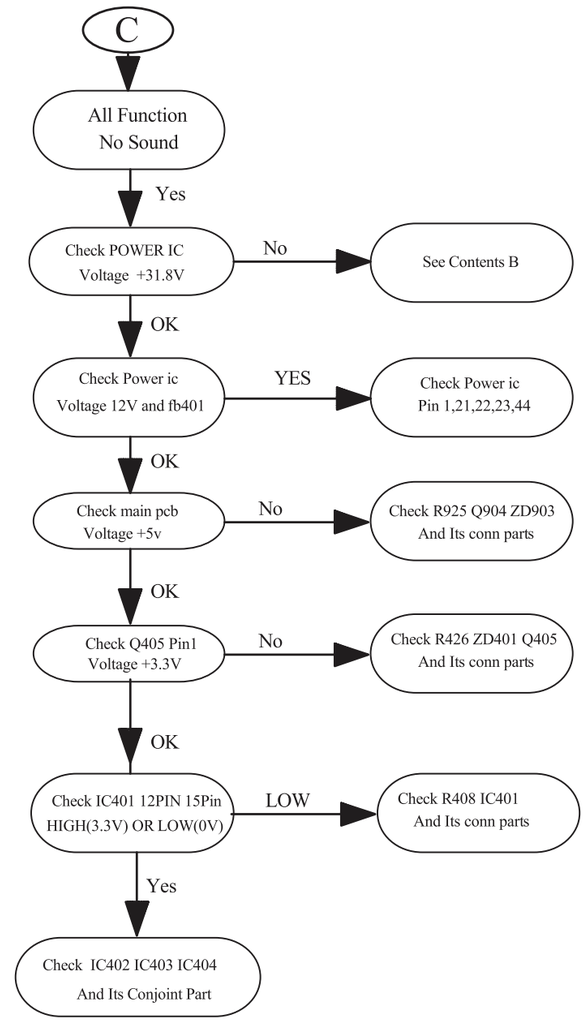
REPAIR INSTRUCTIONS (ONE)

MAIN UNIT REPAIR CHART 1/3

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



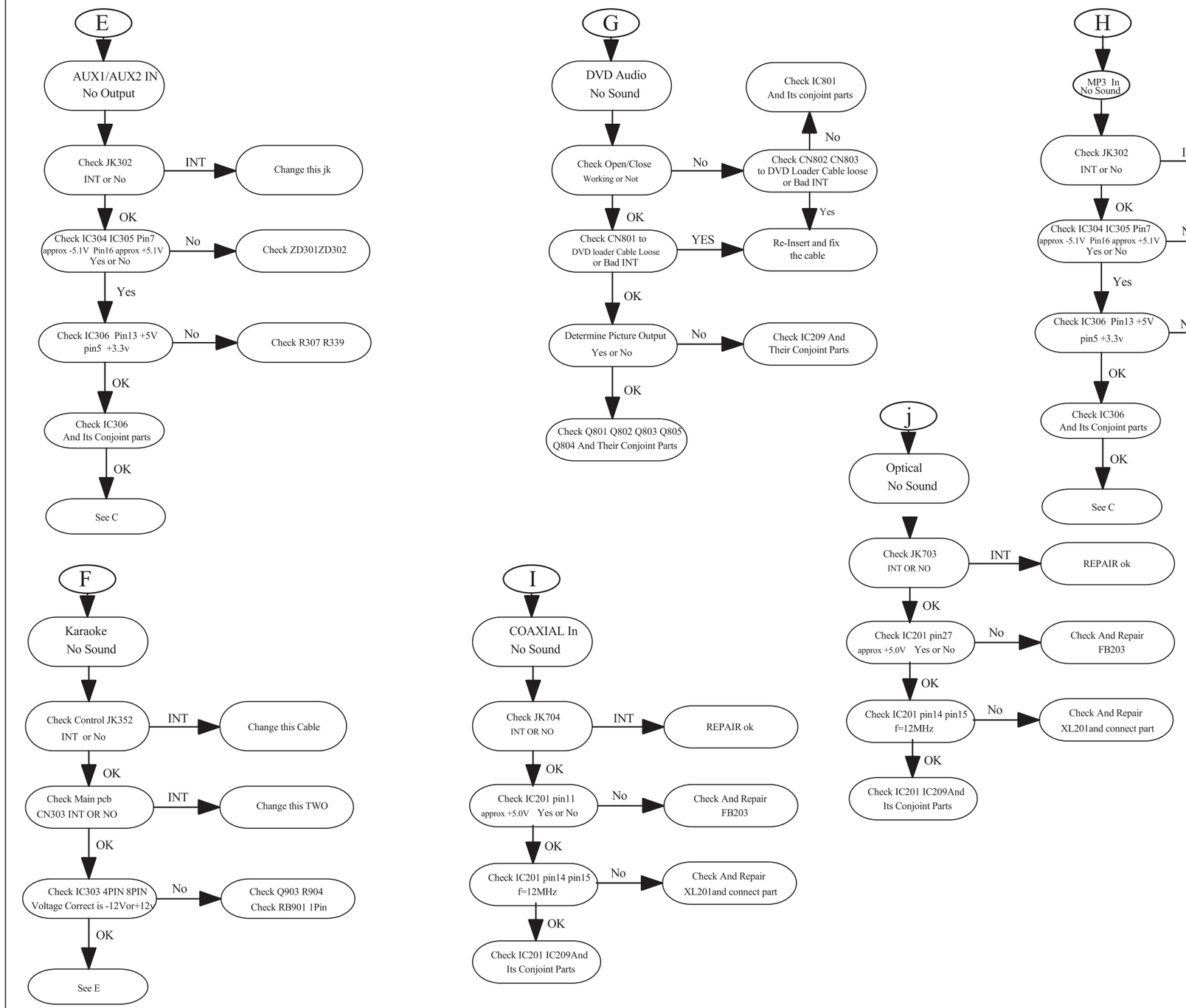




2 - 3

REPAIR INSTRUCTIONS (TWO)

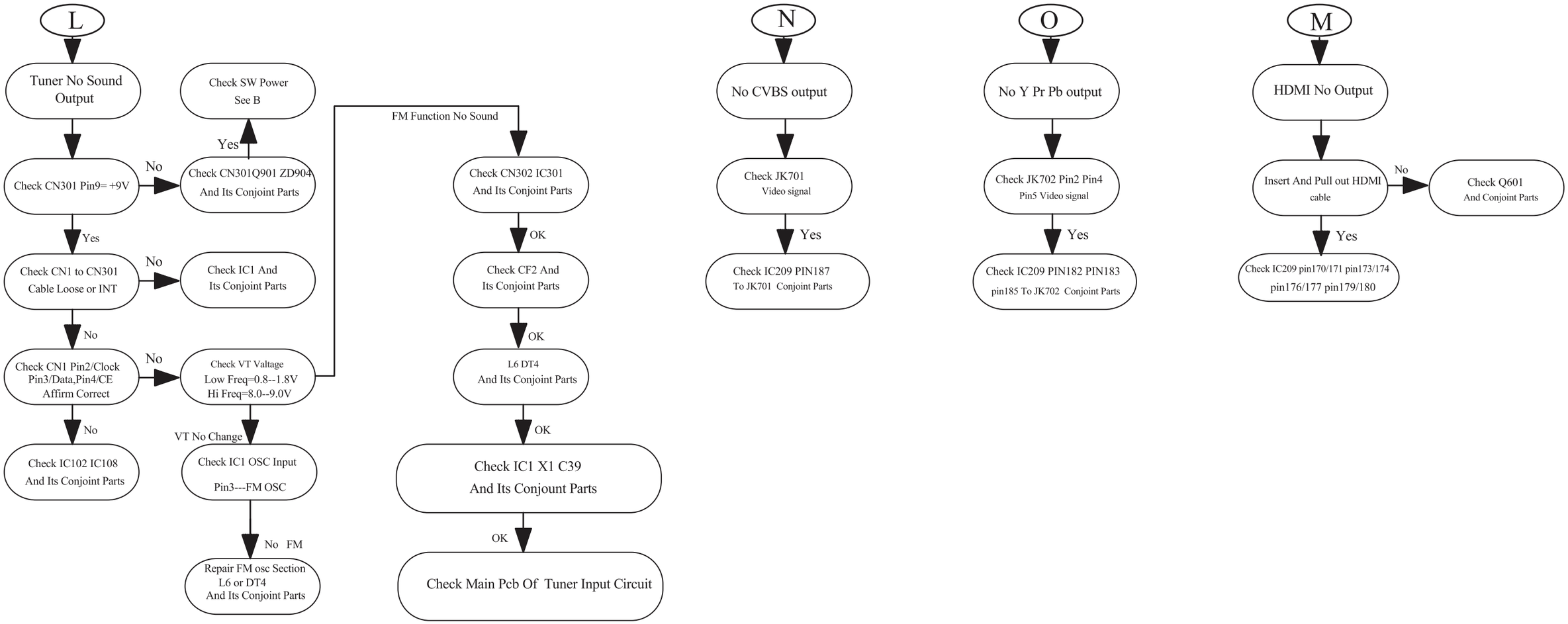
MAIN UNIT REPAIR CHART 2/3



2 - 4

REPAIR INSTRUCTIONS (THREE)

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.

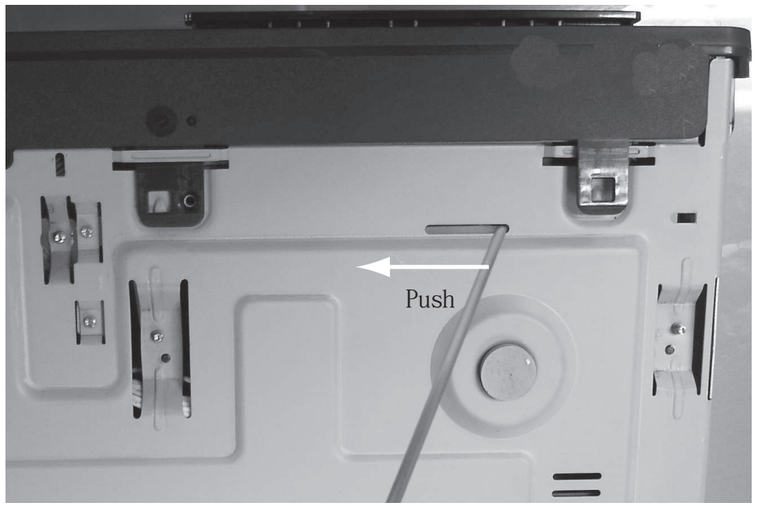


Figure 1

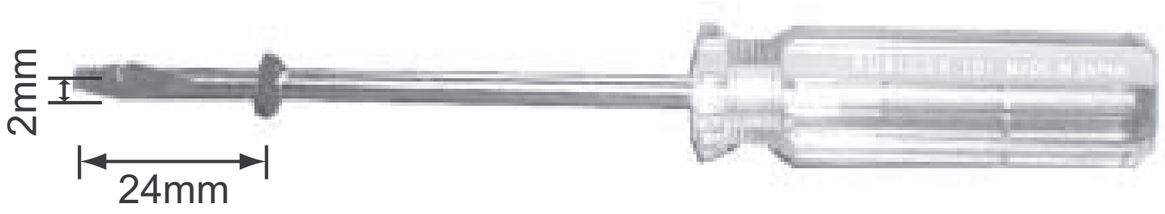


Figure 2

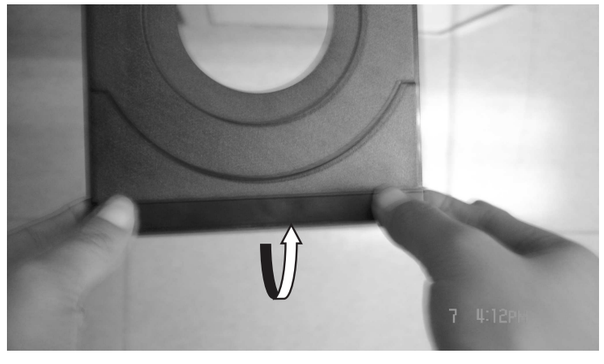


Figure 3

3 - 1

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.

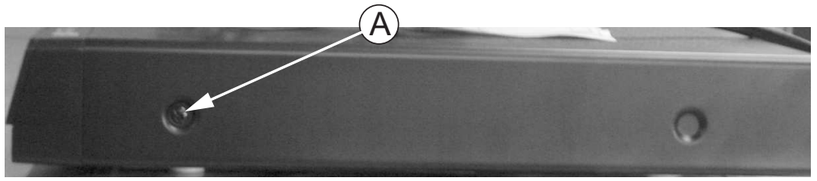


Figure 4

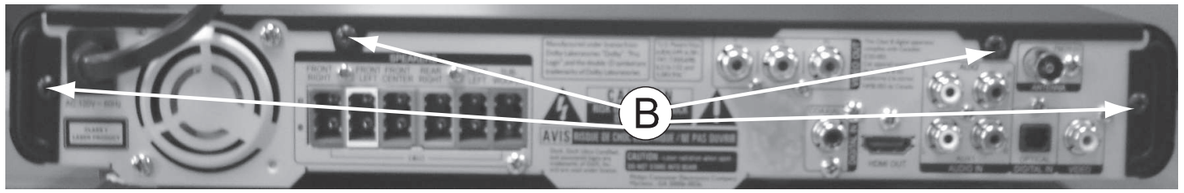


Figure 5

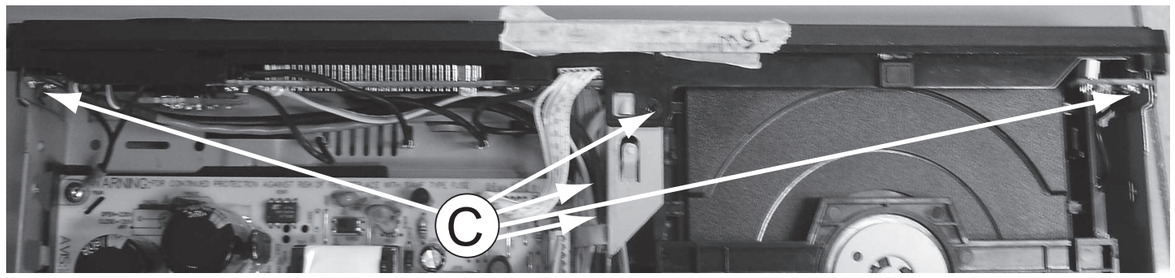


Figure 6

Dismantling of the DVD Module

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

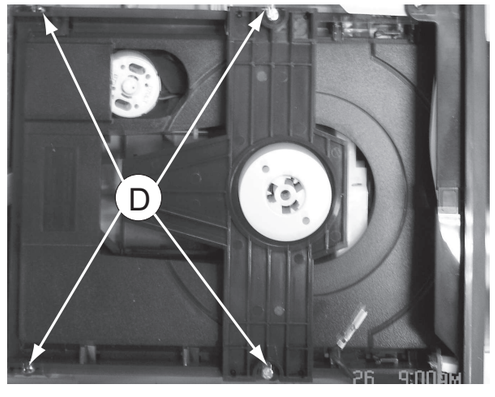


Figure 7

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.

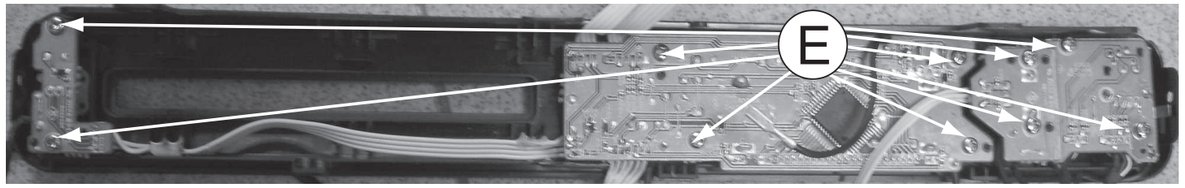


Figure 8

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 figurer 10 and to take up the power board.

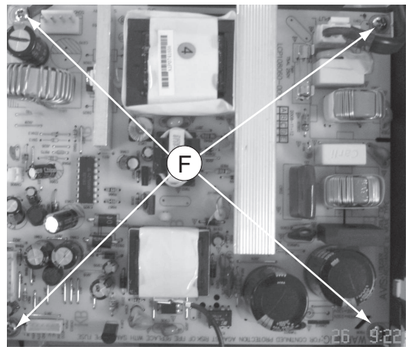


Figure 9

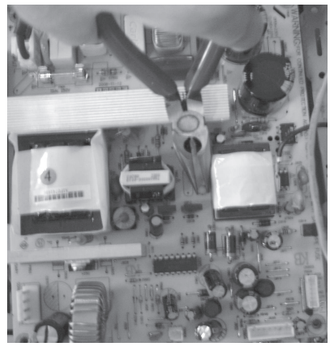


Figure 10

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.

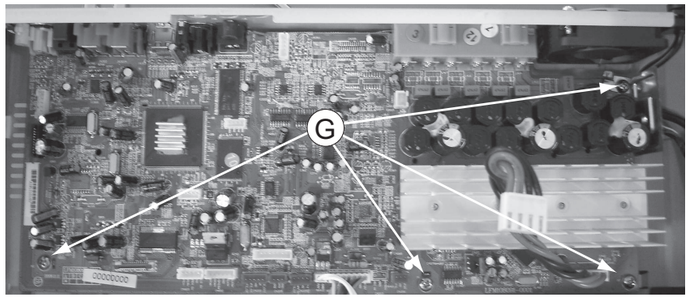
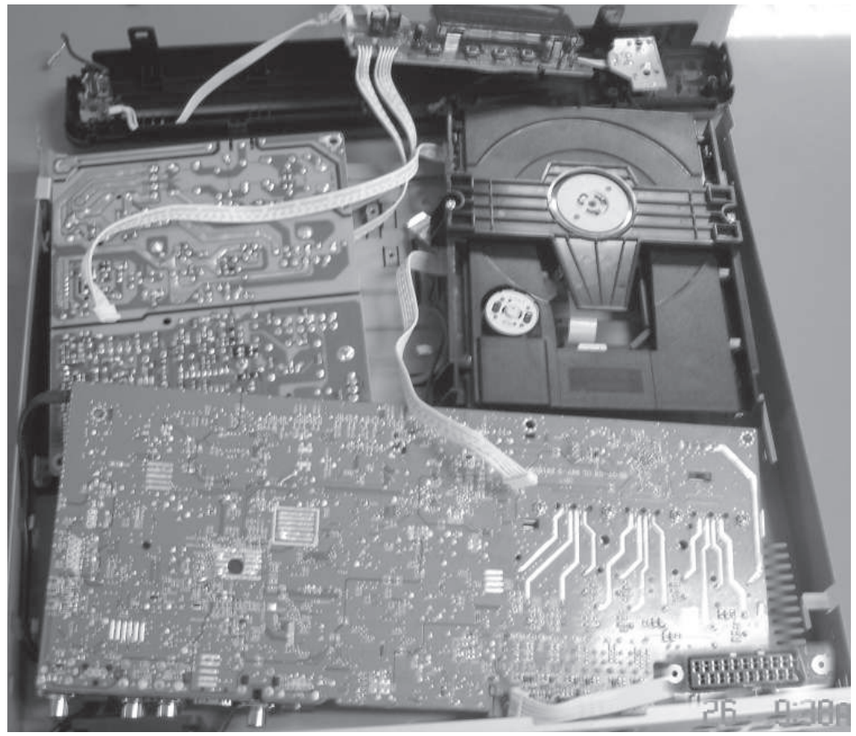


Figure 11

Figure 12

SERVICE POSITIONS

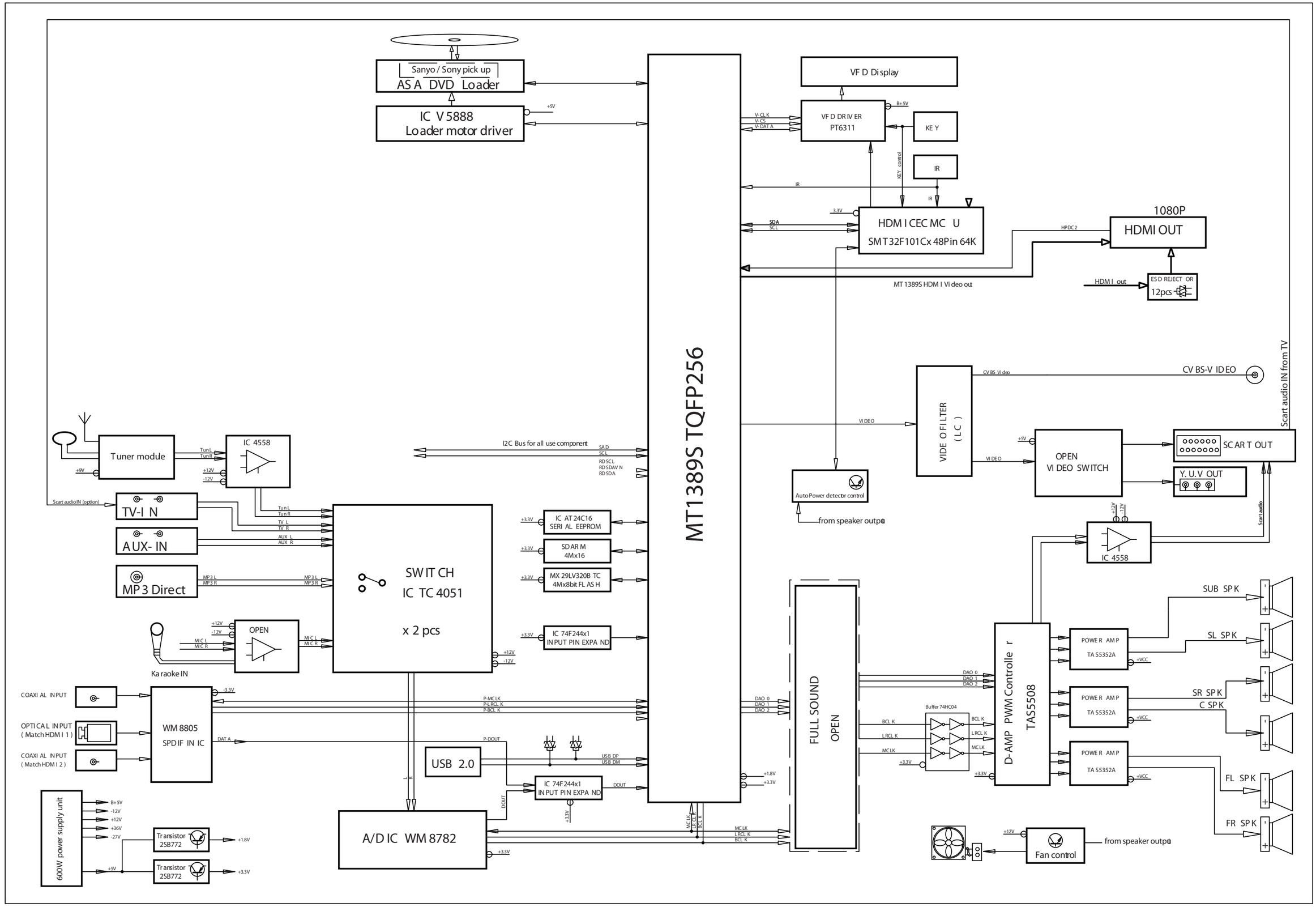
Service position A



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.

4 - 1

BLOCK DIAGRAM



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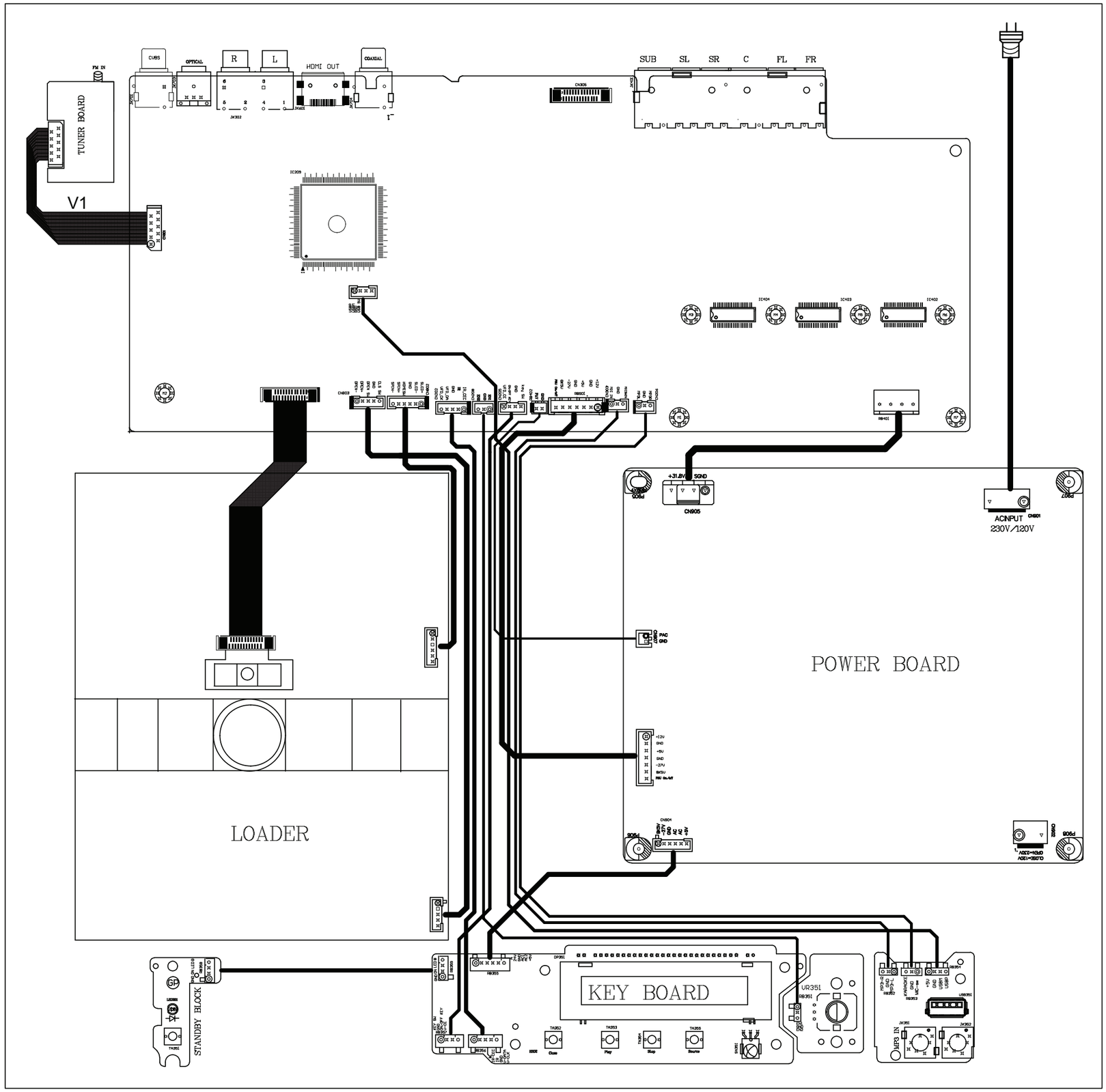
WIRING DIAGRAM



DISP+LED+VOL BOARD

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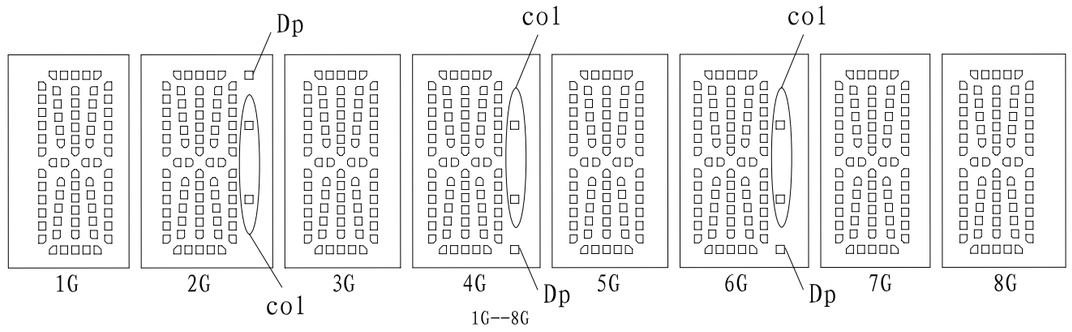
5 - 1

FTD DISPLAY PIN ASSIGNMENT



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

PIN CONNECTION

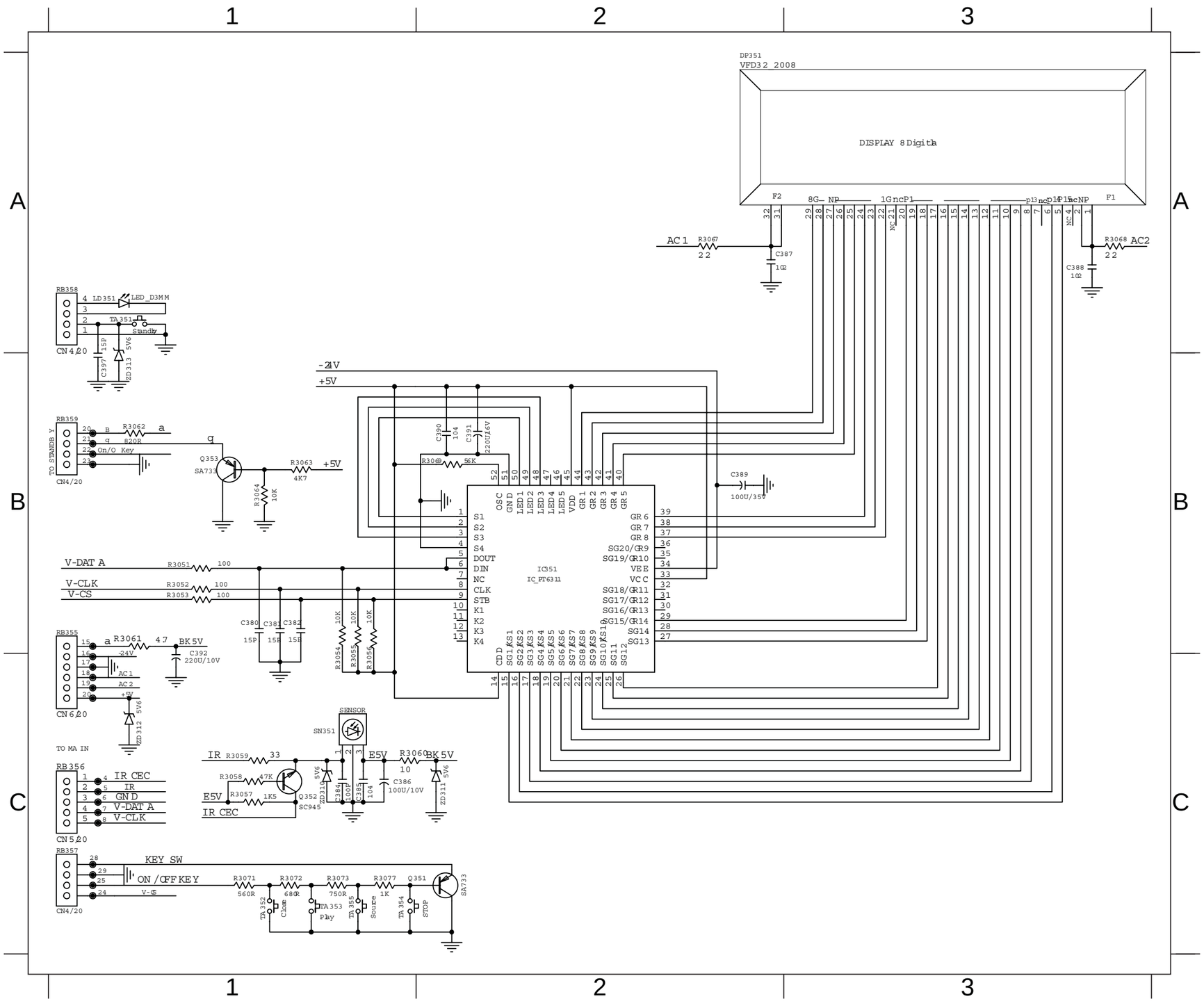
管脚序号(Pin NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
连接(Connection)	F1	F1	NP	NC	P15	P14	NC	P13	P12	P11	P10	P9	P8	P7	P6	P5
管脚序号(Pin NO.)	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
连接(Connection)	P4	P3	P2	P1	NC	1G	2G	3G	4G	5G	6G	7G	8G	NP	F2	F2

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

5 - 2

CIRCUIT DIAGRAM

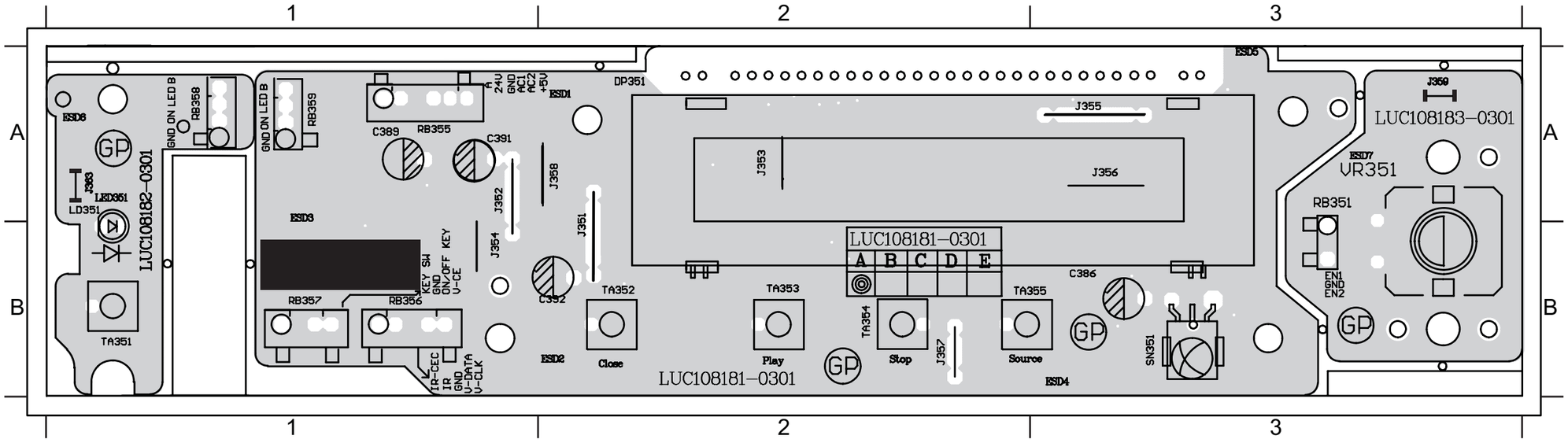
C380 B1 C384 C1 C387 A2 C390 B2 C395 C4 DP351 A2 Q351 C1 R3051 B1 R3054 B1 R3057 C1 R3060 C1 R3063 B1 R3068 A3 R3072 C1 RB351 C4 RB357 C1 TA351 A1 TA354 C1 ZD310 C1 ZD313 B1
C381 B1 C385 C1 C388 A3 C391 B2 C396 C4 IC351 B2 Q352 C1 R3052 B1 R3055 B1 R3058 C1 R3061 B1 R3064 B1 R3069 B2 R3073 C1 RB355 B1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



5 - 3

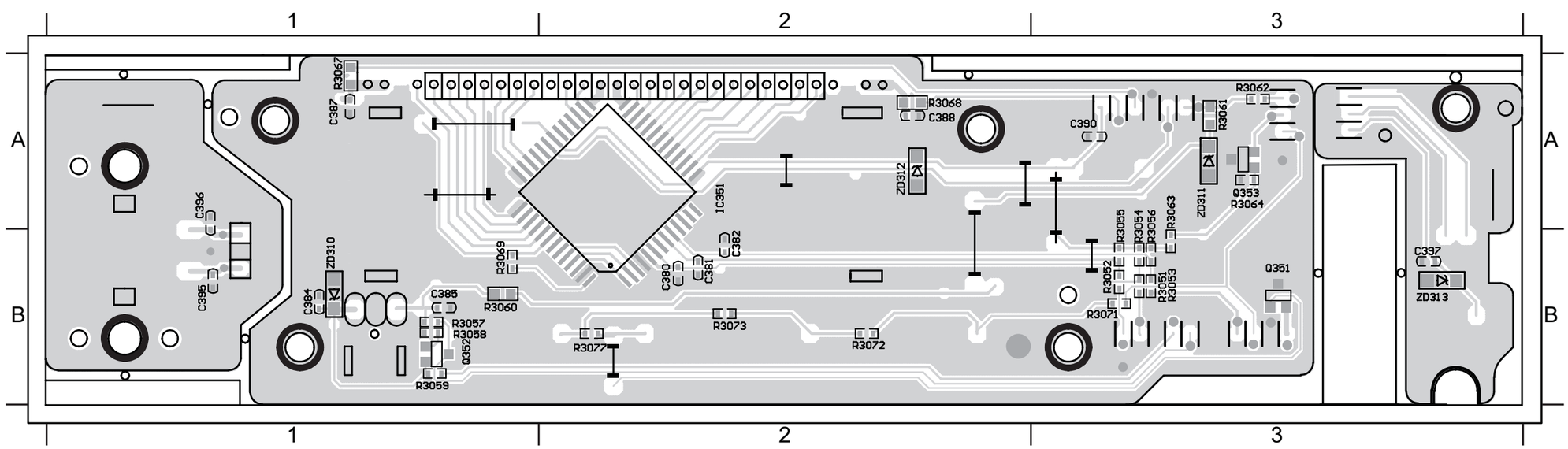
PCB LAYOUT - TOP VIEW

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

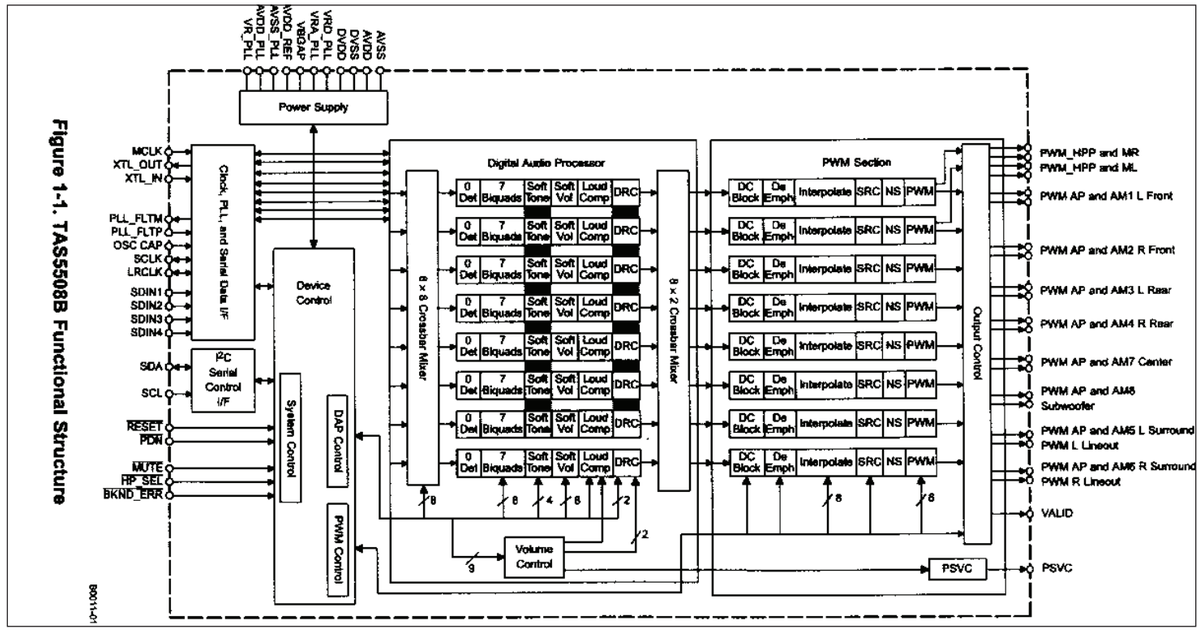
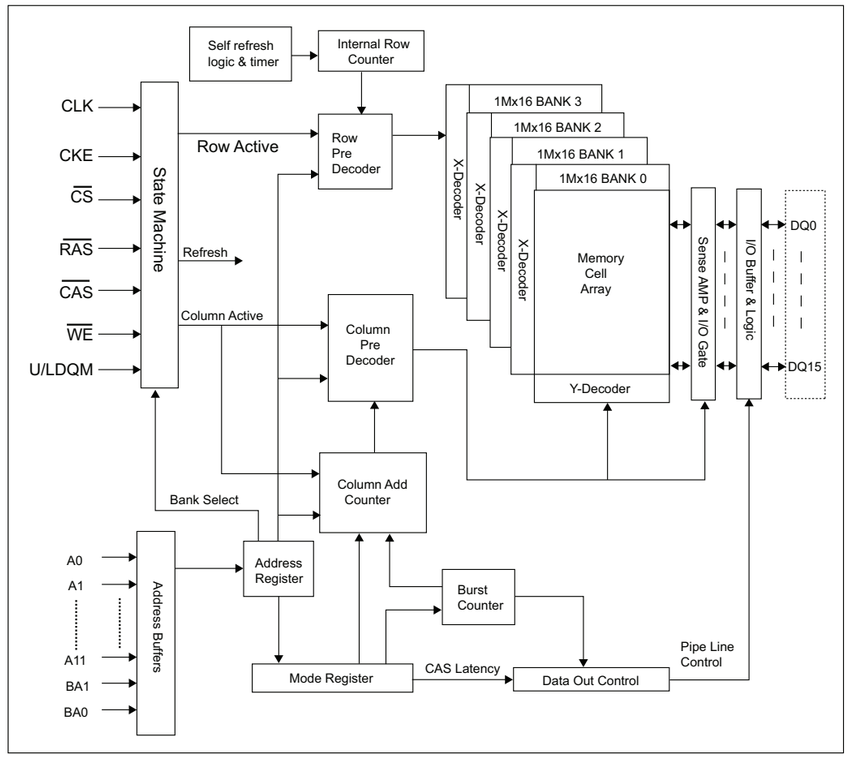


Figure 1-1. TAS5508B Functional Structure

INTERNAL IC DIAGRAM - HY57V641620F



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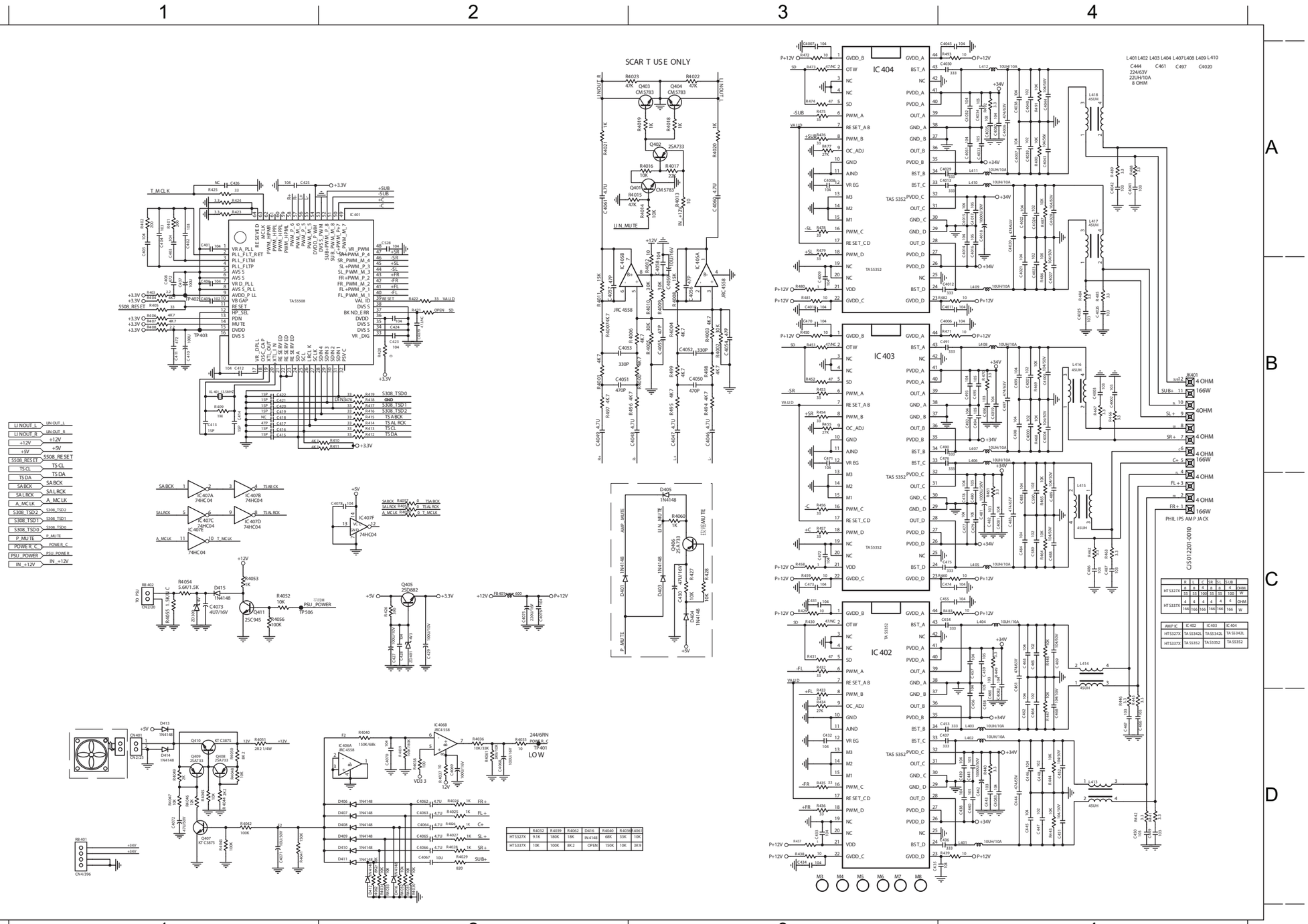
CIRCUIT DIAGRAM - part one

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



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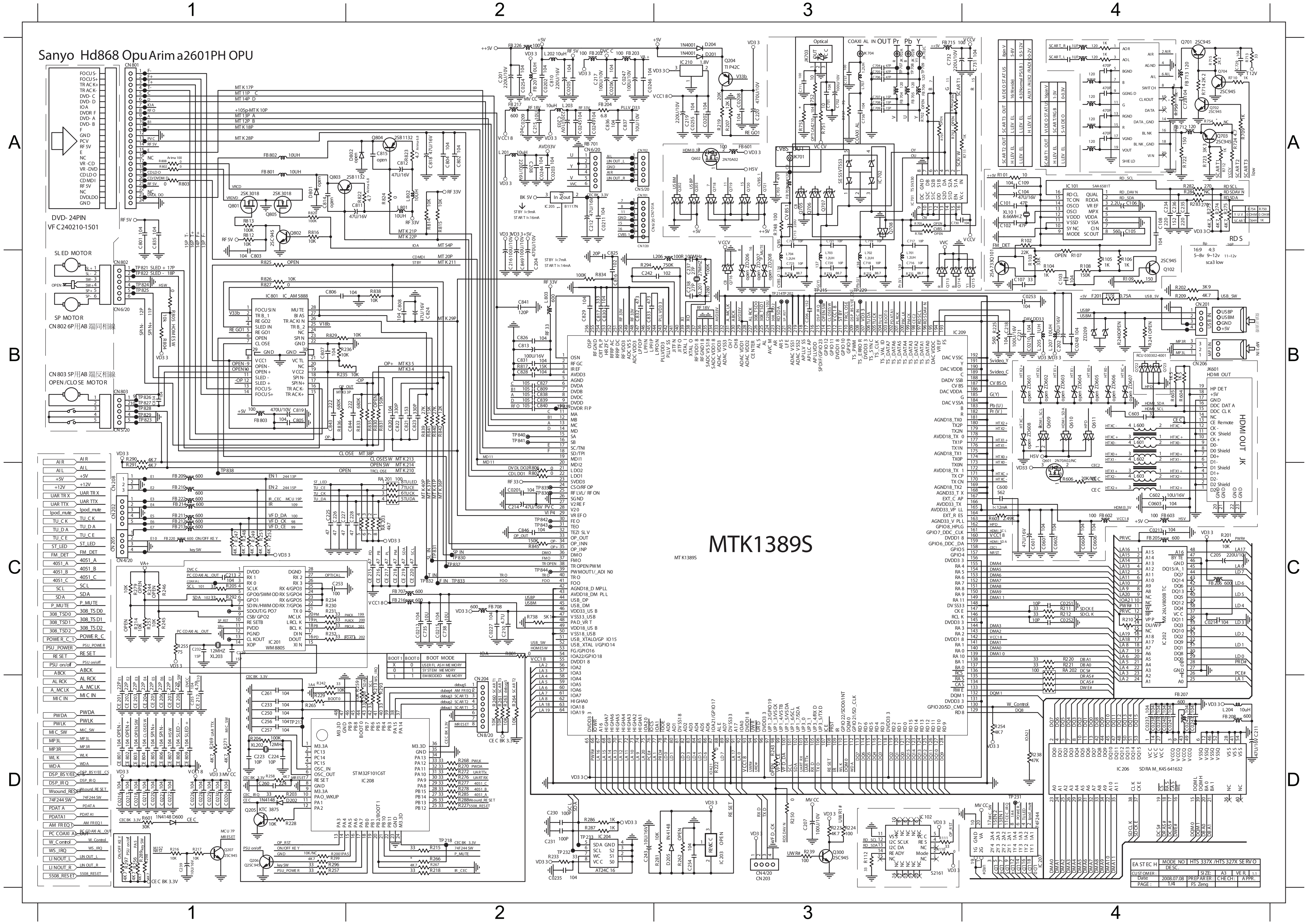
CIRCUIT DIAGRAM - part two

C0201 C2	C0215 C2	C0237 D4	C0252 C4	C203 A2	C218 B4	C233 D1	C600 C4	C711 A3	C735 C2	C811 A2	C827 B2	C841 B2	CE216 C2	CN201 B4	D202 D1	FB210 C1	FB704 A3	IC204 D2	L202 A2	Q204 A3	Q803 A1	R213 D2	R229 D1	R250 D3	R268 D2	R287 D2	R604 B4	R750 A4	R814 A2	R835 B2	XL203 C1
C0202 A2	C0216 D1	C0238 D4	C0253 B4	C204 B2	C219 A3	C237 B3	C601 C4	C713 A3	C736 A3	C812 A2	C828 B2	C843 B1	CE217 C2	CN202 C1	D204 A3	FB211 C1	FB705 A3	IC205 A2	L203 A2	Q205 D1	Q804 A2	R215 D2	R230 C1	R251 C1	R269 D1	R288 D2	R605 B4	R751 A3	R815 A2	R836 B1	ZD209 B4
C0203 A2	C0217 D1	C0239 D4	C0601 C4	C205 C4	C220 A3	C238 B3	C602 C4	C716 B3	C737 A3	C813 B2	C829 B2	C844 B2	CE218 C2	CN203 D3	D205 D3	FB212 C1	FB706 A3	IC206 D4	L204 D4	Q206 D1	Q805 A1	R216 D1	R231 C1	R252 C1	R270 D2	R289 D1	R606 C4	R752 A3	R816 A1	R838 B2	
C0204 D1	C0218 D1	C0240 D4	C0602 C4	C206 B3	C221 B4	C239 D1	C603 B4	C717 A3	C738 C2	C816 B2	C830 B2	C846 C2	CE219 C2	CN204 D2	D600 D1	FB213 C1	FB707 C2	IC207 D4	L205 B4	Q207 D1	R201 C4	R217 D1	R232 C1	R253 C1	R271 D1	R290 B1	R702 A3	R754 A4	R817 B2	R839 B2	
C0205 A2	C0219 D1	C0241 D4	C0603 C4	C207 D3	C223 D1	C242 B2	C701 A3	C718 B3	C801 A1	C817 B2	C831 B2	C849 B2	CE220 C2	CN205 C1	F201 B4	FB214 C1	FB708 C2	IC208 D2	L206 B3	Q300 D3	R202 B4	R218 D2	R233 D2	R254 D4	R272 D2	R291 C1	R704 A3	R801 C2	R820 A1	R840 B2	
C0206 A2	C0220 D1	C0242 D4	C0604 C4	C208 A2	C224 D1	C243 D2	C702 A3	C719 A3	C802 A2	C818 A2	C832 B2	CE201 D1	CE801 D1	CN206 B4	FB201 A2	FB216 C2	FB712 A4	IC209 B3	L207 B4	Q601 B4	R203 D1	R219 A3	R234 C1	R256 D1	R274 A4	R292 C1	R705 A3	R802 A1	R822 A2	R841 B2	
C0207 A3	C0221 D1	C0243 D4	C0606 C4	C209 B3	C225 C1	C250 D1	C703 A3	C720 B3	C803 B1	C819 B1	C833 B2	CE202 D1	CE802 D1	CN208 C1	FB202 A2	FB217 A2	FB715 A3	IC210 A3	L701 B3	Q602 A3	R204 D1	R220 C4	R235 B1	R257 D1	R276 D2	R293 D2	R724 A4	R803 A1	R823 A2	R842 B2	
C0208 A3	C0222 D1	C0244 A2	C101 A4	C210 C2	C226 C1	C253 C1	C704 A3	C721 A3	C804 A2	C820 B2	C834 B1	CE203 D1	CE803 D1	CN701A A3	FB203 A2	FB220 C1	FB801 A1	IC801 B1	L702 B3	Q611 B4	R205 C1	R221 C4	R236 B1	R258 D1	R277 D2	R294 B2	R731 B3	R804 B1	R824 A2	R845 C2	
C0209 A2	C0226 D1	C0245 A2	C102 A4	C211 D4	C227 C1	C254 D3	C705 A3	C722 A3	C805 B1	C821 B2	C835 A1	CE204 D1	CE804 D1	CN702 A2	FB204 A2	FB222 C1	FB802 A1	JK601 B4	L703 B3	Q705 A3	R207 A3	R222 D3	R238 D4	R259 D2	R278 D2	R296 D1	R732 B3	R805 B1	R826 B1	RA201 C2	
C0210 B4	C0227 C2	C0246 A2	C105 A4	C213 C1	C228 C2	C255 D1	C706 A3	C723 B3	C806 B1	C822 B2	C836 A2	CE205 D1	CE805 D1	CN801 A1	FB205 C4	FB226 A2	FB803 B1	JK701 A3	L704 B3	Q706 A3	R208 D2	R223 D3	R239 D3	R260 D2	R279 C1	R297 D1	R733 B3	R806 C2	R827 B1	RA202 C4	
C0211 A2	C0228 D1	C0247 A2	C107 B4	C214 C2	C229 C1	C256 D1	C707 A3	C728 A4	C807 B1	C823 B2	C837 A2	CE206 D1	CE806 D1	CN802 B1	FB206 C4	FB601 A3	GT01 D3	JK702 A3	L707 A3	Q707 A3	R209 B4	R224 D3	R242 D1	R261 D2	R280 B3	R298 D1	R734 B3	R807 C2	R829 B1	RA203 C2	
C0212 C2	C0229 D1	C0248 B4	C109 A4	C215 A2	C230 D2	C257 D1	C708 A3	C730 A3	C808 B2	C824 B2	C838 B2	CE207 D1	CE807 D1	CN803 B1	FB207 D4	FB602 C4	IC201 D3	JK703 A3	L801 A2	Q708 A3	R210 C4	R225 B4	R245 C1	R263 D2	R281 D3	R299 D1	R737 A3	R808 A1	R831 B2	RB701 A2	
C0213 C4	C0230 D1	C0249 A2	C201 A2	C216 B2	C231 D2	C260 D1	C709 A3	C731 A4	C809 B2	C825 A2	C839 B2	CE212 D1	CE808 D1	CO254 A2	FB208 D4	FB603 C4	IC202 C4	JK704 A3	L802 A2	Q801 A1	R211 C4	R227 D2	R248 C1	R264 D2	R285 D2	R601 D1	R738 C2	R812 A1	R833 B2	XL201 B3	
C0214 C4	C0235 D2	C0251 C4	C202 B4	C217 A2	C232 C1	C261 D1	C710 A3	C732 A3	C810 A2	C826 B2	C840 B2	CE215 C2	CE809 D1	D201 A3	FB209 C1	FB703 A3	IC203 D3	L201 A2	L803 B2	Q802 A1	R212 C4	R228 D1	R249 C1	R267 D2	R286 D2	R603 C4	R748 A3	R813 A1	R834 B2	XL202 D1	



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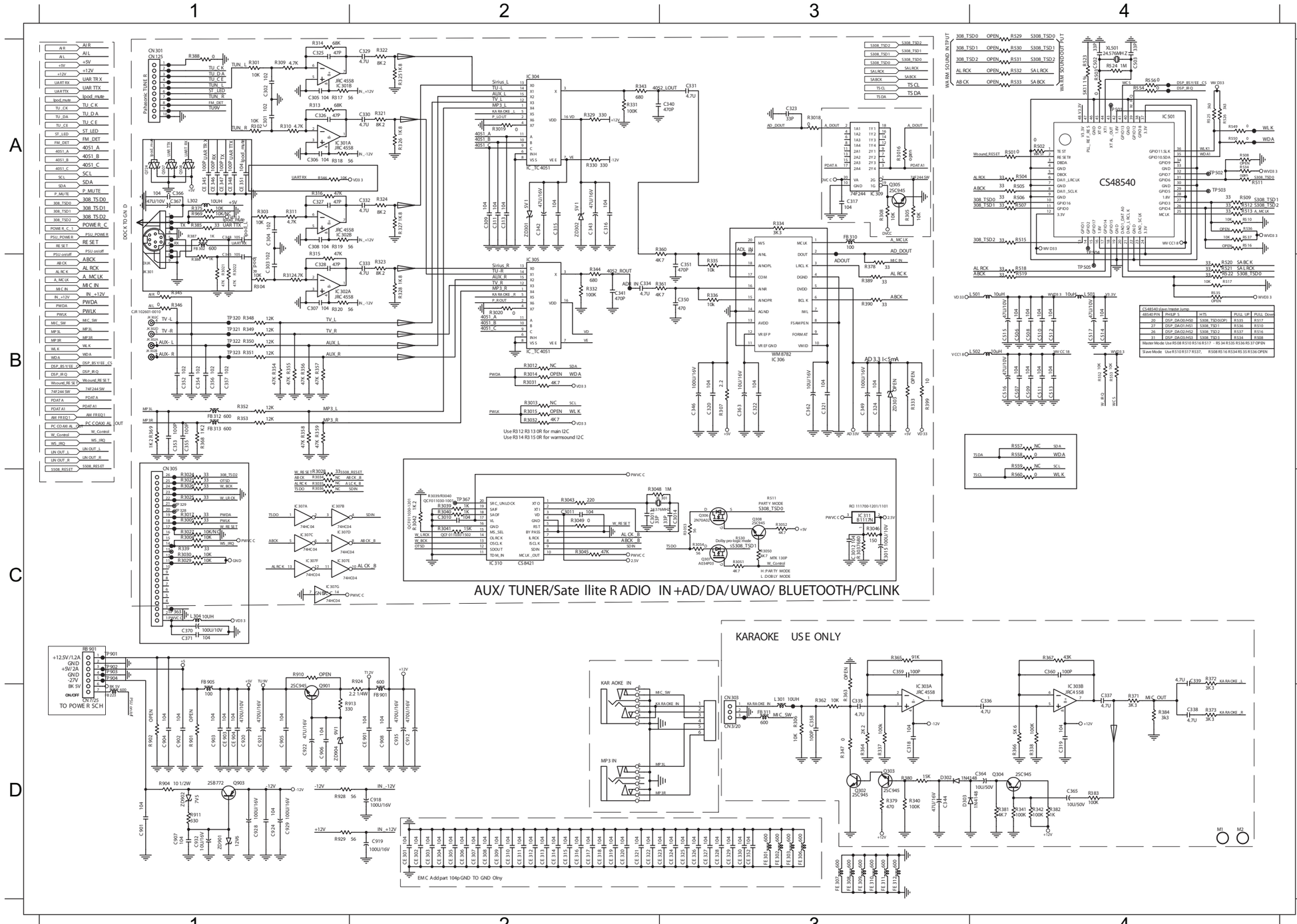
CIRCUIT DIAGRAM - part three



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PCB LAYOUT - TOP VIEW

C0202 A2 C214 C1 C261 C2 C343 B2 C4010 C4 C407 D4 C438 C4 C482 C4 C711 A1 C816 C1 C844 C1 CN301 B1 FB210 D2 FB803 D1 IC402 C4 JK702 A4 L412 B3 Q705 A4 R215 D2 R249 D2 R279 B1 R307 C3 R338 B3 R371 C3 R412 D4 R449 D4 R481 C4 R525 C2 R733 B1 R822 C1 RA201 B1
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 CN701A 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
C0247 B1 C219 C2 C320 C3 C351 B3 C4015 B4 C4076 D4 C453 C4 C493 C4 C719 A1 C821 C1 C920 C2 CN801 D1 FB217 B1 IC201 B1 IC801 D1 L203 C1 L702 A1 Q802 D1 R222 B2 R254 A2 R287 B2 R314 A2 R344 B3 R381 C3 R417 D4 R455 C4 R501 D3 R550 C3 R751 A1 R829 C1 RB901 D3
C0251 A2 C220 C2 C321 B2 C352 A2 C4018 B4 C4078 D3 C454 C4 C496 C4 C720 B1 C822 D1 C921 B1 CN802 D2 FB220 D2 IC202 C2 J1 A3 L204 A2 L703 A1 Q803 C1 R223 C2 R257 D2 R288 D2 R317 B2 R347 B3 R382 C3 R419 D4 R456 C4 R502 D2 R552 C3 R752 A1 R831 D2 XL201 B1
C0252 A2 C221 B1 C322 C3 C353 B3 C402 D4 C4080 D4 C455 C4 C497 A3 C721 A1 C823 C1 C922 C1 CN803 D2 FB222 D2 IC203 B2 J10 A4 L205 B1 L704 A1 Q804 D1 R224 C2 R258 C2 R289 D2 R318 A2 R348 A2 R383 C3 R423 D4 R457 C4 R504 D2 R553 C3 R801 D1 R833 C1 XL202 D2
C101 C1 C229 B1 C325 B2 C354 A2 C4020 A3 C4081 C4 C456 C4 C515 C3 C722 A1 C824 C1 C928 D2 D201 D2 FB226 D1 IC204 B2 J11 A4 L206 C1 L707 A2 Q805 D1 R225 B1 R259 C2 R290 D2 R321 B2 R349 A2 R384 B3 R424 D4 R458 C4 R505 D2 R554 C3 R802 D1 R834 C1 XL203 B1
C102 C1 C230 B2 C326 A2 C355 B3 C4029 C3 C410 D4 C457 C4 C516 D3 C723 A1 C825 C1 C929 B3 D202 D2 FB310 B2 IC205 D2 J12 A4 L207 B1 L801 C1 Q901 C1 R227 D2 R260 D2 R291 D2 R322 B2 R352 B3 R389 B2 R425 D4 R459 C4 R506 D2 R556 C3 R803 D1 R835 D2 XL401 D4
C105 B1 C231 B2 C329 B2 C358 B3 C403 D4 C412 D4 C460 D4 C517 C3 C730 A1 C827 C1 C932 D3 D204 D2 FB312 B3 IC206 B2 J2 A3 L301 A2 L802 D1 Q903 D3 R228 D2 R261 C2 R292 B1 R325 B2 R353 B3 R390 B2 R426 D4 R460 C4 R507 D2 R558 C3 R804 C2 R836 C1 XL501 B3
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
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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
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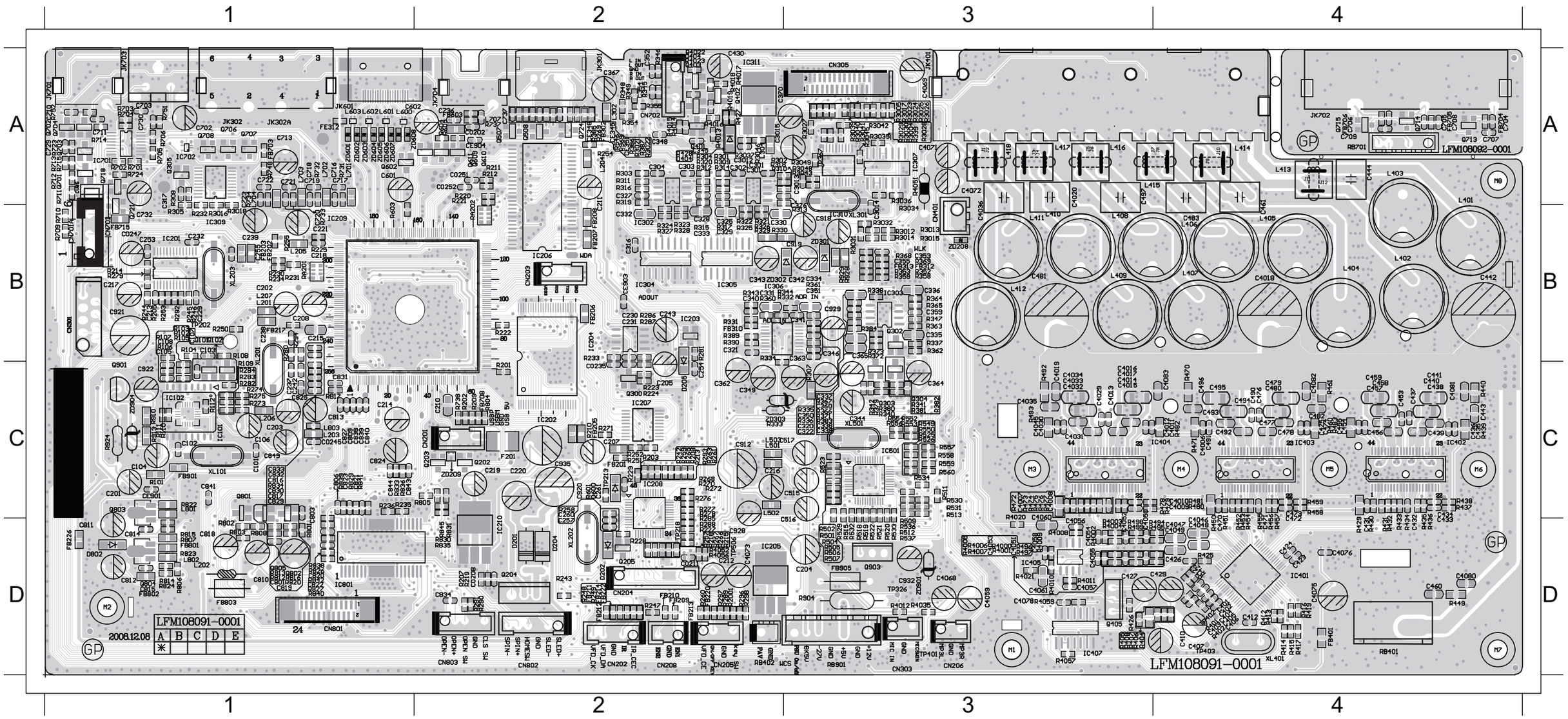

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PCB LAYOUT - BOTTOM VIEW

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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
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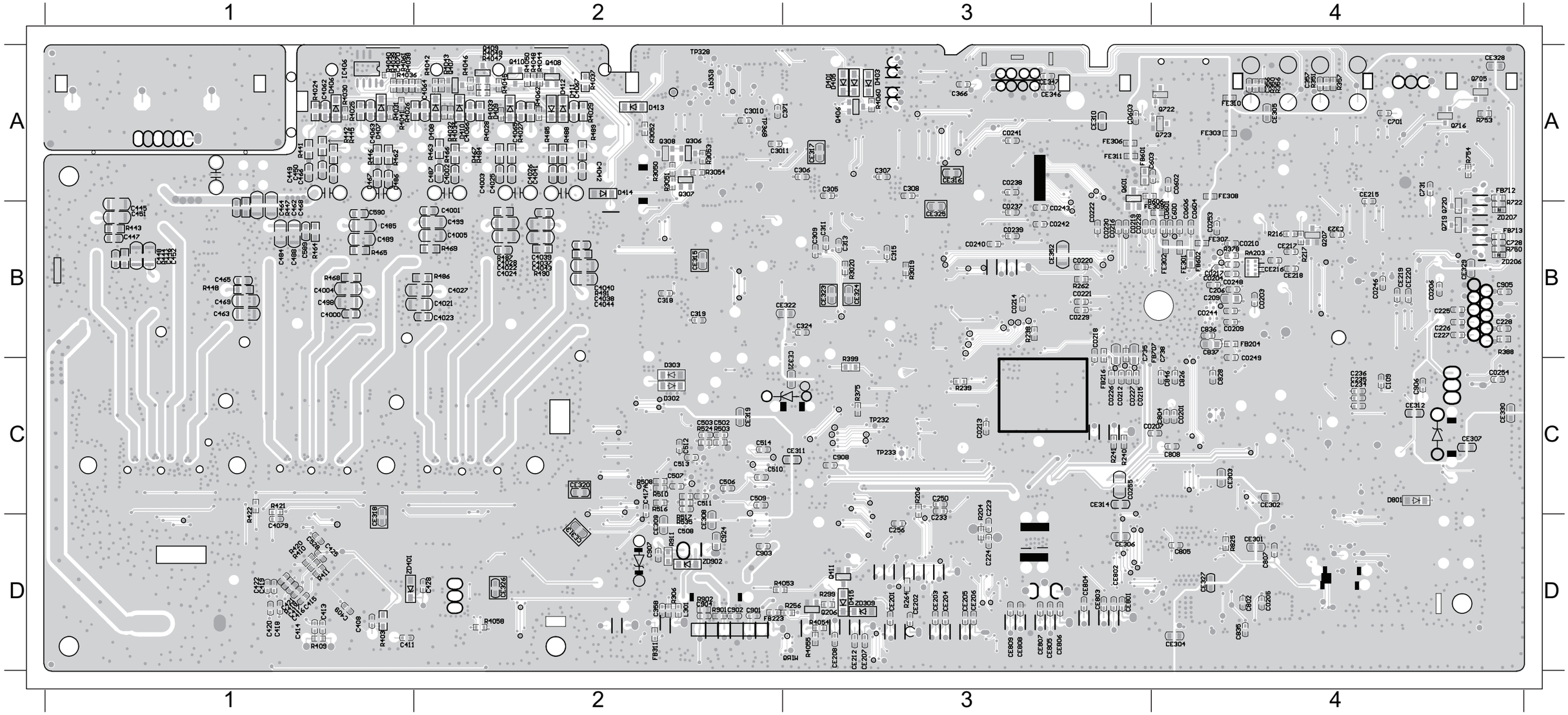

POWER BOARD

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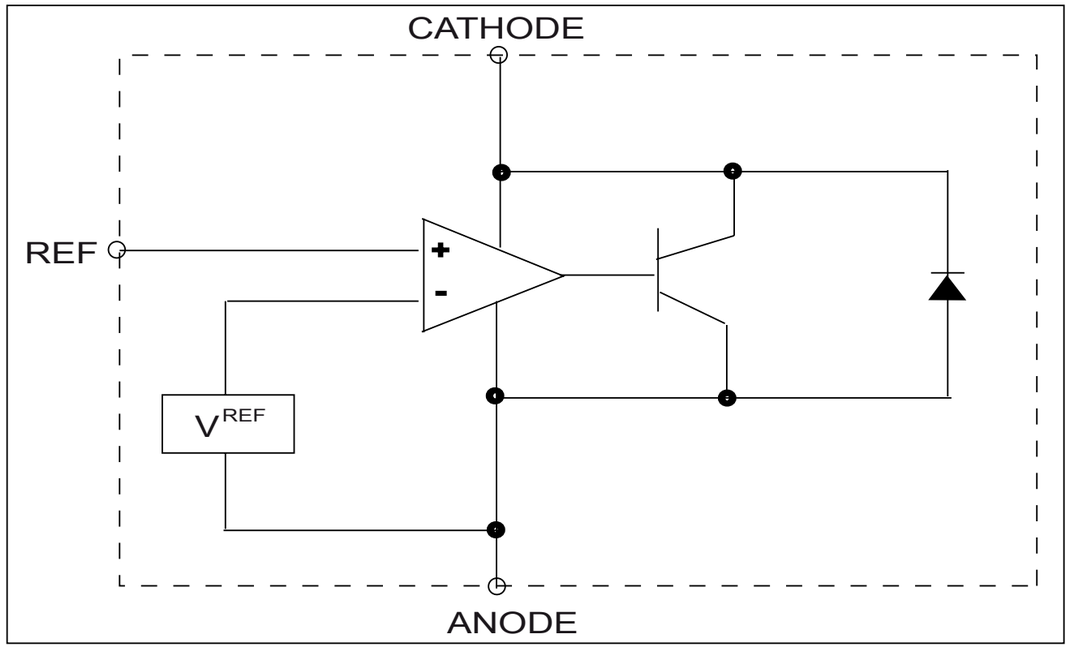
INTERNAL IC DIAGRAM - AZ431



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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
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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
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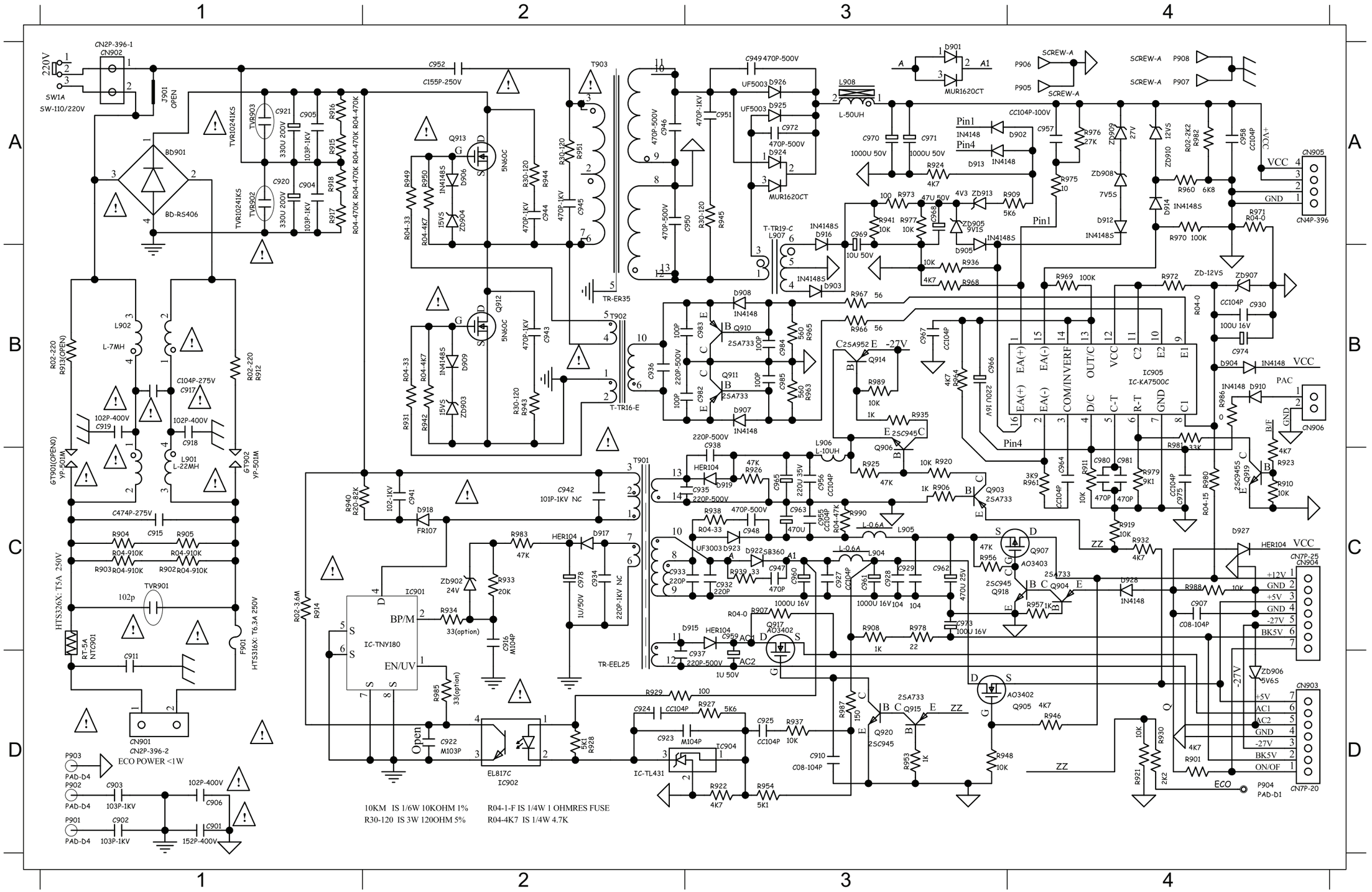

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PCB LAYOUT - TOP VIEW

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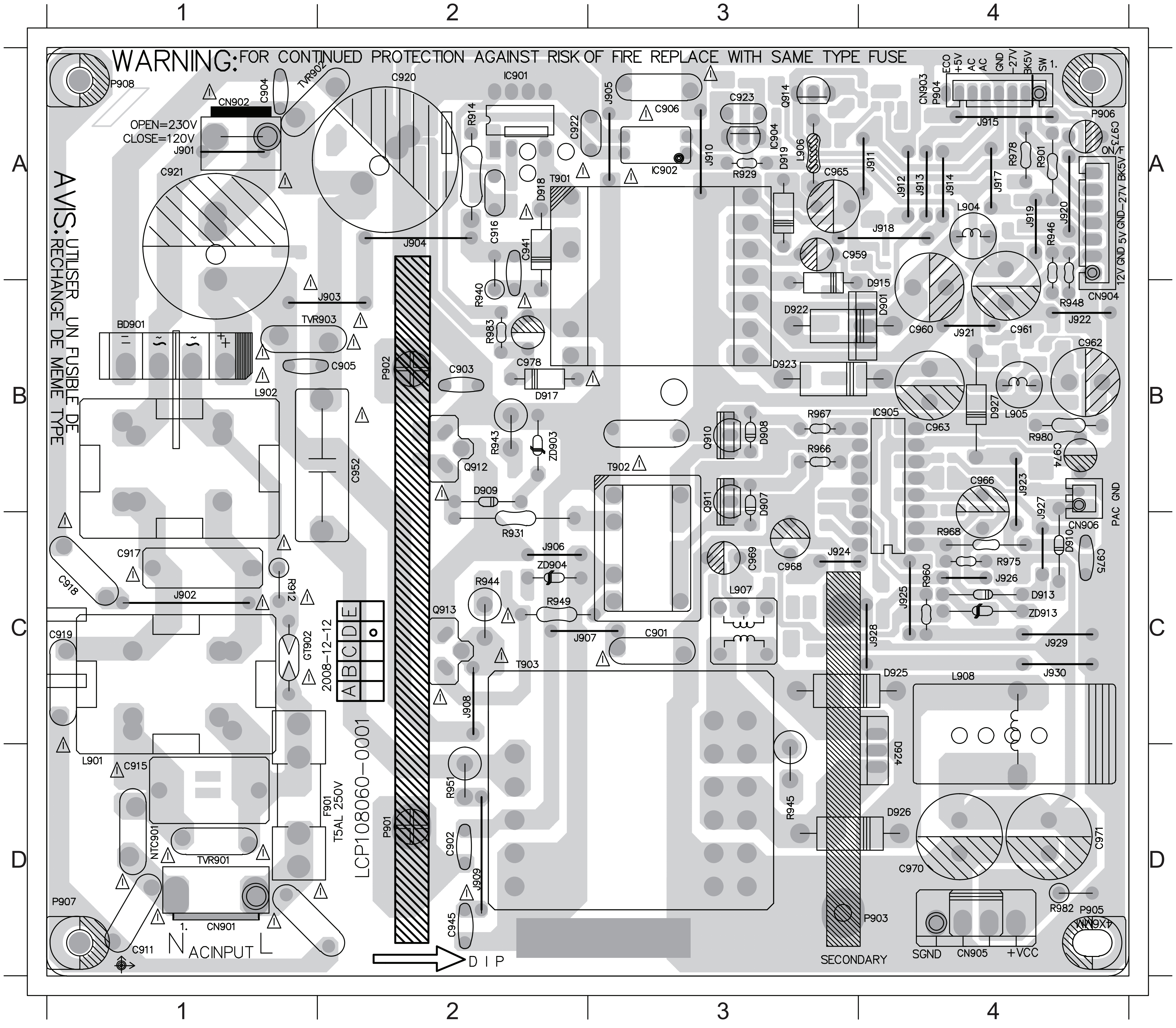
C901 C3	C906 A3	C919 C1	C945 D2	C962 B4	C969 C3	C978 B2	CN905 D4	D910 C4	D922 B3	GT902 C1	J902 C1	J907 C2	J912 A4	J918 A4	J923 B4	J928 C4	L904 A4	NTC901 D1	Q914 A3	R931 C2	R946 A4	R966 B3	R980 B4	T903 C2	ZD904 C2
C902 D2	C915 D1	C920 A2	C952 B2	C963 B4	C971 D4	CN901 D1	CN906 C4	D915 B4	D923 B3	IC901 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	TVR901 D1	ZD913 C4
C903 B2	C916 A2	C921 A1	C959 A3	C965 A3	C973 A4	CN902 A1	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	TVR902 A1	
C904 A1	C917 C1	C923 A3	C960 B4	C966 B4	C974 B4	CN903 A4	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	TVR903 B1	



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PCB LAYOUT - BOTTOM VIEW

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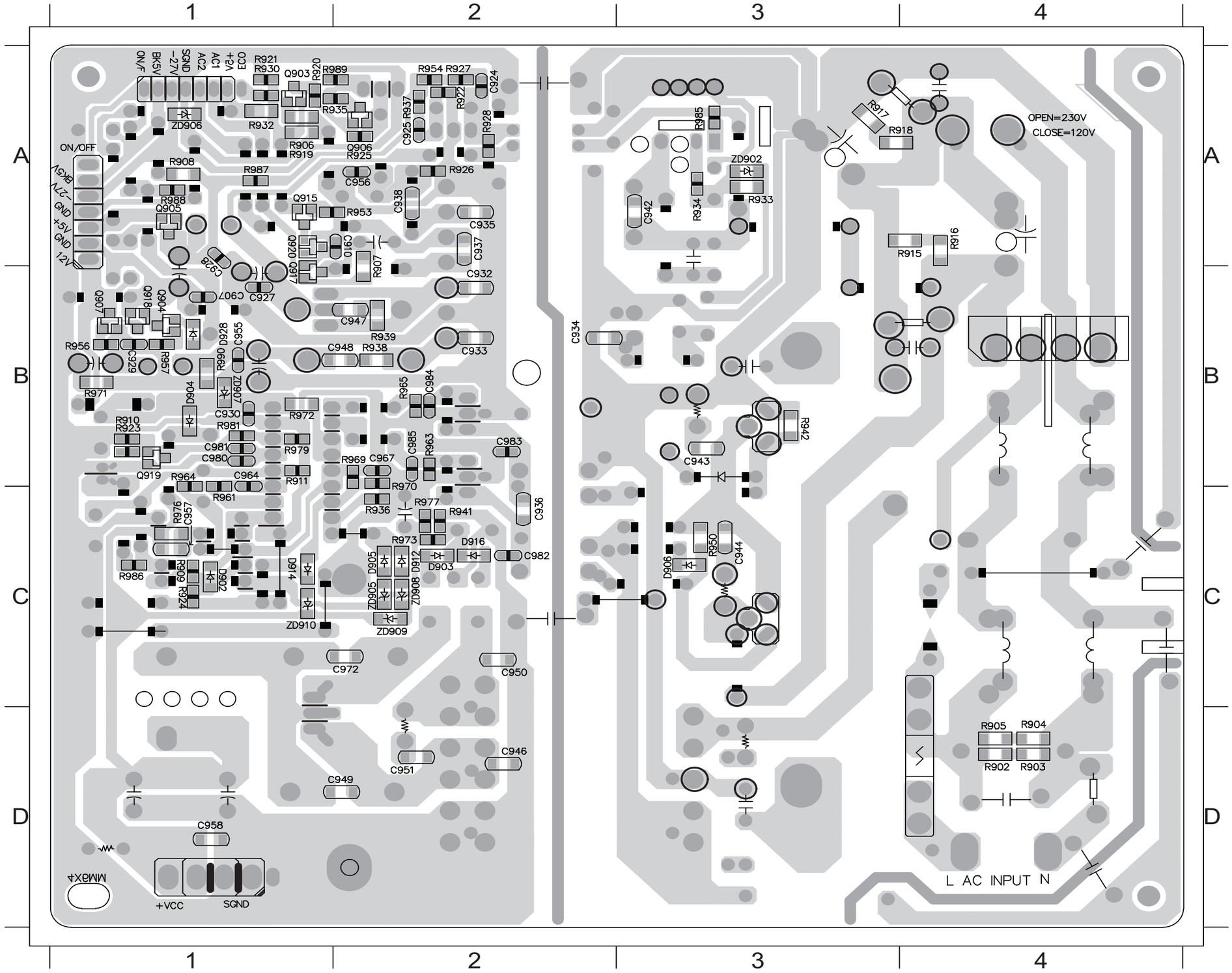
C910 A2 C929 B1 C942 A3 C948 B2 C956 A2 C972 C2 C984 B2 D906 C3 Q903 A1 Q918 B1 R906 A1 R915 A3 R920 A1 R927 A2 R935 A1 R941 C2 R957 B1 R969 B2 R976 C1 R987 A1 ZD908 C2
C924 A2 C930 B1 C943 B3 C949 D2 C957 C1 C980 B1 C985 B2 D912 C2 Q904 B1 R902 D4 R907 A2 R916 A4 R922 A2 R928 A2 R936 C2 R942 B3 R961 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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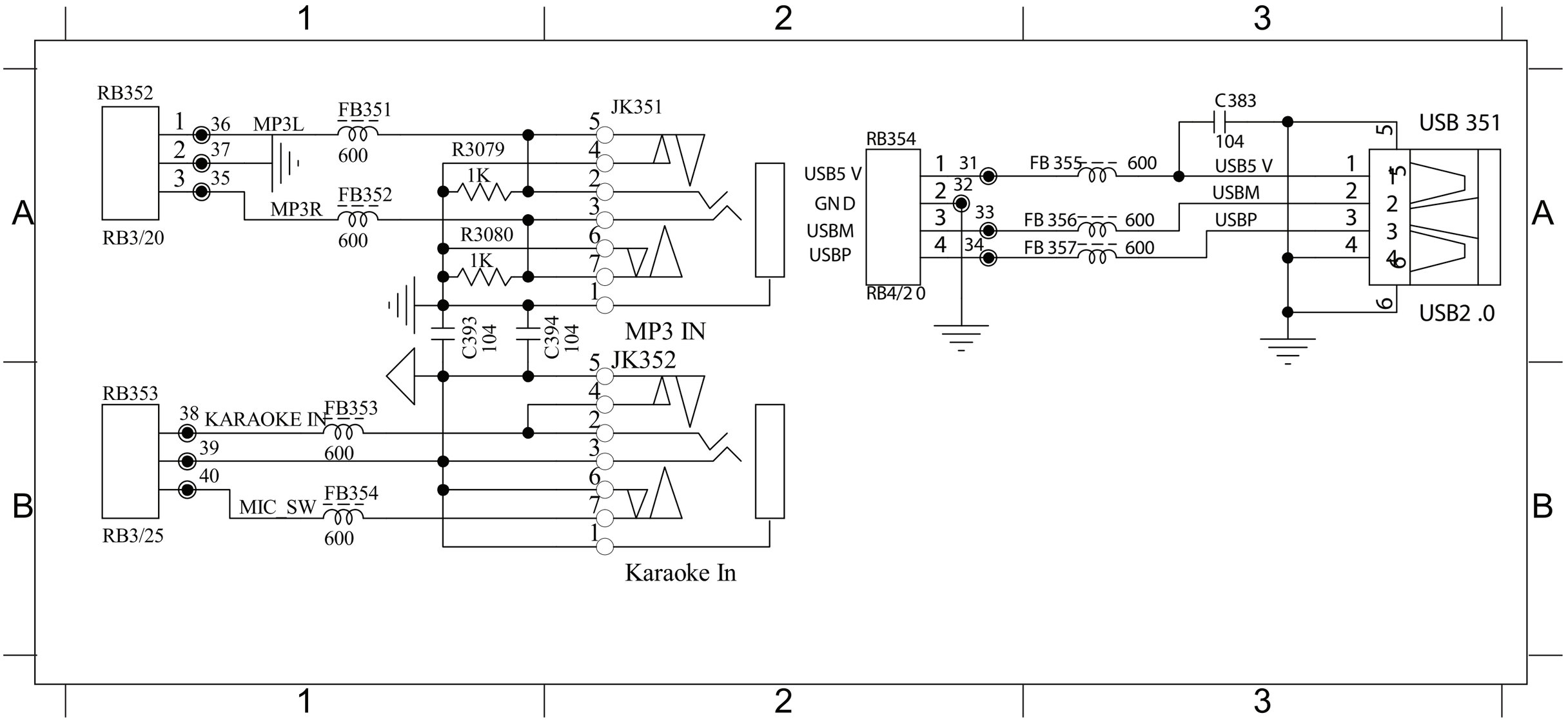

PCB LAYOUT - TOP VIEW

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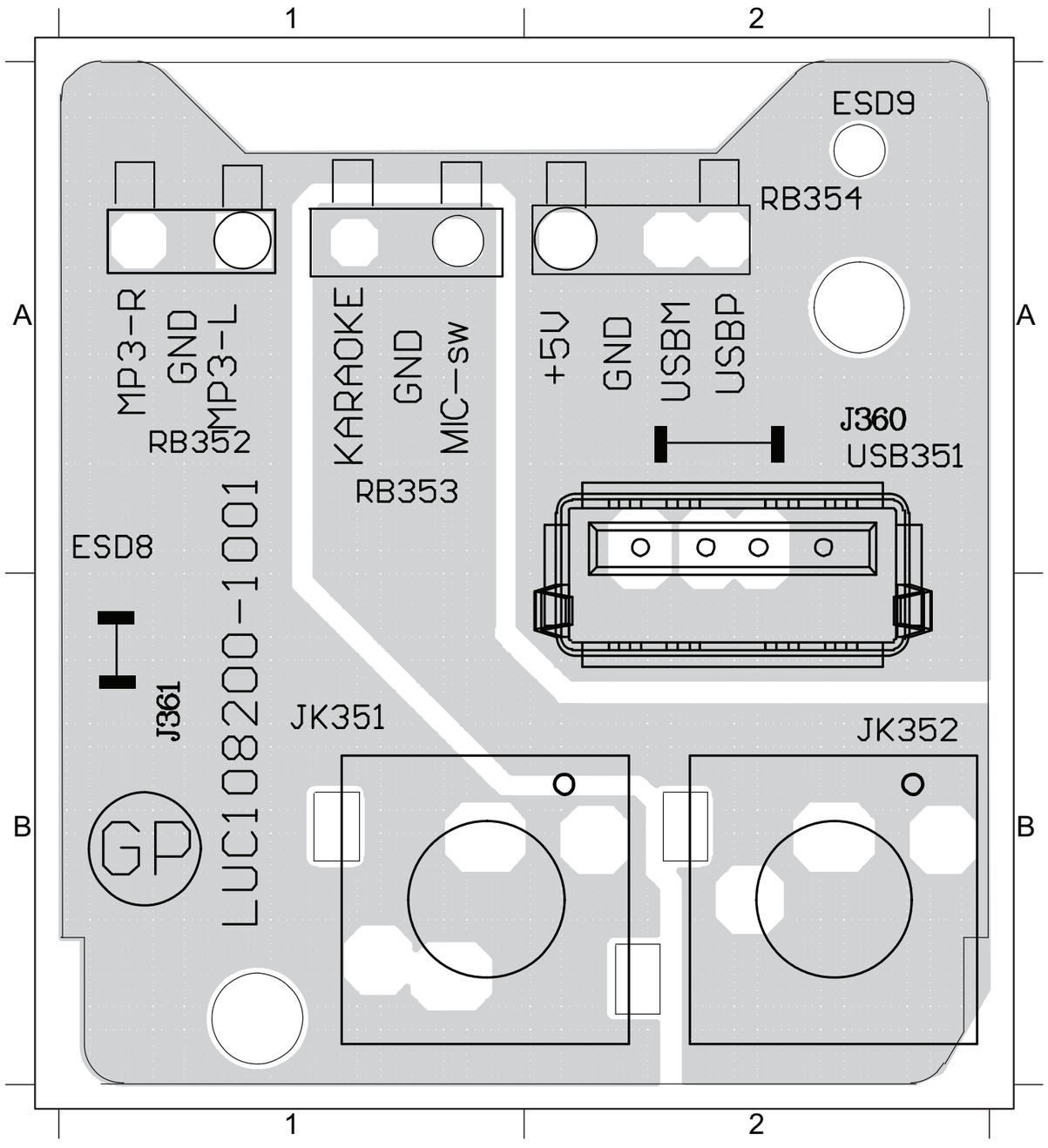

PCB LAYOUT - BOTTOM VIEW

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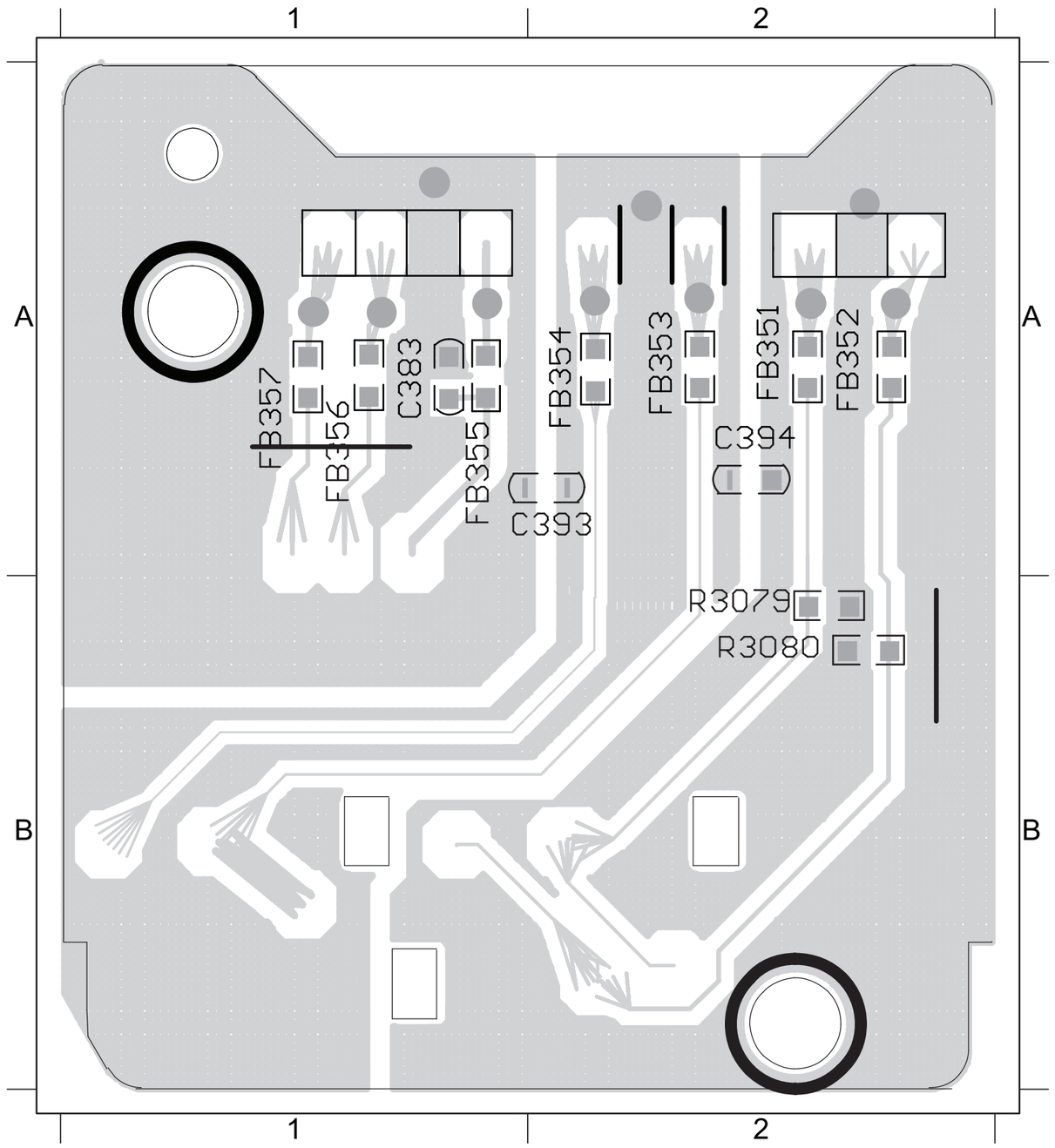

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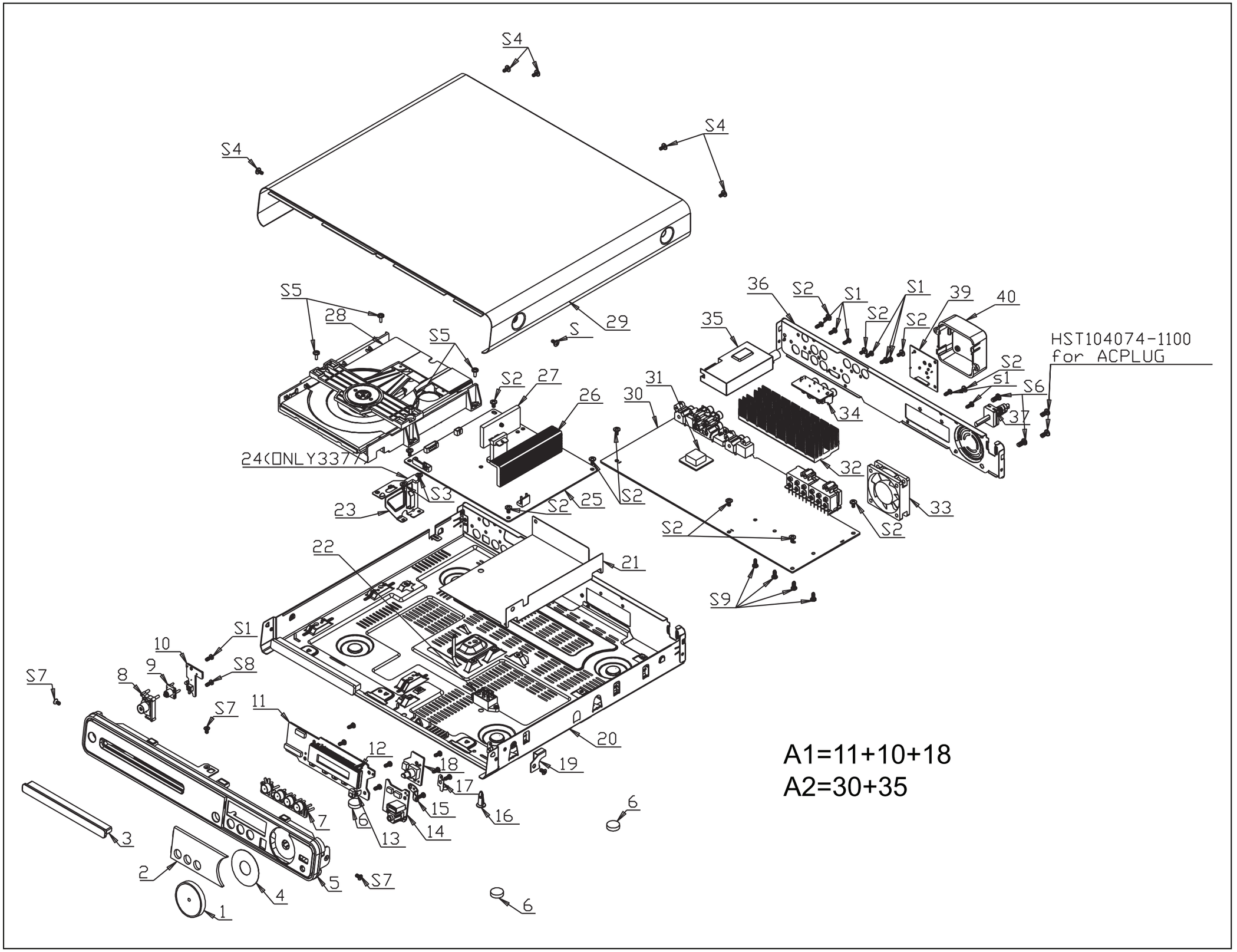
Mechanical Exploded View



PART LIST

Loc.	Part No.	Description
MAIN UNIT		
1	996510021087	VOLUME KNOB ABS D40.0xH3.0mm
2	996510021093	DISPLAY LENSL80.8xW38.2xT3.0mm
3	996510021254	DVD DOOR BLK 80007/HIGH
5	996510021245	FRONT PANEL W360xH48.5xD8.6mm
6	--	RUBBER SILICON DIA15xT4.0mm
7	996510021068	FUNCTION L72xW16.5xH17.1mm
8	996510021069	STANDBYL29.8xW18.5xH20.8mm
9	996510021064	STANDBY L13.8xW13xH18.6mm
14	996510021203	MP3 IN +MIC PCB ASS'Y
20	--	BTMT=0.6mm W349xH35xD311.9mm
24	--	RUBBER L16xW10xT3.0mm 20'
25	996510021257	POWER PCB ASS'Y 1000W
28	996510021248	DVD LOADERWXD8829C+SANYO
29	--	TOPL310.8xW359.6xH48.1mm
33	996510021076	FAN DC12V 0.55A 3700RPM L
35	996510017572	TUNER PACK KST-MT001FS0-6B
36	--	REART=0.6mm(W/FAN&SOCKET)
37	996510001691	PWR 2P 1788mm BLACK
A1	996510021089	DISP+LED+VOL PCB ASS'Y
A2	996510021259	MAIN+Y.U.V PCB ASS'Y
FM	996510008251	FM ANT 1.5M 1007#24 TC WHT
HDMI	996510020159	HDMI 1500 20276#30 BLK
RC	996510021186	REMOTE CONTROL 39 KEYS
V1	996510007429	FFC 10P 100mmUL20798 P=1.25mm
VIDEO	996500013058	RCA1200mm OD2.6mm BLK
SPEAKER		
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
RFF/R	--	RUBBER FOOT L1 MS
RFC	--	RUBBER FOOT CNTER
RFS	--	RUBBER FOOT SUBWOOFER
SCREW		
S7	--	M3xP0.5xL6mm NICKEL
S1	--	T3.0x1.06PxL8mm NICKEL
S8	--	T3.0x1.06PxL10mm NICKEL
S6	--	STEEL L10xP2.12xT5.0mm
S9	--	T3.0x1.06PxL8mm NICKEL
S3	--	M3.0x0.5PxL4mm NICKEL
S2	--	M3.0x0.5PxL6mm NICKEL
S5	--	M3.0x0.5PxL8mm NICKEL
S4	--	M3x6x0.5P

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MAIN+Y.U.V PCB		
CN201	996500015859	CONNECTOR 4PIN P2.0MM
CN202	996510012494	CONNECTOR 5 PIN RED
CN203	996500015859	CONNECTOR 4PIN P2.0MM
CN204	996500017367	CONNECTOR 8P
CN205	996510012495	CONNECTOR 4P
CN206	996500015897	CONNECTOR 3 PIN RED P=2.0MM
CN208	996500015897	CONNECTOR 3 PIN RED P=2.0MM
CN301	996510012497	FPC/FFC CONN. 10P
CN303	996500015900	CONNECTOR 3 PIN P=2.0MM
CN401	996500015862	CONNECTOR B2B-XH-A 2 PIN
CN701A	996500015901	CONNECTOR 6 PIN P=2.0MM
CN702	996500015895	CONNECTOR 5 PIN P=2.0MM
CN802	996500015901	CONNECTOR 6 PIN P=2.0MM
CN803	996500015895	CONNECTOR 5 PIN P=2.0MM
D201	996510010358	DIODE 1N4007
D204	996510010358	DIODE 1N4007
IC201	996510012499	IC 28P
IC202	996510021247	IC 48P KH29LV320DBTC-70G
IC203	994000005209	IC 3P AZ809NSTR-E1 SOT23
IC204	996510004289	IC 8P TU24C16CS2 SOIC TURBO
IC205	996510021062	IC3P LD1117ADJ SOT223 3.3VST1A
IC206	996510016601	IC 54P HY57V641620F(L/S)TP-6
IC207	996510012500	IC 20 PIN SN74HC244PWR TSSOPTI
IC208	996510021132	IC 48P STM32F101C6A LQFP ST
IC209	996510021082	IC 256P MT1389FXE/SN LQFP
IC210	996500027090	IC 3 PIN AP1117E18LA 1.8V SOT2
IC301	996510020341	IC 8P D4558 SOP SILICORE
IC303	996510020341	IC 8P D4558 SOP SILICORE
IC304	996510012503	IC 16P CD4051BM SOIC TI ANALOG
IC305	996510012503	IC 16P CD4051BM SOIC TI ANALOG
IC306	996510021056	IC 20P WM8781GEDS SSOP WOLFSON
IC309	996510012500	IC 20 PIN SN74HC244PWR TSSOPTI
IC401	996510021092	IC 64P TAS5508APAG TQFP TI
IC402	996510021081	IC 44P TAS5352ADDV HTSSOP TI
IC403	996510021081	IC 44P TAS5352ADDV HTSSOP TI
IC404	996510021081	IC 44P TAS5352ADDV HTSSOP TI
IC406	996510020341	IC 8P D4558 SOP SILICORE
IC407	996500023948	IC 14PIN 74HCU04D PHILIPS TSOP
IC501	996510012505	IC 48P CS48540-CQZ LQFP CIRRUS
IC801	996510010380	Motor Drive IC
JK302	996510021122	JACK 4P WHT-RED/WHT-RED
JK401	996510013837	GPSPK JAC12P RD-WT-GRN-GRY-BLU
JK601	996510012507	HDMI JACK 19P PDVBT8-19 FLBS4N
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
L301	996510016733	INDUCTOR10uH 10% Q=35 0603 SMT
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
Q205	996510000578	XISTR NPN KTC3875-Y
Q206	994000000915	XISTR NPN 2SC1623
Q207	994000000915	XISTR NPN 2SC1623
Q300	994000000915	XISTR NPN 2SC1623
Q302	994000000915	XISTR NPN 2SC1623
Q303	994000000915	XISTR NPN 2SC1623
Q304	994000000915	XISTR NPN 2SC1623
Q305	994000000915	XISTR NPN 2SC1623
Q405	996500028742	XISTR NPN 2SD882P PB<1000PPM
Q407	996510000578	XISTR NPN KTC3875-Y
Q408	994000000921	XISTR PNP 2SA812 HFE:200-400
Q409	994000000921	XISTR PNP 2SA812 HFE:200-400
Q410	996510000578	XISTR NPN KTC3875-Y
Q411	996510000578	XISTR NPN KTC3875-Y
Q601	996510008289	FET AO3402 SOT23 30V/4A
Q602	996500041281	FET 2N7002 60V/115MA
Q801	996510004117	FET 2SK3018 30V/0.1A SC-70
Q802	994000000915	XISTR NPN 2SC1623
Q803	996500026927	XISTR PNP 2SB1132RT100 ROHM HF
Q804	996500026927	XISTR PNP 2SB1132RT100 ROHM HF
Q805	996510004117	FET 2SK3018 30V/0.1A SC-70
Q901	996510000615	XISTR NPN 2SC945P
Q903	996500026946	XISTR PNP 2SB772P/Q NEC PB<10
XL401	996510021233	X'TAL 13.5MHz 15ppm 20pF
XL501	996510000566	CRYST 24.576MHZ +/-20PPM
ZD901	994000005204	DIODE ZENR 12.6-13.1V 0.5W
ZD904	996500028741	DIODE ZENR 9.1-9.5V 0.5W PB<10

POWER PCB		
BD901	996510011372	BRIDGE KBU808 8A 800V
C901	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
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 10%
C915	996510012548	GOND SAFETY 0.47uF 275V 10% X2
C917	994000005343	COND SAFETY 0.22UF 275V 20%
C918	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
C919	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
C920	996510012472	COND ELEC 330uF 200V 20%
C921	996510012472	COND ELEC 330uF 200V 20%
C941	996510021078	COND DISC 1000 pF 1KV 10%
C945	996500020264	COND DISC 470PF 1KV 10%
C952	996510018266	COND METAL 1.5uF 250V DC 10%
CN901	996510018268	CONNECTOR 4P P=3.96mm180' NICK
CN902	996510018267	CONNECTOR 3P P=3.96mm180' NICK
CN903	996500015901	CONNECTOR 6 PIN P=2.0MM
CN904	996510021055	CONNECTOR B7B-XH-A 7 PIN
CN905	996510016729	CONNEC 4P P=3.96mm 180' NICKEL
CN906	996500015898	CONNECTOR 2 PIN PITCH=2.0MM
D907	996500026949	DIODE SW 1N4148 PB<1000PPM
D908	996500026949	DIODE SW 1N4148 PB<1000PPM
D909	996500026949	DIODE SW 1N4148 PB<1000PPM
D910	996500026949	DIODE SW 1N4148 PB<1000PPM
D915	996510012516	DIODEHER105 DO-411A400V50nSFMS
D917	996510012516	DIODEHER105 DO-411A400V50nSFMS
D918	994000000938	DIODE PR1507 1.5A 1000V
D919	996510012516	DIODEHER105 DO-411A400V50nSFMS
D922	994000005249	DIODE SB360 3A 60V DO-201AD
D923	994000000943	DIODE UF3003 3A 200V
D924	994000005346	RECTIFIER UF1602CT TO-220AB 3P
D927	996510012516	DIODEHER105 DO-411A400V50nSFMS
F901	996500042572	FUSE 5A 250V SLOW
IC901	996510021079	IC 8P(P3=N.C) TNY180PN DIP-8C
IC902	994000000946	OPTICAL SENSOR 4P
IC904	994000000952	IC 3PIN TL431
IC905	996510008293	IC 16P AZ7500BP-E1
L901	996510021083	COMMON COIL 6mH 21.5Ts D0.6mm
L902	996510021053	COMMON COIL 15mH 37.5Ts D0.6mm
L904	996500016694	6UH 13.5TS 2UEW
L905	996500016694	6UH 13.5TS 2UEW
L907	996500027102	TOROID COIL S1=1TS D0.65MMX2 P
L908	996510012474	COMMON COIL75uH10%1KHz/0.25VD1
Q903	994000000921	XISTR PNP 2SA812 HFE:200-400
Q904	994000000921	XISTR PNP 2SA812 HFE:200-400
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 PB<10

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Q911	996500026946	XISTR PNP 2SB772P/Q NEC PB<10
Q912	996510021085	MOSFET STK1060F TO220F AUK600V
Q913	996510021085	MOSFET STK1060F TO220F AUK600V
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	996510021236	TRASFO. EEL-25 7+7P 40W
T902	996510021088	TRASFO EEL19 5+5P 100KHz 20W
T903	996510012478	SW TRANS ERL-35 7+7P
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	--	VFD 32P 20075-2A24(D1068WA)
IC351	996500029614	IC 52P PT6311(PTC)
LD351	996510020167	LED 3 DIA ULTRA RED
Q351	994000000921	XISTR PNP 2SA812 SOT-23 CJ
Q352	994000000915	XISTR NPN 2SC1623
Q353	--	XISTR PNP 2SA812 SOT-23 CJ
SN351	994000005472	RECEIVER IRM-2638AF4 L21.0mm

MP3 IN+MIC PCB

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

REVISION LIST

Version 1.0
*Initial release

Version 1.1
*Correction Circuit & Layout drawing for chapter 7