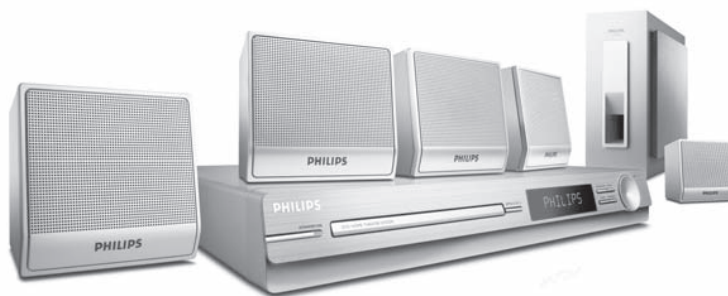


Service
Service
Service



Service Manual



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Published by KC-ET0749 Service Audio Printed in The Netherlands Subject to modification

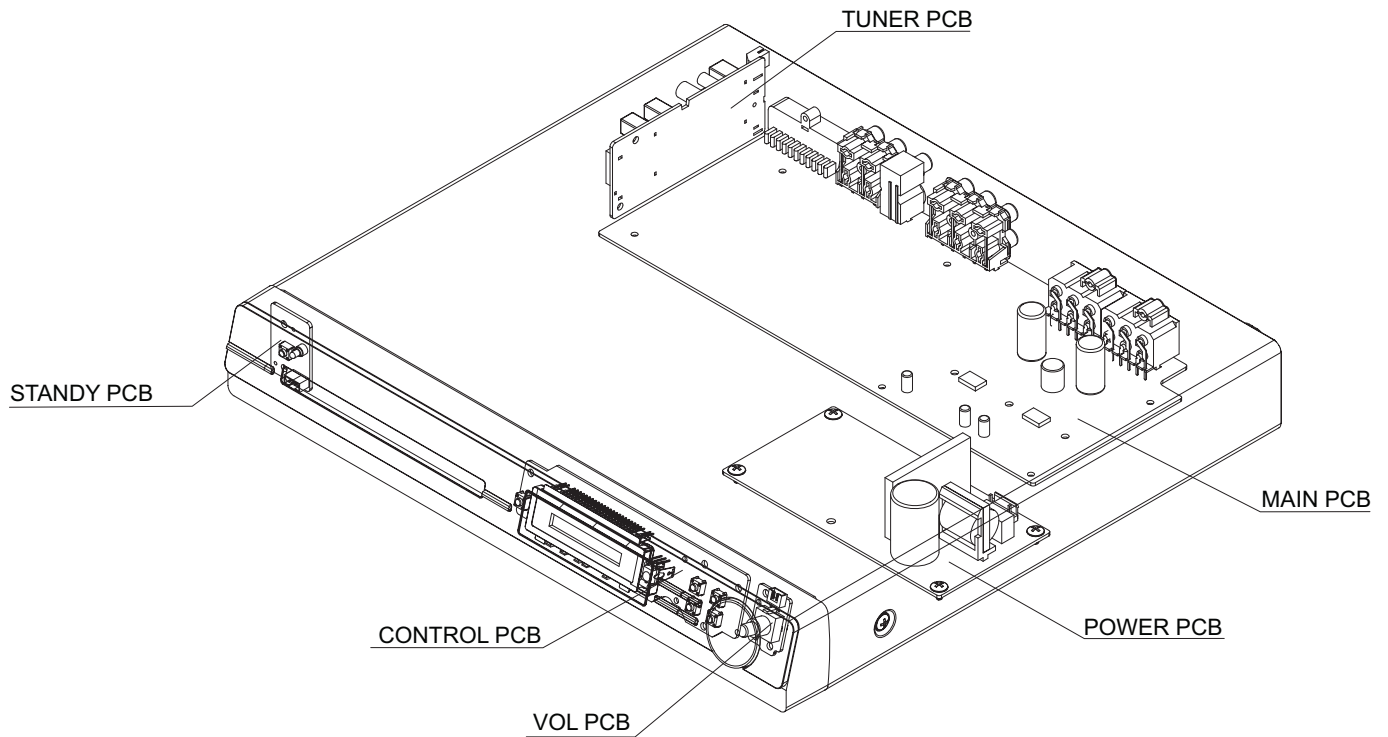
GB 3139 785 32752

Version 1.2



PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

Type/Version	HTS3000/HTS3010			
	/55	/98/94	/51	/94
Feature & Board in used				
Main PCB (Power Output 200W)	X	X	X	X
Power Voltage (120/230V)	X	X	X	
Power Voltage (170/280V)				X
WMA	X	X	X	X
Power Cord (Detachable)		X	X	

Specifications

AMPLIFIER

Total output power
 -Home Theater Mode: 200 W
 Frequency Response: 180 Hz – 18 kHz / ± 3 dB
 Signal-to-Noise Ratio: > 60 dB (A-weighted)
 Input Sensitivity
 - AUX In : 500 mV
 - TV In: 250 mV

RADIO

Tuning Range: FM 87.5–108 MHz
 (50k/100kHz)
 AM 531–1602 kHz (9kHz)
 AM 530–1700 kHz (10kHz)(for/98/94/55)
 Tuning Range: FM 87.5–108 MHz
 (50kHz)
 AM 531–1602 kHz (9kHz) (for/51)
 26 dB Quieting
 Sensitivity: FM 22 dBf, AM 5000 μ V/m
 IF Rejection Ratio: FM 60 dB, AM 24 dB
 Signal-to-Noise Ratio: FM 50 dB, AM 30 dB
 AM Suppression Ratio: FM 30 dB
 Harmonic Distortion: FM Mono 3%
 FM Stereo 3%
 AM 5%
 Frequency Response FM 180 Hz–9 kHz / ± 6 dB
 Stereo Separation FM 26 dB (1 kHz)
 Stereo Threshold FM 23.5 dB

DISC

Laser Type Semiconductor
 Disc Diameter 12cm / 8cm
 Video Decoding MPEG-1 / MPEG-2 /
 / DivX 3/4/5/6
 Video DAC 12 Bits
 Signal System PAL / NTSC
 Video Format 4:3 / 16:9
 Video S/N 56 dB (minimum)
 Composite Video
 Output 1.0 Vp-p, 75 Ω
 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

MAIN UNIT

Power Supply Rating: 110-240 V~; 50-60 Hz
 Power Consumption: 40 W
 Dimensions: 360 x 48.5 x 324.1 (mm)
 (w x h x d)
 Weight: 2.58 kg

FRONT AND REAR SPEAKERS

System: Full range satellite
 Impedance: 4 Ω
 Speaker drivers: 3" full range speaker
 Frequency response: 150 Hz – 20 kHz
 Dimensions: 100 x 95.5 x 83.5 (mm)
 (w x h x d)
 Weight: 0.47 kg/each

CENTRE SPEAKER

System: Full range satellite
 Impedance: 8 Ω
 Speaker drivers: 3" full range speaker
 Frequency response: 150 Hz – 20 kHz
 Dimensions: 100 x 95.5 x 83.5 (mm)
 (w x h x d)
 Weight: 0.52 kg

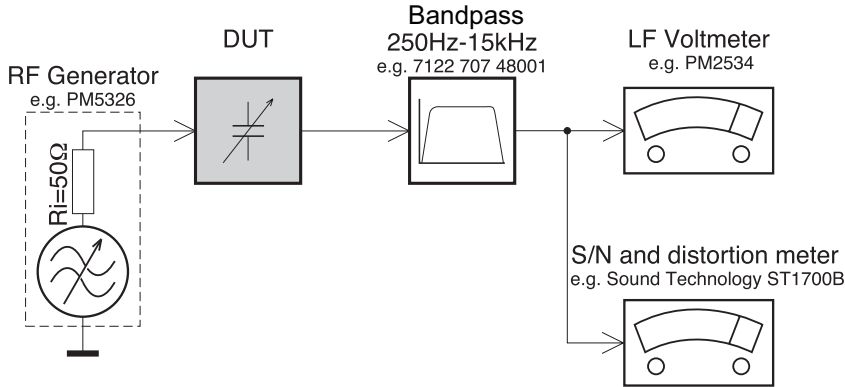
SUBWOOFER

Impedance: 8 Ω
 Speaker drivers: 165 mm (6.5") woofer
 Frequency response: 40 Hz – 150 Hz
 Dimensions: 131 x 386 x 315.5 (mm)
 (w x h x d)
 Weight: 3.60 kg

Specifications subject to change without prior notice.

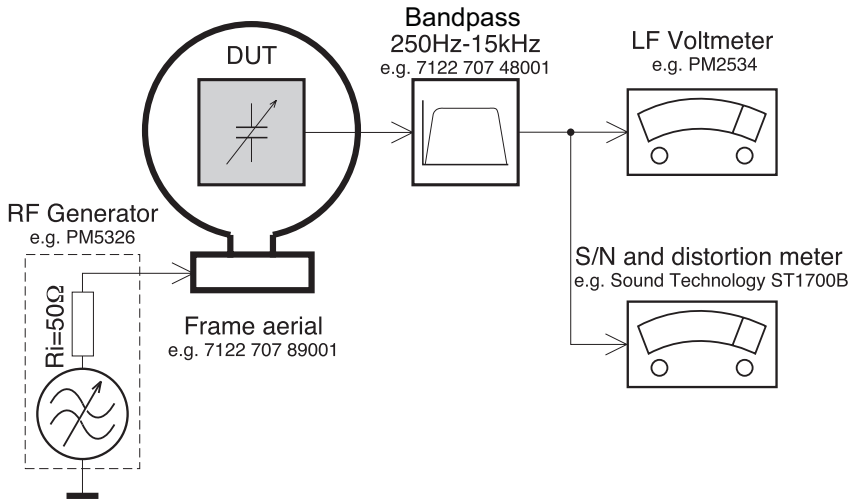
Measurement Setup

Tuner FM



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

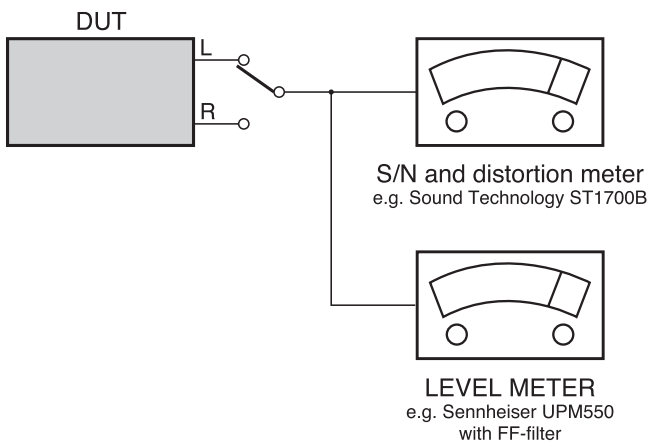
Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

CD

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



SERVICE AIDS

Service Tools:

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

Compact Disc:

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

HANDLING CHIP COMPONENTS

GENERAL

SOLDER CHIP COMPONENT SOLDER
COPPER TRACK
P.C.B.
GLUE

SERVICE PACKAGE

DISMOUNTING

VACUUM PISTON
4822 395 10082

SOLDERING IRON
e.g. WELLER
solder tip PT-H7

SOLDERING IRON
SOLDER WICK
4822 321 40042

e.g. A PAIR OF TWEEZERS

HEATING HEATING

SOLDERING IRON
SOLDER WICK CLEANING

PRECAUTIONS

SOLDERING IRON CORRECT SOLDERING IRON

COPPER TRACK

SOLDERING IRON NO! SOLDERING IRON

CHIP COMPONENT

MOUNTING

e.g. A PAIR OF TWEEZERS

SOLDER
ø0.5-0.8mm PRESSURE

SOLDERING IRON

SOLDERING TIME
< 3 sec/side SOLDER
ø0.5-0.8mm PRESSURE

SOLDERING IRON

EXAMPLES

CORRECT

SOLDERING IRON NO! SOLDERING IRON

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 enfilez 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).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

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

(GB) ESD PROTECTION EQUIPMENT

Complete Kit ESD3 (small tablemat, wristband, connection box, extension 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 symbool Δ .

(F)

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

Less composants de sécurité sont marqués 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.

Componenti 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.



**CLASS 1
LASER PRODUCT**

3122 110 03420

(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 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 "system " button on R/C,TV show "setup"
- select the menu using the ▼ and ► on R/C
- go preference page to do ssystem reset

2)Region Code Change

- press the "stop" button on R/C in open model
- press "7" "3" "4" "4" "6" "6" 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 model, press "1" "5" "9" on R/C
- press "ok" button to confirm
- TV will show message as below:

```

Current model 3000-55/98/51/94/3010-94
Ver 00.18.00-70301-00 region : 4/3/5/5/3
Servo: OF.60.00.00
8032: 05.00.04.06 RISC:00.00.02.07
IF current model does not match you set use down arrow
key on the remote to change
  
```

4)Password Change

- press "system " button on R/C,TV show "setup"
 - 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 Sofeware Version

- open the CD Door
- press "display" button on R/C
- TV will show the version on screen

6)Produce to Change Tuner Grid

(only applicable for certain regions)

In some countries ,the frequency step between adjacent channels in the (AM/MW)/FM band is 9kHz/50kHz (10kHz/100kHz in some areas).

- press "source" to select "FM" or "AM"
- In "FM" or "AM" playback mode, press & hold "play/pause" button until "Grid 9" or "Grid10" appears

note :repeating the same action will toggle back to it previous tuning grid setting.

* "grid 10" is default for /55/98/94 version, "grid 9" is default for /51 version and it doesn's to change Tuner grid.

7)Upgrading new sofeware

- open the CD Door,then insert the CD-R program disc
- close the DOOR
- TV will show:

```

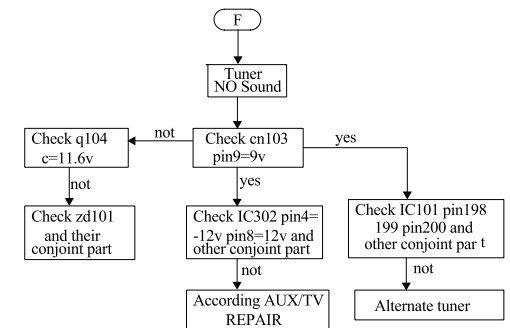
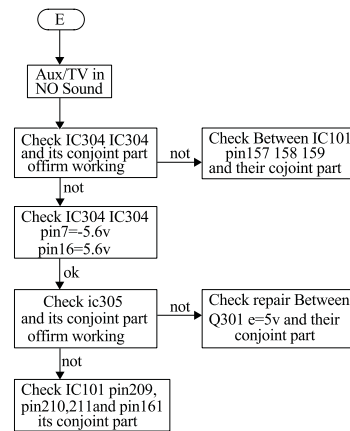
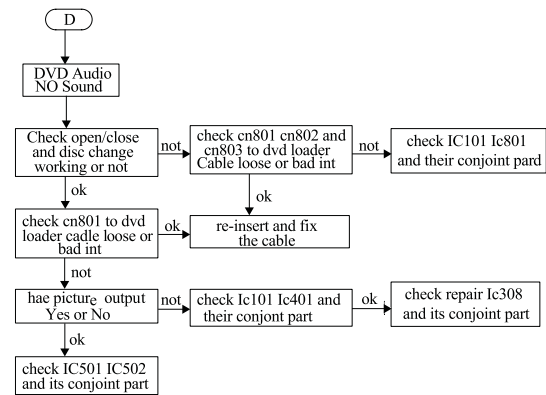
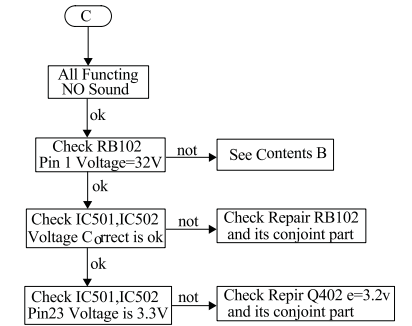
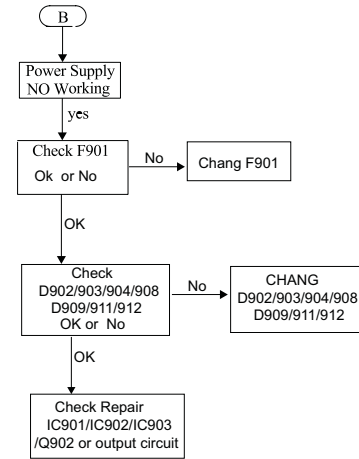
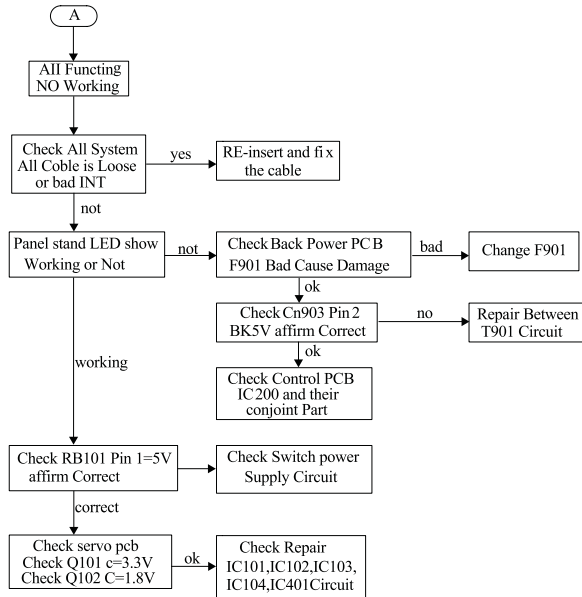
"loading"
pop message"upgrading"
"writing" about 2 minutes
"done "
  
```

* the latest upgraded is in version VER 00.18.00-70301-00

CAUTION !

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

MAIN UNIT REPAIR CHART



DISASSEMBLY INSTRUCTIONS

Dismantling of the Front Panel Assembly

- 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.

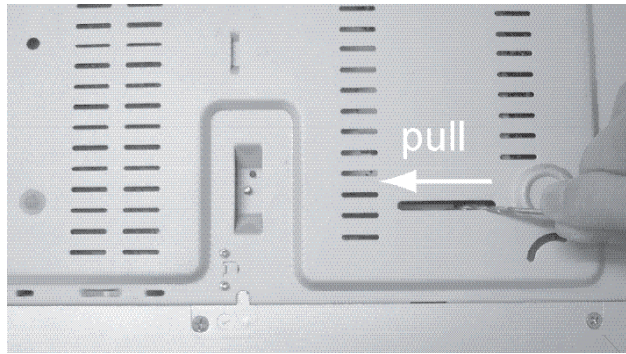


Figure 1



Figure 2

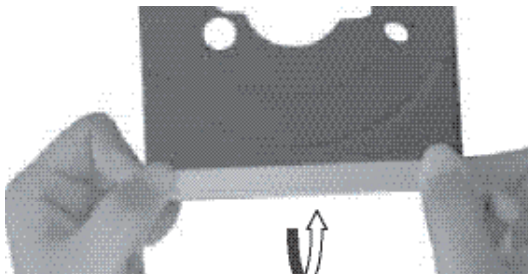


Figure 3

3 - 1

- 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.
- 3) Loosen 5 screws and remove the Top Cover by lifting the rear portion upwards before sliding it out towards the rear.
 - 3 screws on the back
 - 1 screw each on the left & right side
- 4) Loosen 6 screws & lift up the top edge of Front Panel assembly to free some catches before sliding it out towards the front.
 - 3 screws on the bottom
 - 1 screw on the inside
 - 1 screw each on the left & right side

Dismantling of the Main PCB

3 - 1

- 1) Loosen 4 screw " A " on the top of main board as shown in figure 4.
- 2) Loosen 4 screw "B" at the back panel as shown in figure 5.

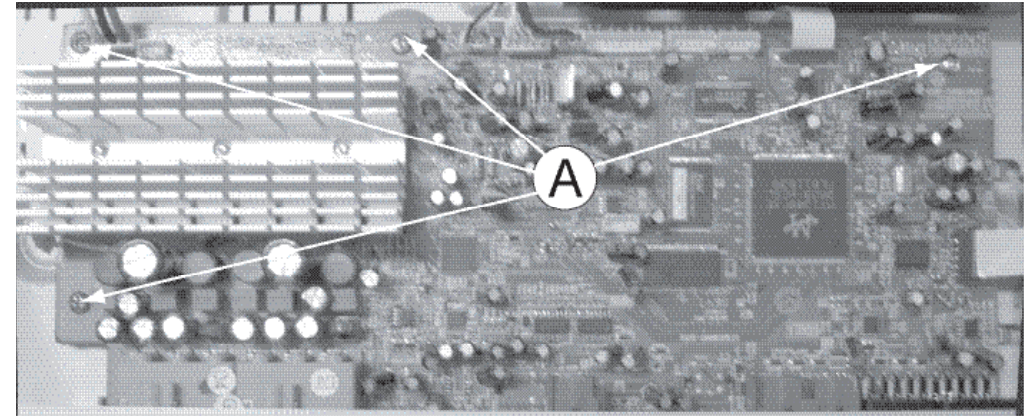


Figure 4



Figure 5

Dismantling of the Control Board

- 1) Loosen 9 screws "C" at top of control board as shown in figure 6

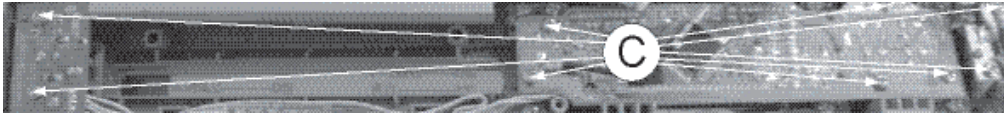


Figure 6

Dismantling of the Power Board

- 1) Loosen 4 screws "D" at the top of the Power Board as shown in figure 7

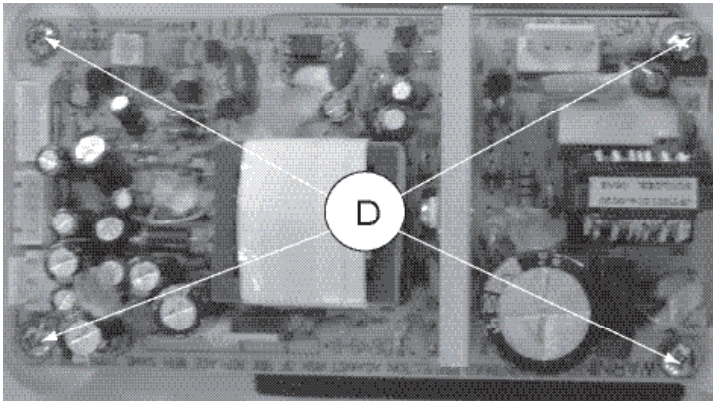


Figure 7

Dismantling of the DVD Module

- 1) Loosen 4 screws "E" to remove the DVD Module as shown in figure 8

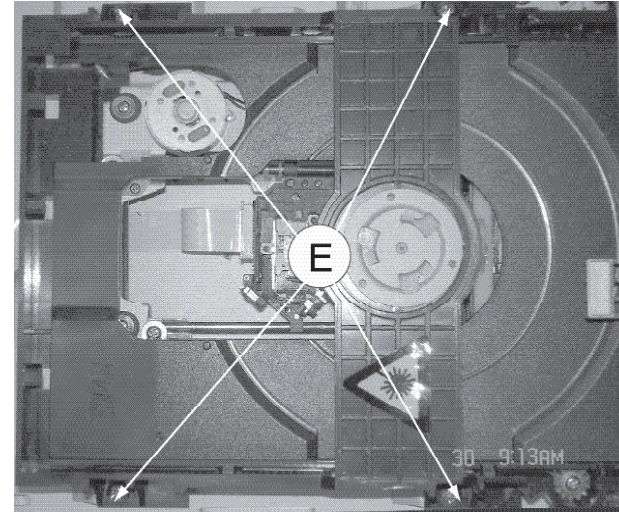
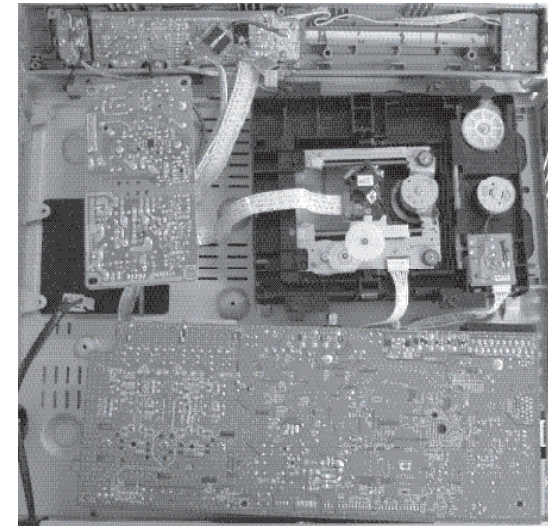


Figure 8

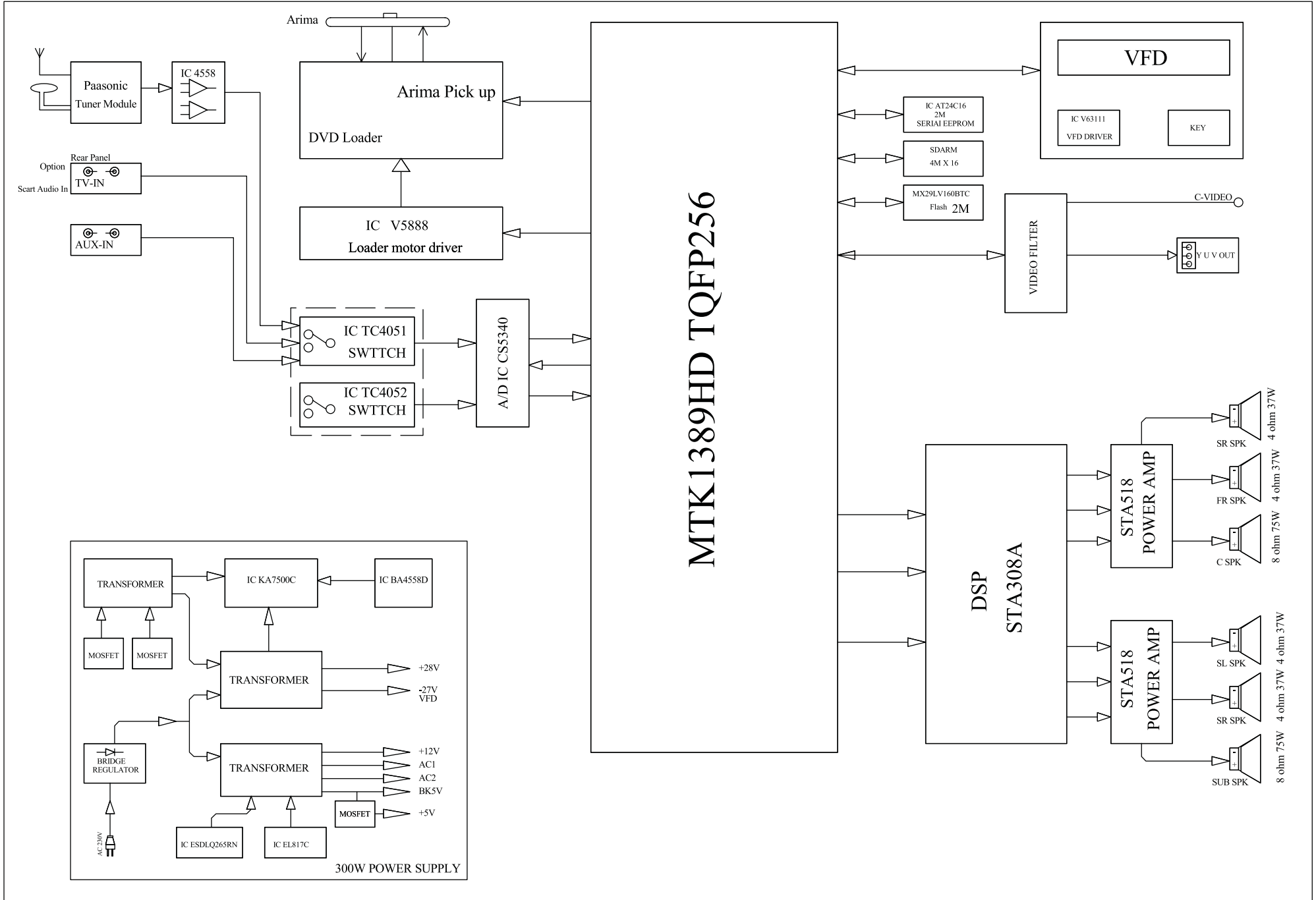
Service Position

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.

BLOCK DIAGRAM

4 - 1

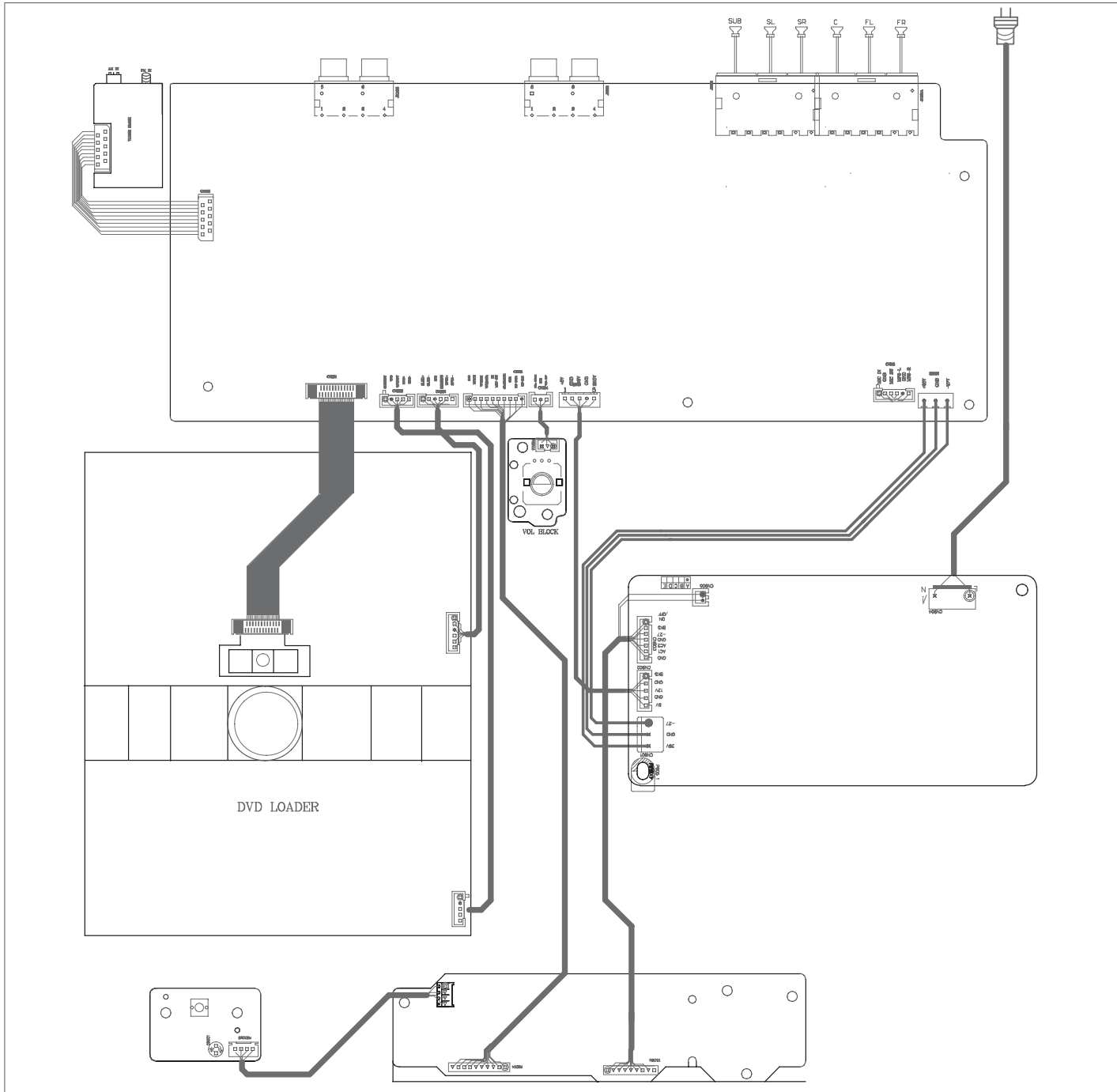
4 - 1



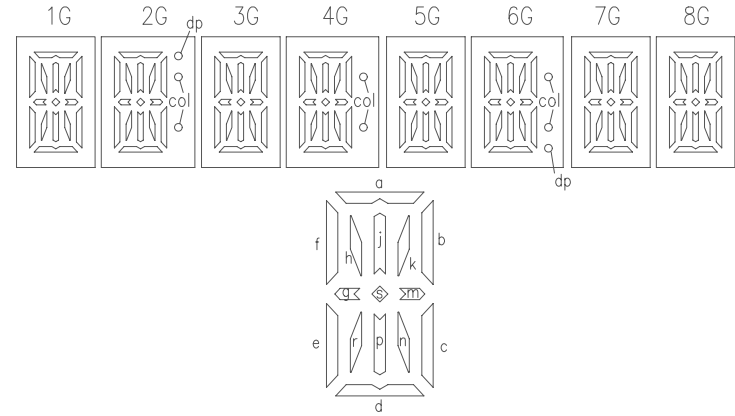
WIRING DIAGRAM

4 - 2

4 - 2



FTD DISPLAY PIN ASSIGNMENT



CONTROL BOARD

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FTD Display Pin Assignment..... 5-1
 Voltage 5-2
 Circuit Diagram..... 5-3
 PCB Layout Top & Bottom View..... 5-4

	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	—	dp	—	col	—	col	—	—
P15	s	s	s	s	s	s	s	s
P16	—	col	—	—	—	dp	—	—

PIN CONNECTION

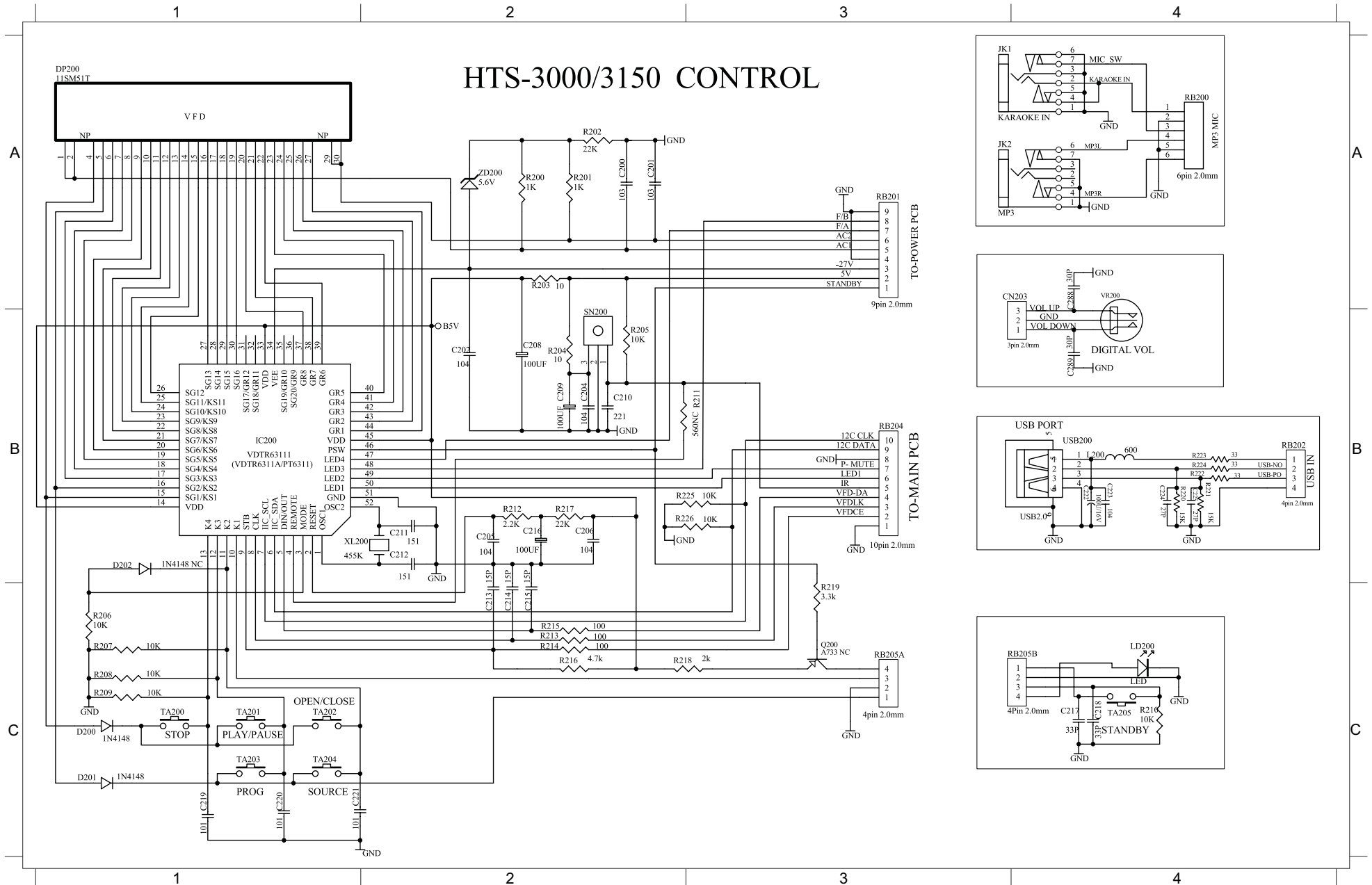
端子序号 (PIN NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
连接 (CONNECTION)	F	F	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
端子序号 (PIN NO.)	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
连接 (CONNECTION)	P13	P14	P15	P16	1G	2G	3G	4G	5G	6G	7G	8G	NP	F	F

CIRCUIT DIAGRAM

5 - 3

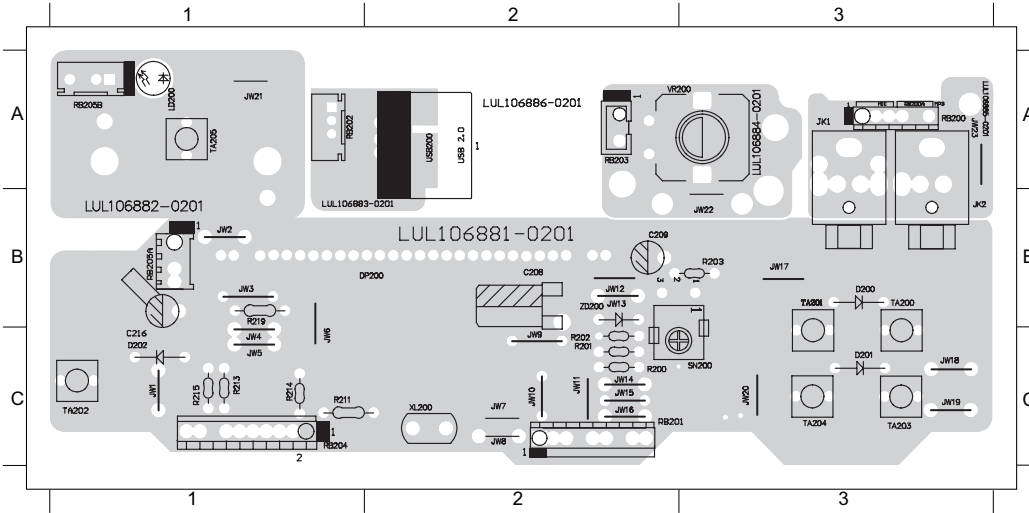
5 - 3

C200	A2	C204	B2	C208	B2	C212	B2	C216	B2	C220	C1	C288	A4	D202	B1	IC200	B1	R201	A2	R205	B2	R209	C1	R213	C2	R218	C3	RB200AA4	TA200	C1	TA204	C1	ZD200	A2	ZD204	A3	
C201	A2	C205	B2	C209	B2	C213	C2	C217	C4	C221	C2	C289	B4	D203	C1	LD200	C4	R202	A2	R206	C1	R210	C4	R214	C2	R219	C3	CN203	B4	TA201	C1	TA205	C4	ZD201	C4	ZD205	B2
C202	B2	C206	B2	C210	B2	C214	C2	C218	C4	C225	B3	D200	C1	DP200	A1	Q200	C3	R203	A2	R207	C1	R211	B3	R215	C2	R225	C3	RB204	B3	TA202	C1	VR200	A4	ZD202	C4	ZD203	A2
C203	A2	C207	B2	C211	B2	C215	C2	C219	C1	C226	B3	D201	C1	FB200	B4	R200	A2	R204	B2	R208	C1	R212	B2	R217	B2	R226	C3	SN200	B2	TA203	C1	XL200	B2	ZD203	A2		



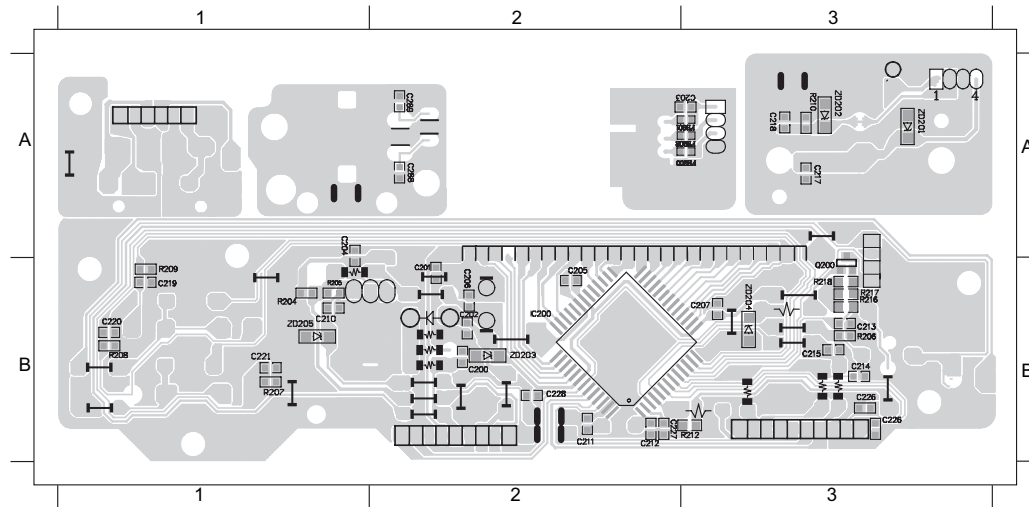
PCB LAYOUT - TOP VIEW

C208	B3	D202	B1	JW12	B3	JW18	B4	JW3	B1	JW9	B3	R211	B2	RB204	B1	TA204	B4
C209	A3	D203	B2	JW13	B3	JW19	B4	JW4	B1	LD200	A1	R213	B1	SN200	B3	TA205	A1
C216	B1	DP200	B2	JW14	B3	JW2	A1	JW5	B1	R200	B3	R214	B2	TA200	B4	VR200	A3
CN203	A3	JW1	B1	JW15	B3	JW20	B4	JW6	B2	R201	B3	R215	B1	TA201	B4	XL200	B2
D200	B4	JW10	B3	JW16	B3	JW21	A1	JW7	B2	R202	B3	R219	B1	TA202	B1	ZD200	B3
D201	B4	JW11	B3	JW17	B4	JW22	A3	JW8	B2	R203	B3	RB200A	A4	TA203	B4		



PCB LAYOUT - BOTTOM VIEW

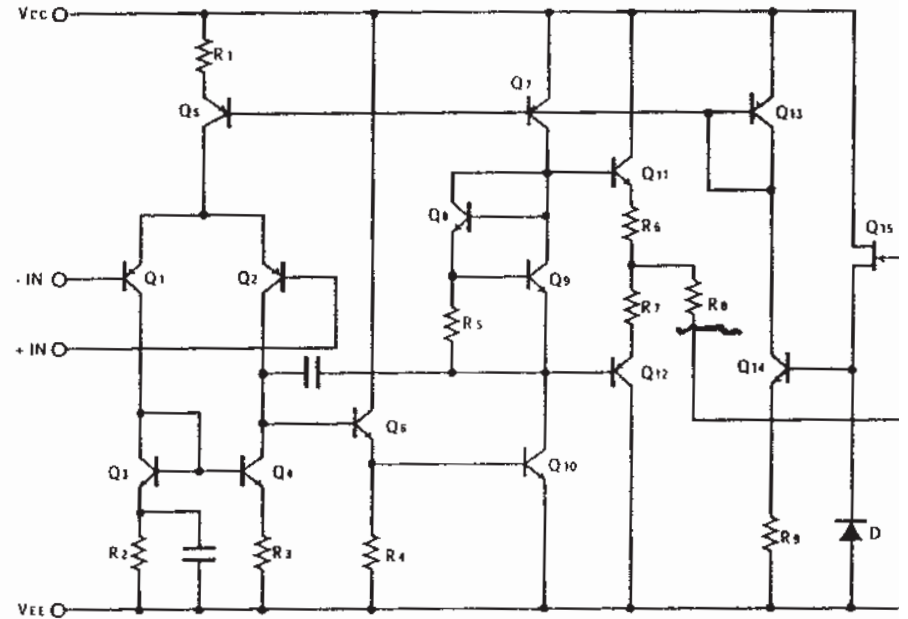
ZD205	B2	R226	B4	R210	A4	R205	B2	C289	A2	C220	B1	C214	B4	C207	B3	C202	B2
ZD204	B3	R225	B4	R209	B1	R204	B2	C288	A2	C219	B1	C213	B4	C206	B2	C201	B2
ZD203	B2	R218	B4	R208	B1	Q200	B4	C226	B4	C218	A4	C212	B3	C205	B3	C200	B2
ZD202	A4	R217	B4	R207	B1	IC200	B3	C225	B4	C217	A4	C211	B3	C204	B2		
ZD201	A4	R212	B3	R206	B4	FB200	A3	C221	B1	C215	B3	C210	B2	C203	B3		



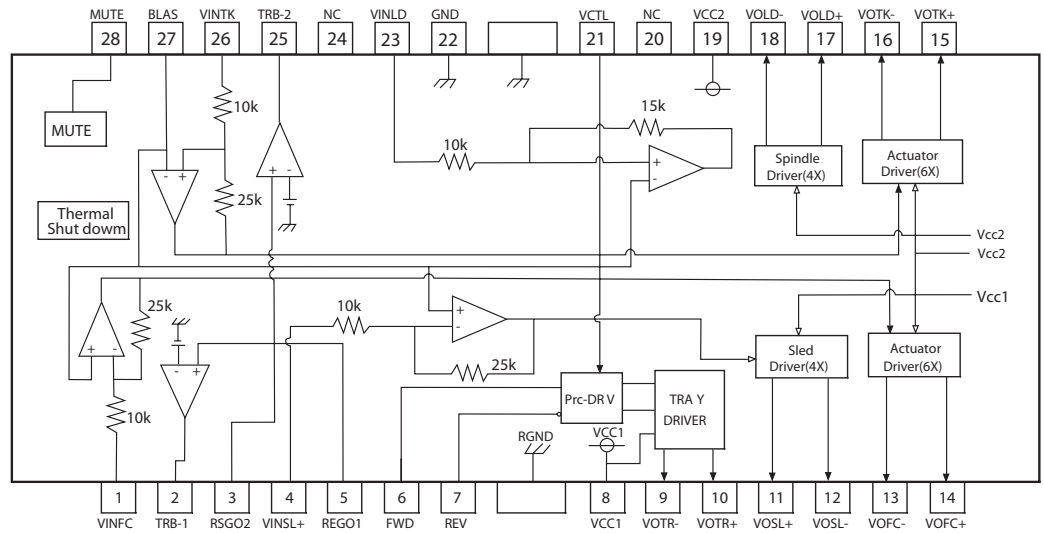
MAIN BOARD

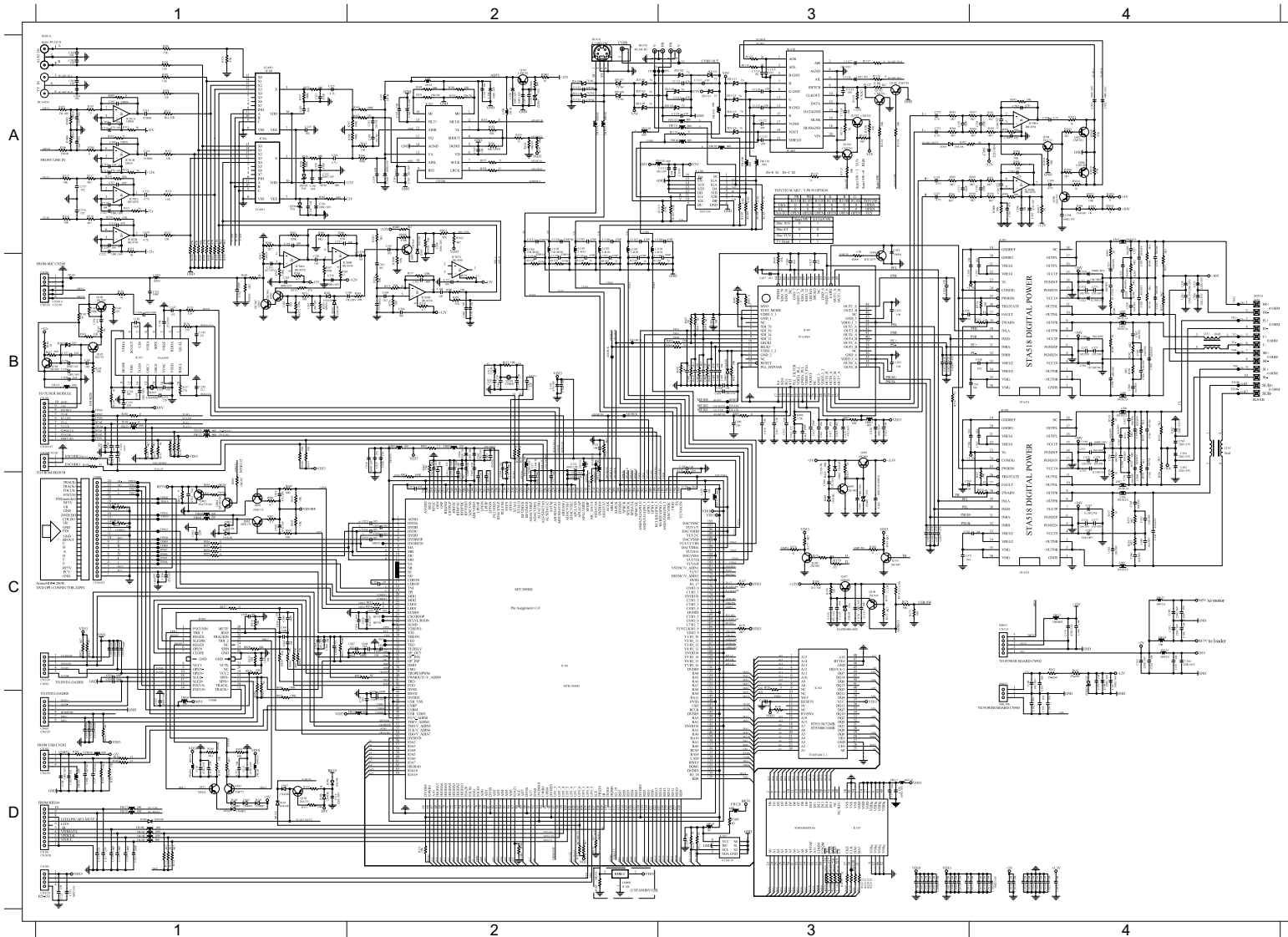
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INTERNAL IC DIAGRAM - V5888S HOSP





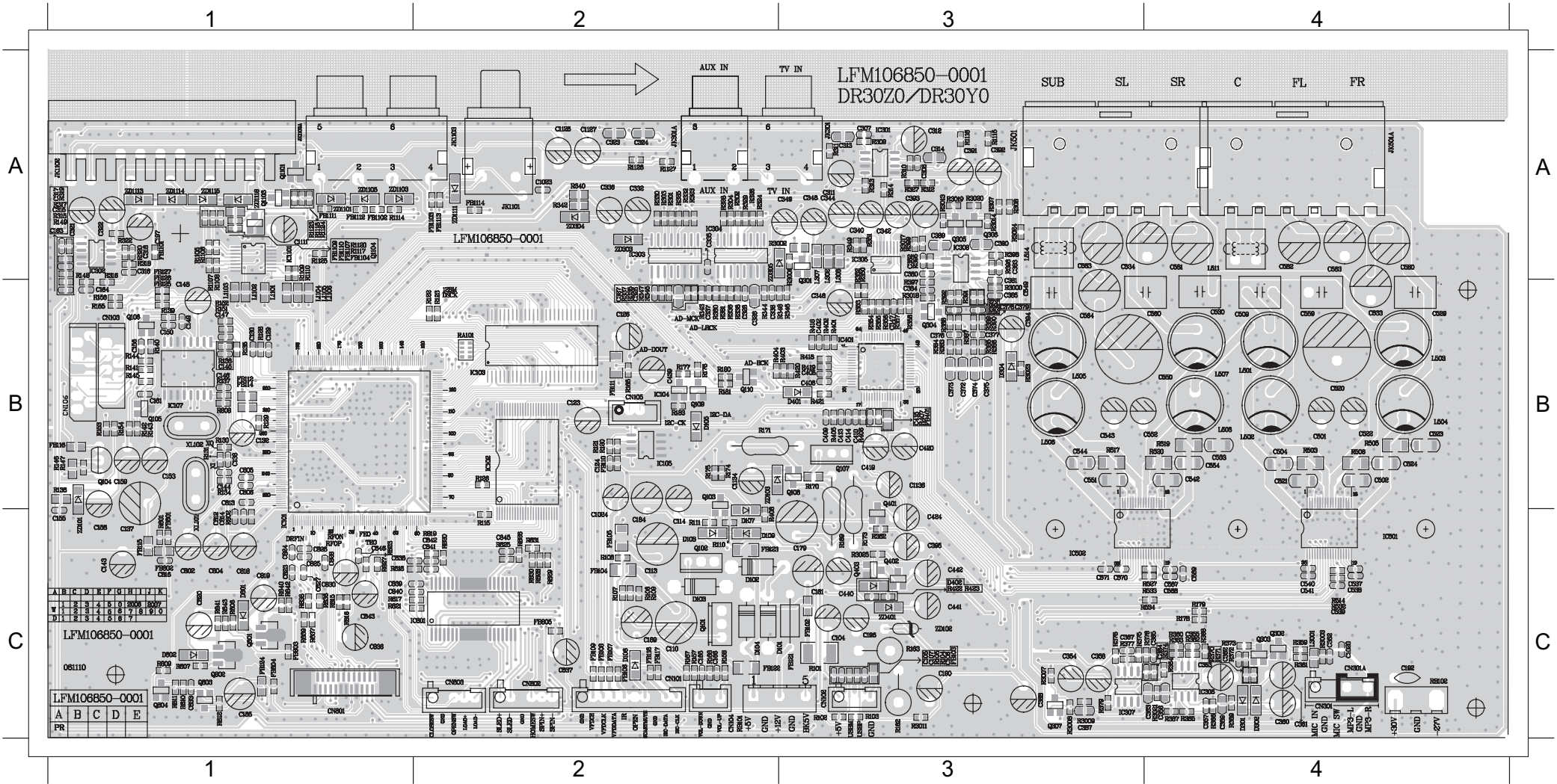
C1001	D3	C182	C4	C441	C3	C829	C2	IC105	D3	R158	B1	R519	B4
C1002	D3	C183	C4	C502	B4	C830	C2	IC302	A1	R159	C3	R520	B4
C1003	D3	C184	C4	C504	B4	C831	C2	IC303	A1	R160	D3	R521	B4
C1004	D3	C185	C4	C505	B4	C833	C1	IC304	A1	R162	C4	R522	B4
C1005	D3	C186	C4	C506	B4	C834	C1	IC305	A2	R163	C4	R523	B4
C1006	D3	C188	C4	C507	B4	C835	C1	IC401	B3	R165	A2	R524	B4
C1007	D3	C189	D1	C508	B4	C836	C1	IC501	B4	R166	B1	R525	B4
C1008	D3	C190	C4	C509	B4	C838	C1	IC502	B4	R167	B1	R526	B4
C1009	D3	C191	C4	C520	B4	C839	C1	IC801	C1	R180	C3	R527	C4
C101	D2	C193	D4	C521	B4	C840	C1	JK301A	A1	R181	C3	R532	B4
C1010	D3	C194	D4	C523	B4	C841	C1	JK501	B4	R182	D2	R533	C4
C1011	D4	C195	C4	C524	B4	C842	C1	JK1103	A3	R186	C3	R801	B2
C1012	D3	C196	C4	C525	B4	C843	C1	JK501A	B4	R187	C3	R802	B2
C1013	D3	C197	C4	C526	B4	C844	C1	L1101	A2	R188	C3	R803	C2
C1015	D4	C301	A1	C527	A4	C845	C1	L1102	A2	R3001	A2	R806	C1
C1016	D4	C302	A1	C528	B4	C846	C1	L1103	A2	R3002	A2	R807	C1
C1017	D4	C303	A1	C529	B4	C847	C2	L1104	A2	R301	A1	R808	B2
C1018	D4	C304	A1	C530	B4	C848	C2	L302	A2	R3012	A2	R812	C1
C1019	D4	C315	A1	C533	B4	C849	C2	L307	A2	R302	A1	R813	C1
C102	D2	C316	A1	C534	B4	C850	C1	L308	A2	R303	A1	R814	C1
C1020	D4	C317	A1	C537	B4	C851	C1	L501	B4	R304	A1	R815	C2
C1021	D4	C318	A1	C538	B4	C852	C1	L502	B4	R315	A1	R816	C2
C1022	D4	C319	A1	C539	B4	C853	C1	L503	B4	R316	A1	R817	C1
C1023	D4	C320	A1	C540	B4	C854	C1	L504	A4	R317	A1	R818	C1
C1024	D4	C321	A1	C541	B4	C855	C1	L505	C4	R318	A1	R819	C1
C1025	D4	C322	A1	C542	C4	C856	D1	L506	C4	R319	A1	R820	C1
C1026	D4	C323	A1	C544	C4	C857	D1	L507	C4	R320	A1	R821	C1
C1027	D4	C324	A1	C545	C4	C858	D1	L508	B4	R321	A1	R822	C1
C103	D2	C325	A1	C546	C4	CN101	D1	L511	B4	R322	A1	R823	C1
C110	D1	C326	A1	C547	C4	CN103	B1	L514	B4	R323	A1	R824	C2
C1101	B2	C327	A1	C548	C4	CN104	B1	Q101	D1	R324	A1	R825	C1
C1102	B2	C328	A1	C549	C4	CN801	C1	Q102	D1	R325	A1	R826	C1
C1103	B2	C329	A1	C550	B4	CN802	D1	Q103	D1	R326	A1	R828	C1
C1104	B3	C330	A1	C551	B4	CN803	C1	Q104	B1	R328	A1	R830	C1
C1105	A2	C332	A1	C553	B4	D101	D1	Q107	C3	R329	A1	R831	D1
C1106	A2	C334	A1	C554	B4	D102	D1	Q110	C3	R330	A1	R832	C1
C1107	A2	C335	A1	C555	B4	D103	D1	Q111	C3	R332	A1	R833	C1
C1108	A3	C336	A1	C556	B4	D104	D1	Q301	A2	R335	A1	R834	D1
C111	D1	C339	A2	C557	B4	D105	D1	Q401	A3	R336	A1	R836	C1
C1110	A3	C340	A2	C558	C4	D105	D1	Q402	B3	R337	A1	R837	C1
C1111	A3	C341	A2	C559	B4	D106	D1	Q403	C3	R338	A1	R838	C1
C1112	A3	C342	A2	C560	B4	D107	D1	Q801	C1	R340	A1	R839	C1
C1113	A3	C343	A2	C563	B4	D108	D1	Q802	C1	R342	A1	R840	C1
C1114	A3	C344	A2	C564	B4	D109	D1	R106	D1	R343	A2	R841	C1
C1117	A3	C345	A2	C567	B4	D401	B3	R107	D1	R344	A2	R842	C1
C112	D1	C346	A2	C568	B4	D402	B3	R108	D1	R345	A2	R843	C1
C113	D1	C347	A2	C569	C3	D403	C3	R109	D1	R346	A2	R844	C1
C1136	C3	C348	A2	C570	C3	D801	C1	R110	D1	R347	A2	RA101	D3
C114	D1	C349	A2	C571	C3	D802	C1	R1101	B2	R348	A2	RB101	C4
C116	D1	C350	A2	C572	B4	FB101	D2	R1102	B2	R349	A2	RB102	C4
C117	D1	C401	B3	C573	B4	FB104	D1	R1103	B2	R350	A2	XL101	B2
C118	D1	C402	B3	C574	B4	FB105	D1	R1104	B3	R353	A2	ZD101	B1
C119	D1	C403	B3	C575	B4	FB106	D1	R1105	A3	R354	A2	ZD102	C4
C120	D1	C404	B3	C576	C4	FB107	D1	R1107	A3	R355	A2	ZD104	C4
C121	D1	C405	B3	C577	C4	FB108	D1	R111	D1	R357	A2	ZD105	C4
C122	D1	C406	B3	C578	B4	FB109	D1	R1110	A3	R358	A2	ZD1101	A3
C123	D1	C407	B3	C579	B4	FB110	D3	R1114	A3	R401	B3	ZD1102	A3
C124	D3	C408	B3	C580	B4	FB1101	A3	R112	D1	R402	B3	ZD1103	A3
C125	D3	C409	B3	C581	B4	FB1102	A2	R113	D1	R403	B3	ZD1104	A3
C126	D3	C410	B3	C582	B4	FB1103	A3	R114	D1	R404	B3	ZD1105	A3
C127	D3	C411	B3	C583	B4	FB111	D3	R115	D2	R405	B3	ZD1106	A3
C128	C3	C412	B3	C802	B2	FB1111	A3	R117	D2	R406	B3	ZD1111	A3
C129	C3	C413	B3	C803	B2	FB1112	A3	R118	D2	R407	B3	ZD1112	A3
C130	B3	C414	B3	C804	B2	FB112	C3	R119	D2	R408	A3	ZD303	A1
C131	B2	C415	B3	C805	C2	FB113	B2	R120	D3	R410	B3	ZD304	A1
C132	B2	C416	B3	C806	C2	FB114	B2	R121	D3	R416	B3	ZD305	A2
C133	C2	C417	B3	C807	B2	FB115	B2	R122	D3	R418	B3	ZD401	C3
C134	C2	C418	B3	C808	B2	FB116	B1	R123	D3	R419	B3		
C135	C2	C419	B3	C809	B2	FB121	C4	R124	D3	R421	B3		
C136	B2	C420	B3	C810	C2	FB122	C4	R125	D3	R422	B3		
C137	B2	C421	B3	C811	B2	FB123	C4	R126	C3	R423	B3		
C139	B2	C422	B3	C812	B2	FB124	C4	R127	C3	R501	B4		
C140	B2	C423	B3	C813	B2	FB125	B1	R128	B3	R502	B4		
C141	B2	C425	B3	C814	B2	FB126	B1	R129	C2	R503	B4		
C142	B2	C426	B3	C815	C2	FB127	B1	R130	B2	R505	A4		
C144	B2	C427	B3	C816	B2	FB128	D3	R131	B2	R506	B4		
C157	B1	C431	B3	C817	B2	FB401	B3	R133	B2	R507	B4		
C158	B1	C432	B3	C818	B2	FB801	B2	R134	B2	R508	B4		
C159	B1	C433	B3	C819	C1	FB802	B2	R146	B1	R509	B4		
C160	B1	C434	B3	C820	C1	FB803	C1	R147	B1	R510	B4		
C162	B1	C435	C3	C823	C2	FB804	C1	R151	B1	R511	B4		
C165	B1	C436	C3	C824	C2	FB805	D1	R152	B1	R512	B4		
C166	B1	C437	C3	C825	C2	IC101	C2	R153	B1	R514	B4		
C179	C4	C438	C3	C826	C2	IC102	C3	R155	B1	R515	C4		
C180	C4	C439	B3	C827	C2	IC103	D3	R156	B1	R516	C4		
C181	C4	C440	C3	C828	C2	IC104	D2	R157	B1	R517	C4		

PCB Layout Top View

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C1111	A1	FB125	A1	R152	A1	C126	A2	IC303	A2	R325	A2	RA101	A2	C414	A3	Q301	A3	R407	A3	JK501A	A4	C805	B1	C836	B1	Q104	B1	R823	B1	C165	B2	D108	B2	Q103	B2	R819	B2	C551	B3	ZD104	B3	C567	B4
C129	A1	FB126	A1	R153	A1	C323	A2	IC304	A2	R326	A2	ZD111	A2	C415	A3	R3001	A3	R418	A3	L501	A4	C806	B1	C838	B1	Q801	B1	R836	B1	C166	B2	D109	B2	R106	B2	R820	B2	C570	B3	ZD105	B3	C568	B4
C130	A1	FB127	A1	R155	A1	C324	A2	Q110	A2	R328	A2	ZD303	A2	C534	A3	R3002	A3	R419	A3	L502	A4	C812	B1	C839	B1	Q802	B1	R837	B1	C184	B2	FB104	B2	R107	B2	R825	B2	C571	B3	ZD401	B3	C569	B4
C197	A1	IC302	A1	R156	A1	C325	A2	Q111	A2	R329	A2	ZD304	A2	C549	A3	R346	A3	R421	A3	L503	A4	C813	B1	C840	B1	R130	B1	R838	B1	C189	B2	FB105	B2	R108	B2	R826	B2	D402	B3	C1020	B4	IC501	B4
C315	A1	JK1103	A1	R315	A1	C326	A2	R122	A2	R330	A2	C340	A3	C564	A3	R348	A3	ZD305	A3	L504	A4	C814	B1	C843	B1	R131	B1	R839	B1	C841	B2	FB106	B2	R109	B2	R828	B2	FB121	B3	C502	B4	R503	B4
C316	A1	JK301A	A1	R316	A1	C327	A2	R123	A2	R332	A2	C342	A3	C583	A3	R349	A3	C509	A4	L507	A4	C816	B1	C846	B1	R134	B1	R840	B1	C842	B2	FB107	B2	R110	B2	R830	B2	IC502	B3	C504	B4	R505	B4
C317	A1	L1101	A1	R317	A1	C328	A2	R165	A2	R335	A2	C344	A3	D401	A3	R350	A3	C520	A4	L508	A4	C818	B1	CN801	B1	R146	B1	R841	B1	C845	B2	FB108	B2	R111	B2	R831	B2	Q107	B3	C521	B4	R506	B4
C318	A1	L1102	A1	R318	A1	C332	A2	R180	A2	R336	A2	C346	A3	FB401	A3	R353	A3	C529	A4	L511	A4	C819	B1	D801	B1	R147	B1	R842	B1	CN101	B2	FB109	B2	R115	B2	RB101	B2	Q401	B3	C523	B4	R514	B4
C321	A1	L1103	A1	R319	A1	C335	A2	R181	A2	R337	A2	C347	A3	IC305	A3	R354	A3	C530	A4	R406	A4	C820	B1	D802	B1	R801	B1	R843	B1	CN104	B2	FB110	B2	R120	B2	C179	B3	Q402	B3	C524	B4	R519	B4
C322	A1	L1104	A1	R320	A1	C336	A2	R187	A2	R338	A2	C348	A3	IC401	A3	R355	A3	C533	A4	C132	B1	C823	B1	FB115	B1	R802	B1	XL101	B1	CN802	B2	FB122	B2	R121	B2	C181	B3	Q403	B3	C537	B4	R520	B4
CN103	A1	R1105	A1	R322	A1	C439	A2	R188	A2	R340	A2	C349	A3	JK501	A3	R357	A3	C550	A4	C137	B1	C824	B1	FB116	B1	R806	B1	ZD101	B1	CN803	B2	FB123	B2	R126	B2	C190	B3	R162	B3	C538	B4	R527	B4
FB1103	A1	R1107	A1	R808	A1	D105	A2	R301	A2	R342	A2	C402	A3	L302	A3	R358	A3	C559	A4	C144	B1	C825	B1	FB124	B1	R807	B1	C1024	B2	D101	B2	FB805	B2	R157	B2	C196	B3	R163	B3	C539	B4	R532	B4
FB1102	A1	R1110	A1	ZD1101	A1	D105	A2	R302	A2	R343	A2	C405	A3	L307	A3	R401	A3	C560	A4	C158	B1	C826	B1	FB801	B1	R812	B1	C110	B2	D102	B2	IC102	B2	R158	B2	C419	B3	R186	B3	C540	B4	R533	B4
FB1111	A1	R1114	A1	ZD1103	A1	FB1103	A2	R303	A2	R344	A2	C406	A3	L308	A3	R402	A3	C563	A4	C159	B1	C827	B1	FB802	B1	R815	B1	C113	B2	D103	B2	IC105	B2	R166	B2	C420	B3	R422	B3	C541	B4	RB102	B4
FB1112	A1	R128	A1	ZD1105	A1	FB111	A2	R304	A2	R345	A2	C409	A3	L505	A3	R403	A3	C580	A4	C185	B1	C828	B1	FB803	B1	R817	B1	C1136	B2	D104	B2	IC801	B2	R167	B2	C440	B3	R423	B3	C542	B4		
FB112	A1	R129	A1	C1023	A2	IC103	A2	R323	A2	R347	A2	C410	A3	L506	A3	R404	A3	C581	A4	C802	B1	C830	B1	FB804	B1	R818	B1	C114	B2	D106	B2	Q101	B2	R408	B2	C441	B3	R517	B3	C553	B4		
FB114	A1	R151	A1	C123	A2	IC104	A2	R324	A2	R416	A2	C413	A3	L514	A3	R405	A3	C582	A4	C804	B1	C833	B1	IC101	B1	R821	B1	C124	B2	D107	B2	Q102	B2	R816	B2	C544	B3	ZD102	B3	C554	B4		

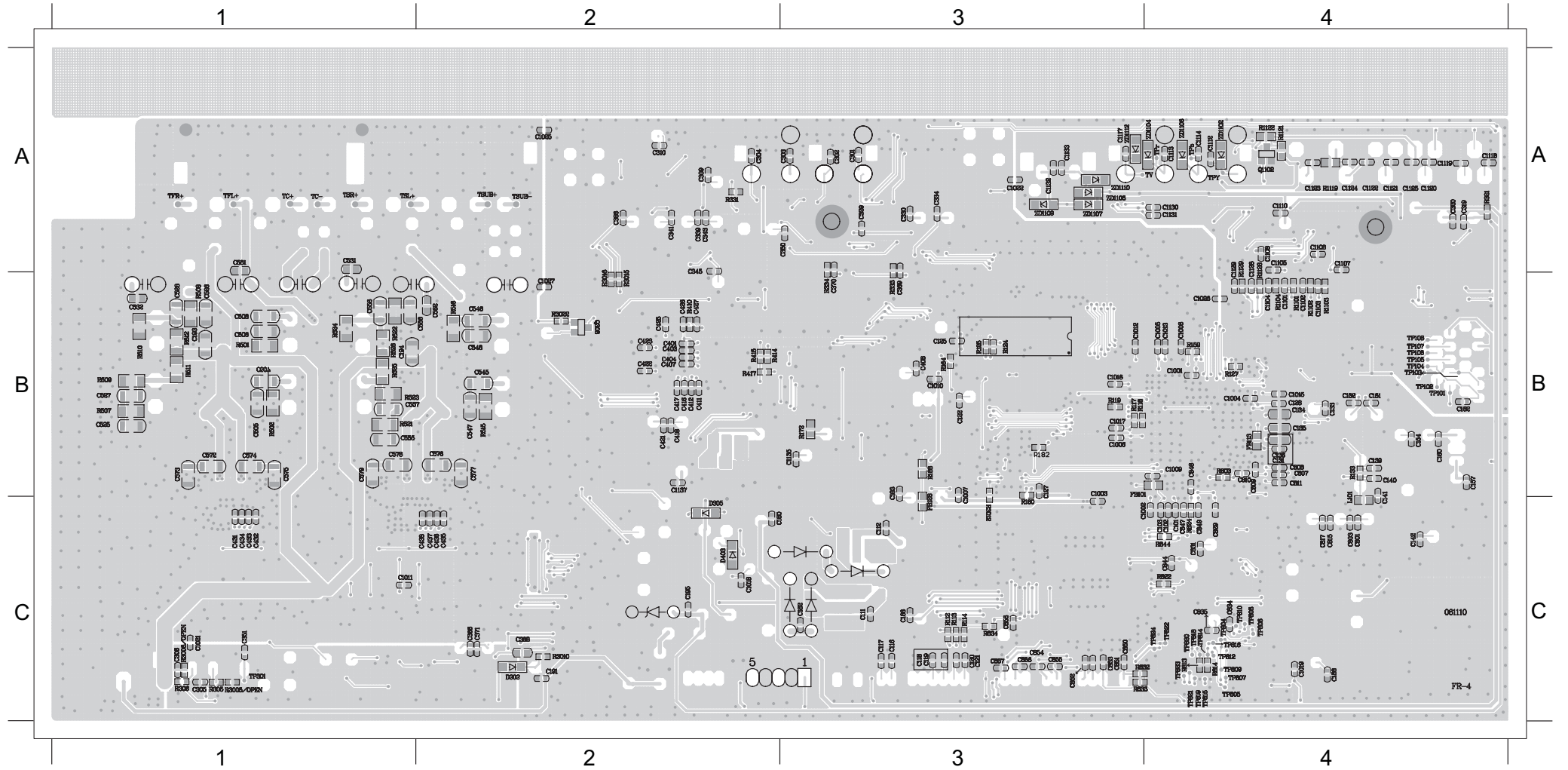


PCB Layout Bottom View

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C193 A1	R506 A1	R526 A1	C404 A2	C427 A2	C301 A3	R124 A3	C1101 A4	C1113 A4	R1103 A4	C431 B1	C573 B1	C180 B2	C546 B2	C1007 B3	C127 B3	C856 B3	R3012 B3	C136 B4	C808 B4	C844 B4	R824 B4
C194 A1	R507 A1	C1025 A2	C407 A2	R410 A2	C302 A3	R125 A3	C1102 A4	C1114 A4	R1104 A4	C432 B1	C574 B1	C191 B2	C547 B2	C1017 B3	C182 B3	C857 B3	R832 B3	C139 B4	C809 B4	C847 B4	R844 B4
C506 A1	R508 A1	C304 A2	C411 A2	R516 A2	C303 A3	ZD1112A3	C1103 A4	C128 A4	R127 A4	C433 B1	C575 B1	C195 B2	C548 B2	C111 B3	C183 B3	C858 B3	R833 B3	C140 B4	C810 B4	C848 B4	
C507 A1	R509 A1	C339 A2	C412 A2	C1010 A3	C329 A3	C1001 A4	C1104 A4	C133 A4	R159 A4	C434 B1	C578 B1	C418 B2	C576 B2	C112 B3	C188 B3	FB101 B3	C1009 B4	C141 B4	C811 B4	C849 B4	
C508 A1	R510 A1	C341 A2	C416 A2	C1012 A3	C330 A3	C1004 A4	C1105 A4	C134 A4	R321 A4	C505 B1	C579 B1	C421 B2	C577 B2	C116 B3	C850 B3	FB128 B3	C101 B4	C142 B4	C815 B4	FB113 B4	
C526 A1	R511 A1	C343 A2	C417 A2	C1016 A3	C334 A3	C1005 A4	C1106 A4	C162 A4	ZD1102A4	C525 B1	R502 B1	C435 B2	D403 B2	C117 B3	C851 B3	R112 B3	C1019 B4	C157 B4	C817 B4	R133 B4	
C527 A1	R512 A1	C345 A2	C422 A2	C1022 A3	C408 A3	C1008 A4	C1107 A4	C319 A4	ZD1104A4	C555 B1	R521 B1	C436 B2	R515 B2	C118 B3	C852 B3	R113 B3	C102 B4	C160 B4	C829 B4	R803 B4	
C528 A1	R522 A1	C350 A2	C423 A2	C1117 A3	R117 A3	C1013 A4	C1108 A4	C320 A4	ZD1106A4	C556 B1	R523 B1	C437 B2	C1002 B3	C119 B3	C853 B3	R114 B3	C103 B4	C186 B4	C831 B4	R813 B4	
C557 A1	R524 A1	C401 A2	C425 A2	C122 A3	R118 A3	C1015 A4	C1110 A4	R1101 A4	C1011 B1	C558 B1	R1018 B2	C438 B2	C1003 B3	C120 B3	C854 B3	R160 B3	C131 B4	C803 B4	C834 B4	R814 B4	
R501 A1	R525 A1	C403 A2	C426 A2	C125 A3	R119 A3	C1026 A4	C1112 A4	R1102 A4	C1021 B1	C572 B1	C1027 B2	C545 B2	C1006 B3	C121 B3	C855 B3	R182 B3	C135 B4	C807 B4	C835 B4	R822 B4	



Voltage

IC101(MT1389FXE)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	0.1	0.1	0.1	0.1	1.6	1.6	2.1	1.9	1.9	1.8	0	0	0.9	0.9	1	1	1.9	1.5	0
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	0.8	3.2	3.2	3.2	2.7	3.1	0	2.7	2	1.3	1.3	1.5	2.4	2.4	2.2	1.3	1.3	0	1.3	
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	1.3	1.3	0	1.8	3.3	0	0	0	3.3	2.2	3.2	0	0	3.2	1.9	1.9	1.8	1.9	2.1	1.8
Pin NO	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Voltage	1.5	1.4	1.6	0	3.3	3.3	0.3	1.5	2	1.9	2.5	1.7	0.7	1.6	0	0	2	0	1.5	1.5
Pin NO	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Voltage	0	1.3	1.2	1.6	1.8	1.7	0	1.1	1.8	0	1.3	1.9	1.8	0.6	3.2	3.3	0	3.1	3.1	3.1
Pin NO	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Voltage	3.2	3.2	5	3.1	2.2	3.3	0	3.3	3.8	2.2	2.7	0	2.1	0.7	0.5	1.1	1.5	3.3	1.5	1.5
Pin NO	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Voltage	1.6	1	1.9	1.7	1.6	0.8	0.8	1.8	0.7	1.6	3.3	2.7	3.2	3	3.1	2.9	1.5	1.3	0.1	0.2
Pin NO	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Voltage	1.4	1.8	1.4	1.4	3.3	1.5	3.3	0	0	0	1.6	2	1.9	1.4	3.3	0.5	0.1	0.2	1.8	
Pin NO	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Voltage	1.6	0.2	0.2	0.2	1.3	0.5	3.3	2.9	2.9	3.3	2.6	2.9	2.6	1.8	3.3	0	1.7	0	3.1	3.4
Pin NO	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
Voltage	3.1	0	0	0	3.3	0	0	3.3	3.3	0	0	2	1.2	1.2	3.3	0	3.2	3.2	3.1	
Pin NO	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
Voltage	3.1	0	0	2.5	0	5	5	3.3	1.5	1.6	1.5	0	1.8	1.9	2	0	3.3	3.3	0	0.1
Pin NO	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
Voltage	0	0	0	0	1.6	0	3.2	3.8	3.3	3.3	0	1.8	0	0.4	0.9	0.9	0	0	3.2	3
Pin NO	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256				
Voltage	0.5	1.6	1.3	3.2	0	3.2	0.5	1.3	3.2	1.4	0	1.6	1.6	1.1	0.8	3.2				

IC102(EN29LV320B-70TCP)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	2.6	0	3	0	0	0.6	0.7	1.3	1.8	0	0	3.2	0.1	0	0	2.7	0.2	0	0.3	1.8
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.7	2	0	0	0	3.3	0	0	3.3	3.3	0	0	2	1.2	1.2	3.3	0	3.2	3.2	3.1
Pin NO	41	42	43	44	45	46	47	48												
Voltage	0	1.6	0	0	1.9	0	0	2.8												

IC103(EW48M164VTA-6F)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.2	1.5	3.1	0.5	0.4	0	1.1	1.3	3.2	0	0.7	0	0.7	3.2	0	2.6	3.2	3.2	3.2	3.2
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.2	0	0	1.4	1.3	0.2	3.2	0	1.6	2.1	2.2	0.6	0	0	0	0	3.2	2.5	2.5	0
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
Voltage	0	0.5	3.2	1.6	0.4	0	0	0.3	3.2	0.4	0	0	0.2	0						

IC104(IMP809SEUR-T)																				
Pin NO	1	2	3																	
Voltage	0	3.2	3.2																	

IC105(TU24C16CS2)																				
Pin NO	1	2	3	4	5	6	7	8												
Voltage	0	0	0	0	4.4	4.4	0	3.3												

IC302(4558 SOP8)																				
Pin NO	1	2	3	4	5	6	7	8												
Voltage	0	0	0	-11.9	0	0	0	10.9												

IC303(CD4051BM)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	0	0	0	0	0	0	-5.6	0	3.3	0	0	0	0	0	0	5.6				

IC304(CD4051BM)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	0	0	0	0	0	0	-5.6	0	3.3	0	0	0	0	0	0	5.6				

IC305(CS5340-CZ)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	5	1.6	5	1.8	0	4.9	1.6	1.6	3.3	2.5	2.5	2.4	4.9	0	1.5	5				

IC308(4558 SOP8)																				
Pin NO	1	2	3	4	5	6	7	8												
Voltage	0	5.4	5.4	0	5.4	5.4	5.4	10.9												

IC401(STA308A)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	0	3.2	0	0	0	1.2	1.2	1.2	1.6	1.6	3.2	0	0	3.2	0	0	4.4	4.3	1.6
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	0.9	3.2	0	3.2	0	0	0	3.2	0	0.2	0	0.4	0.2	0.2	3.2	0	0	0.2	0.2	1.6
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	1.5	1.6	3.1	0	0	0	0	1.6	1.6	1.6	3.2	2.9	0	0	1.7	1.5	1.2	2.9	0	0
Pin NO	61	62	63	64																
Voltage	1.2	1.2	1.2	3.2																

IC501(STA518)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.8	1.8	30.9	0	0	30.9	1.8	1.8	15.2	15.2	30.9	0	0	30.9	15.2	15.2	0	0	0
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	0	0	3.3	0	3.2	0.5	0.5	3.2	1.6	1.6	1.6	3.2	0	0	0	0				

IC502(STA518)																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0	1.8	1.8	30.9	0	0	30.9	1.8	1.8	15.2	15.2	30.9	0	0	30.9	15.2	15.2	0	0	0

Q101				
Pin NO	b	c	e	
Voltage	3.7	3.4	4.4	

Q110				
Pin NO	b	c	e	
Voltage	0	3.3	0	

Q1104				
Pin NO	b	c	e	
Voltage	0	5.1	0	

Q305				
Pin NO	b	c	e	
Voltage	0	0	0	

Q402				
Pin NO	b	c	e	
Voltage	1	0	0	

Q102				
Pin NO	b	c	e	
Voltage	2.2	1.8	2.8	

Q1101				
Pin NO	b	c	e	
Voltage	0	11.1	0	

Q111				
Pin NO	b	c	e	
Voltage	3.2	3.2	0	

Q306				
Pin NO	b	c	e	
Voltage	0	0	0	

Q403				
Pin NO	b	c	e	
Voltage	0	0	0	

VOLTAGE

POWER BOARD

IC901(AP3843GMTR-E1)													
Pin NO	1	2	3	4	5	6	7	8					
Voltage	-0.1	-0.1	-0.1	-0.2	-0.1	8	-0.1	-0.1					

IC902				
Pin NO	1	2	3	4
Voltage	4.6	0	-0.2	-0.1

IC903			
Pin NO	1	2	3
Voltage	3.6	0	2.4

IC904(AZ431AZ-A)				
Pin NO	1	2	3	4
Voltage	1.2	0	-2.7	-2.6

Q901			
Pin NO	b	c	e
Voltage	30.5	5	31.6

Q902			
Pin NO	b	c	e
Voltage	-2.3	165.4	0

Q903			
Pin NO	b	c	e
Voltage	33.3	-2.7	0.3

Q904			
Pin NO	b	c	e
Voltage	0	30.4	0

Q905			
Pin NO	b	c	e
Voltage	-20.3	-1.7	-2.2

Q906			
Pin NO	b	c	e
Voltage	-2.3	9.2	-2.8

Q907			
Pin NO	b	c	e
Voltage	0.7	0	0

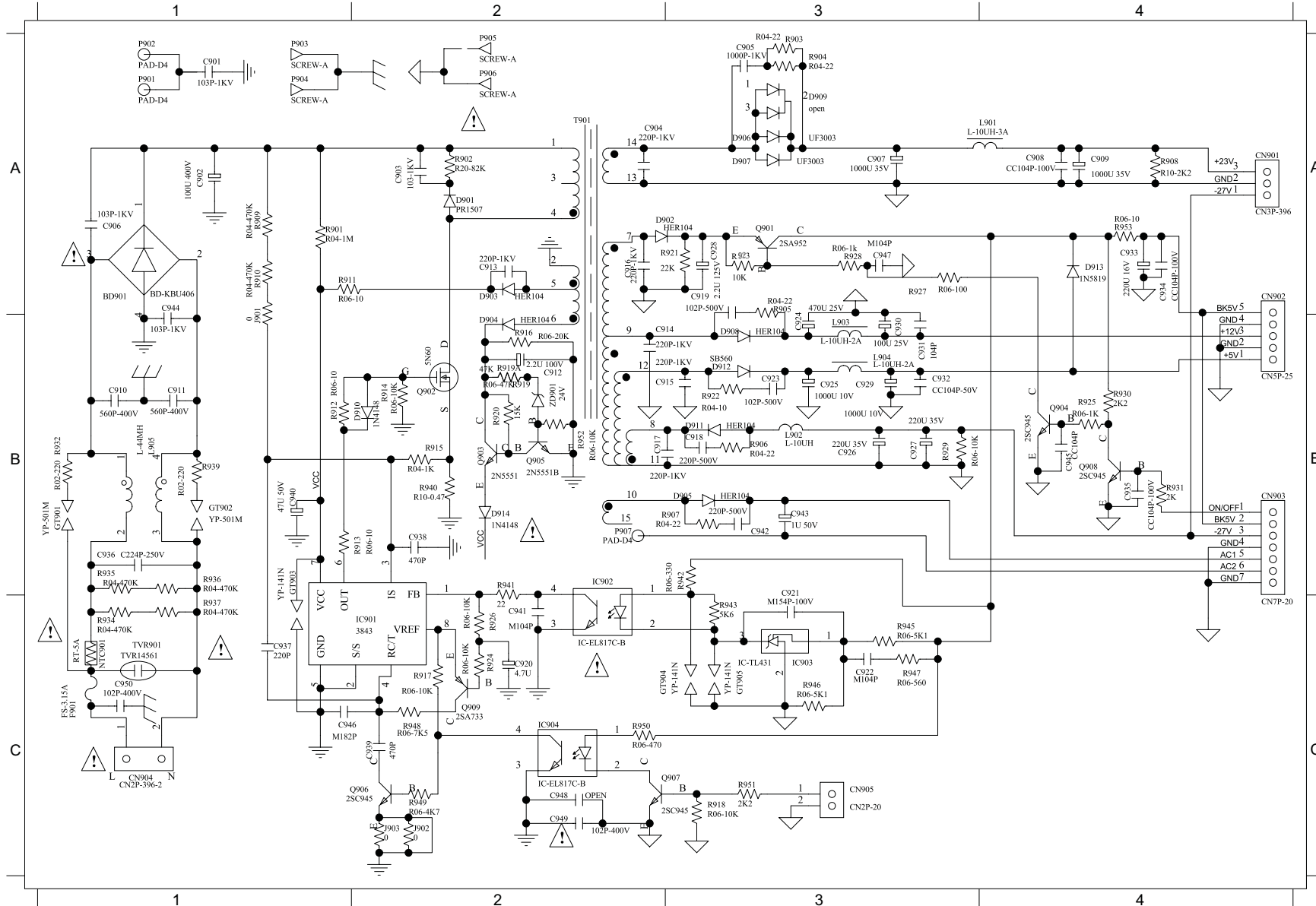
Q908			
Pin NO	b	c	e
Voltage	0.7	0	0

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CIRCUIT DIAGRAM

BD901	A1	C909	A4	C917	B2	C925	B3	C933	A4	C941	C2	CN901	A4	D904	B2	D914	B2	IC904	C2	Q902	B2	R901	A1	R909	A1	R917	C2	R925	B4	R934	C1	R943	C3	R952	B2
C901	A1	C910	B1	C918	B3	C926	B3	C934	A4	C942	B3	CN902	A4	D905	B3	F901	C1	L901	A3	Q903	B2	R902	A2	R910	A1	R918	C3	R926	C2	R935	B1	R945	C3	R953	A4
C902	A1	C911	B1	C919	A3	C927	B3	C935	B4	C943	B3	CN903	B4	D908	B3	GT901	B1	L902	B3	Q904	B4	R903	A3	R911	A1	R919	B2	R927	A3	R936	B1	R946	C3	T901	A2
C903	A2	C912	B2	C920	C2	C928	A3	C936	B1	C945	B4	CN904	C1	D909	A3	GT902	B1	L903	B3	Q905	B2	R904	A3	R912	B1	R920	B2	R928	A3	R937	C1	R947	C3	TVR901	C1
C904	A2	C913	A2	C921	C3	C929	B3	C937	C1	C946	C1	CN905	C3	D910	B2	GT903	B1	L904	B3	Q906	C2	R905	A3	R913	B2	R921	A3	R929	B3	R939	B1	R948	C2	ZD901	B2
C905	A3	C914	B2	C922	C3	C930	B3	C938	B2	C947	A3	D901	A2	D911	B3	IC901	C2	L905	B1	Q907	C2	R906	B3	R914	B2	R922	B3	R930	B4	R940	B2	R949	C2		
C907	A3	C915	B3	C923	B3	C931	B3	C939	B2	C949	C2	D902	A2	D912	B3	IC902	B2	NTC901	C1	Q908	B4	R907	B3	R915	B2	R923	A3	R931	B4	R941	B2	R950	C2		
C908	A4	C916	A2	C924	B3	C932	B3	C940	B1	C950	C1	D903	A2	D913	A4	IC903	C3	Q901	A3	Q909	C2	R908	A4	R916	B2	R924	C2	R932	B1	R942	B3	R951	C3		

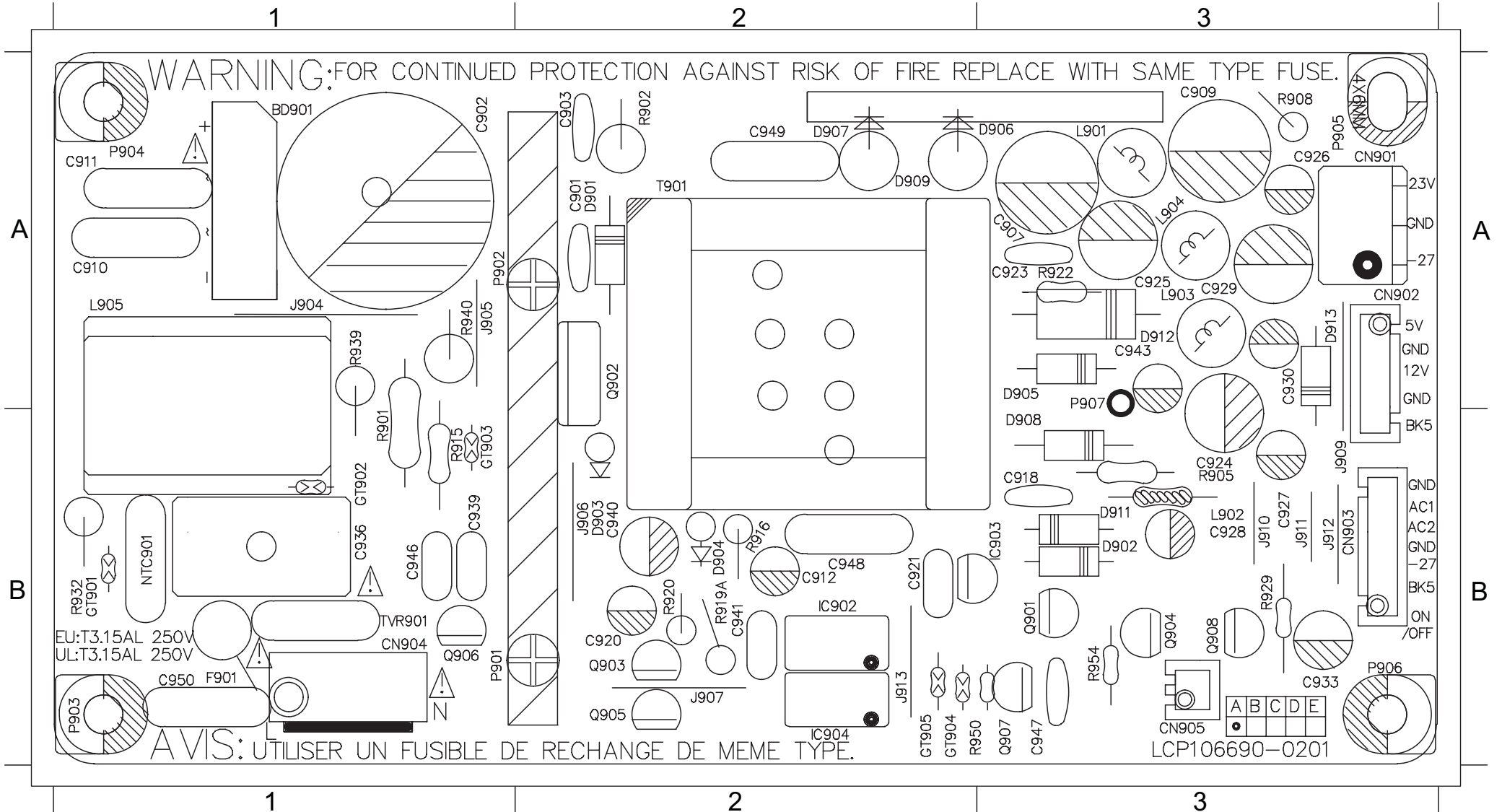


PCB LAYOUT - TOP VIEW

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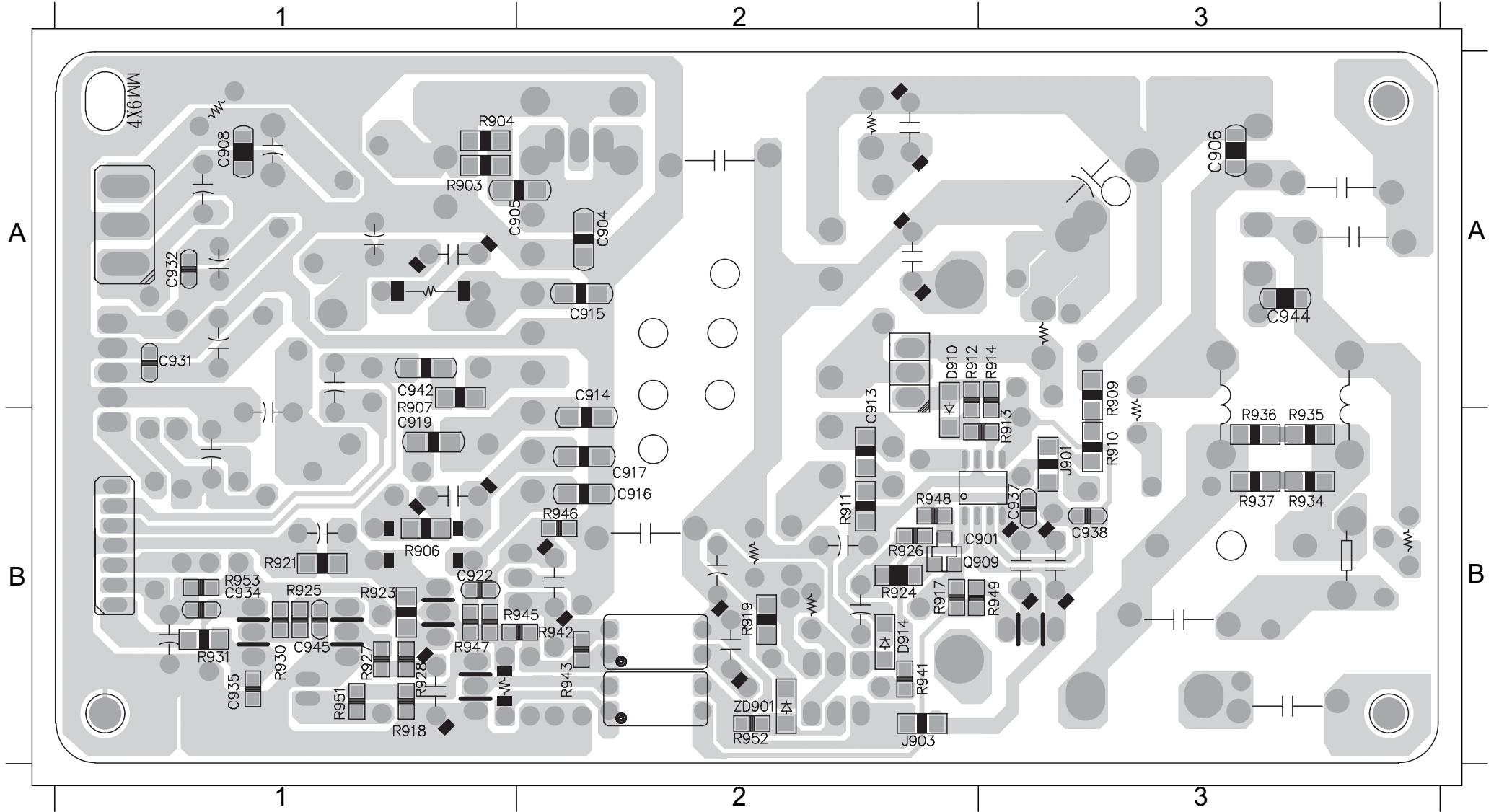
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BD901	A1	C910	A1	C921	B2	C928	B3	C940	B2	C950	B1	D901	A2	D909	A2	GT902	B1	J905	A1	J912	B3	L905	A1	Q905	B2	R905	B3	R929	B3	TVR901	B1
C901	A2	C911	A1	C923	A3	C929	A3	C941	B2	CN901	A3	D902	B3	D911	B3	GT903	B1	J906	B2	J913	B2	NTC901	B1	Q906	B1	R908	A3	R932	B1		
C902	A1	C912	B2	C924	B3	C930	A3	C943	A3	CN902	A3	D903	B2	D912	A3	IC902	B2	J907	B2	L901	A3	Q901	B3	Q907	B3	R915	B1	R939	A1		
C903	A2	C918	B3	C925	A3	C933	B3	C946	B1	CN903	B3	D904	B2	D913	A3	IC903	B3	J909	B3	L902	B3	Q902	A2	Q908	B3	R916	B2	R940	A1		
C907	A3	C919	B2	C926	A3	C936	B1	C947	B3	CN904	B1	D905	A3	F901	B1	IC904	B2	J910	B3	L903	A3	Q903	B2	R901	B1	R920	B2	R950	B3		
C909	A3	C920	A1	C927	B3	C939	B1	C949	A2	CN905	B3	D908	B3	GT901	B1	J904	A1	J911	B3	L904	A3	Q904	B3	R902	A2	R922	A3	T901	A2		

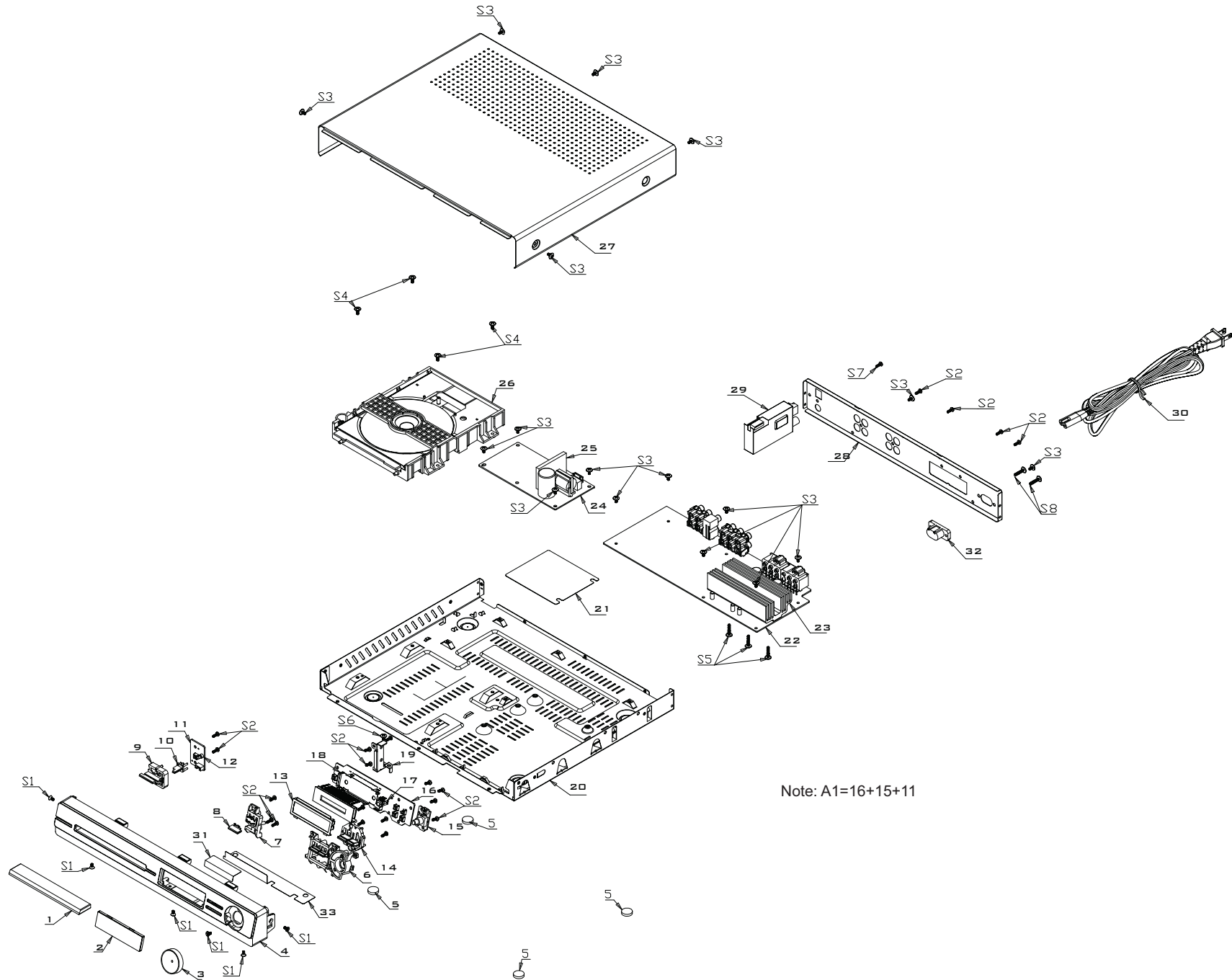


PCB LAYOUT - BOTTOM VIEW

C904	A2	C914	B2	C922	B1	C935	B1	C945	B1	J901	B3	R904	A1	R910	B3	R914	A3	R921	B1	R926	B2	R931	B1	R937	B3	R945	B1	R949	B3	ZD901	B2
C905	A1	C915	A2	C931	A1	C937	B3	D910	A2	J903	B2	R906	B1	R911	B2	R917	B2	R923	B1	R927	B1	R934	B3	R941	B2	R946	B2	R951	B1		
C908	A1	C916	B2	C932	A1	C938	B3	D914	B2	Q909	B3	R907	A1	R912	A2	R918	B1	R924	B2	R928	B1	R935	B3	R942	B2	R947	B1	R952	B2		
C913	A2	C917	B2	C934	B1	C942	A1	IC901	B3	R903	A1	R909	A3	R913	B3	R919	B2	R925	B1	R930	B1	R936	B3	R943	B2	R948	B2	R953	B1		



Mechanical Exploded View (for /98/94)



MECHANICAL PART LIST (for98/94/55/51)

Loc.	Part No.	Description
24	996510003686	POWER PCB
22	996510003682	MAIN PCB (for: /51/94/98)
22	996510007283	MAIN PCB (for: /55)
A1	996510003685	CONTROL PCB
26	996510007174	DVD LOADER MODULE
21	996510003689	SHEET
1	996510003687	DVD DOOR (for: HTS3000)
1	996510007284	DVD DOOR (for: HTS3010)
4	996510003688	FRONT CABINET (for: HTS3000)
4	996510007285	FRONT CABINET (for: HTS3010)
3	996510001641	VOL KNOB
14	996510001647	FUNCTION KEY
6	996510001643	FUNCTION KEY BASE
9	996510001646	STANDBY BUTTON
8	996510001645	EJECT BUTTON
7	996510001644	EJECT BUTTON BASE
2	996510001640	DISPLAY LENS
10	996510001258	STANDBY LED LENS
5	994000005305	RUBBER FOOT
CN103	996510001623	FFC CABLE 10P 60MM
CN801	996510005910	FFC CABLE 24P 160MM
30	996510001691	POWER CORD(for: /55)
30	996510002650	POWER CORD(for: /98/94/51)
Video	996500013058	RCA CABLE
AM	996510001621	LOOP ANT 1
FM	996500023583	FM ANTENNA
RC	996510003690	REMOTE CONTROL
29	996510001607	TUNER PACK (for: /51)
29	996510001690	TUNER PACK (for: /55/94/98)
20	996510007280	BTM CAB
28	996510007281	REAR PANEL (for: /98/94/51)
28	996510008382	REAR PANEL (for: /55)
27	996510007282	TOP COVER

SPEAKER

SPKC	996510003691	SPEAKER BOX -CENTER (for: HTS3000)
SPKC	996510007286	SPEAKER BOX -CENTER (for: HTS3010)
SPKFL	996510003692	SPEAKER BOX -FRONT LEFT (for: HTS3000)
SPKFL	996510007287	SPEAKER BOX -FRONT LEFT (for: HTS3010)
SPKFR	996510003693	SPEAKER BOX - FRONT RIGHT (for: HTS3000)
SPKFR	996510007288	SPEAKER BOX - FRONT RIGHT (for: HTS3010)
SPKRL	996510003694	SPEAKER BOX- REAR LEFT (for: HTS3000)
SPKRL	996510007289	SPEAKER BOX- REAR LEFT (for: HTS3010)
SPKRR	996510003695	SPEAKER BOX- REAR RIGHT (for: HTS3000)
SPKRR	996510007290	SPEAKER BOX- REAR RIGHT (for: HTS3010)
SUBW	996510003696	SUBWOOFER (for: HTS3000)
SUBW	996510007291	SUBWOOFER (for: HTS3010)
RFS	996500028375	RUBBER FOOT -SUB
RFC/FF/FR	996500036131	RUBBER FOOT -CENTER/FRONT/REAR