

Service  
Service  
**Service**



# Service Manual

PROGRESSIVE SCAN



HDMI



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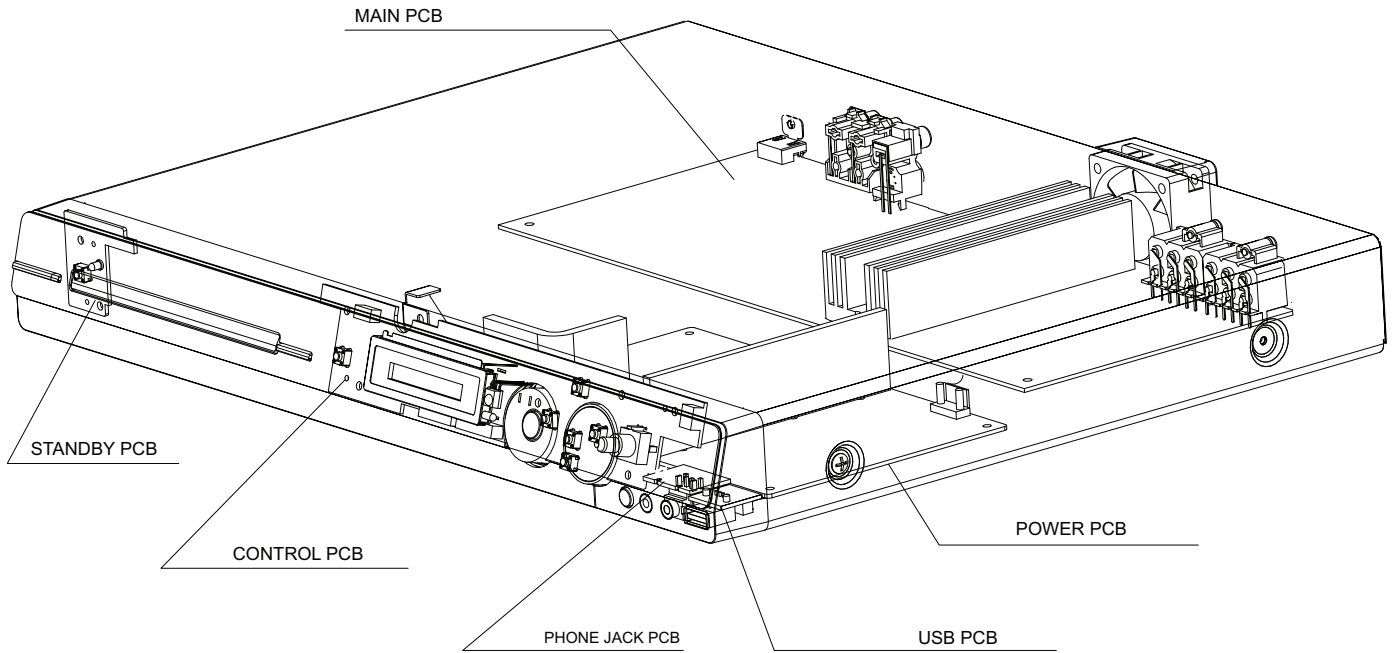
GB 3139 785 32760

Version 1.0



# PHILIPS

# LOCATION OF PCB BOARDS



## VERSION VARIATION:

Type/Versions	HTS3545
Features & Board in used	/55
Main (Output Power-1000W)	<b>X</b>
Composite Video Out	<b>X</b>
Power Voltage (120/230V)	<b>X</b>
WMA	<b>X</b>

# SPECIFICATIONS

## AMPLIFIER

Total output power:  
 HTS3355/HTS3345: ..... 600 W RMS  
 HTS3545: ..... 1000 W RMS  
 Frequency Response: ..... 150 Hz – 18 kHz /  $\pm 3$  dB  
 Signal-to-Noise Ratio: ..... > 60 dB (A-weighted)  
 Input Sensitivity  
 - AUX In : ..... 500 mV  
 - TV In: ..... 250 mV  
 - MP3 Line-In: ..... 500 mV  
 \* (1% THD 1kHz)

## RADIO

Tuning Range: ..... FM 87.5–108 MHz  
 ..... (50kHz/100kHz)  
 ..... AM 531–1602 kHz (9kHz)  
 ..... AM 530–1700 kHz (10kHz)  
 26 dB Quieting  
 Sensitivity: ..... FM 22 dBf, AM 5000 $\mu$ 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–10 kHz /  $\pm 6$  dB  
 Stereo Separation ..... FM 26 dB (1 kHz)  
 Stereo Threshold ..... FM 23.5 dB

## DISC

Laser Type ..... Semiconductor  
 Disc Diametre ..... 12cm / 8cm  
 Video Decoding ..... MPEG-1 / MPEG-2 /  
 ..... / DivX 3/4/5/6, Ultra  
 Video DAC ..... 12 Bits  
 Signal System ..... PAL / NTSC  
 Video Format ..... 4:3 / 16:9  
 Video S/N ..... 56 dB  
 Composite Video  
 Output ..... 1.0 Vp-p, 75 $\Omega$   
 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

## MAIN UNIT

Power Supply Rating: ..... 110-127 V / 220-240 V~  
 ..... 50-60 Hz switchable  
 Power Consumption:  
 HTS3355/HTS3345: ..... 100 W  
 HTS3545: ..... 180 W  
 Dimensions: ..... 435 x 55 x 367 (mm)  
 ..... (w x h x d)  
 Weight: ..... 4.04 kg

## FRONT AND REAR SPEAKERS

System: ..... Full range satellite  
 Impedance:  
 HTS3355/HTS3345: ..... 3  $\Omega$   
 HTS3545: ..... 6  $\Omega$   
 Speaker drivers: ..... 3" full range speaker  
 Frequency response: ..... 150 Hz – 20 kHz  
 Dimensions: ..... 95 x 198.3 x 75 (mm)  
 ..... (w x h x d)  
 Weight:  
 HTS3355/HTS3345: ..... 0.68kg/each  
 HTS3545: ..... 0.62kg/each

## CENTER SPEAKER

System: ..... Full range satellite  
 Impedance:  
 HTS3355/HTS3345: ..... 6  $\Omega$   
 HTS3545: ..... 3  $\Omega$   
 Speaker drivers: ..... 2 x 2.5" full range woofer,  
 ..... 1 x 2" tweeter  
 Frequency response: ..... 150 Hz – 20 kHz  
 Dimensions: ..... 435 x 93.5 x 67 (mm)  
 ..... (w x h x d)  
 Weight:  
 HTS3355/HTS3345: ..... 1.45kg  
 HTS3545: ..... 1.26kg

## SUBWOOFER

Impedance:  
 HTS3355/HTS3345: ..... 6  $\Omega$   
 HTS3545: ..... 3  $\Omega$   
 Speaker drivers: ..... 203 mm (8") woofer  
 Frequency response: ..... 40 Hz – 150 Hz  
 Dimensions: ..... 159.5 x 355.5 x 370 (mm)  
 ..... (w x h x d)  
 Weight: ..... 4.78 kg

Specifications subject to change without prior notice.

# 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

**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    COPPER TRACK

SOLDERING IRON    CHIP COMPONENT

**MOUNTING**

e.g. A PAIR OF TWEEZERS

SOLDER  
Ø0.5-0.8mm    PRESSURE

SOLDERING TIME  
< 3 sec/side    SOLDER  
Ø0.5-0.8mm    PRESSURE    SOLDERING IRON

**EXAMPLES**

CORRECT

SOLDERING IRON    NO!

**ESD****(NL) WAARSCHUWING**

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

**(GB) WARNING**

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.  
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

**(F) ATTENTION**

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).  
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.  
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.  
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

**(D) WARNUNG**

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).  
Unsorgfältige Behandlung im Reparaturfall 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, 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  $\Delta$ .

**(NL)**

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

De Veiligheidsonderdelen zijn aangeduid met het symbol  $\Delta$ .

**(F)**

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

Less composants de sécurité sont marqués  $\Delta$ .

**(D)**

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

Sicherheitsbauteile sind durch das Symbol  $\Delta$  markiert.

**(I)**

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

Componenti di sicurezza sono marcati con  $\Delta$ .

**(GB)**

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

**(GB) Warning !**

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

**(S) Varning !**

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

**(SF) Varoitus !**

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

**(DK) Advarsel !**

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


**(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.

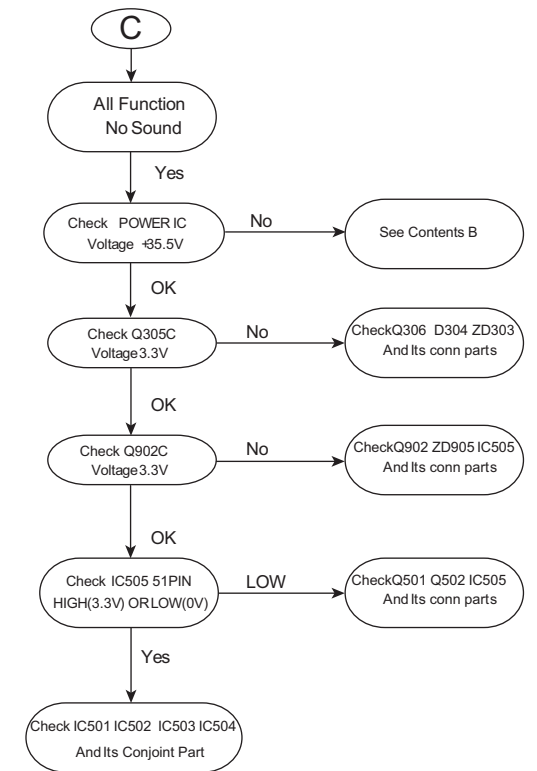
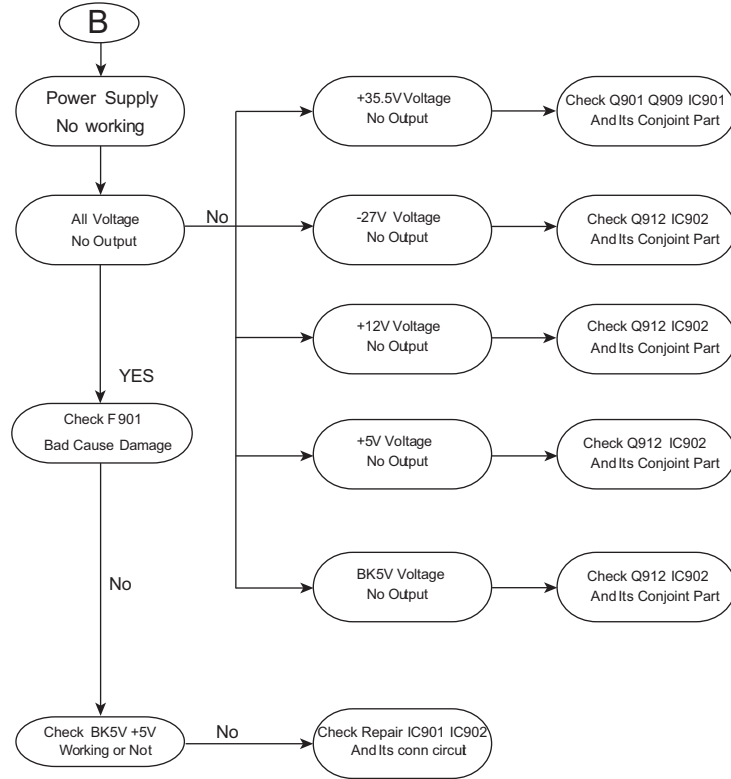
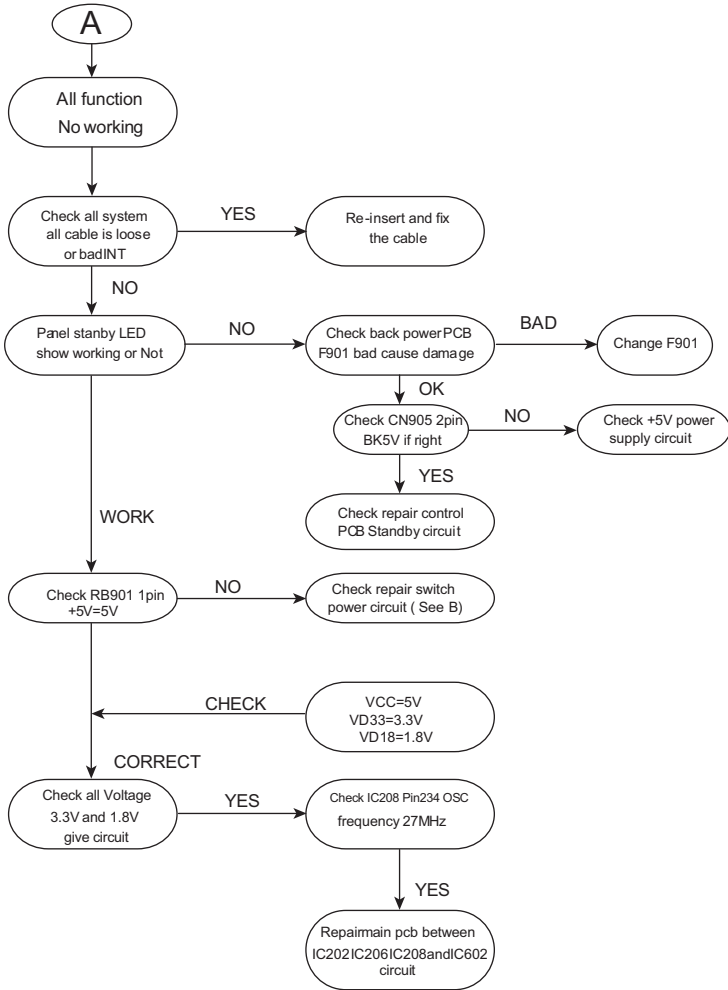
- For sets produced before 1.1.2005 (except products of 2004), containing leaded solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website [www.atyourservice.ce.Philips.com](http://www.atyourservice.ce.Philips.com) you find more information to:
  - BGA-de-/soldering (+ baking instructions)
  - Heating-profiles of BGAs and other ICs used in Philips-sets

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

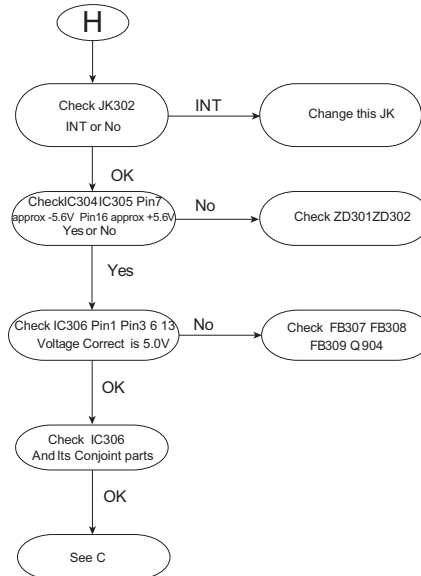
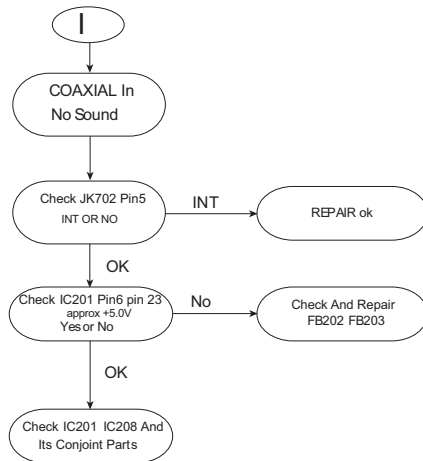
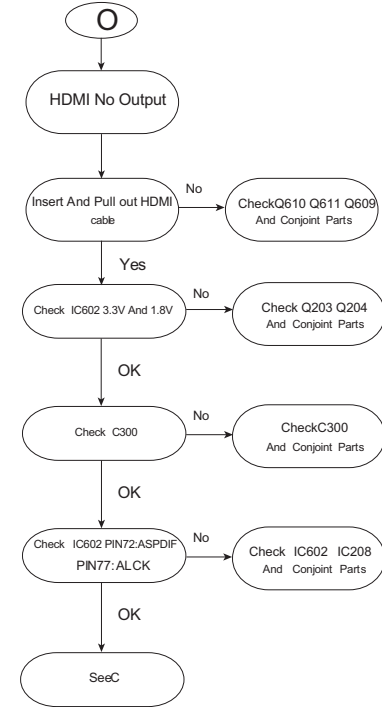
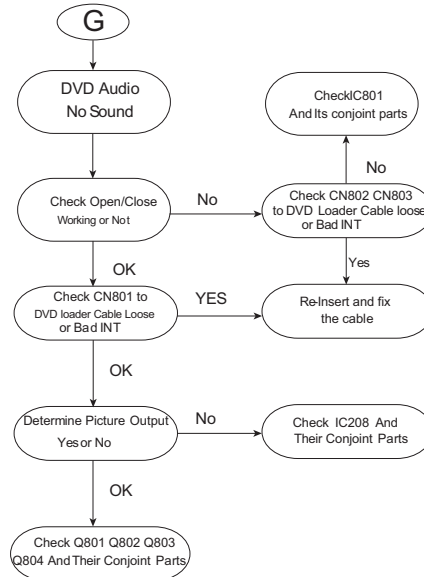
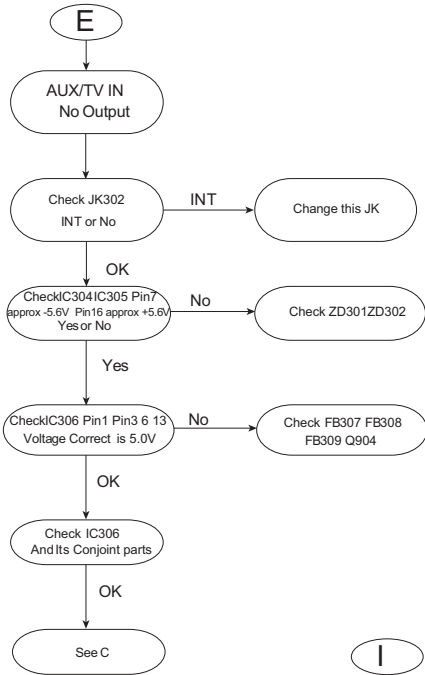
For additional questions please contact your local repair-helpdesk.

# MAIN UNIT REPAIR CHART 1/ 3

- A**  
All Function  
No Working
- B**  
Power Su pply  
No Working
- C**  
All Function  
No Sound
- E**  
Audio line IN  
No Output
- G**  
DVD Audio  
No Sound
- H**  
MP3 In  
No Sound
- I**  
COAXIAL In  
No Sound
- L**  
TunerNo Sound
- M**  
No SvideoOutput
- O**  
HDMI No Output
- P**  
No CVBS Output
- Q**  
No Y Pr Pboutput

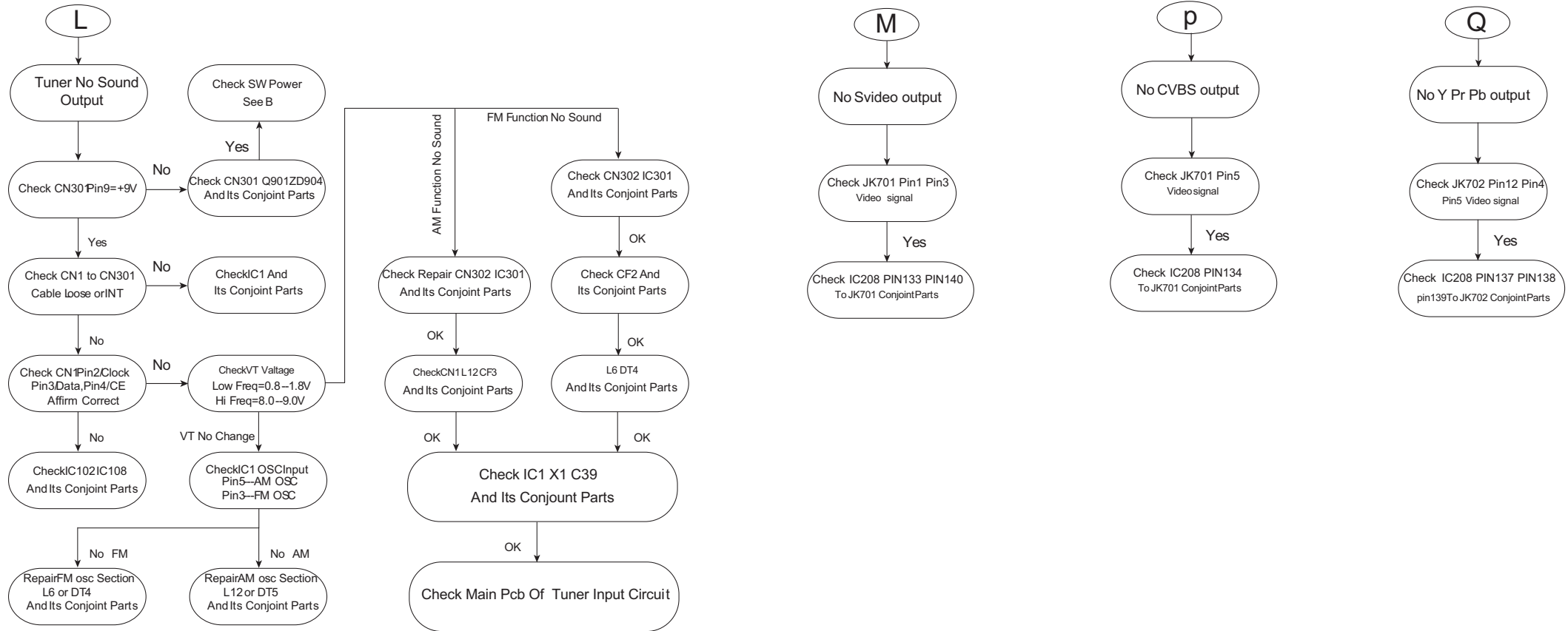


MAIN UNIT REPAIR CHART 2/3





# MAIN UNIT REPAIR CHART 3/3



# 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 right as shown in figure 1 until the Tray moves out of the Front Panel.

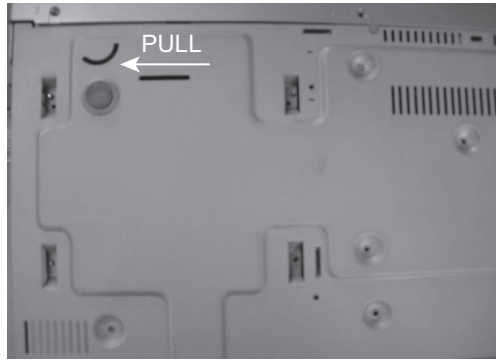


Figure 1



Figure 2

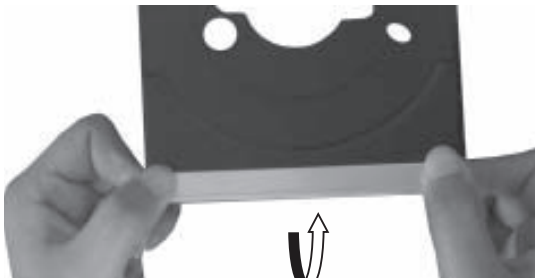


Figure 3

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 screws each on the left & right side
- 4) Loosen 5 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 each on the left & right side

## Dismantling of the Main PCB

3 - 1

- 2) Loosen 3 screw " A " on the top of main board as shown in figure 4.
- 1) Loosen 7 screw "B" at the back panel as shown in figure 5.

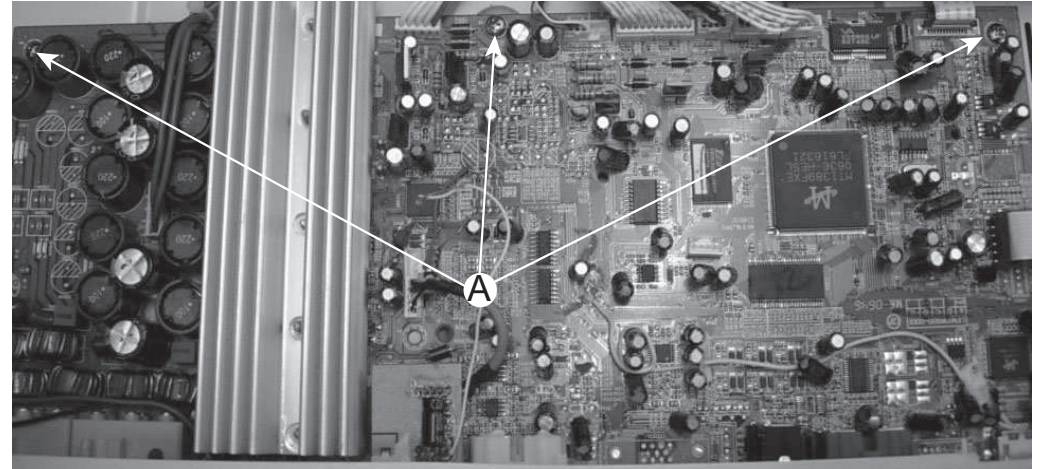


Figure 4



Figure 5

**Dismantling of the Control Board**

- 1) Loosen 10 screws "E" at the top of control board as shown in figure 6

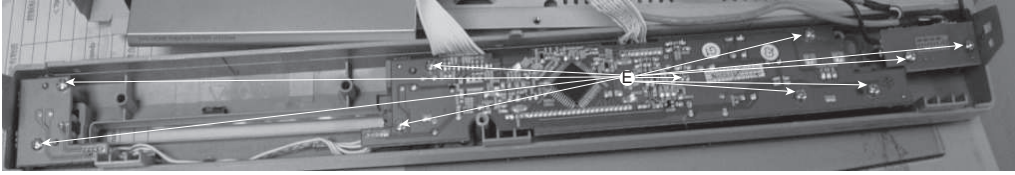


Figure 6

**Dismantling of the Power Board**

- 1) Loosen 5 screws "D" at the top of the Power Board as shown in figure 7

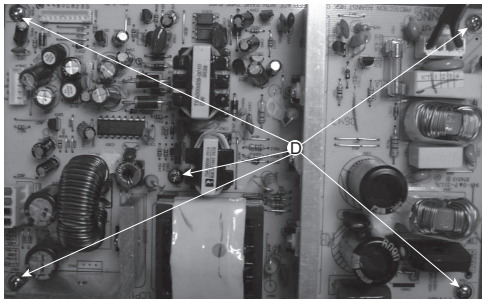


Figure 7

**Dismantling of the DVD Module**

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

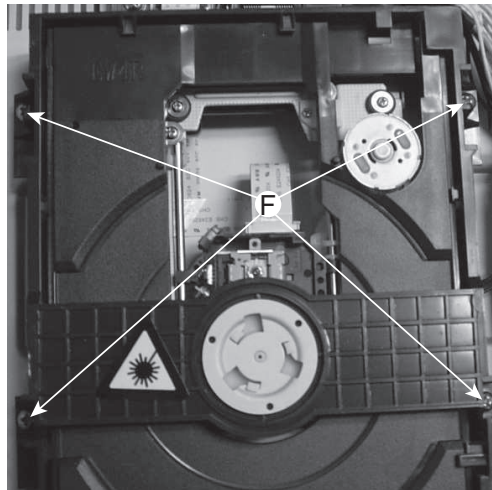
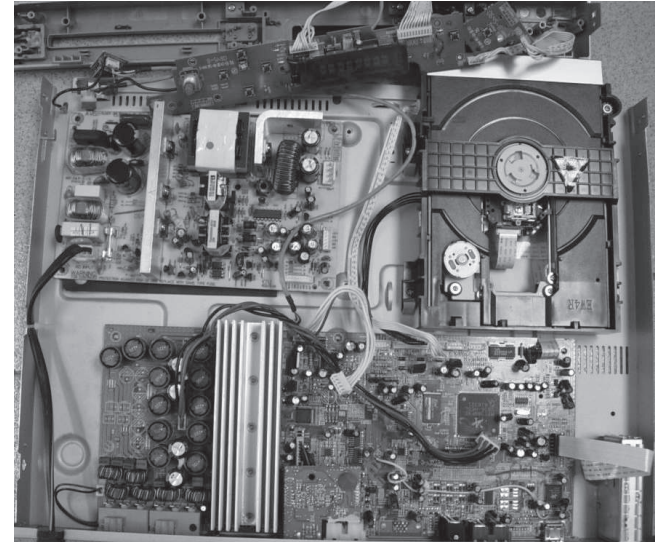


Figure 8

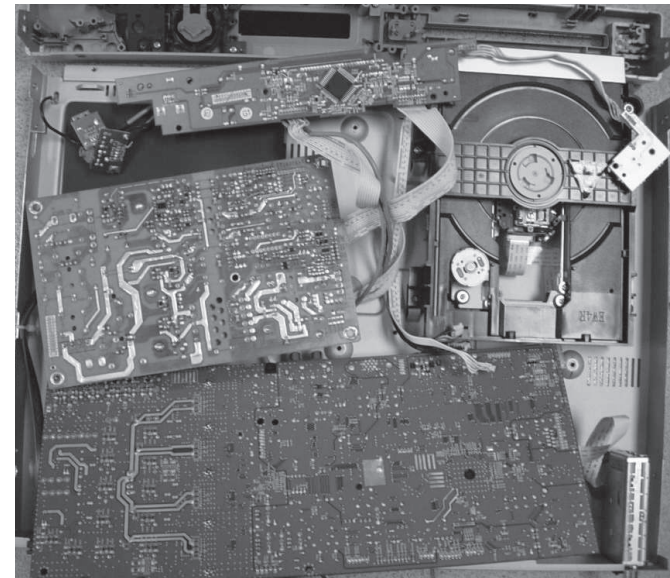
**SERVICE POSITIONS**

Service position A

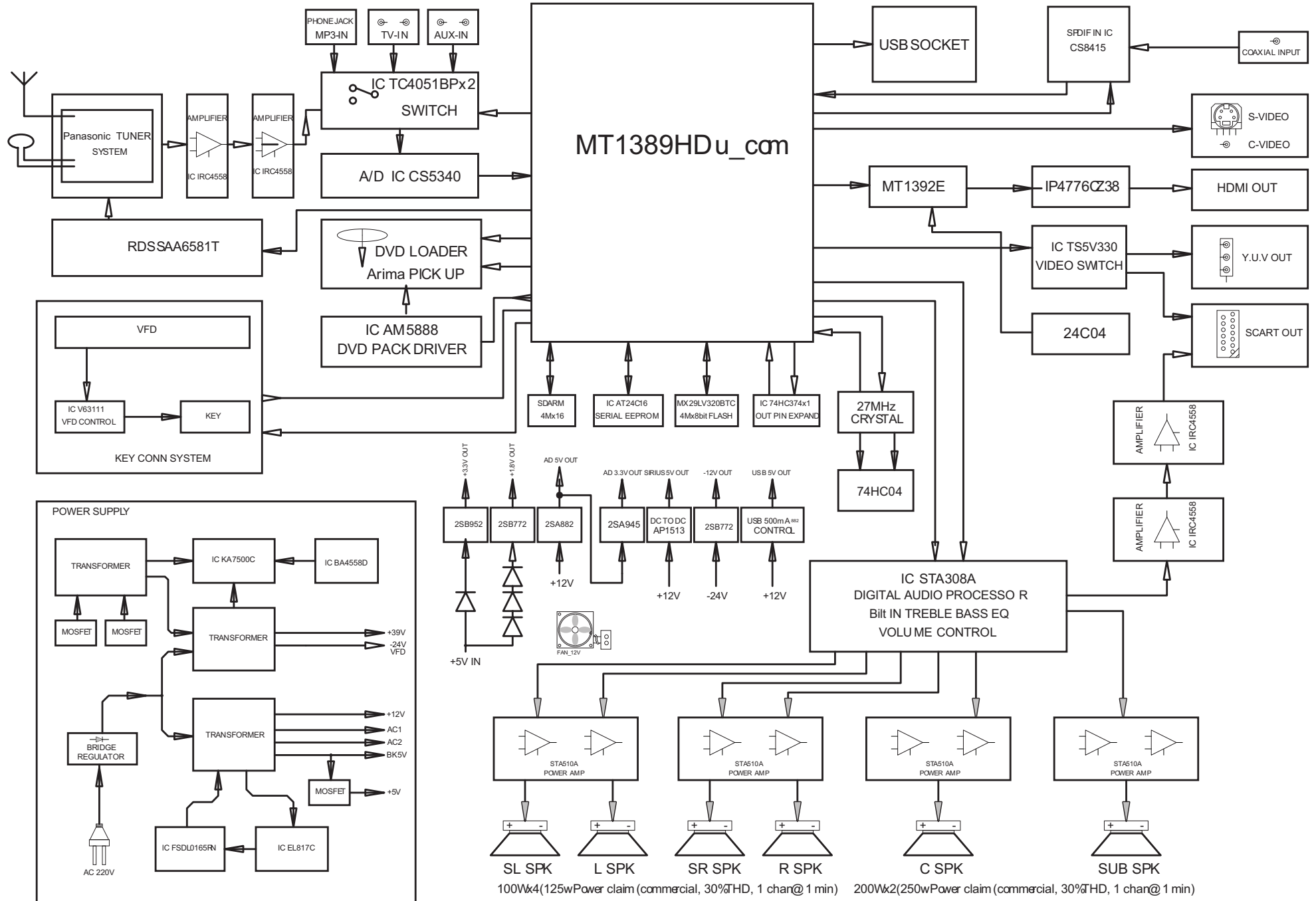


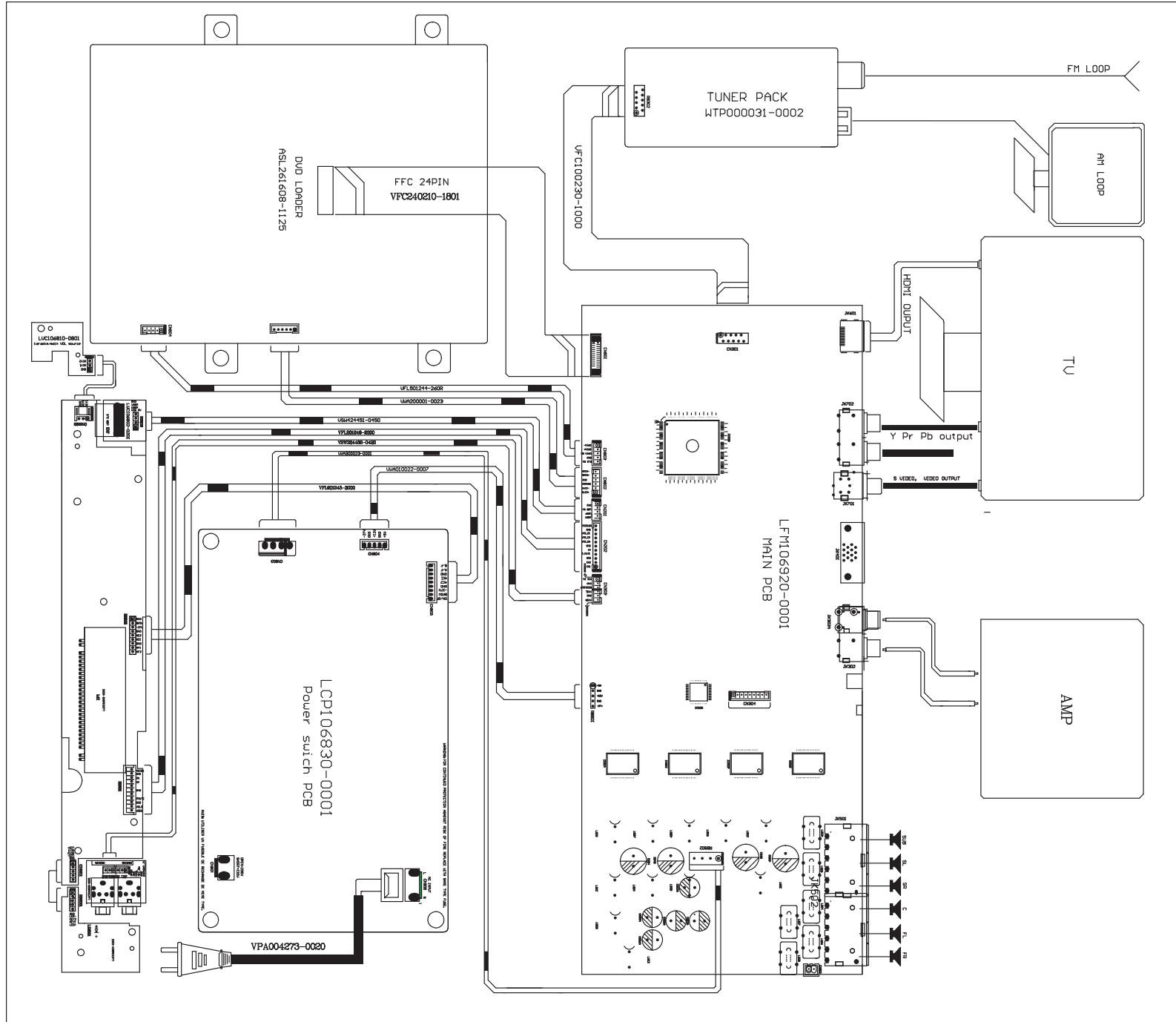
Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.

Service position B



# BLOCK DIAGRAM

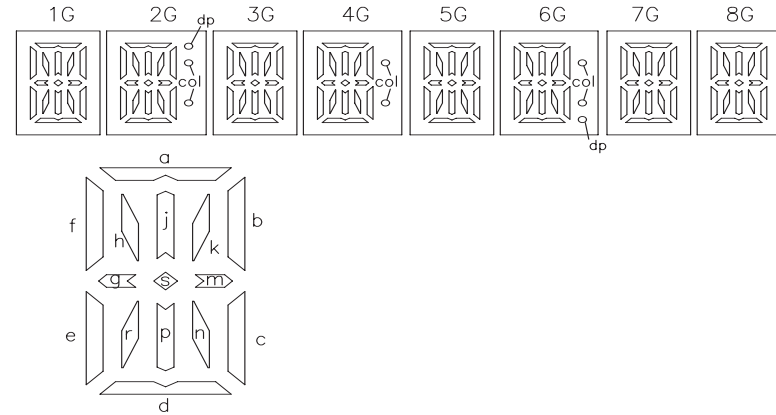




# CONTROL BOARD

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	1G	2G	3G	4G	5G	6G	7G	8G
P1	a	a	a	a	a	a	a	a
P2	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14	—	dp	—	col	—	col	—	—
P15	s	s	s	s	s	s	s	s
P16	—	col	—	—	—	dp	—	—

**PIN CONNECTION**

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

Note: F: Filament P: Anode G: Grid NP: No pin

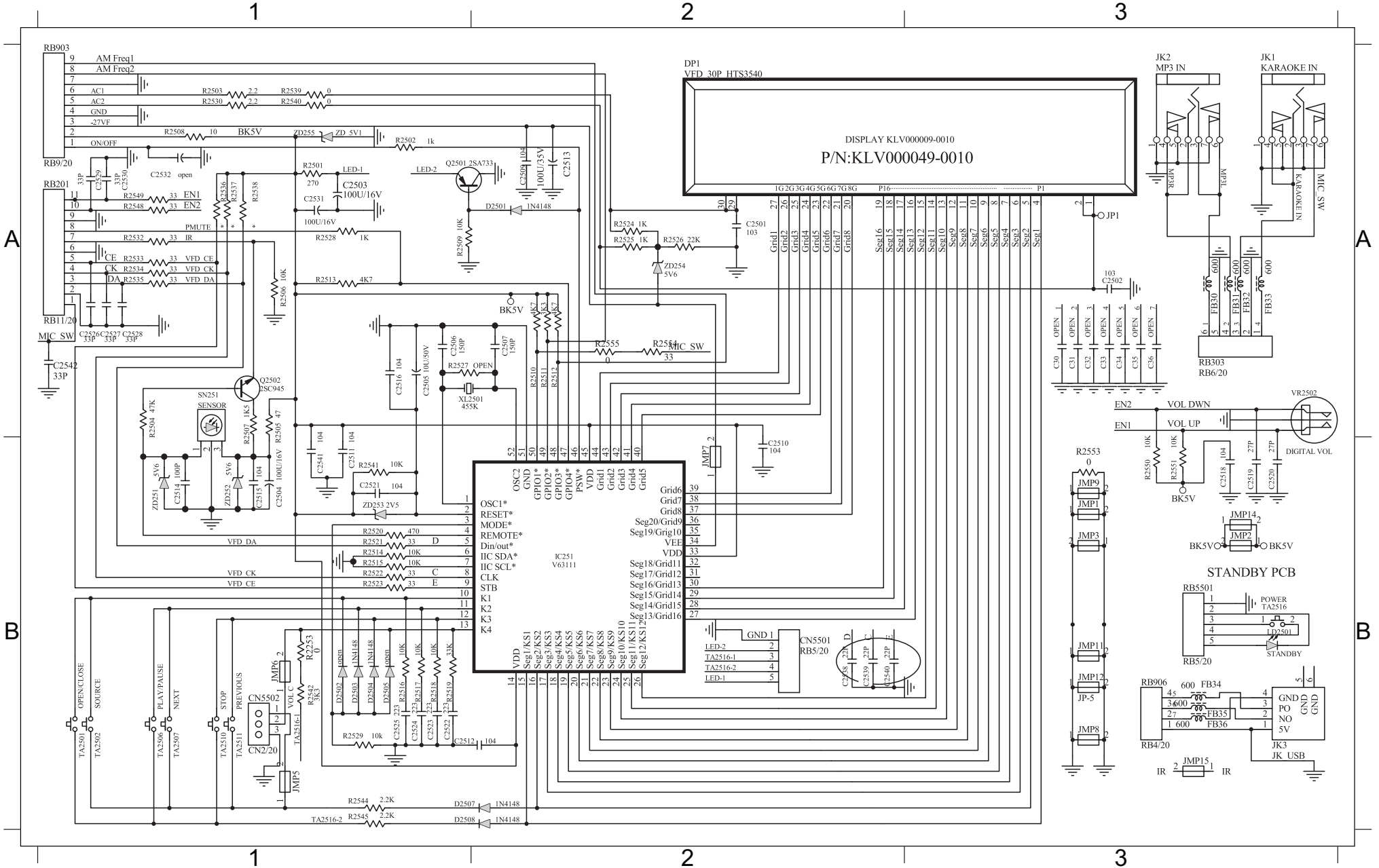
**VOLTAGE**

IC251																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	4.70	-23.00	-26.00	-23.00	-23.00	-21.00	-21.00	-23.00	-23.00	-21.00	-21.00	-23.00	-23.00	-23.00	-26.00	-21.00	-26.00	-26.00	-23.00	4.70
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	-26.00	-23.00	-23.00	-22.00	-22.00	-24.00	-24.00	-24.00	-24.00	-24.00	-24.00	4.70	4.70	0.00	0.00	0.00	4.70	0.00	2.30	2.30
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52								
Voltage	4.70	0.00	4.00	3.20	0.00	0.00	3.20	3.20	0.00	0.00	0.00	0.00								

Q2501			
Pin NO	b	c	e
Voltage	4.10	0.00	3.60

Q2502			
Pin NO	b	c	e
Voltage	4.30	4.10	3.70

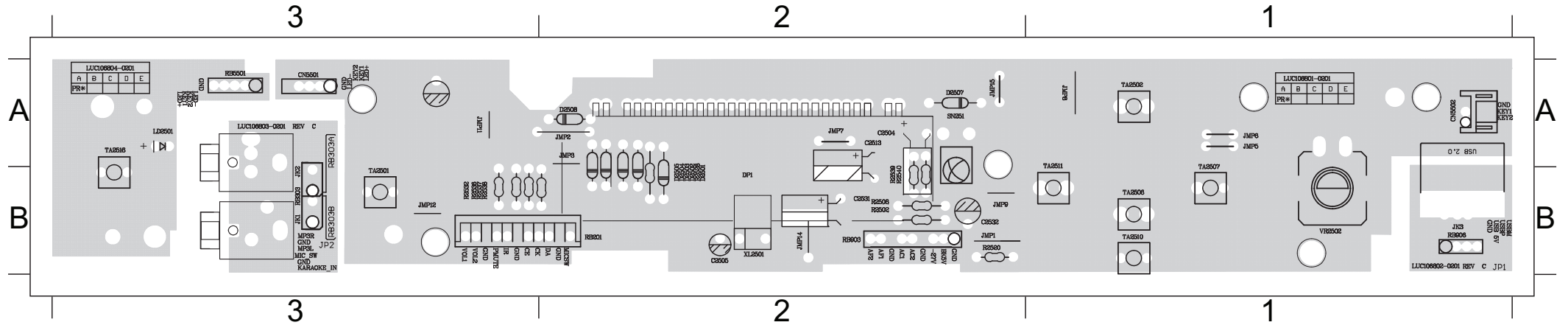
C2501 A3	C2509 A2	C2515 B1	C2522 B1	C2528 A1	C2540 B2	D2507 B1	FB35 B3	JMP11 B3	JMP5 B1	LD2501 B3	R2503 A1	R2509 A1	R2517 B1	R2523 B1	R2530 A1	R2540 A1	R2549 A1	RB903 A1	TA2507 B1	ZD251 B1
C2502 A3	C2510 B2	C2516 A1	C2523 B1	C2529 A1	C2541 B1	D2508 B1	FB36 B3	JMP12 B3	JMP6 B1	Q2501 A1	R2504 A1	R2510 A2	R2518 B1	R2524 A2	R2532 A1	R2541 B1	R2553 B3	RB906 B3	TA2510 B1	ZD252 B1
C2504 B1	C2511 B1	C2518 B3	C2524 B1	C2530 A1	C2542 A1	DP1 A2	IC251 B3	JMP14 B3	JMP7 B2	Q2502 A1	R2505 A1	R2513 A1	R2519 B1	R2525 A2	R2533 A1	R2542 B1	R2554 B2	SN251 A1	TA2511 B1	ZD253 B1
C2505 A1	C2512 B1	C2519 B3	C2525 B1	C2531 A1	D2501 A2	FB30 A3	JK2 A3	JMP15 B3	JMP8 B3	R2253 B1	R2506 A1	R2514 B1	R2520 B1	R2526 A2	R2534 A1	R2544 B1	RB201 A1	TA2501 B1	TA2516 B1	ZD254 A2
C2506 A1	C2513 A2	C2520 B3	C2526 A1	C2538 B2	D2503 B1	FB31 A3	JK3 B3	JMP2 B3	JMP9 B3	R2501 A1	R2507 A1	R2515 B1	R2521 B1	R2528 A1	R2535 A1	R2545 B1	RB303AA3	TA2502 B1	VR2502 A3	ZD255 A1
C2507 A2	C2514 B1	C2521 B1	C2527 A1	C2539 B2	D2504 B1	FB34 B3	JMP1 B3	JMP3 B3	JP1 A3	R2502 A1	R2508 A1	R2516 B1	R2522 B1	R2529 B1	R2539 A1	R2548 B1	RB5501B3	TA2506 B1	XL2501 A2	





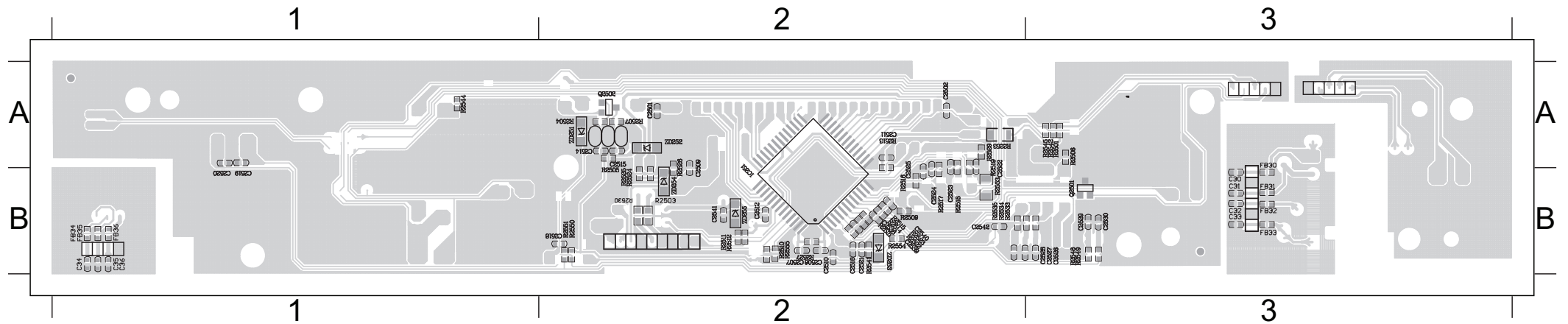
### PCB LAYOUT - TOP VIEW

C2504	A2	C2531	B2	D2504	B2	DP1	B2	JMP1	B2	JMP14	B2	JMP3	A2	JMP7	A2	JP1	B1	R2502	B2	R2528	B2	R2540	B2	RB5501	A3	SN251	A2	TA2506	B1	TA2511	B1	XL2501	B2
C2505	B2	D2501	B2	D2507	A2	JK2	B3	JMP11	A3	JMP15	A2	JMP5	A1	JMP8	A1	JP2	B3	R2508	B2	R2532	B3	RB201	B2	RB903	B2	TA2501	A3	TA2507	B1	TA2516	A3		
C2513	A2	D2503	B2	D2508	A2	JK3	B1	JMP12	B3	JMP2	A2	JMP6	A1	JMP9	B2	LD2501	A3	R2520	B2	R2539	B2	RB303A	B3	RB906	B1	TA2502	A1	TA2510	B1	VR2502	B1		



### PCB LAYOUT - BOTTOM VIEW

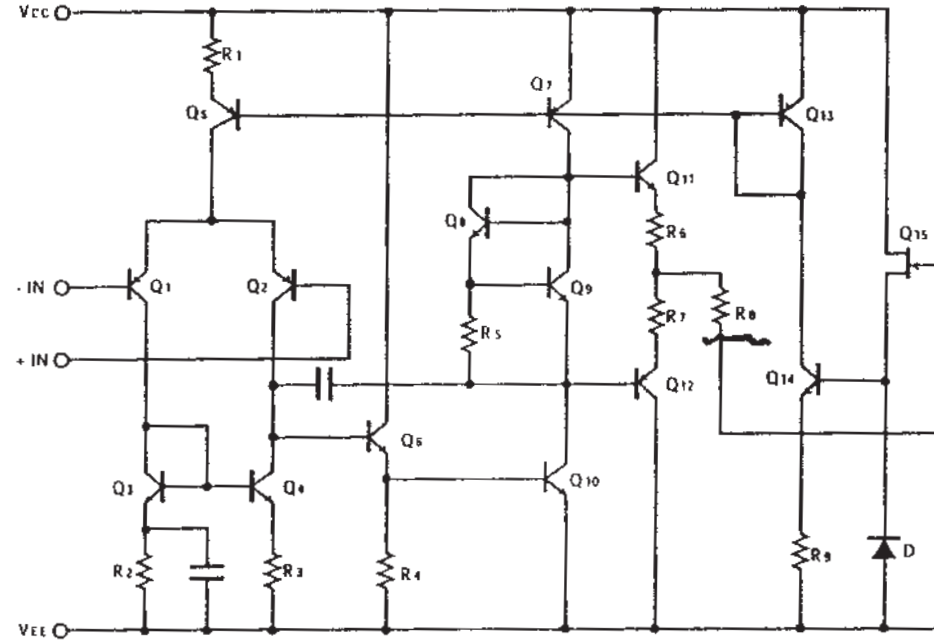
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C2502	A2	C2510	B2	C2515	A2	C2520	B1	C2524	B2	C2528	B3	C2539	B2	FB30	B3	FB36	B1	R2253	A2	R2505	B2	R2510	B2	R2516	B2	R2521	B2	R2525	B2	R2533	B2	R2542	A3	R2549	B3	ZD252	A2		
C2506	B2	C2511	A2	C2516	B2	C2521	B2	C2525	A2	C2529	B3	C2540	B2	FB31	B3	IC251	B2	R2501	A3	R2506	A3	R2513	A2	R2517	B2	R2522	B2	R2526	B2	R2534	B2	R2544	A1	R2553	B2	ZD253	B2		
C2507	B2	C2512	B2	C2518	B2	C2522	B2	C2526	B3	C2530	B3	C2541	B2	FB34	B1	Q2501	B3	R2503	B2	R2507	A2	R2514	B2	R2518	B2	R2523	B2	R2529	A2	R2535	B2	R2545	A3	R2554	B2	ZD254	B2		



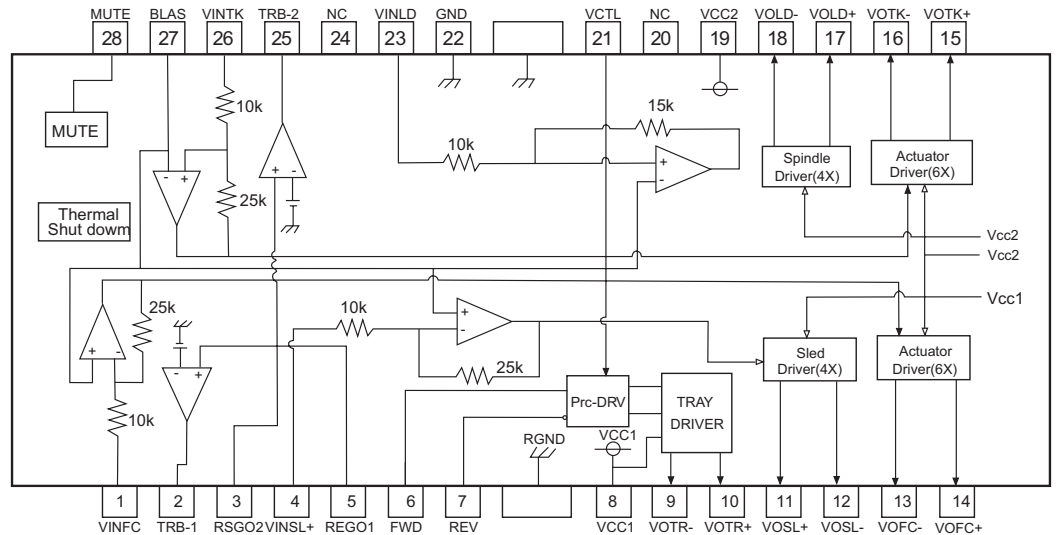
# MAIN BOARD

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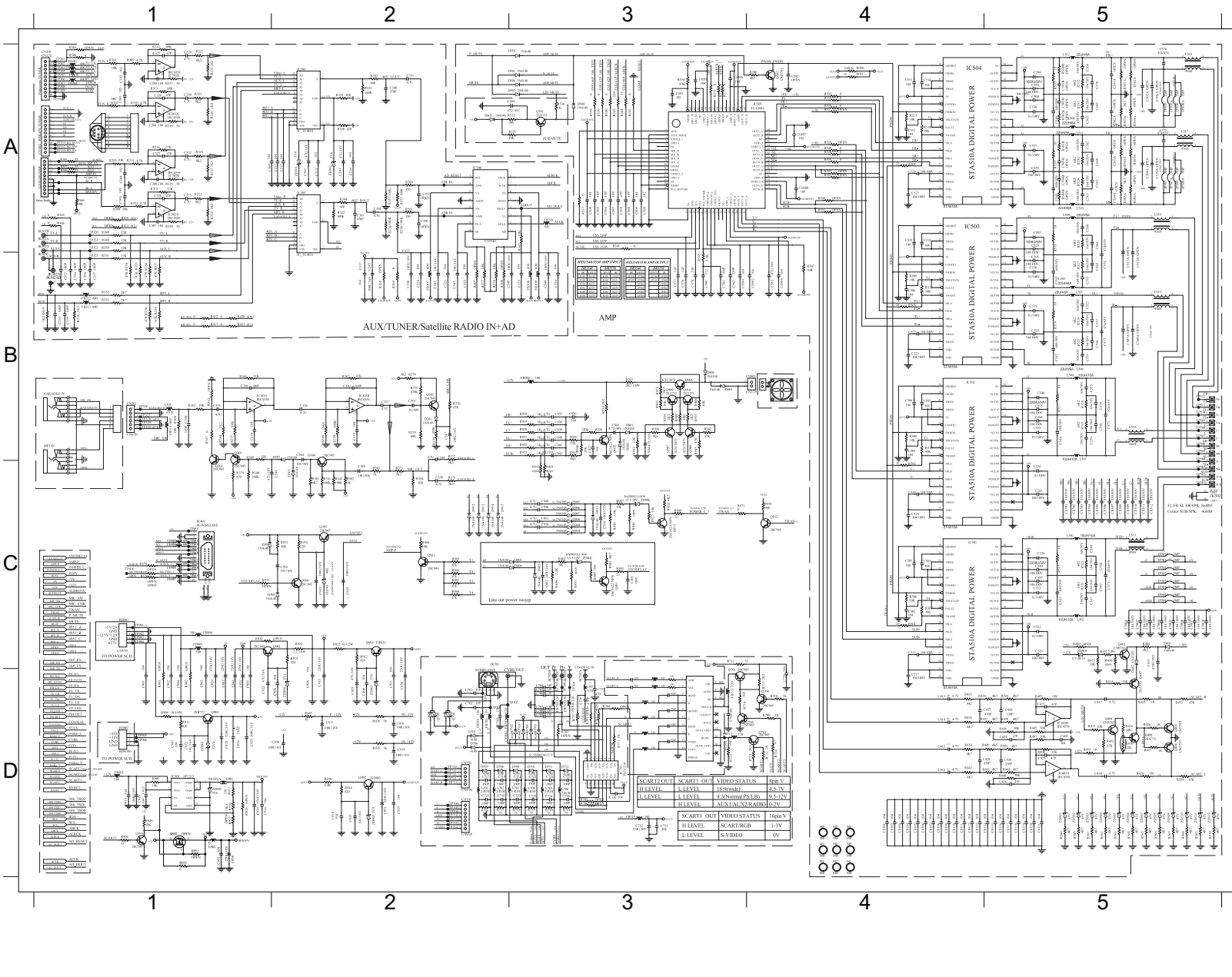
- Internal IC Diagram .....6-1
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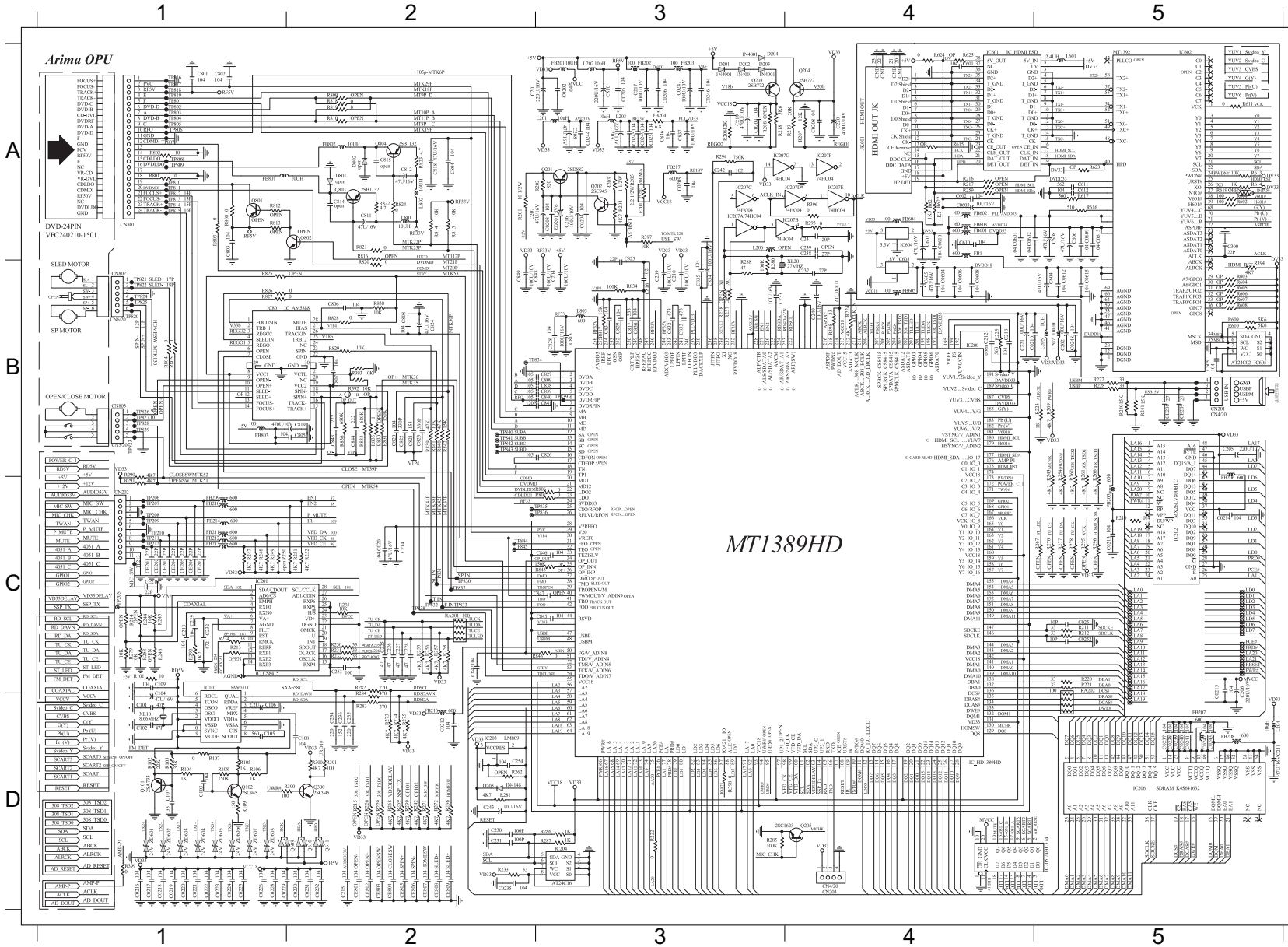
INTERNAL IC DIAGRAM - V5888S HOSP



# Circuit Diagram (Amplifier)



C0101	D4	C514	A4	C704	D3	CN902	B4	L702	D2	R524	B5	ZD301	A2
C0102	D4	C515	C4	C705	D3	D304	C1	L703	D3	R525	B5	ZD302	A2
C0103	D4	C516	C4	C706	D3	D305	C2	L704	D3	R526	B5	ZD303	C2
C0104	D4	C517	D4	C707	D3	D503	A3	L705	D3	R527	B5	ZD801	D1
C0105	D4	C518	C4	C708	D3	D504	A3	L706	D3	R528	A5	ZD803	D2
C0106	D4	C519	C5	C709	D3	D505	A2	L707	D3	R529	A5	ZD804	D2
C0107	D4	C520	C5	C710	D2	D506	A3	C305	C2	R530	A5	ZD905	C2
C0109	D4	C521	C5	C712	D701	D2	D306	C2	R531	A5	ZD906	C3	
C0110	D4	C522	B4	C718	D2	D702	D3	Q501	A3	R532	A5		
C0111	D4	C523	B4	C719	D2	D703	D3	Q502	A4	R534	A3		
C0112	D4	C524	B5	C720	D3	D704	D3	Q705	D2	R535	A3		
C0113	D4	C525	B5	C721	D2	D705	D3	Q706	D2	R537	A3		
C0114	D4	C526	A4	C722	D2	D706	D2	Q901	C2	R538	A3		
C0115	D5	C527	A4	C723	D3	D707	D2	Q902	D2	R539	A3		
C0116	D5	C528	A5	C724	D3	D708	D2	Q903	D1	R540	A3		
C0117	D5	C529	A5	C725	D3	D709	D3	Q904	C2	R541	A3		
C0118	D5	C530	A5	C726	D2	D710	D3	Q905	B3	R542	A3		
C0119	D5	C531	C5	C727	D2	D711	D3	Q906	B3	R543	A3		
C0120	D5	C532	C5	C730	D3	D712	D3	Q907	B3	R545	B3		
C0121	D5	C533	B5	C731	D3	D901	B3	Q908	B3	R546	A4		
C0501	B3	C534	C5	C732	D3	D902	B3	Q909	B3	R547	B4		
C0502	B4	C535	B5	C736	D3	D903	B4	Q910	B3	R548	A4		
C0504	B4	C536	B5	C737	D3	D904	B3	Q913	C3	R550	A4		
C0505	A3	C537	A5	C901	D1	D905	C3	R051	A4	R552	A4		
C0506	A3	C538	A5	C902	D1	D906	C3	R301	A1	R554	A4		
C0507	A4	C539	C5	C903	D1	D907	C3	R302	A1	R556	A4		
C0508	A4	C540	B5	C904	D1	D908	C3	R305	A3	R558	A4		
C301	A1	C541	C5	C905	D1	D909	C3	R309	A1	R571	A3		
C302	A1	C542	B5	C906	D2	D910	C3	R310	A1	R572	A3		
C305	A1	C543	B5	C907	D1	D911	C3	R313	A1	R573	A3		
C306	A1	C544	B5	C908	D2	FB301	A1	R314	A1	R701	D3		
C309	A1	C545	A5	C909	D2	FB302	A1	R317	A1	R703	D3		
C311	A2	C546	A5	C910	D2	FB303	A1	R318	A1	R706	D3		
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C315	A2	C548	C5	C916	C3	FB308	B3	R322	A1	R717	D2		
C316	A2	C549	C5	C917	D2	FB309	B3	R325	A1	R718	D3		
C317	B2	C550	C5	C918	D2	FB312	B1	R326	A1	R719	D3		
C320	B2	C551	B5	C919	D2	FB313	B1	R329	A2	R720	D3		
C321	B2	C552	B5	C920	D1	FB701	D2	R330	A2	R721	D3		
C322	B2	C553	B5	C921	D1	FB702	D2	R331	A2	R737	D3		
C323	B3	C554	B5	C922	D1	FB703	D2	R332	A2	R904	D1		
C324	B3	C555	B5	C923	D2	FB704	D3	R333	A2	R907	B3		
C325	A1	C556	B5	C924	D1	FB705	D3	R334	A2	R908	B3		
C326	A1	C557	B5	C925	D2	FB706	D3	R335	A2	R909	B3		
C329	A1	C558	B5	C926	B3	FB715	D3	R336	A2	R911	D1		
C330	A1	C559	B5	C927	B3	FB904	C1	R343	A2	R912	C2		
C331	A2	C560	A5	C928	D1	FB905	C1	R344	A2	R913	C2		
C334	A2	C561	A5	C929	D1	FB906	B3	R345	A1	R914	D2		
C340	A2	C562	A5	C930	D2	IC301	A1	R346	A1	R918	B3		
C341	A2	C563	A5	C931	D2	IC302	A1	R348	A1	R919	B3		
C342	A2	C564	A5	C932	D1	IC304	A2	R349	A1	R920	B3		
C343	A2	C565	B5	C933	D2	IC305	A2	R350	A1	R921	B3		
C345	B2	C566	A5	C935	D2	IC306	A2	R351	B1	R922	B3		
C346	B2	C567	A5	C936	D2	IC501	C4	R352	B1	R923	B3		
C348	B2	C568	A5	C937	B3	IC502	B4	R353	B1	R924	C2		
C349	B3	C569	A5	C938	B3	IC503	A4	R354	B1	R925	C2		
C352	B1	C570	A5	C939	B3	IC504	A4	R355	B1	R926	C3		
C353	B1	C571	C5	C940	B3	IC505	A4	R356	B1	R927	C3		
C354	B1	C572	B5	C941	B3	JK302	A1	R357	B1	R928	D2		
C355	B1	C573	B5	C942	B3	JK501	C5	R358	B1	R929	D2		
C356	B1	C574	B5	C943	B3	JK502	C5	R359	B1	R930	D2		
C357	B1	C575	A5	C944	B3	JK701	C2	R360	A2	R931	B3		
C362	B2	C576	A5	C945	C2	JK702	D3	R361	A2	R932	B3		
C363	B2	C577	B3	C947	D1	JP505	A5	R369	B2	R933	B3		
C500	A5	C578	B3	C949	C3	JP505AA5	R377	B2	R934	B3			
C5001	C5	C579	B3	C950	C3	JP507	A5	R378	B2	R935	B3		
C5002	C5	C580	B3	C951	C3	JP507AA5	R388	A1	R936	B3			
C5003	C5	C581	B3	C954	C3	L501	C5	R418	B1	R937	B3		
C5004	C5	C582	B3	C952	C2	L502	C5	R419	B1	R938	B3		
C5005	C5	C583	B4	C953	C2	L503	B5	R504	A3	R939	B3		
C5006	C5	C584	A3	C955	D1	L504	B5	R506	C4	R940	B3		
C5007	C5	C585	A3	CE501	C5	L505	B5	R507	C4	R941	B3		
C5008	C5	C586	A3	CE502	C5	L506	B5	R508	B4	R942	B3		
C501	C4	C587	A3	CE503	C5	L507	B5	R509	B4	R943	B3		
C502	C4	C588	A3	CE504	C5	L508	A5	R512	A3	R944	C3		
C503	C4	C589	A3	CE505	C5	L509	A5	R513	A4	R945	D2		
C504	B4	C590	A3	CE506	C5	L510	A5	R514	A4	R947	C3		
C505	B4	C591	A3	CE507	C5	L511	A5	R515	C5	R948	C3		
C506	B4	C593	A5	CE508	C5	L512	A5	R516	B5	R949	D1		
C507	B4	C594	A5	CE509	C5	L513	C5	R517	B5	R952	D1		
C508	A3	C595	B5	CE510	C5	L514	B5	R518	A5	R971	C3		
C509	A3	C596	B5	CE511	C5	L515	B5	R519	A5	R973	C2		
C510	A4	C597	C5	CE512	C5	L516	A5	R520	A5	R974	C2		
C511	A4	C701	D2	CN301	A1	L517	A5	R521	C5	RB901	C1		
C512	B5	C702	D2	CN303AB1	L518	A5	R522	C5	RB902	D1			
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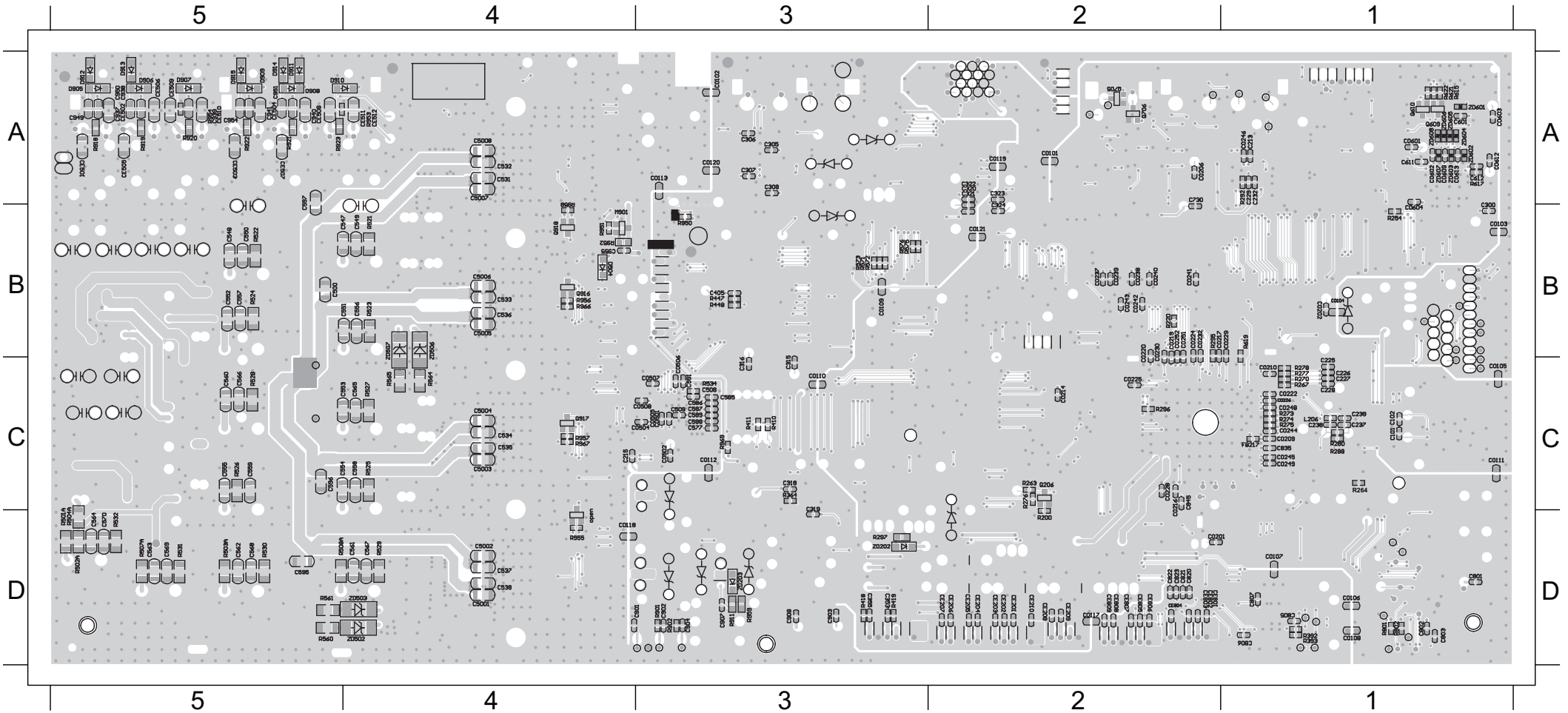


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C0203	A3	C233	B3	CE809	D2	R221	C5	R817	B3
C0204	A3	C234	B4	CN201	B5	R222	D3	R818	A2
C0205	A3	C238	A4	CN202	C1	R223	B5	R819	A2
C0206	A3	C240	B4	CN203	D4	R224	B4	R820	B2
C0207	A3	C241	A4	CN802	B1	R225	B4	R821	A2
C0208	A4	C242	A3	CN803	B1	R226	B5	R822	A2
C0209	A3	C243	D2	D201	A3	R228	B5	R823	A2
C0210	B4	C253	C2	D202	A3	R230	C2	R824	A2
C0212	D2	C254	D2	D203	A3	R231	C2	R826	B1
C0213	C5	C300	A5	D204	A3	R232	C2	R827	B1
C0214	C5	C601	A4	D205	D2	R233	C2	R828	B2
C0215	C5	C602	A4	FB1	A4	R234	C1	R829	B2
C0216	D1	C604	B5	FB201	A3	R235	C2	R830	B2
C0217	D1	C605	B4	FB202	A3	R236	D2	R831	B2
C0218	D1	C606	A4	FB203	A3	R240	B5	R833	B2
C0219	D1	C607	A4	FB204	A3	R241	B5	R834	C3
C0220	D1	C608	A5	FB205	C5	R242	D2	R836	B2
C0221	D1	C609	B5	FB206	C5	R243	C5	R838	B2
C0222	D1	C610	A4	FB207	D5	R245	C1	R839	B2
C0223	D1	C611	A5	FB208	D5	R247	C1	R840	B2
C0224	D1	C612	A5	FB209	C1	R248	C1	R841	B2
C0225	D1	C801	A1	FB210	C1	R249	C1	R842	B2
C0226	D1	C802	A1	FB211	C1	R251	C2	R843	C3
C0228	D1	C803	A1	FB212	C1	R252	C2	R845	C3
C0229	D1	C804	A2	FB213	C1	R253	C1	RA201	C2
C0230	D2	C805	B2	FB214	C1	R255	C2	RA202	C5
C0231	D2	C806	B2	FB216	D2	R256	C2	XL201	B4
C0232	D2	C807	B2	FB217	A3	R257	C2	ZD201	A3
C0235	D2	C808	B2	FB601	A4	R258	C2	ZD202	A3
C0237	D5	C809	B3	FB602	A4	R259	A4		
C0238	D5	C810	A3	FB603	A4	R260	C5		
C0239	D5	C811	A2	FB604	A4	R261	C5		
C0240	D5	C812	A2	FB605	B4	R264	A4		
C0241	D5	C813	B3	FB801	A1	R266	C5		
C0242	D5	C816	B3	FB802	A2	R269	D2		
C0243	D5	C817	B3	FB803	B1	R271	D2		
C0244	A3	C818	A2	IC201	C1	R272	D2		
C0245	A3	C819	B2	IC202	C5	R276	A3		
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C0248	B5	C822	B2	IC205	D5	R281	D2		
C0249	A3	C823	B2	IC206	D5	R282	C2		
C0250	A3	C824	B2	IC207	A3	R283	D2		
C0251	C5	C825	C3	IC208	B4	R284	D2		
C0252	C5	C826	B3	IC602	A5	R286	D3		
C0601	A4	C827	B3	IC801	B1	R287	D3		
C0602	A4	C828	B3	JK601	A4	R288	B3		
C0603	A4	C829	B3	L201	A3	R290	C1		
C0604	B4	C830	B3	L202	A3	R291	C1		
C0606	B4	C831	B3	L203	A3	R292	C1		
C0608	B4	C832	B3	L204	D5	R293	A4		
C0609	A5	C833	B3	L205	B5	R294	A3		
C0610	A4	C834	B3	L207	B5	R297	A3		
C0612	B5	C835	B3	L601	A5	R300	D2		
C0613	A5	C836	A3	L801	A2	R390	D1		
C0615	B5	C837	A3	L802	A2	R391	D2		
C201	A3	C838	B3	L803	B3	R392	B2		
C202	B5	C839	B3	Q201	A3	R393	B2		
C203	A3	C840	B3	Q202	A3	R394	A5		
C204	B3	C841	B3	Q203	A3	R395	B4		
C205	C5	C842	C2	Q204	A4	R397	A3		
C206	C5	C843	B2	Q300	D2	R398	D3		
C207	A2	C844	B2	Q609	D2	R601	A5		
C208	A3	C845	C3	Q610	D2	R602	A5		
C209	B3	C846	C3	Q611	D2	R609	B5		
C210	B3	C848	B3	Q803	A2	R610	B5		
C211	D5	C849	B2	Q804	A2	R611	A5		
C213	C1	CE201	C1	R200	A3	R613	A5		
C214	C2	CE202	C1	R201	A2	R614	A5		
C215	D2	CE203	C1	R202	A3	R616	A5		
C216	A3	CE204	C1	R203	A3	R617	A5		
C217	A3	CE205	C1	R204	A3	R621	A4		
C218	B4	CE206	C1	R205	A3	R622	A4		
C219	A3	CE207	C1	R206	A3	R624	A4		
C220	A4	CE208	B5	R207	A4	R801	A1		
C221	B4	CE209	B5	R209	B5	R802	A1		
C225	C2	CE210	C1	R210	C5	R803	A1		
C226	C2	CE801	D2	R211	C5	R804	B1		
C227	C2	CE802	D2	R212	C5	R805	B1		
C228	C2	CE803	D2	R216	A4	R806	C3		
C229	C1	CE804	D2	R217	A4	R807	C3		
C230	D2	CE805	D2	R218	A3	R808	A1		



# PCB Layout Bottom View

C0101	A4	C0117	D4	C0217	B4	C0238	B4	C0252	B4	C0609	A5	C238	C5	C324	A4	C531	A2	C551	B2	C563	D1	C589	C3	C806	D5	C907	D3	CE202	D4	CE504	A1	CE804	D4	D908	A1	R280	C5	R526	C1	R621	A5
C0102	A3	C0118	D2	C0219	B4	C0239	B4	C0501	C3	C0612	A5	C300	B5	C353	D3	C532	A2	C552	B1	C564	D1	C591	C3	C807	D5	C908	D3	CE203	D4	CE505	A1	CE805	D4	D909	A1	R288	C5	R527	C2	R622	A5
C0103	B5	C0119	A4	C0220	B4	C0240	B4	C0502	C3	C0613	A5	C305	A3	C355	D3	C533	B2	C553	C2	C565	C2	C595	D1	C820	D4	C937	A1	CE204	D4	CE506	A1	CE806	D4	D910	A1	R292	A5	R528	C1	R801	D5
C0104	B5	C0120	A3	C0222	C5	C0241	B4	C0504	C3	C213	A5	C306	A3	C500	B1	C534	C2	C554	C2	C566	C1	C596	C1	C821	D4	C938	A1	CE205	D4	CE507	A1	CE808	D4	D911	A1	R392	D5	R529	D2	R802	D5
C0105	C5	C0121	A4	C0224	B4	C0242	B4	C0505	C3	C215	C2	C307	A3	C5001	D2	C535	C2	C555	C1	C568	D1	C597	B1	C822	D4	C939	A1	CE206	D4	CE508	A1	CE809	D4	FB217	C5	R393	D5	R530	D1	R918	A1
C0106	D5	C0201	D4	C0225	C4	C0243	B4	C0506	C3	C225	C5	C308	A3	C5002	D2	C536	B2	C556	B2	C569	D1	C601	A5	C823	D4	C940	A1	CE207	D4	CE509	A1	CN201	D4	Q609	A5	R418	D3	R531	D1	R919	A1
C0107	D5	C0202	B5	C0226	C5	C0244	C5	C0507	C3	C226	C5	C315	C3	C5003	C2	C537	D2	C557	B1	C570	D1	C611	A5	C835	C5	C941	A1	CE208	D4	CE510	A1	CN304AB2	Q610	A5	R419	D3	R532	D1	R920	A1	
C0109	B3	C0206	A4	C0228	C4	C0245	C5	C0508	C3	C227	C5	C316	C3	C5004	C2	C538	D2	C558	C2	C577	C3	C612	A5	C845	C4	C949	A1	CE209	D4	CE511	A2	D504	B2	Q705	A4	R521	B2	R534	C3	R921	A1
C0110	C3	C0209	C5	C0229	B5	C0246	A5	C0601	A5	C228	C5	C320	A4	C5005	C2	C547	B2	C559	C1	C585	C3	C730	A4	C901	D2	C950	A1	CE210	D4	CE512	A2	D905	A1	Q706	A4	R522	B1	R571	B3	R922	A1
C0111	C5	C0210	C5	C0230	B4	C0248	C5	C0602	A5	C229	A5	C321	A4	C5006	B2	C548	B1	C560	C1	C586	C3	C801	D5	C902	D3	C951	A1	CE501	A1	CE801	D4	D906	A1	R200	D4	R523	B2	R572	B3	R923	A1
C0112	C3	C0214	C4	C0232	B4	C0249	C5	C0603	A5	C232	A5	C322	A4	C5007	A2	C549	B2	C561	D2	C587	C3	C802	D5	C903	D3	C954	A1	CE502	A1	CE802	D4	D906	A1	R220	B4	R524	B1	R573	B3	R952	B2
C0113	A3	C0216	C4	C0237	B4	C0251	B4	C0604	B5	C237	C5	C323	A4	C5008	A2	C550	B1	C562	D1	C588	C3	C803	D5	C904	D3	CE201	D4	CE503	A1	CE803	D4	D907	A1	R263	B4	R525	C2	R617	A5		



# VOLTAGE

IC201																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.30	0.00	0.00	2.50	2.50	1.70	0.70	1.70	0.00	3.30	2.50	5.10	1.80	0.00	0.00	5.00	5.00	0.00	5.00	0.00
Pin NO	21	22	23	24	25	26	27	28												
Voltage	5.00	0.00	5.00	0.00	0.00	0.00	5.00	3.30												

IC202																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0.35	1.60	2.00	1.90	2.50	1.70	0.70	1.70	0.00	0.00	3.30	3.30	0.00	3.30	0.40	0.00	1.50	1.40	1.50	1.90
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	2.10	1.90	1.80	1.95	2.00	0.00	0.00	0.00	0.85	1.65	1.20	1.20	1.20	0.85	1.70	3.30	1.50	1.65	2.20	
Pin NO	41	42	43	44	45	46	47	48												
Voltage	1.40	1.60	1.70	1.70	2.00	0.00	0.00	1.00												

IC203																			
Pin NO	1	2	3																
Voltage	3.30	3.30	0.00																

IC204																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0.00	0.00	0.00	0.00	3.30	3.30	0.00	3.30											

IC205																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0.00	3.30	1.50	1.60	0.00	3.30	1.25	1.00	0.00	0.00	0.00	0.00	1.60	1.50	3.30	0.00	1.40	1.50	0.00	3.30

IC206																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	3.20	1.00	3.20	1.10	1.30	0.00	1.30	1.20	3.20	1.30	1.20	0.00	1.30	3.20	2.60	3.20	3.00	3.00	3.00	1.40
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	1.20	0.00	0.00	1.40	1.60	1.80	3.20	0.00	1.60	1.80	1.20	0.50	0.00	0.00	0.00	3.20	1.80	2.30	0.00	
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
Voltage	0.00	1.00	3.20	1.40	0.70	0.00	0.70	1.30	3.20	1.30	1.40	0.00	0.80	0.00						

IC207																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
Voltage	1.40	1.50	1.50	0.50	0.00	3.30	0.00	1.50	1.50	1.50	1.50	0.00	0.00	3.30						

IC208																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0.00	0.10	0.10	0.10	0.10	1.60	1.60	2.10	1.90	1.90	1.80	0.00	0.00	0.90	0.90	1.00	1.00	1.90	1.50	0.00
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage	0.80	3.20	3.20	3.20	2.70	3.10	0.00	2.70	2.00	1.30	1.30	1.50	1.50	2.40	2.40	2.20	1.30	1.30	0.00	1.30
Pin NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Voltage	1.30	1.30	0.00	1.60	3.30	0.00	0.00	0.00	3.30	2.20	3.20	0.00	0.00	3.20	1.90	1.90	1.80	1.90	2.10	1.80
Pin NO	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Voltage	1.50	1.40	1.60	0.00	3.30	3.30	0.30	1.50	2.00	1.90	2.50	1.70	0.70	1.60	0.00	0.00	2.00	0.00	1.50	1.50
Pin NO	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Voltage	0.00	1.30	1.20	1.60	1.80	1.70	0.00	1.10	1.80	0.00	1.30	1.90	1.80	0.60	3.20	3.30	0.00	3.10	3.10	3.10
Pin NO	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Voltage	3.20	3.20	5.00	3.10	2.20	3.30	0.00	3.30	3.80	2.20	2.70	0.00	2.10	0.70	0.50	1.10	1.50	3.30	1.50	1.50
Pin NO	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Voltage	1.60	1.00	1.90	1.70	1.60	0.80	0.80	1.80	0.70	1.60	3.30	2.70	3.20	3.00	3.10	2.90	1.50	3.10	0.10	0.20
Pin NO	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Voltage	1.40	1.80	1.40	1.40	3.00	1.50	3.30	0.00	0.00	0.00	0.00	1.60	2.00	1.90	1.40	3.30	0.50	0.10	0.20	1.80
Pin NO	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Voltage	1.60	0.20	0.20	0.20	1.30	0.50	3.30	2.90	2.90	3.30	2.60	2.90	2.60	1.80	3.30	0.00	1.70	0.00	3.10	3.40
Pin NO	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
Voltage	3.10	0.00	0.00	0.00	0.00	3.30	0.00	0.00	3.30	3.30	0.00	0.00	2.00	1.20	1.20	3.30	0.00	3.20	3.20	3.10
Pin NO	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
Voltage	3.10	0.00	0.00	2.50	0.00	5.00	0.00	3.30	1.50	1.60	1.50	0.00	1.80	1.90	2.00	0.00	3.30	1.30	0.00	0.10
Pin NO	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
Voltage	0.00	0.00	0.00	0.00	1.60	0.00	3.20	3.80	3.30	3.50	0.00	1.80	0.00	0.40	0.90	0.90	0.00	0.00	3.20	3.00
Pin NO	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256				
Voltage	0.50	1.60	1.30	3.20	0.00	3.20	0.50	1.30	3.20	1.40	0.00	1.60	1.60	1.10	0.80	3.20				

IC301																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0.00	0.00	0.00	-13.00	0.00	0.00	0.00	12.00											

IC302																			
Pin NO	1	2	3	4	5	6	7	8											
Voltage	0.00	0.00	0.00	-13.00	0.00	0.00	0.00	12.00											

IC304																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	0.00	0.00	0.00	0.00	0.00	0.00	5.70	0.00	0.00	3.30	0.00	0.00	0.00	0.00	0.00	5.70				

IC305																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	0.00	0.00	0.00	0.00	0.00	0.00	5.70	0.00	0.00	5.70	0.00	0.00	0.00	0.00	0.00	5.70				

IC306																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Voltage	5.30	1.50	5.30	1.90	0.00	5.30	1.65	1.55	3.30	2.60	2.60	2.60	5.30	0.00	5.20	5.30				

IC501																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0.00	0.50	0.50	35.00	0.00	0.00	35.00	0.50	0.50	0.40	0.40	35.00	0.00	0.00	3.50	0.40	0.40	0.00	0.00	0.00
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	4.90	4.90	3.20	0.00	3.30	3.30	3.30	3.20	0.20	0.20	0.20	0.20	29.80	29.80	35.00	35.00				

IC502																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0.00	0.50	0.50	35.00	0.00	0.00	35.00	0.50	0.50	0.40	0.40	35.00	0.00	0.00	3.50	0.40	0.40	0.00	0.00	0.00
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	4.90	4.90	3.20	0.00	3.30	3.30	3.30	3.20	0.20	0.20	0.20	0.20	29.80	29.80	35.00	35.00				

IC503																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0.00	0.50	0.50	35.00	0.00	0.00	35.00	0.50	0.50	0.40	0.40	35.00	0.00	0.00	3.50	0.40	0.40	0.00	0.00	0.00
Pin NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Voltage	4.90	4.90	3.20	0.00	3.30	3.30	3.30	3.20	0.20	0.20	0.20	0.20	29.80	29.80	35.00	35.00				

IC504																				
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage	0.00	0.50	0.50	35.00	0.00	0.00	35.00	0.50	0.50	0.40	0.40	35.00	0.00	0.00	3.50	0.40	0.40	0.00	0.00	0.00
Pin NO	21	22	23																	

**VOLTAGE**

# POWER BOARD

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IC901																
Pin NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voltage	4.80	4.80	2.40	0.00	1.70	3.40	0.00	12.00	2.30	2.30	12.00	12.00	4.90	4.90	2.40	0.00

IC902																
Pin NO	1	2	3	4	5	6	7	8								
Voltage	2.70	0.00	0.50	2.10	0.00	1.00	11.00	4.90								

IC903																
Pin NO	1	2	3	4												
Voltage	4.90	4.20	0.00	1.00												

IC904																
Pin NO	1	2	3	4												
Voltage	4.60	3.50	0.00	2.60												

IC905																
Pin NO	1	2	3													
Voltage	3.50	0.00	2.40													

Q901			
Pin NO	b	c	e
Voltage	148.00	318.00	148.00

Q907			
Pin NO	b	c	e
Voltage	0.60	0.00	0.00

Q911			
Pin NO	b	c	e
Voltage	1.50	0.00	1.80

Q915			
Pin NO	b	c	e
Voltage	42.00	4.90	42.00

Q904			
Pin NO	b	c	e
Voltage	0.00	3.40	0.00

Q908			
Pin NO	b	c	e
Voltage	0.00	4.30	0.00

Q912			
Pin NO	b	c	e
Voltage	0.00	550.00	0.00

Q916			
Pin NO	b	c	e
Voltage	1.50	0.00	0.00

Q905			
Pin NO	b	c	e
Voltage	11.50	13.50	11.00

Q909			
Pin NO	b	c	e
Voltage	0.00	147.90	0.00

Q913			
Pin NO	b	c	e
Voltage	72.00	0.00	2.50

Q917			
Pin NO	b	c	e
Voltage	0.60	0.00	0.00

Q906			
Pin NO	b	c	e
Voltage	0.00	41.90	0.00

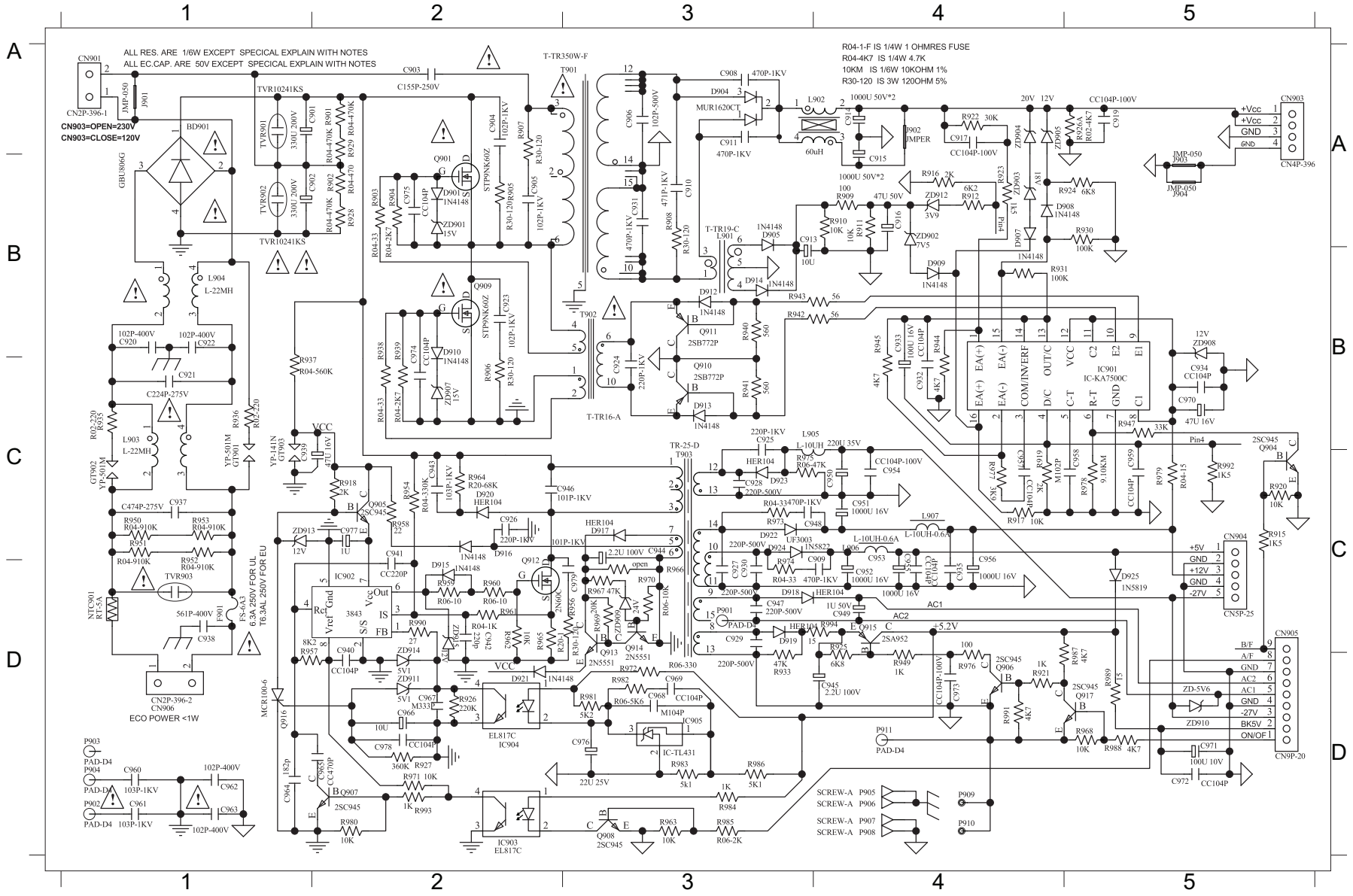
Q910			
Pin NO	b	c	e
Voltage	1.50	0.00	1.80

Q914			
Pin NO	b	c	e
Voltage	0.00	0.60	0.00



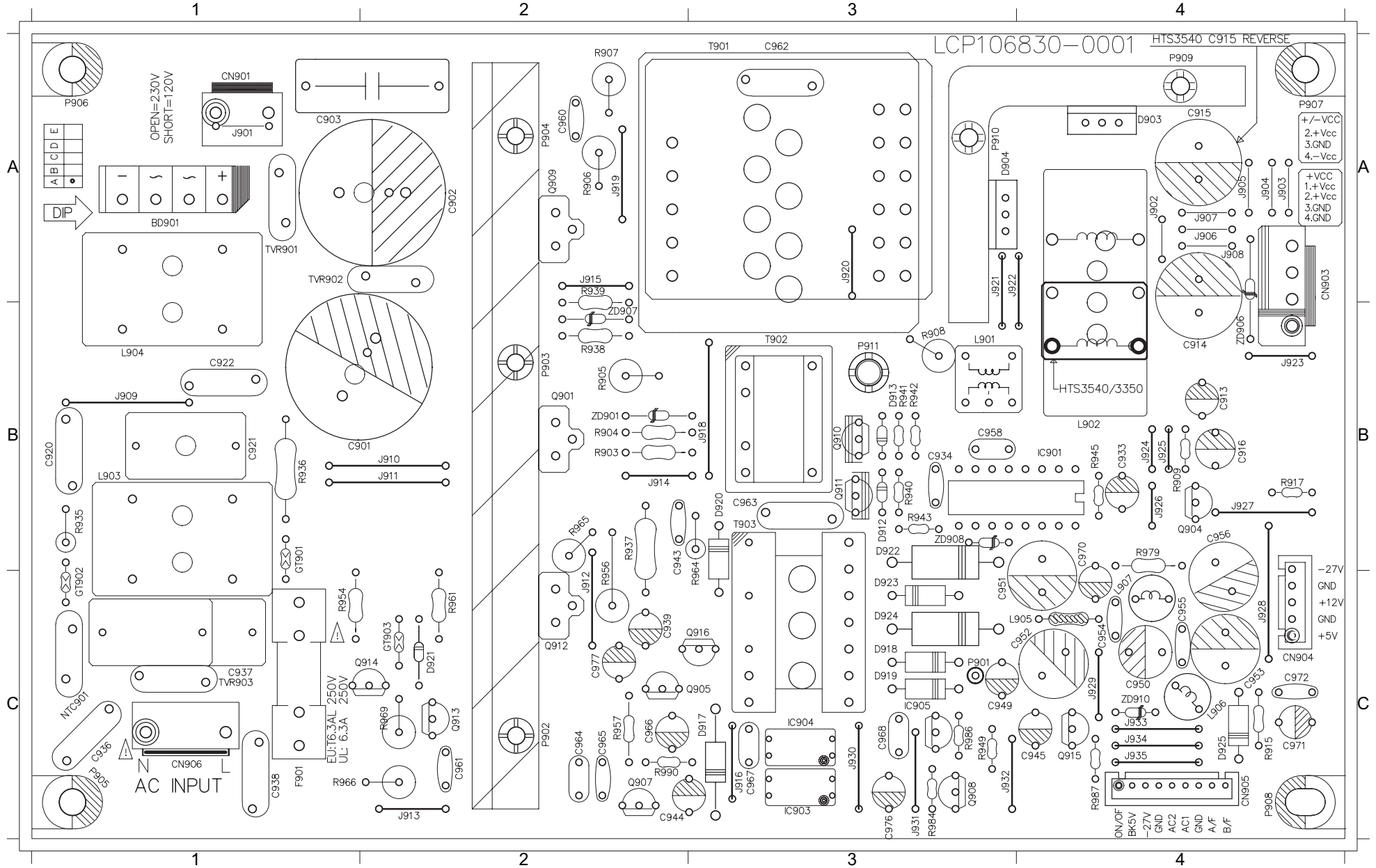
# CIRCUIT DIAGRAM

BD901 A1	C914 A4	C926 C2	C938 C1	C950 C4	C961 D1	C972 D5	D904 A3	D917 C3	GT902 C1	L903 B1	Q908 D3	R902 A2	R916 A4	R926B D2	R939 B2	R952 C1	R964 C2	R975 C3	R986 D3	TVR901A1	ZD910 D5
C901 A1	C915 A4	C927 C3	C939 C1	C951 C4	C962 D1	C973 D4	D905 A3	D918 C3	IC901 B5	L904 B1	Q909 B2	R903 A2	R917 C4	R927 D2	R940 B3	R953 C1	R965 C2	R976 D4	R987 D5	TVR902A1	ZD911 D2
C902 A1	C916 A4	C928 C3	C940 C2	C952 C4	C963 D1	C976 D3	D907 A4	D919 C3	IC902 C2	L905 B3	Q910 B3	R904 A2	R918 C2	R928 A2	R941 B3	R954 C2	R966 C3	R977 C4	R988 D5	TVR903C1	ZD912 A4
C903 A2	C917 A4	C929 C3	C941 C2	C953 C4	C964 D1	C977 C2	D908 A4	D920 C2	IC903 D2	L906 C4	Q911 B3	R905 A2	R919 C4	R929 A2	R942 B3	R955 C2	R967 C3	R978 C5	R989 D5	ZD901 A2	ZD913 C1
C904 A2	C919 A5	C930 C3	C942 C2	C954 C4	C965 D2	C978 D2	D909 B4	D921 D2	IC904 D2	L907 C4	Q912 C2	R906 B2	R920 C5	R930 A5	R943 B3	R957 C1	R968 D5	R979 C5	R990 C2	ZD902 A4	ZD914 C2
C906 A3	C920 B1	C931 A3	C943 C2	C955 C4	C966 D2	CN901 A1	D910 B2	D922 C3	IC905 D3	NTC901C1	Q913 D3	R908 A3	R921 D4	R931 B4	R944 B4	R958 C2	R969 C3	R980 D2	R991 D4	ZD903 A4	
C908 A3	C921 B1	C932 B4	C944 C3	C956 C4	C967 D2	CN903 A5	D912 B3	D923 C3	J902 A4	Q901 A2	Q914 C3	R909 A4	R922 A4	R933 D3	R945 B4	R959 C2	R970 C3	R981 D3	R993 D2	ZD904 A4	
C909 C4	C922 B1	C933 B4	C945 D4	C957 C4	C968 D3	CN904 C5	D913 B3	D924 C3	J903 A5	Q904 C5	Q915 C4	R910 A4	R923 A4	R935 B1	R947 B5	R960 C2	R971 D2	R982 D3	R994 C4	ZD905 A4	
C910 A3	C923 B2	C934 B4	C946 C2	C958 C5	C969 D3	CN905 D5	D914 B3	D925 C5	J904 A5	Q905 C2	Q916 D1	R911 A4	R924 A5	R936 B1	R949 D4	R961 C2	R972 D3	R983 D3	T901 A3	ZD907 B2	
C911 A3	C924 B3	C935 C4	C948 C3	C959 C5	C970 B5	CN906 D1	D915 C2	F901 C1	L901 A3	Q906 D4	Q917 D5	R912 A4	R925 C4	R937 B1	R950 C1	R962 C2	R973 C3	R984 D3	T902 B3	ZD908 B5	
C913 A3	C925 B3	C937 C1	C949 C4	C960 D1	C971 D5	D901 A2	D916 C2	GT901 C1	L902 A4	Q907 D2	R901 A2	R915 C5	R926A A5	R938 B2	R951 C1	R963 D3	R974 C3	R985 D3	T903 C3	ZD909 C3	



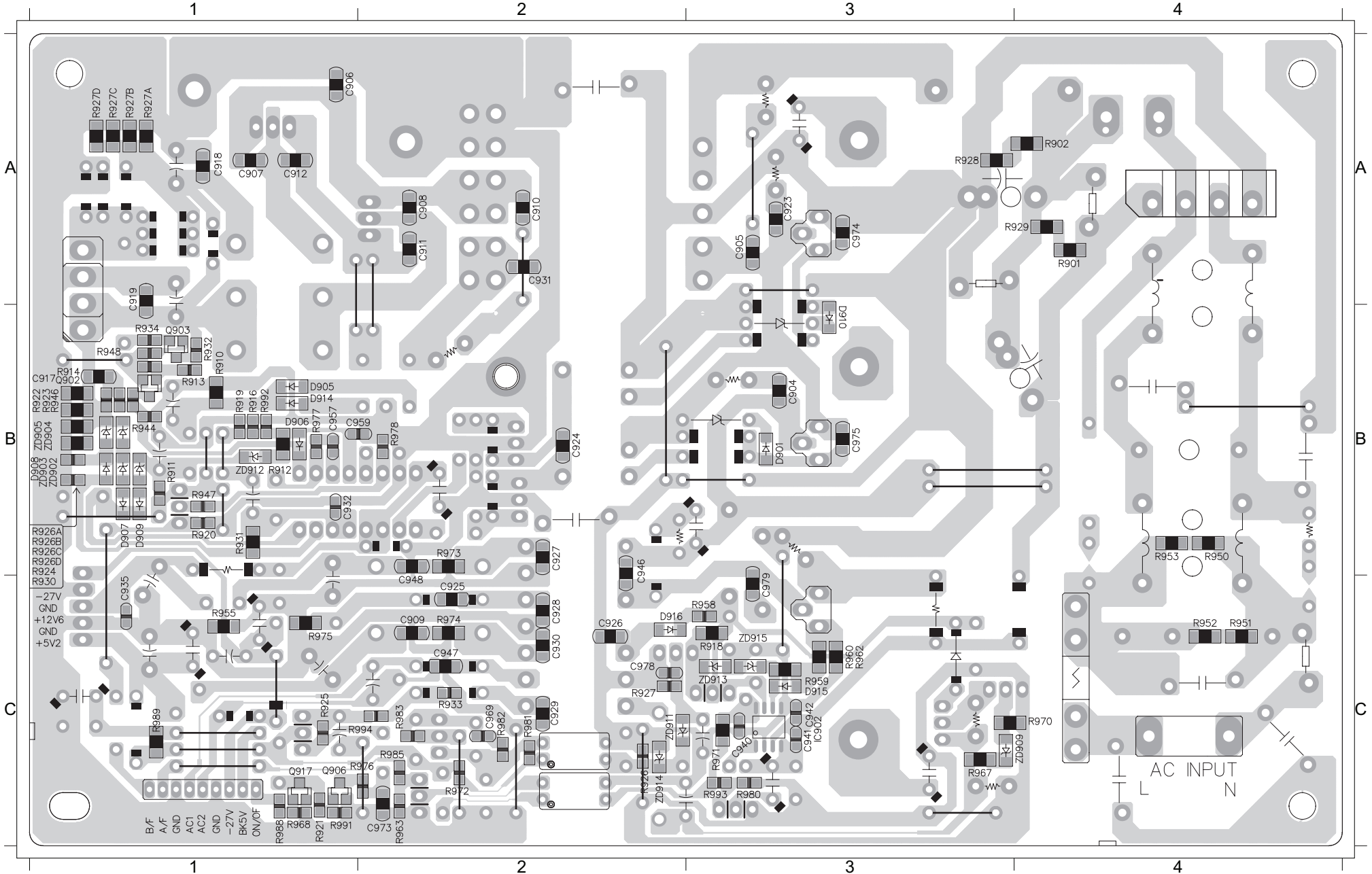
PCB LAYOUT - TOP VIEW

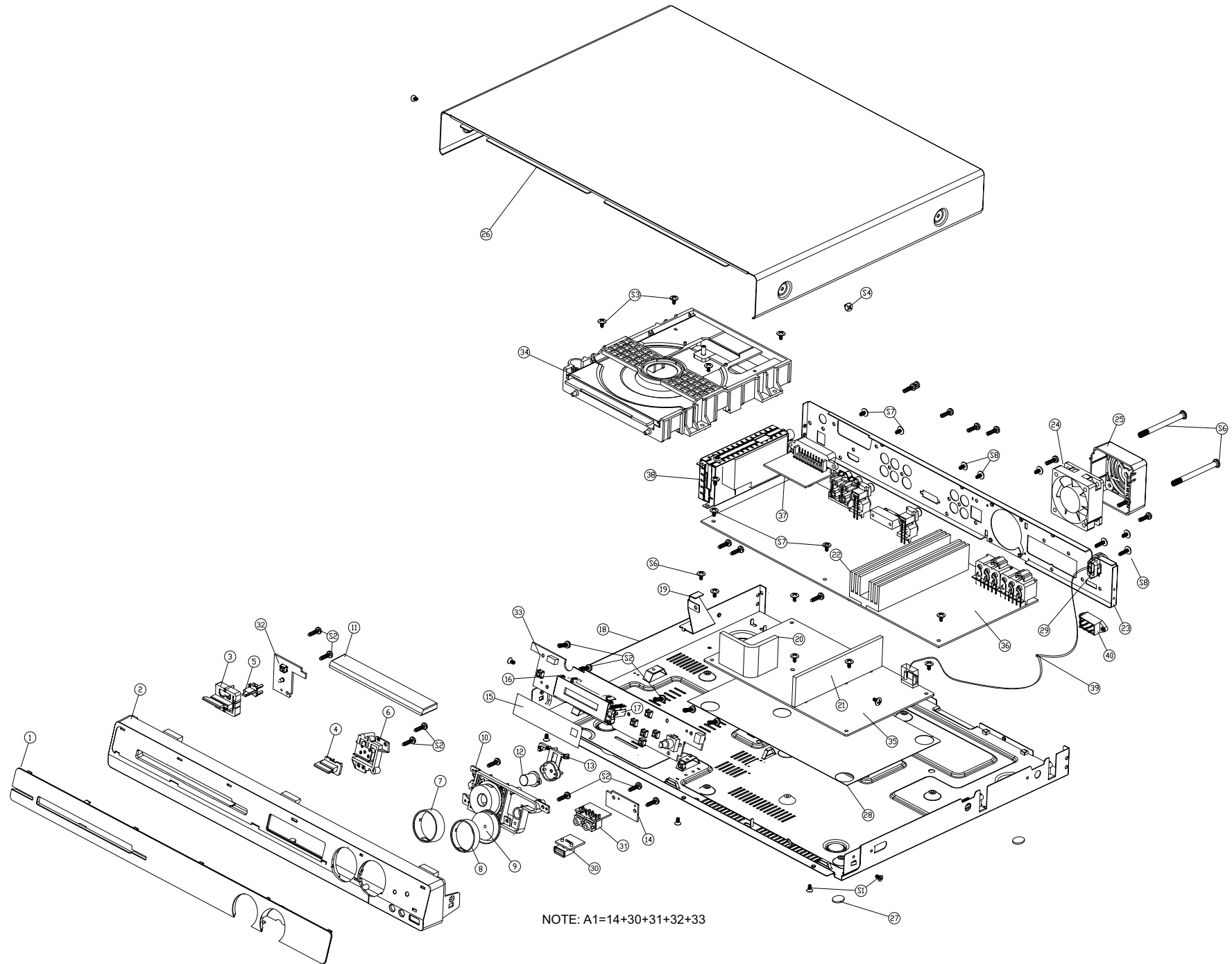
BD901	A1	C920	B1	C943	B2	C954	C4	C964	C2	C977	C2	D913	B3	D924	C3	IC905	C3	J912	C2	J922	A3	J930	C3	L903	B1	Q905	C2	Q914	C1	R909	B4	R940	B3	R961	C2	R987	C4	ZD901	B2
C901	A1	C921	B1	C944	C2	C955	C4	C965	C2	CN901	A1	D917	C3	D925	C4	J901	A1	J913	C2	J923	B4	J931	C3	L904	B1	Q907	C2	Q915	C4	R915	C4	R941	B3	R964	C2	R990	C2	ZD907	B2
C902	B1	C922	B1	C945	C4	C956	B4	C966	C2	CN903	A4	D918	C3	F901	C1	J902	A4	J914	B2	J924	B4	J932	C3	L905	C4	Q908	C3	Q916	C3	R917	B4	R942	B3	R965	B2	T901	A3	ZD908	B3
C903	A1	C933	B4	C949	C3	C958	B3	C967	C3	CN904	C4	D919	C3	GT901	B1	J903	A4	J915	A2	J925	B4	J933	C4	L906	C4	Q909	A2	R903	B2	R935	B1	R943	B3	R966	C1	T902	B3	ZD910	C4
C913	B4	C934	B3	C950	C4	C960	A2	C970	B4	CN905	C4	D920	B3	GT902	C1	J904	A4	J916	C3	J926	B4	J934	C4	L907	C4	Q910	B3	R904	B2	R936	B1	R945	B4	R969	C2	T903	B3		
C914	B4	C937	C1	C951	C3	C961	C2	C971	C4	CN906	C1	D921	C2	IC901	B4	J909	B1	J918	B3	J927	B4	J935	C4	NTC901	C1	Q911	B3	R905	B2	R937	B2	R949	C3	R979	B4	TVR901	A1		
C915	C4	C938	C1	C952	C4	C962	A3	C972	C4	D904	A3	D922	C3	IC903	C3	J910	B2	J920	A3	J928	C4	L901	B3	Q901	B2	Q912	C2	R906	A2	R938	B2	R954	C1	R984	C3	TVR902	A1		
C916	B4	C939	C2	C953	C4	C963	B3	C976	C3	D912	B3	D923	C3	IC904	C3	J911	B2	J921	A3	J929	C4	L902	B4	Q904	B4	Q913	C2	R908	B3	R939	B2	R957	C2	R986	C3	TVR903	C1		



PCB LAYOUT - BOTTOM VIEW

C904	B3	C911	A2	C925	C2	C930	C2	C941	C3	C959	B2	D901	B3	D910	B3	Q906	C1	R911	B1	R920	B1	R925	C1	R927	C2	R933	C2	R952	C4	R960	C3	R970	C4	R975	C1	R981	C2	R989	C1	ZD903	B1	ZD912	B1
C906	A1	C917	A1	C926	C2	C931	A2	C942	C3	C968	C1	D905	B1	D914	B1	Q917	C1	R912	B1	R921	C1	R926A	B1	R928	A3	R944	B1	R953	B4	R962	C3	R971	C3	R976	C2	R982	C2	R991	C1	ZD904	B1	ZD913	C3
C908	A2	C919	A1	C927	B2	C932	B1	C946	C2	C969	C2	D907	B1	D915	C3	R901	A4	R916	B1	R922	B1	R926B	B1	R929	A4	R947	B1	R955	C1	R963	C2	R972	C2	R977	B1	R983	C2	R993	C3	ZD905	B1	ZD914	C2
C909	C2	C923	A3	C928	C2	C935	C1	C948	B2	C973	C2	D908	B1	D916	C2	R902	A4	R918	C3	R923	B1	R926C	B1	R930	B1	R950	B4	R958	C3	R967	C3	R973	B2	R978	B2	R985	C2	R994	C2	ZD909	C3		
C910	A2	C924	B2	C929	C2	C940	C3	C957	B1	C978	C2	D909	B1	IC902	C3	R910	B1	R919	B1	R924	B1	R926D	B1	R931	B1	R951	C4	R959	C3	R968	C1	R974	C2	R980	C3	R988	C1	ZD902	B1	ZD911	C2		





## MECHANICAL PART LIST

Loc.	Part No.	Description
1	996510001254	DISPLAY LENS
2	996510001661	FRONT ASSY
3	996510001256	STANDY BUTTON
4	996510001257	OPEN/CLOSE BUTTON
5	996510001662	STANDY LED LENS
6	996510003834	OPEN /CLOSE BUTTON HOLDER
7	996510001663	FUNCTION BUTTON RING
8	996510001664	VOLUME KNOB RING
9	996510001261	VOLUME KNOB RING
10	996510001262	FUNCTION BUTTON
11	996510002411	DVD DOOR
12	996510003835	SOURCE BUTTON
13	996510003836	SOURCE BUTTON HOLDER
15	996510003837	VFD FILTER
18	996510007181	BOTTOM CAB
23	996510008175	BACK PANEL
25	996510001615	FAN COVER
26	996510007321	TOP CAB
27	994000005305	RUBBER FOOT D14XT3.0MM W/ADV
28	996510003875	PVC SHEET
34	996510007174	DVD LOADER MODULE
35	996510003883	POWER PCB
36	996510003882	MAIN PCB
38	996510001690	TUNER PACK
39	996510001691	PWR CORD
A1	996510007314	CONTROL+USB+PHJACK+STANDBY+BKT
AM	996510001621	LOOP ANT
CN301	996510000673	FFC CABLE 10P 100MM P1.25MM
CN801	996510007319	FFC CABLE 24P 180MM
FM	996500023583	FM ANTENNA 1000MM 1007#24 TC
HDMI	996510001693	HDMI CABLE
RC	996510001649	REMOTE CONTROL
STEREO	996510001598	STEREO CABLE
Video	996500013058	RCA CABLE 2P 1.2M
24	996500042571	FAN DC 12V 0.1A

**SPEAKER**

RFR	996510001601	RUBBER FOOT REAR
RFS	996500028375	RUBBER FOOT -SUB
RFC	996510001599	RUBBER FOOT -CENTER SPK
RFF	996510001600	RUBBER FOOT-FRONT SPK
SPKC	996510002412	SPEAKER BOX -CENTER
SUBW	996510002417	SUBWOOFER
SPKFL	996510002413	SPEAKER BOX -FRONT LEFT
SPKFR	996510002414	SPEAKER BOX - FRONT RIGHT
SPKRL	996510002415	SPEAKER BOX- REAR LEFT
SPKRR	996510002416	SPEAKER BOX- REAR RIGHT