

Service
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Service Manual



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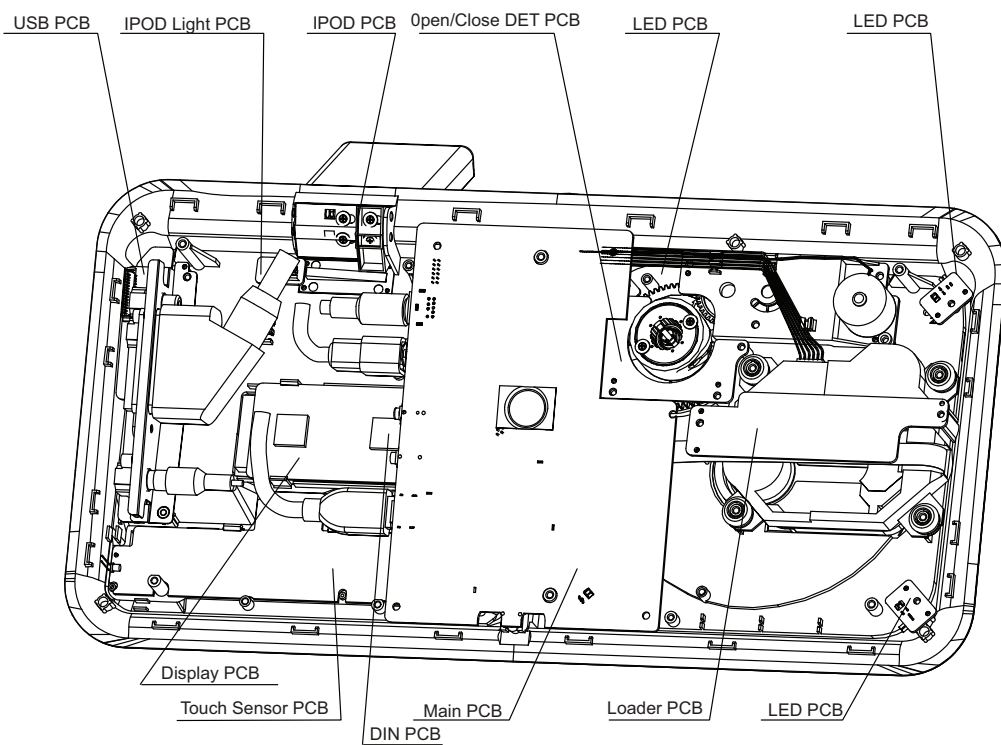
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Version 1.0

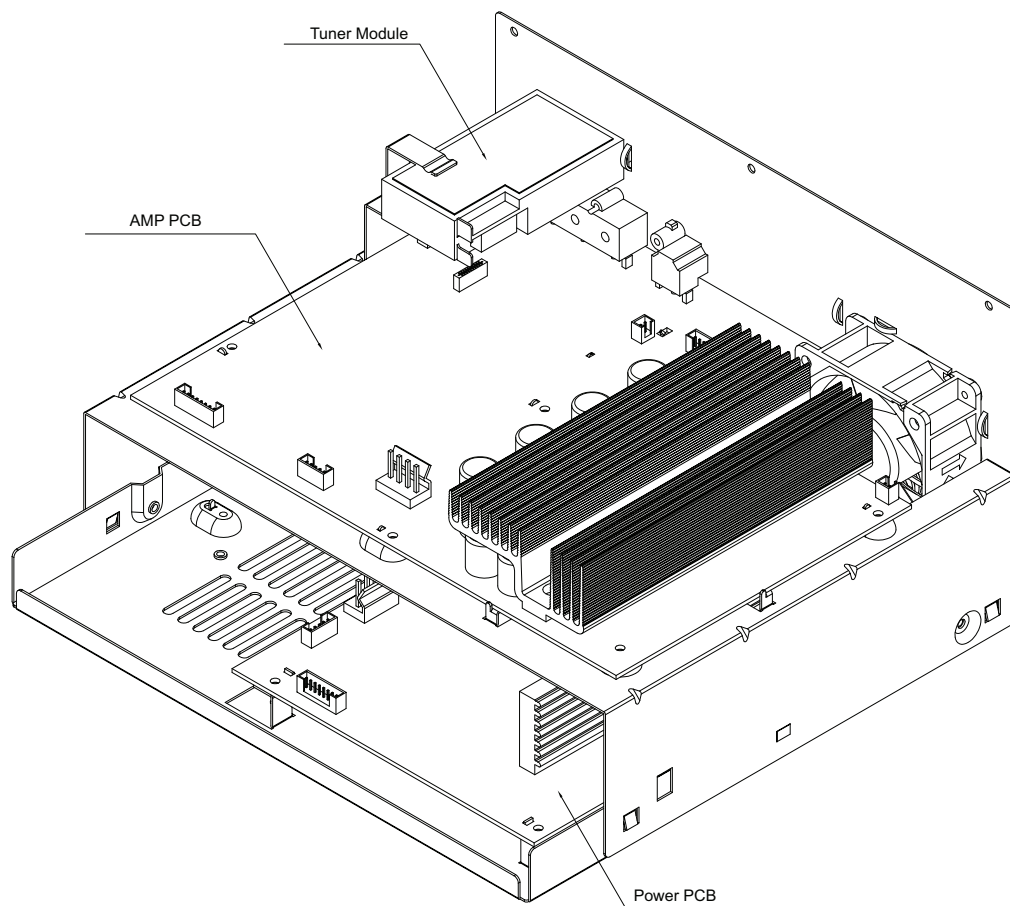


PHILIPS

LOCATION OF PCB BOARDS



MAIN UNIT



SUBWOOFER

VERSION VARIATION:

Type/Versions Features	HTS6520
	/55
Output Power - 600W	X
Voltage-subwoofer (110-127V)	X
Voltage-subwoofer (220-240V)	X

SERVICE SCENARIO MATRIX:

Type/Versions Board in used	HTS6520
	/55
Main+Din Board (main unit)	C
Touch Sensor Board (main unit)	C
Display+Scart+USB+LED Board (main unit)	C
IPOD Board (main unit)	C
Loader+Open/Close DET+LED*3 Board (main unit)	C
Power Board (subwoofer)	C
AMP Board (subwoofer)	C

*C = Component Level Repair

SPECIFICATIONS

Playback media

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

Amplifier

Total output power..... 600 W RMS
 Frequency response..... 30 Hz ~ 20 kHz /±3 dB
 Signal-to-noise ratio..... > 65 dB (CCIR)
 Input sensitivity:
 SCART 100 mV
 AUX1/2/3 250 mV
 MP3 LINK 100 mV

Disc

Laser Type..... Semiconductor
 Disc diameter..... 12 cm / 8 cm
 Video decoding..... MPEG1/ MPEG2 / DivX/ DivX Ultra
 Video DAC..... 12 bits, 108 MHz
 Signal system PAL / NTSC
 Video S/N 56 dB
 Audio DAC..... 24 bits / 96 kHz
 Frequency response..... 4 Hz–20 kHz (44.1 kHz)
 4 Hz–22 kHz (48 kHz)
 4 Hz–44 kHz (96 kHz)
 PCM..... IEC 60958
 Dolby Digital IEC 60958, IEC 61937
 DTS IEC 60958, IEC 61937

Radio

Tuning range FM 87.5–108 MHz (50 kHz)
 26 dB quieting sensitivity FM 22 dB
 IF rejection ratio..... FM 60 dB
 Signal-to-noise ratio..... FM 60 dB
 Harmonic distortion..... FM 3%
 Frequency response..... FM 180 Hz~10 kHz/ ±6dB
 Stereo separation FM 26 dB (1 kHz)
 Stereo Threshold FM 29 dB

USB

Compatibility..... High Speed USB (2.0)
 Class support..... UMS (USB Mass Storage Class)
 File system FAT12, FAT16, FAT32

Main Unit

Dimensions (WxHxD) 419 x 48 x 214(mm)
 Weight 1.7 kg

Ambisound speakers

System..... full range satellite
 Speaker impedance..... 8 ohm/channel
 Speaker drivers 2.5" full range/channel
 Frequency response..... 120 Hz–20 kHz
 Dimensions (WxHxD) 335.5 x 113 x128.5 (mm)
 Weight 1.72kg/each

Power (Subwoofer)

Power supply 110-127V/220-240V; ~50-60 Hz switchable
 Power consumption 150 W
 Standby power consumption:
 Normal <3 W
 Low Power..... < 0.3 W
 System..... Bass Refl ex System
 Impedance..... 4 ohm
 Speaker drivers 165 mm (6.5") woofer
 Frequency response..... 30 Hz ~ 120 Hz
 Dimensions (WxHxD) 295 x 440 x295 (mm)
 Weight 10 kg

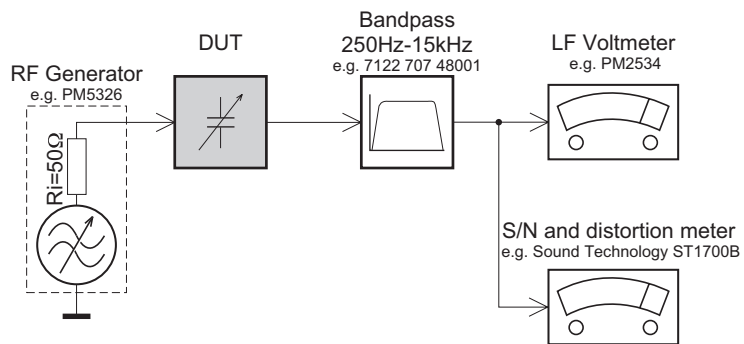
Laser specification

Type..... Semiconductor I • aser GaAlAs (CD)
 Wave length..... 645–660 nm (DVD), 770–800 nm (CD)
 Output power 6 mW (DVD), 7 mW (VCD/CD)
 Beam divergence..... 60 degrees

Specifications subject to change without prior notice.

MEASUREMENT SETUP

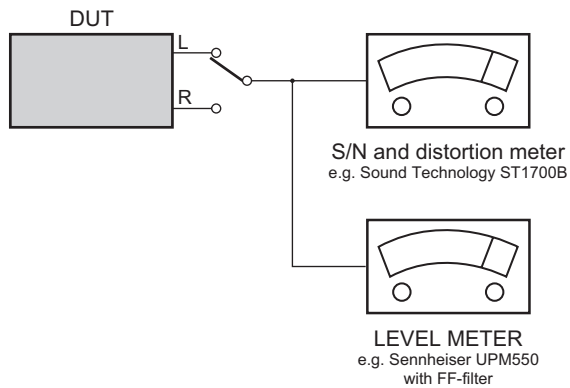
Tuner FM



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

CD

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



SERVICE AIDS

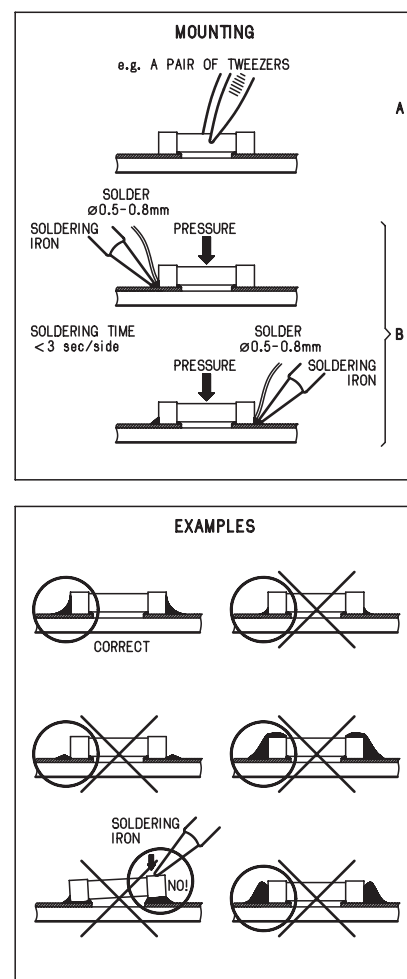
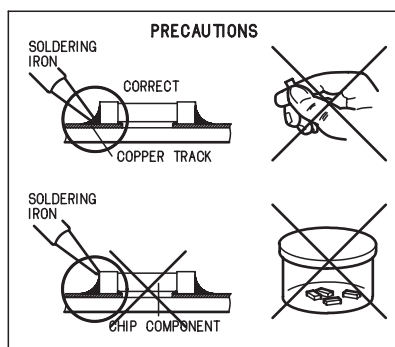
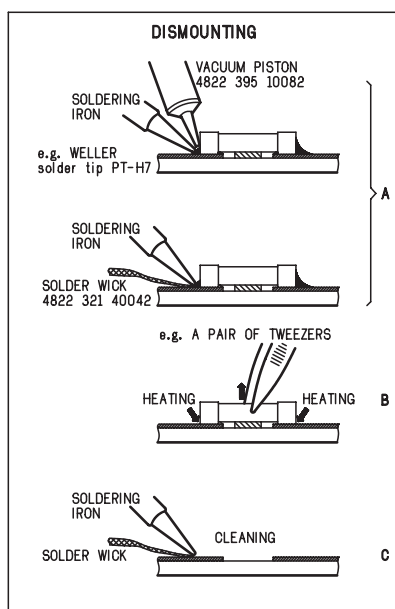
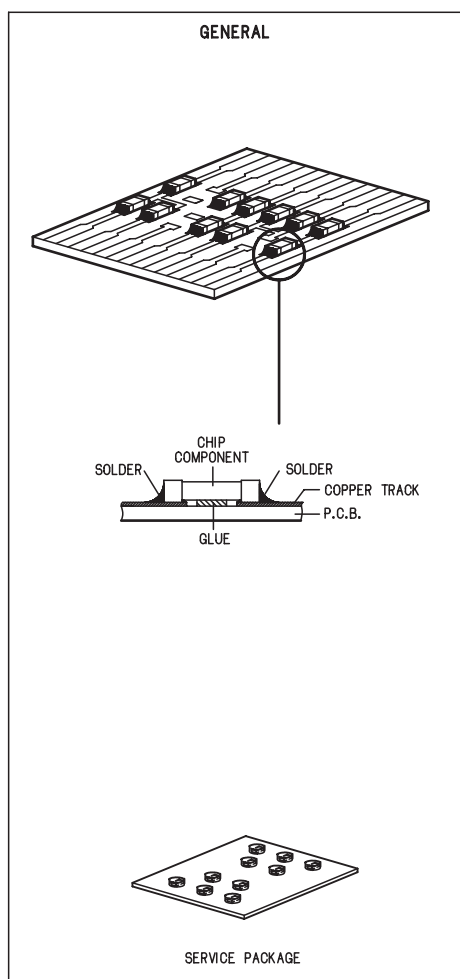
Service Tools:

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

Compact Disc:

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

HANDLING CHIP COMPONENTS



ESD**(GB) WARNING**

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

(F) ATTENTION

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

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(NL) WAARSCHUWING

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

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) ESD PROTECTION EQUIPMENT

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

(F)

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

Less composants de sécurité sont marqués Δ .

(D)

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

Sicherheitsbauteile sind durch das Symbol Δ markiert.

(I)

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

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.

**(GB) Warning !**

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

(S) Varning !

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

(SF) Varoitus !

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

(DK) Advarsel !

Usynlig 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".

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 (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 Prodnre

1)System Reset

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

- In "FM" playback mode, press & hold "play/pause" button until Grid 9" or "Grid 10" appears.

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

* "Grid 10" is default for/55 version.

2)Region Code Change

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

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

8) Upgrading new software

- Copy "software files" into CD-R or USB.
- Insert CD-R or put USB into USB jack.
- Press "DISC" or "USB" button on R/C.

- VFD will show:

"LOADING CONTENTS"
pop message "upgrading"
"Writing" about 1 minute
"done "

- TV will show:

3)Version Control Change

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

Current model	HTS6520/55
Release:XXXX.XX.XX	Version: XX.XX.XX
Region :X	Servo:XX.XX.XX.XX
8032:XX.XX.XX.XX	RISC: XX.XX.XX.XX
If current model does not match you set, use down arrow key on the remote to change	
OK	

Upgrade file detected upgrade? Press OK to start
--

- Press "PLAY", TV will show:

UPGRADING HTS6520 DO NOT POWER DOWN POWER BOX MCU PANEL MCU DVD FLASH

- After the system will switch off automatically.

4)Password Change

- Press "SETUP" button on R/C,TV will show setup menu.
 - Select the menu using the V and B on R/C.
 - Go preference page select "password" to change.
- * 136900 is default password supplied.

5)Check on the Software Version

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

6)Trade model

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

7) Produce to Change Tuner Grid

(only applicable for certain regions)

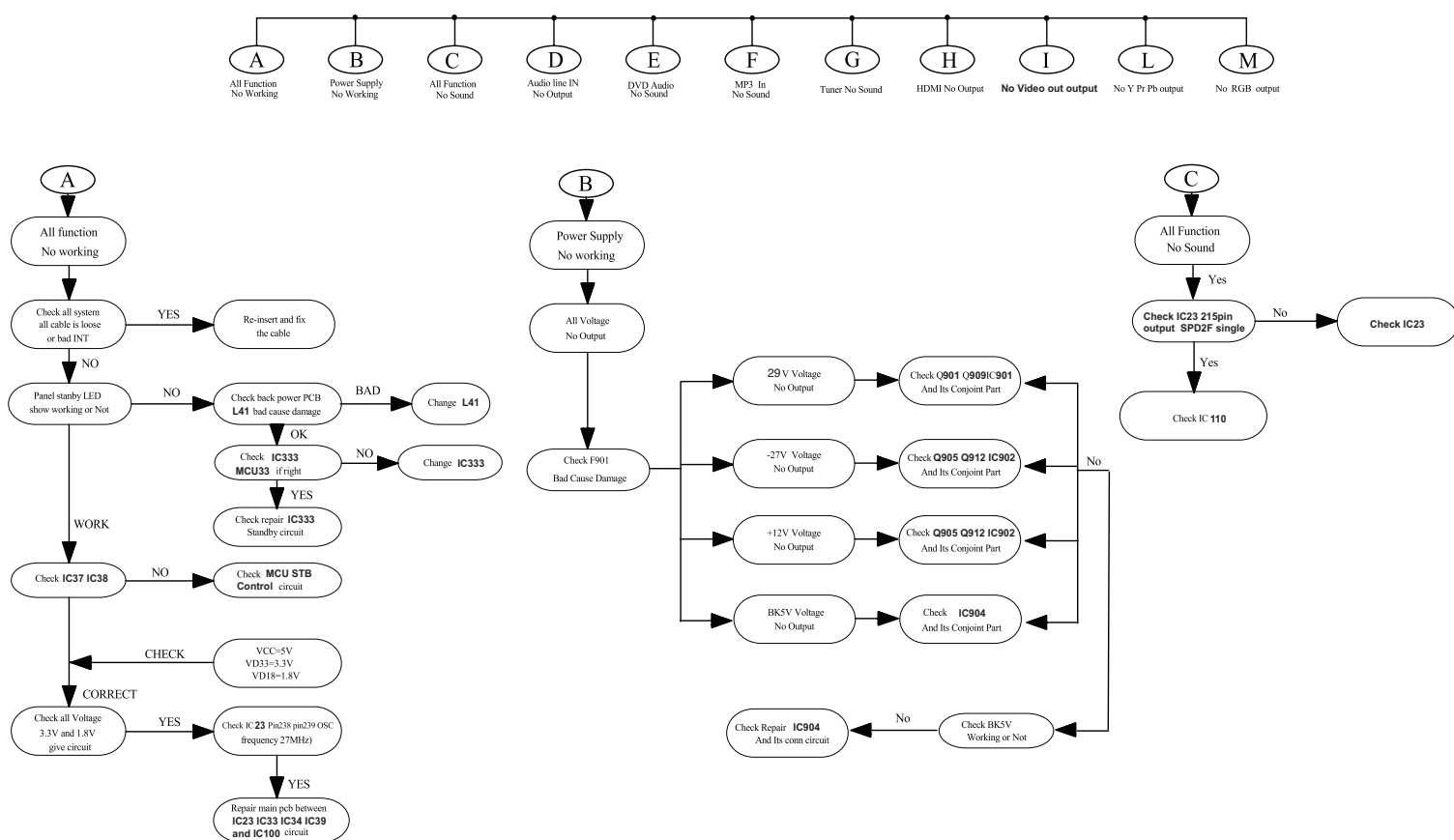
In some countries, the frequency step between adjacent channels in the FM band is 50kHz (100kHz in some areas).

- Press "source" to select "FM".

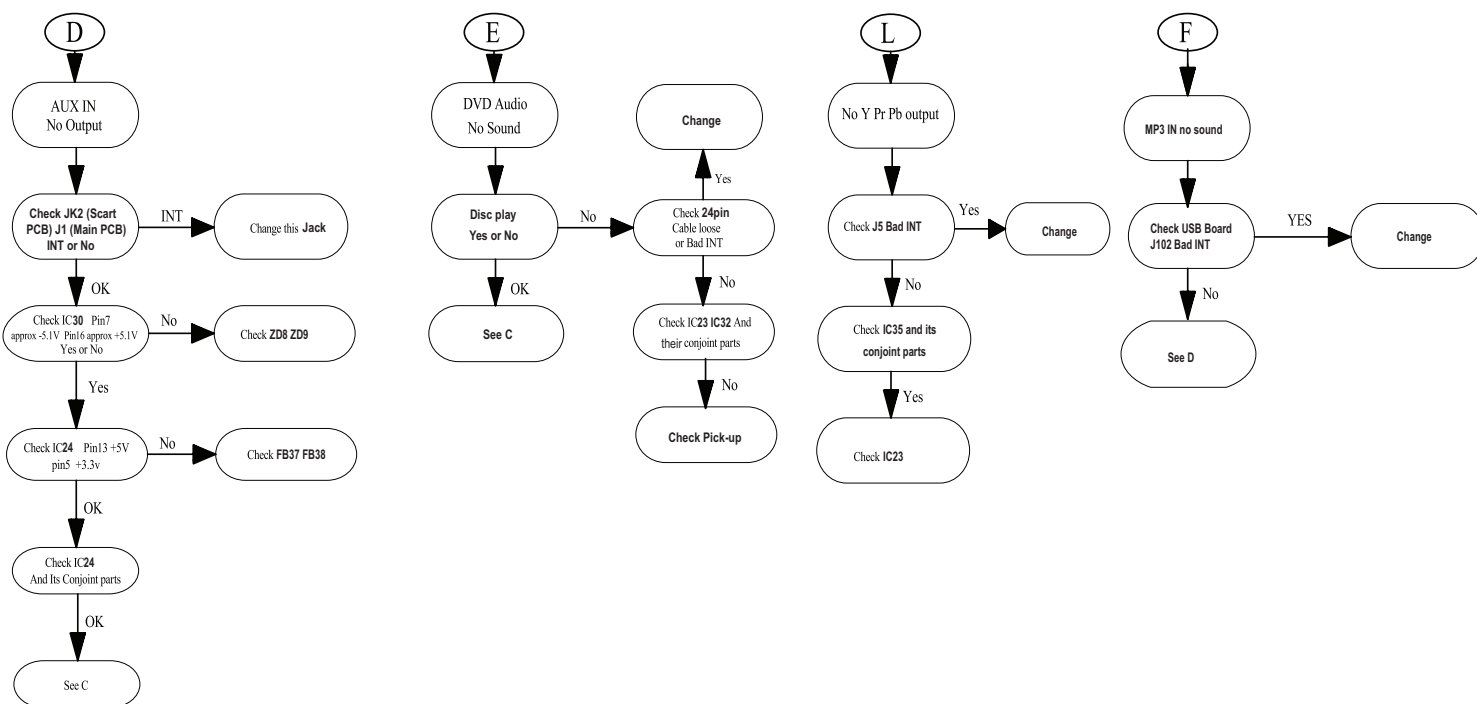
CAUTION!
This information is confidential and may not be distributed.Only a qualified service person should reprogram the Region Code.

REPAIR INSTRUCTIONS (ONE)

MAIN UNIT REPAIR CHART 1/3



MAIN UNIT REPAIR CHART 2/3



MAIN UNIT REPAIR CHART 3/3



3 - 1 DISASSEMBLY INSTRUCTIONS (Main Unit)

Dismantling of the bottom Panel

- 1) press the buttons as shown in figure 1 and take up the cable cover to move it.
- 2) Loosen 11 screws "A" as shown in figure 2.

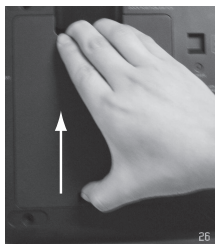


Figure 1

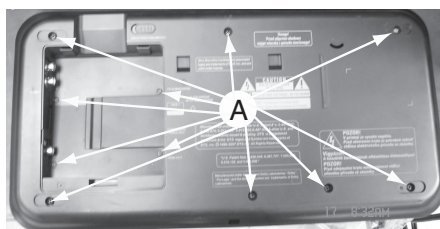


Figure 2

Dismantling of the SCART+USB+LED Board

- 1) Loosen 2 screws "B" and loosen 1 screws "C" to remove SCART Board as shown in figure 3 & figure 4.
- 2) Loosen 2 screws "D" to move USB board as shown in figure 5.
- 3) Loosen 1 screw "E" to move LED board as shown in figure 6.

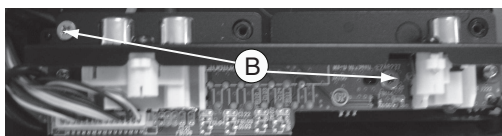


Figure 3

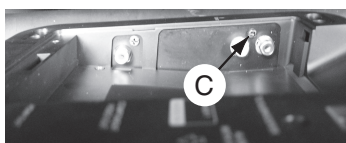


Figure 4

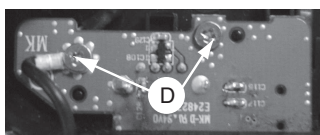


Figure 5

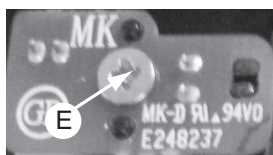


Figure 6

Dismantling of the Main+DIN Board

- 1) Loosen 4 screws "F" to remove Main Board as shown in figure 7.
- 2) Loosen 1 screw "G" to remove DIN Board as shown in figure 8.

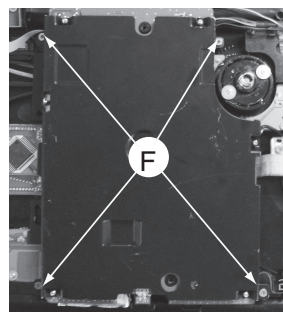


Figure 7



Figure 8

Dismantling of the Display Board

- 1) Loosen 2 screws "H" to remove Display board as shown in figure 9.

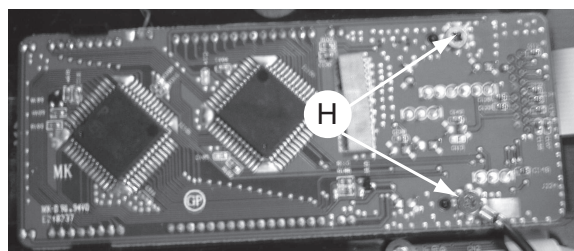


Figure 9

Dismantling of the Touch Sensor Board

- 1) Loosen 5 screws "I" to remove Touch Sensor board as shown in figure 10.

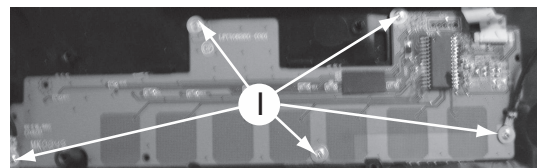


Figure 10

Dismantling of the IPOD Board

- 1) Loosen 2 screws "J" and loosen 2 screws "K" to remove IPOD board as shown in figure 11 & 12.

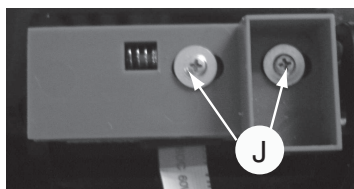


Figure 11

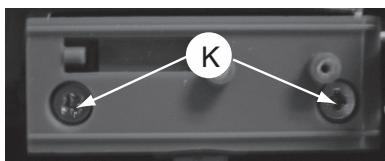


Figure 12

Dismantling of the Loader+Open/Close DET+LED*3 Board and Loader Assembly

- 1) Loosen 9 screws "L" to remove Loader+Open/Close DET+LED*3 board as shown in figure 13.
- 2) Loosen 4 screws "M" to remove Loader Assembly as shown in figure 14.

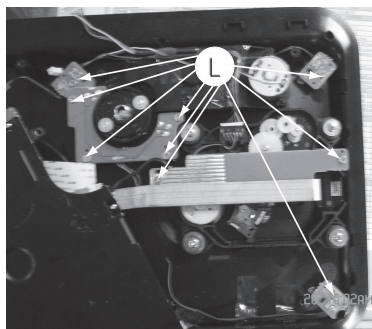


Figure 13

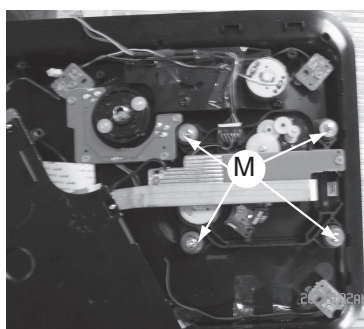


Figure 14

Dismantling of the Gear Assembly

- 1) Loosen 4 screws "N" to remove Gear Assembly as shown in figure 15.

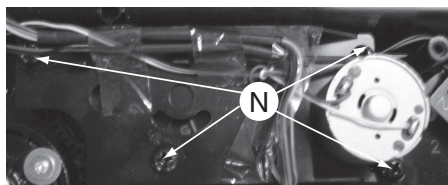


Figure 15

Dismantling of the Door Assembly

- 1) Loosen 3 screws "O" as shown in figure 16.
- 2) Using a mini drawer to push the STEEL PIN as shown in figure 17.
- 3) Using a pincers to nip the STEEL PIN as shown in figure 18.
- 4) Take up the Door Assembly as shown in figure 19 & 20.

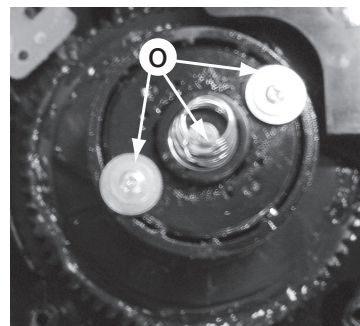


Figure 16

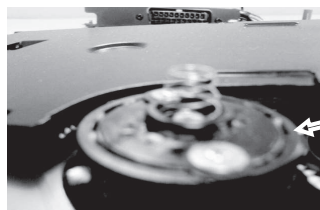


Figure 17



Figure 18

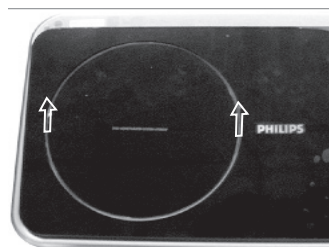


Figure 19



Figure 20

3 - 3

DISASSEMBLY INSTRUCTIONS (Subwoofer)

Dismantling of the Speaker Box

- 1) Loosen 6 screws "A" as shown in figure 1.
- 2) Loosen 3 screws "B" to remove the Speaker Box as shown in figure 2.

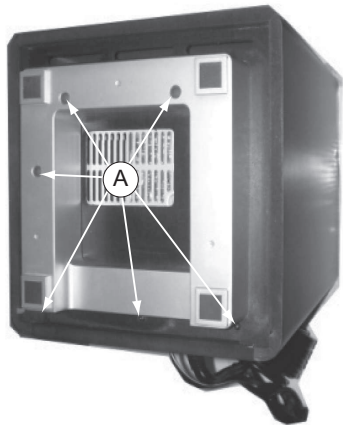


Figure 1

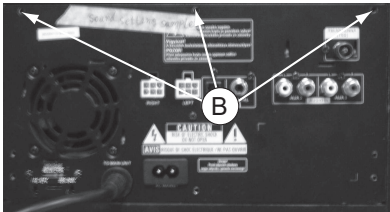


Figure 2

Dismantling of the AMP Board

- 1) Loosen 4 screws "C" as shown in figure 3.
- 2) Loosen 5 screws "D" to remove the AMP Board as shown in figure 4.

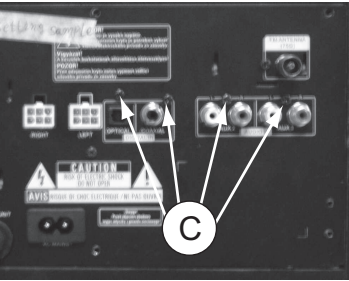


Figure 3

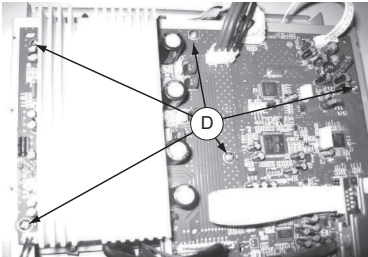


Figure 4

Dismantling of the Power Board

- 1) Loosen 3 screws "E" as shown in figure 5.
- 2) Loosen 2 screws "F" as shown in figure 6.
- 3) Loosen 1 screw "G" as shown in figure 7 to remove the bracket.
- 4) Loosen 4 screws "H" as shown in figure 8.
- 5) With a pincers to nip this space as shown in figure 9 and to take up the Power Board.

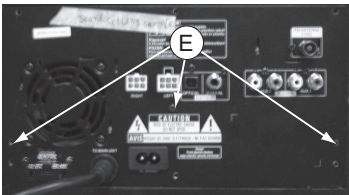


Figure 5

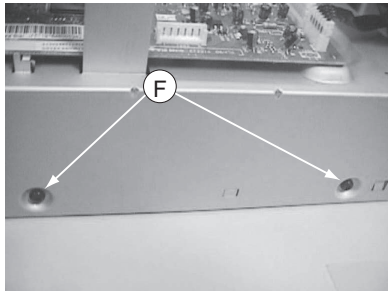


Figure 6

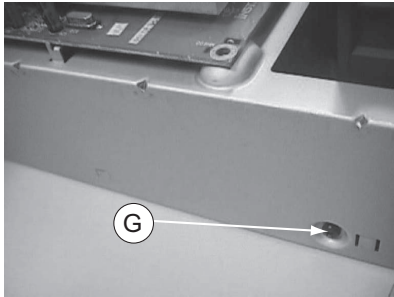


Figure 7

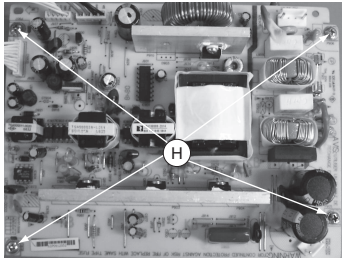


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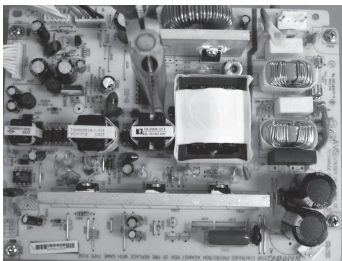


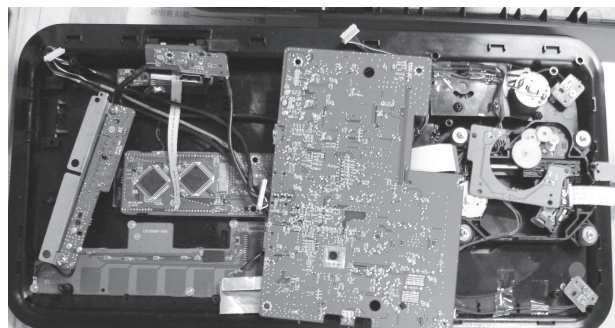
Figure 9

SERVICE POSITIONS

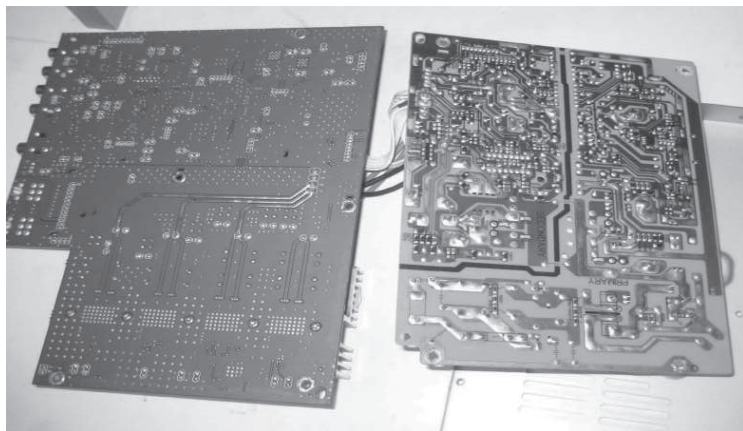
3 - 4

3 - 4

Service position A (Main Unit)



Service position B (Subwoofer)

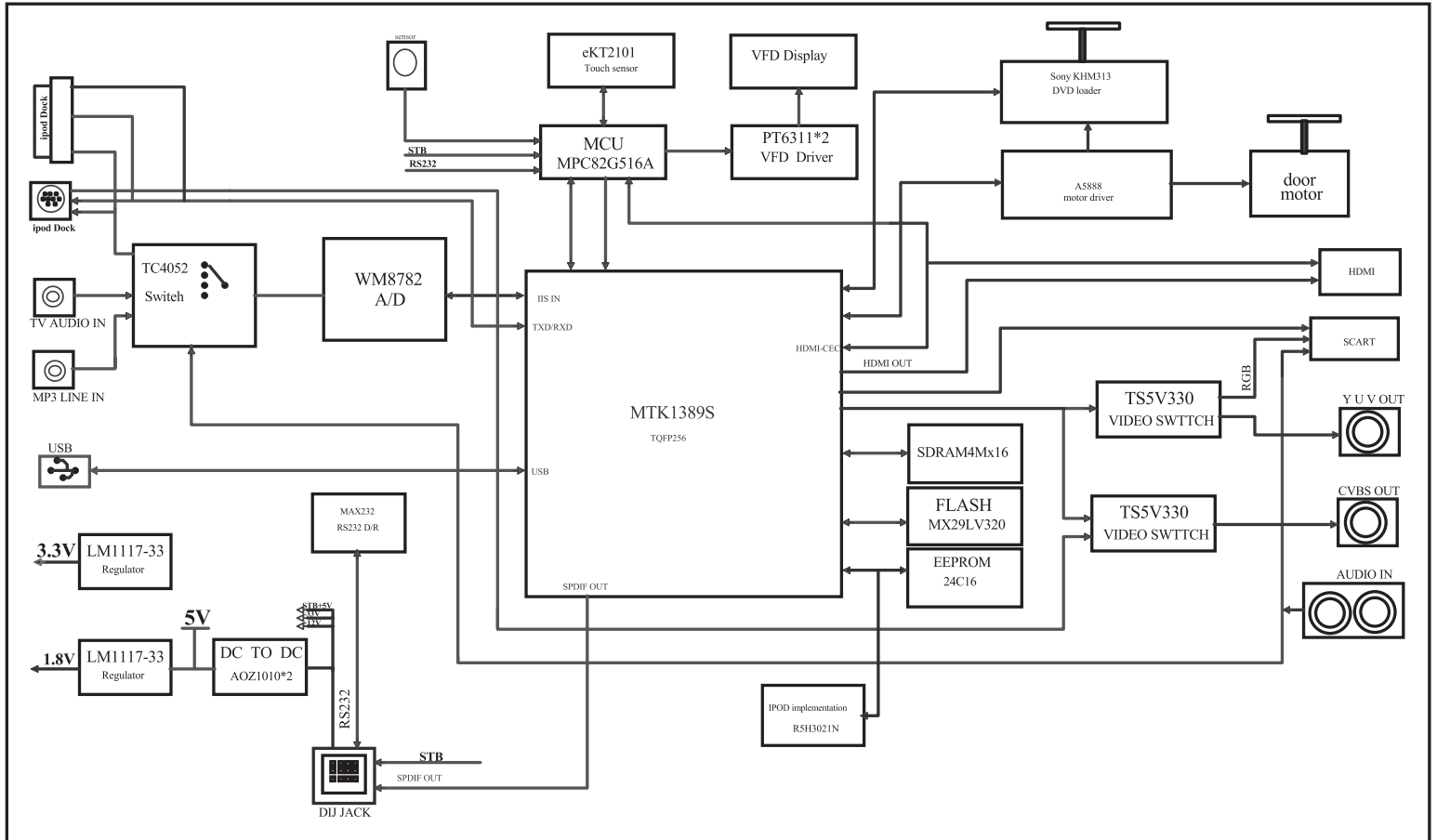


Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.

BLOCK DIAGRAM (Main Unit)

4 - 1

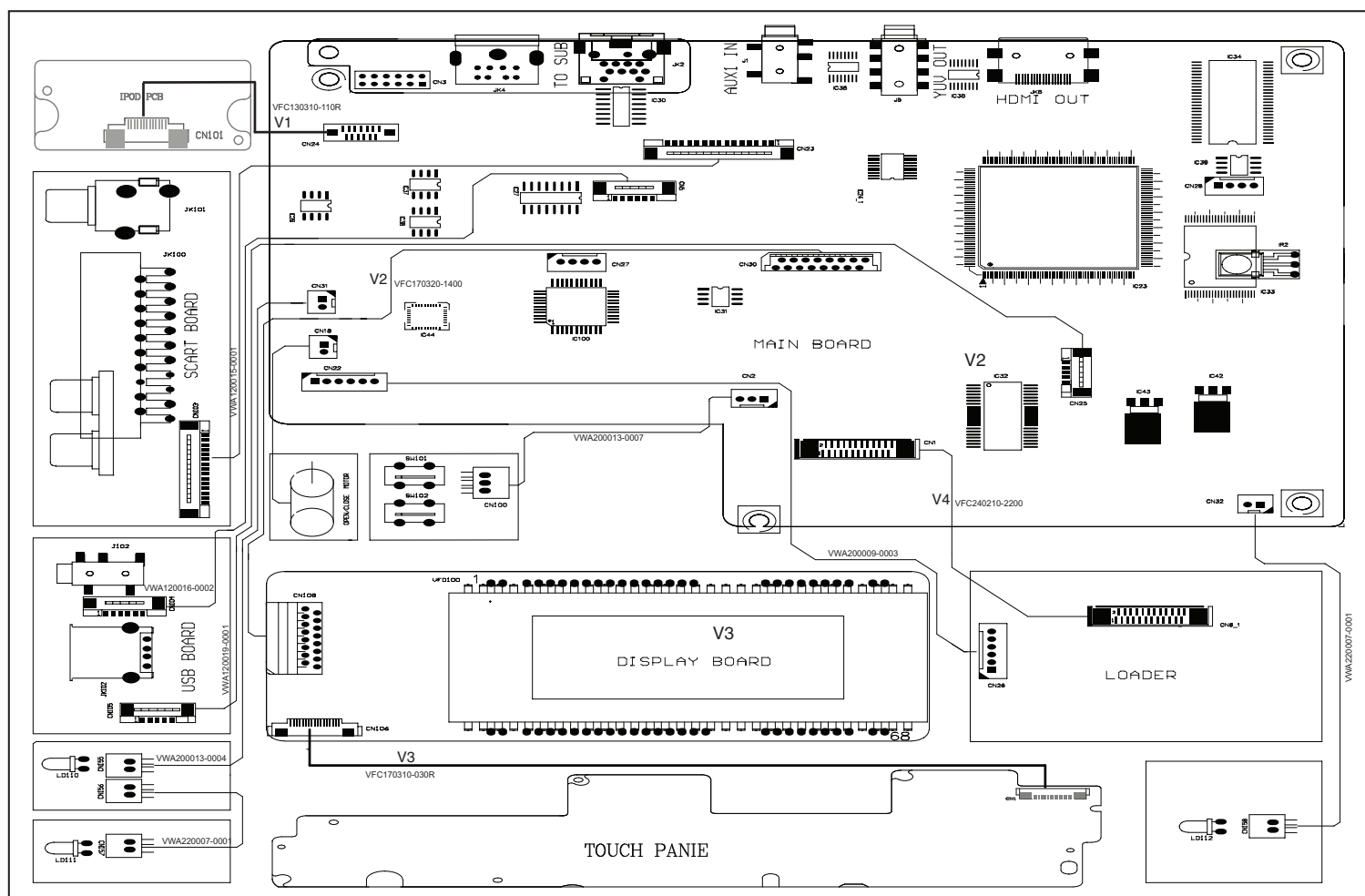
4 - 1



WIRING DIAGRAM (Main Unit)

4 - 2

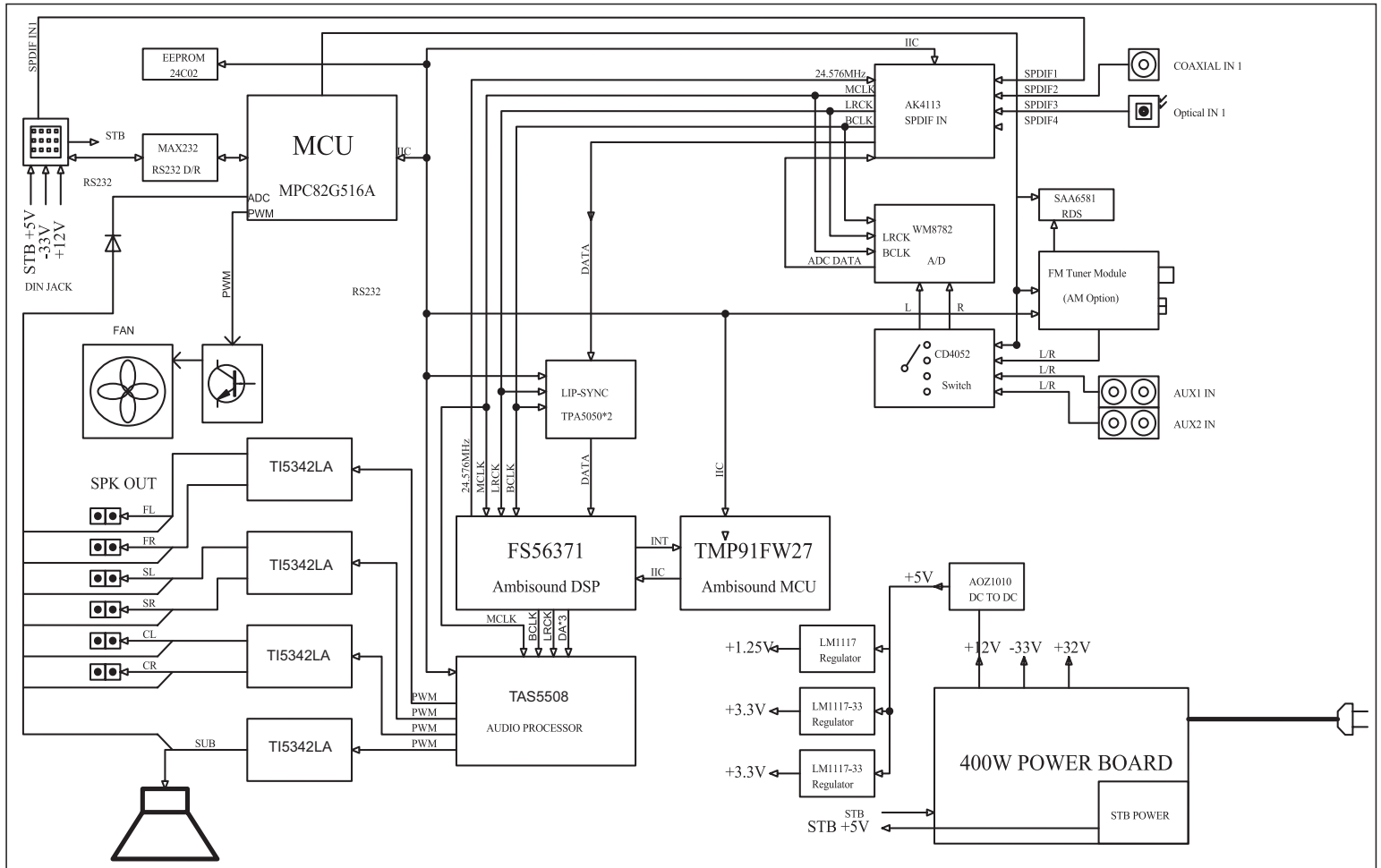
4 - 2



BLOCK DIAGRAM (Subwoofer)

4 - 3

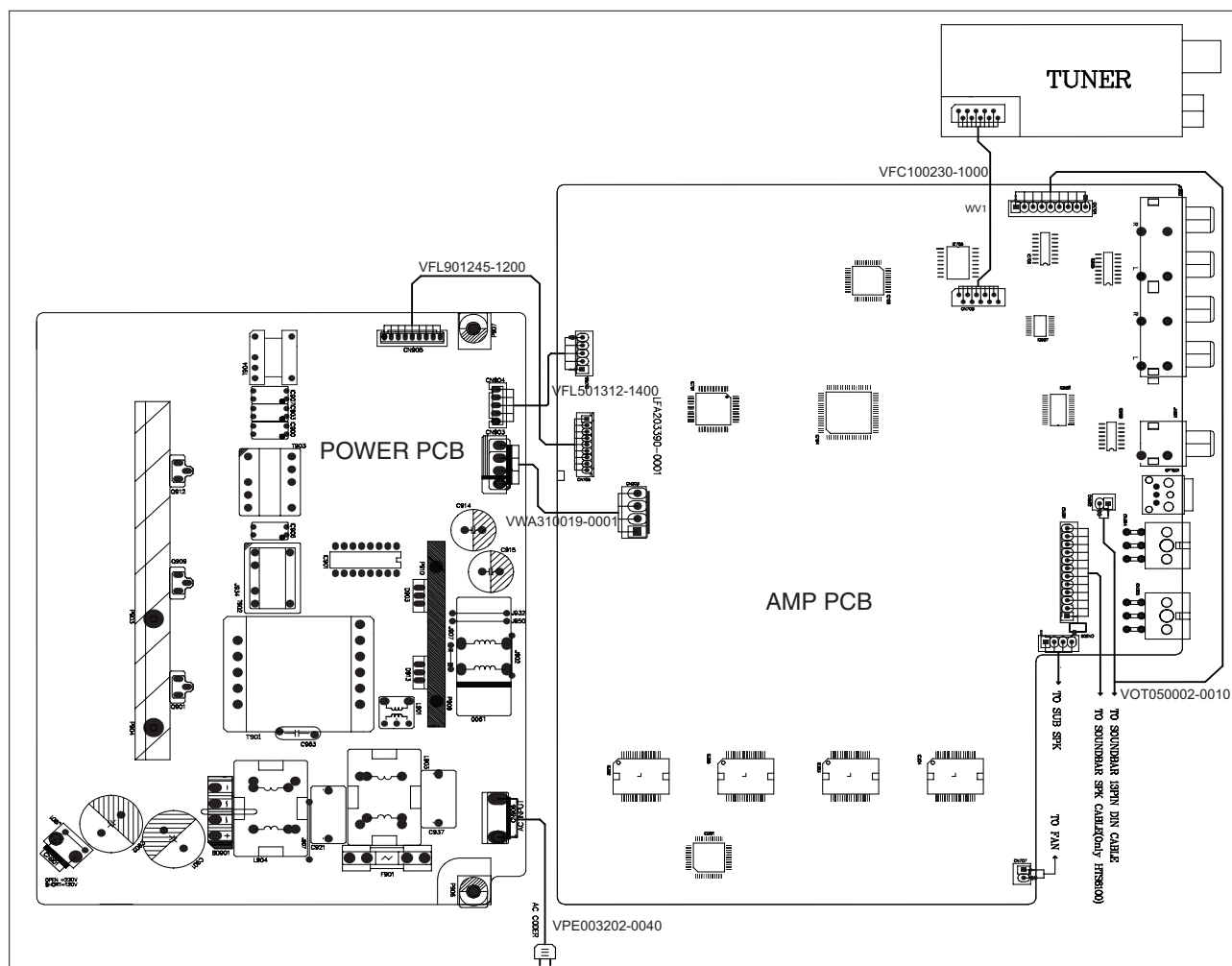
4 - 3



WIRING DIAGRAM (Subwoofer)

4 - 4

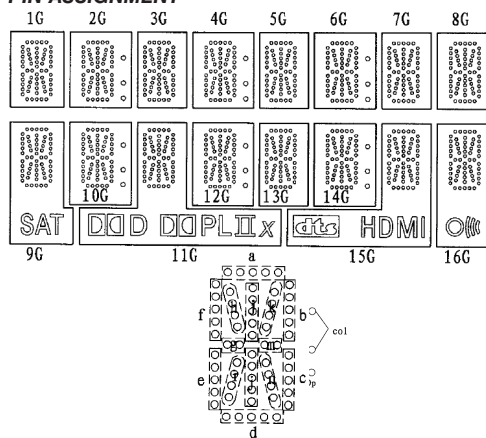
4 - 4



Display+Scart+USB+LED BOARD-main unit

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Circuit Diagram	5-2
PCB Layout Top & Bottom View.....	5-3

FTD DISPLAY PIN ASSIGNMENT



	1G	2G	3G	4G	5G	6G	7G	8G		9G	10G	11G	12G	13G	14G	15G	16G
P1	a	a	a	a	a	a	a	a	P16	a	a	a	a	a	a	a	a
P2	j	j	j	j	j	j	j	j	P17	j	j	j	j	j	j	j	j
P3	h	h	h	h	h	h	h	h	P18	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k	P19	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b	P20	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f	P21	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m	P22	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g	P23	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c	P24	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e	P25	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r	P26	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n	P27	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d	P28	d	d	d	d	d	d	d	d
P14	d	col		d	d	d	d	d	P29	SAT	col	DD	col		col	dis	OM
P15		col	Dn		col	Dn			P30		Dp	XX	Dp		Dp	HDMI	
									P31								

Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connection	F1	F1	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
Pin No.	17	18	19-23	24	25	26	27	28	29	30	31	32	33	34		
Connection	P14	P15	NP	16	26	36	46	56	66	76	86	NP	F2	F2		
Pin No.	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Connection	F1	F1	NP	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28
Pin No.	51	52	53	54-57	58	59	60	61	62	63	64	65	66	67	68	
Connection	P29	P30	P31	NP	96	106	116	126	136	146	156	166	NP	F2	F2	

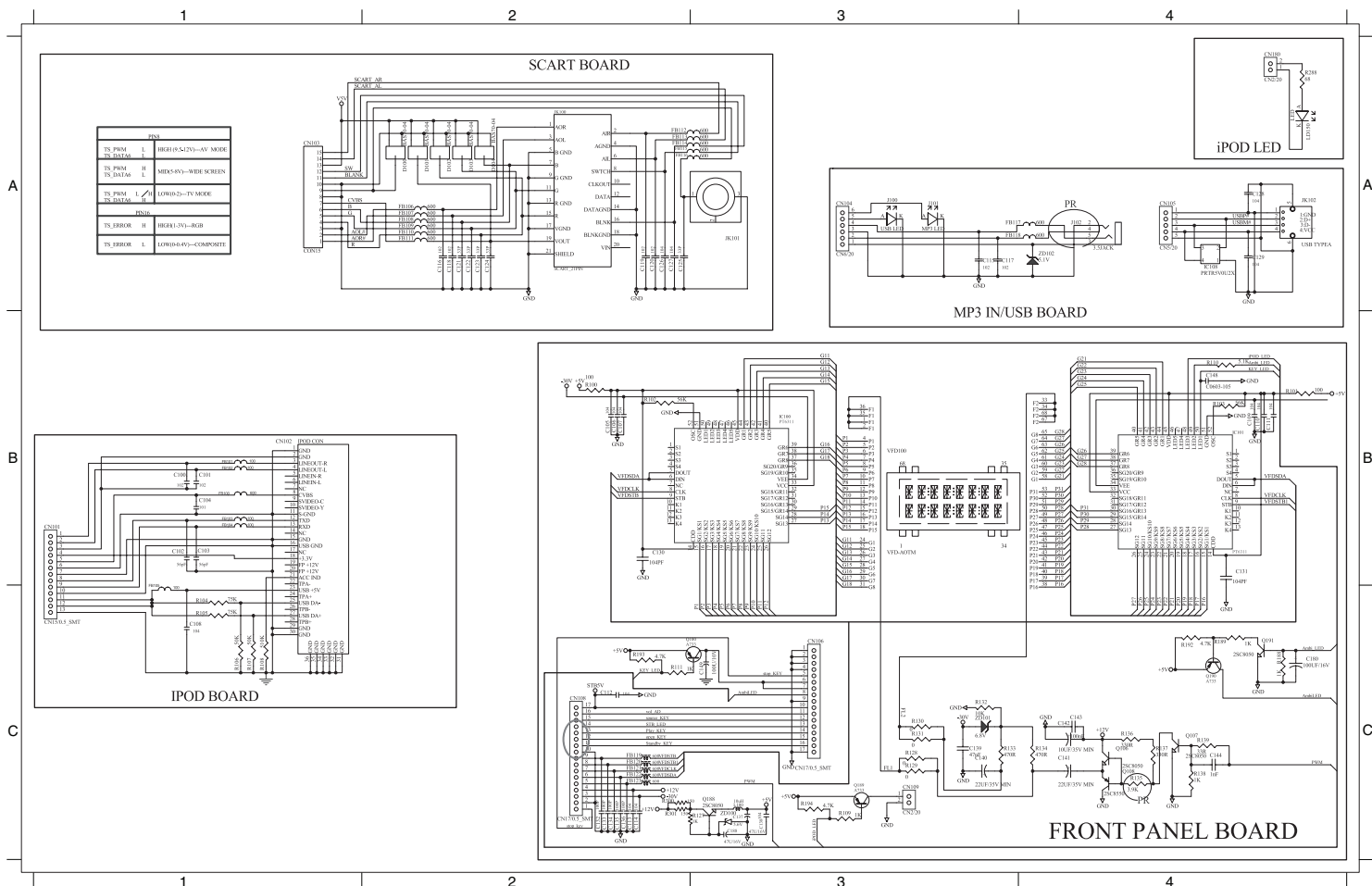
Notes: Fn (Filament Pin) nG: (Grid Pin)
Pn: (Anode Pin) nP: (No Pin)

CIRCUIT DIAGRAM

5 - 2

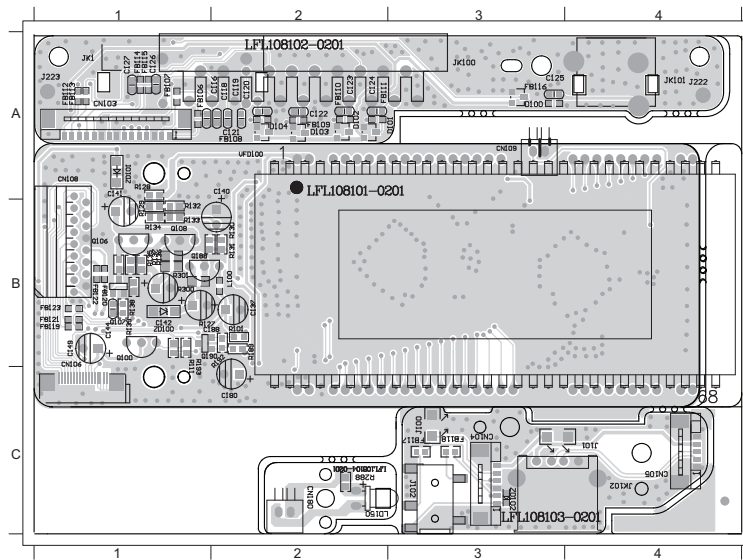
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C106 B2 C111 B4 C119 A2 C130 B2 C134 C2 C138 C3 C142 C4 C149 C3 CN104A3 CN109C3 FB113A2 FB119C2 FB123C2 J100 A3 JK101A3 Q100 C2 Q188 C3 R100 B2 R109 C3 R128 C3 R132 C3 R136 C4 R188 C4 R194 C3 VFD100B3
 C107 B2 C112 C2 C120 A2 C131 B4 C135 C2 C139 C3 C143 C4 C180 C4 CN105A4 CN180A4 FB116A2 FB120C2 IC100 B3 J101 A3 JK102A4 Q106 C4 Q189 C3 R101 B4 R110 B4 R129 C3 R133 C3 R137 C4 R189 C4 R288 A4 ZD100C3
 C109 B4 C115 A3 C125 A2 C132 C2 C136 C2 C140 C4 C144 C4 C188 C3 CN106C3 D100 A2 FB117A4 FB121C2 IC101 B4 J102 A4 L100 C3 Q107 C4 Q190 C4 R102 B2 R111 C2 R130 C3 R134 C4 R138 C4 R192 C4 R300 C2 ZD101C3
 C110 B4 C117 A3 C129 A4 C133 C2 C137 C3 C141 C4 C148 B4 CN103A1 CN108C2 FB112A2 FB118A4 FB122C2 IC108 A4 JK100A2 LD150A4 Q108 C4 Q191 C4 R103 B4 R127 C2 R131 C3 R135 C4 R139 C4 R193 C2 R301 C2 ZD102A4



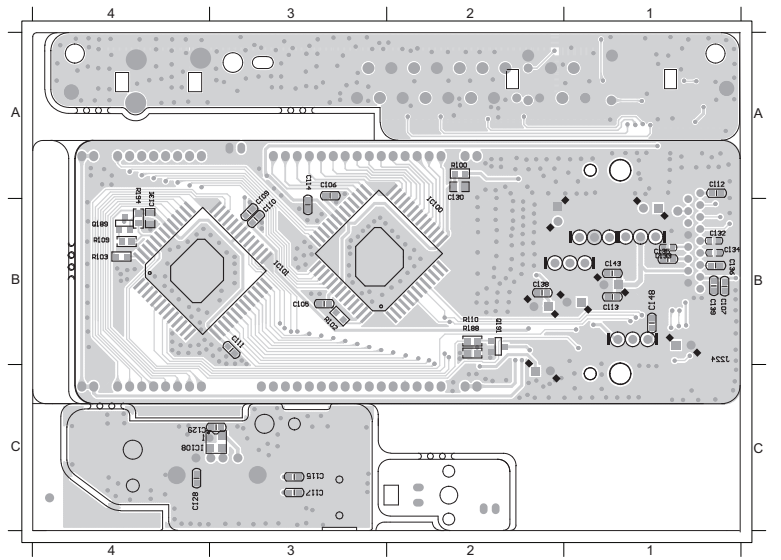
PCB LAYOUT - TOP VIEW

C106 A1 C115 A1 C130 A2 C136 A3 C142 B1 C188 B1 CN109B1 FB117B2 FB123C2 J102 C3 L100 C4 Q188 A1
 C107 A1 C117 A2 C131 A2 C137 A3 C143 B1 CN103B1 CN180B1 FB118B2 IC100 C2 J222 C3 LD150C4 Q189 A1
 C109 A1 C119 A2 C132 A2 C138 A4 C144 B1 CN104B1 D100 A3 FB119B2 IC101 C2 J223 C3 Q100 A2 Q190 A2
 C110 A1 C120 A2 C133 A2 C139 B1 C148 B1 CN105B1 FB112B1 FB120B2 IC108 C2 JK100A3 Q106 A1 Q191 A1
 C111 A1 C125 A3 C134 A2 C140 B1 C149 B1 CN106B1 FB113B1 FB121B2 J100 C3 JK101A4 Q107 B2
 C112 A1 C129 A2 C135 A2 C141 B1 C180 B1 CN108B1 FB116A3 FB122B2 J101 C3 JK102C4 Q108 B1



PCB LAYOUT - BOTTOM VIEW

C106 A3 C109 A2 C111 B4 C115 B4 C129 B2 C131 B2 C133 B2 C135 B1 C137 B1 C139 B1 C141 B1 C143 C4 C148 C3
 C107 A2 C110 A1 C112 B4 C117 B4 C130 B2 C132 B2 C134 B1 C136 B1 C138 B1 C140 B1 C142 B1 C144 C4 C149 C3

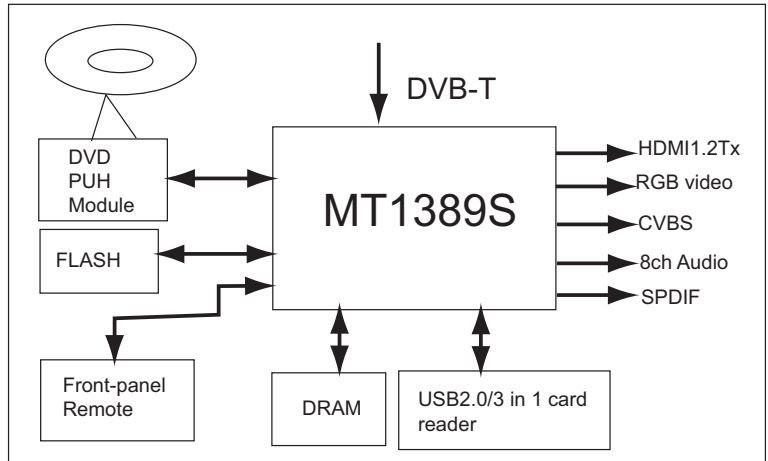


MAIN+DIN BOARD-main unit

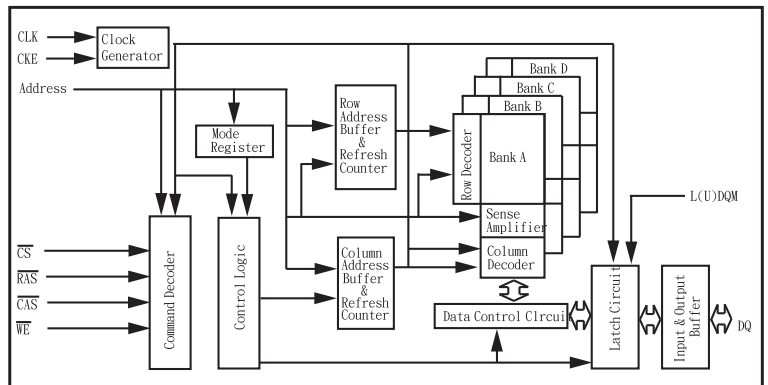
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Internal IC Diagram	6-1
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INTERNAL IC DIAGRAM - MT1389FXE/SN

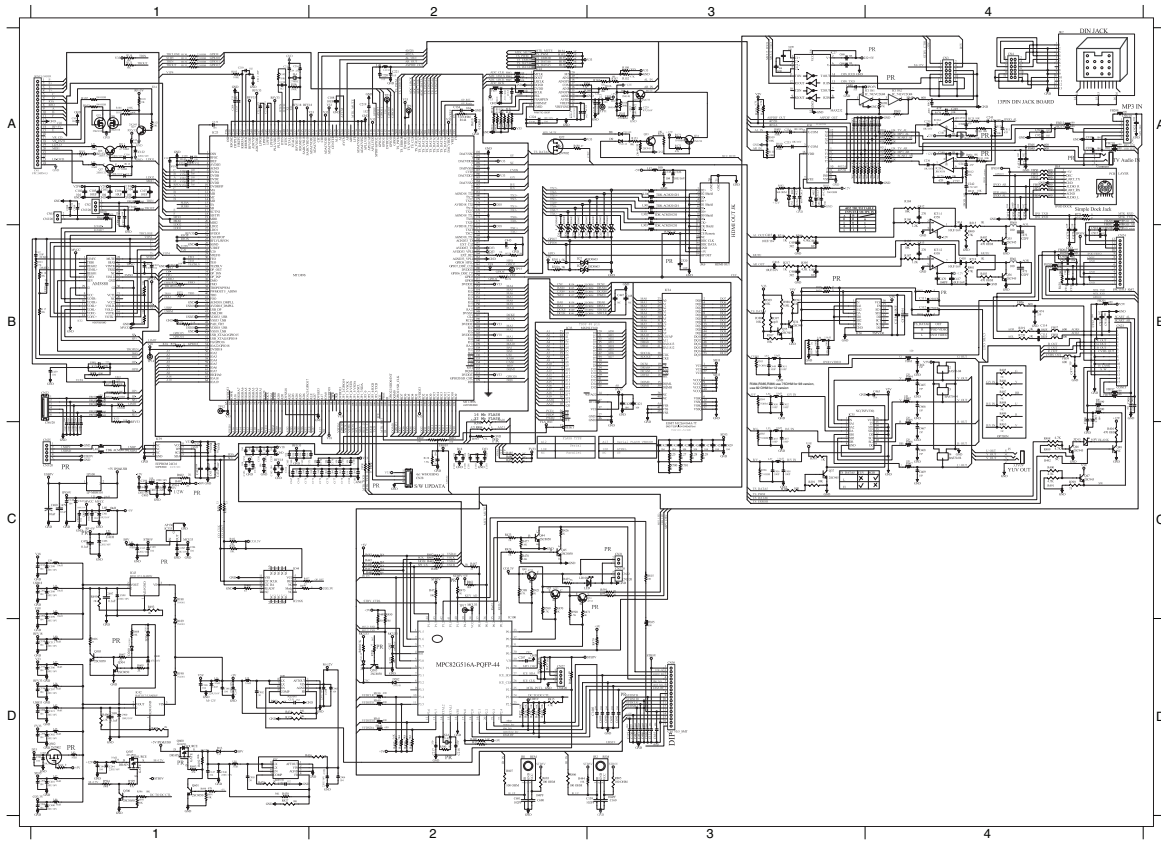


INTERNAL IC DIAGRAM - AS81F641642C



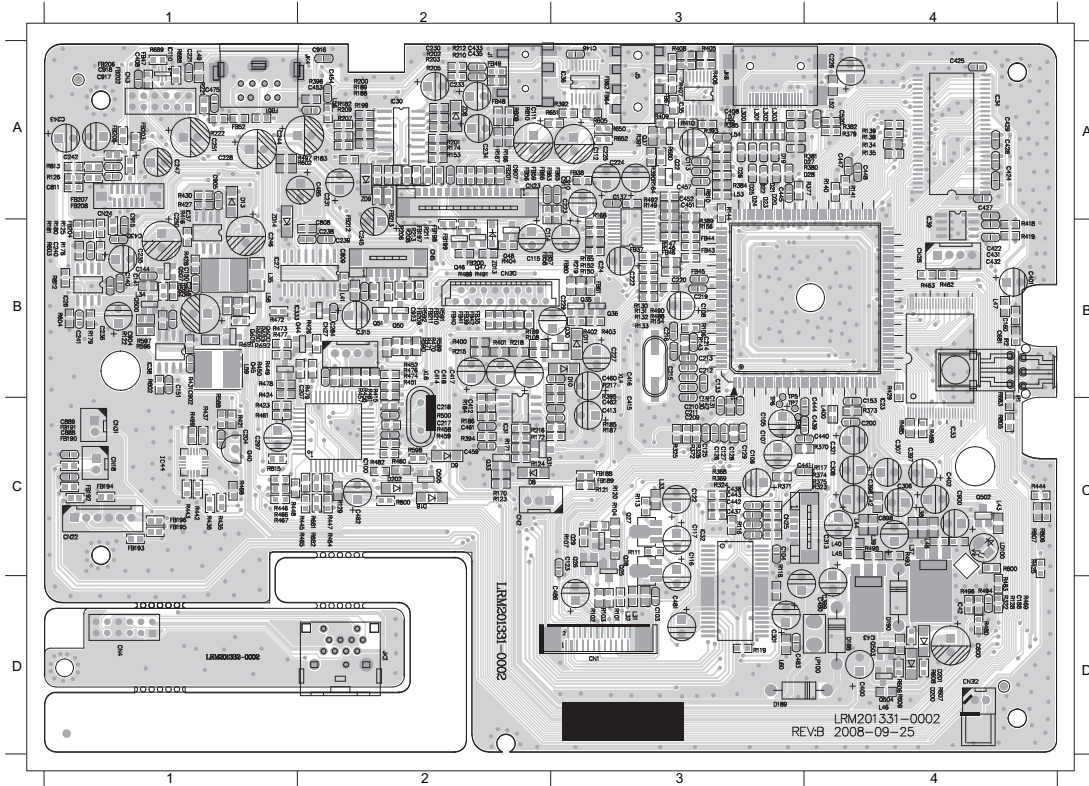
CIRCUIT DIAGRAM

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C102 A1 C127 A1 C143 A3 C158 C1 C176 C2 C197 C1 C214 A1 C230 A3 C248 D1 C401 D1 C427 C3 C450 B3 C477 B4 C581 D2 C594 C1 C918 B4 C930 D3 D9 A3 FB204B4 FB42 D2 IC26 A4 J2 B4 L33 A1 L48 D1 Q26 A1 Q504 D1 R111 A1 R129 D2 R151 A2 R181 A4 R323 B1 R381 B2 R410 C4 R436 C1 R459 D2 R476 D2 R592 C3 R851 B4 R809 A3
C103 A1 C128 A1 C144 D1 C159 C1 C177 C2 C198 D1 C215 A1 C231 A3 C249 A4 C402 D1 C428 C3 C451 B3 C478 C1 C588 A3 C595 C1 C919 A4 C931 C3 FB188A1 FB205B4 FB43 D2 IC27 A3 J3 B4 L34 D1 L49 A2 Q27 A1 Q505 D2 R113 A1 R130 A1 R152 A3 R182 A3 R324 B1 R382 B3 R415 D2 R437 C1 R460 D2 R477 C2 R593 C2 R852 B4 R810 A3
C104 A1 C129 A1 C140 D3 C180 D3 C178 C2 C199 C1 C216 A1 C233 A3 C250 D2 C403 A3 C429 C3 C452 B3 C479 C1 C589 D3 C596 C1 C920 A4 C932 C3 FB189A1 FB206B4 FB44 A2 IC30 A3 J4 C4 L35 C1 L51 C1 Q28 A1 Q507 D1 R114 A1 R131 A1 R153 A3 R183 A3 R325 B1 R383 B3 R416 D1 R438 B4 R461 C2 R478 C2 R594 D1 R881 C2 R812 A4
C105 A1 C130 A1 C145 A3 C163 C1 C179 C2 C200 D1 C217 D2 C234 A3 C251 D2 C404 A3 C430 A4 C453 B3 C480 C1 C590 D3 C597 C1 C921 A4 C94 A4 FB190A1 FB207A4 FB45 A2 IC32 B1 J5 C4 L36 D1 L52 A3 Q29 A1 Q51 C2 R115 A1 R132 A1 R164 A2 R186 A3 R326 B1 R384 B3 R418 C1 R440 D2 R462 C2 R479 D3 R595 D1 R882 C2 R813 A4
C106 A1 C131 A1 C146 D1 C164 C1 C180 C2 C201 D1 C218 D2 C235 A4 C252 A4 C405 A3 C431 C1 C454 B3 C481 C1 C591 D3 C598 C1 C922 A4 C95 A4 FB191A1 FB208A4 FB46 A2 IC33 B2 J6 A4 L37 D1 L53 B3 Q30 A3 Q55 B3 R116 B1 R133 A1 R165 A3 R189 A3 R368 B1 R385 C3 R419 C1 R442 C1 R463 C2 R480 D2 R596 D1 R883 D2 R815 C3
C107 A1 C132 A1 C147 D1 C165 C1 C181 C2 C202 C1 C219 A2 C236 A4 C297 C1 C407 A4 C432 C1 C455 C3 C482 D2 C592 D3 C599 D1 C923 A4 D10 A3 FB192B1 FB209A4 FB47 A4 IC33C1 J6 B3 L38 D1 L54 B3 Q31 A3 Q600 D1 R117 B1 R134 B2 R166 A3 R199 A3 R369 B1 R386 C3 R421 C2 R443 C1 R464 C2 R481 D2 R597 D1 R885 A4 R988 B3
C108 A2 C133 A1 C148 D1 C166 C1 C186 C2 C203 C1 C220 A2 C238 A3 C391 C1 C408 A4 C437 B1 C457 C3 C483 C1 C586 A3 C900 D1 C91 A1 D11 A3 FB193B1 FB210A4 FB56 B4 IC34 B3 J25 C3 L39 C1 L55 C3 Q33 A3 Q601 D1 R118 B1 R135 B2 R167 A3 R201 A4 R370 B1 R387 B3 R423 C2 R444 D2 R465 C2 R482 D2 R598 D2 R690 D1 XL4 A1
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C120 D3 C138 A3 C153 C1 C171 C2 C182 D2 C209 A1 C225 A2 C243 A4 C315 C1 C422 C1 C442 B1 C469 C4 C491 D3 C589 A1 C913 B4 C924 B4 D190 D1 FB198B4 FB37 A2 FB70 C1 IC42 D1 L301 A3 L43 D1 L60 C1 Q45 C2 R106 A1 R123 A3 R140 B2 R172 A3 R208 A4 R375 B1 R392 B3 R428 D1 R449 C2 R470 C2 R495 C1 R606 D1 R701 C3
C121 D3 C139 D3 C154 C1 C172 C2 C183 D2 C210 A1 C226 A3 C244 D1 C321 D1 C423 C3 C443 B1 C471 B4 C492 D3 C580 A1 C914 B4 C925 C1 D200 D1 FB199B4 FB38 A3 IC100 D2 IC43 C1 L302 A3 L44 C1 L0100 C2 Q50 C2 R107 A1 R124 A3 R141 B2 R174 A3 R209 A4 R376 C2 R393 C3 R429 C2 R450 C2 R471 C2 R496 D1 R607 D1 R600 D2
C122 A1 C140 A4 C155 C1 C173 C2 C194 C1 C211 A1 C227 A3 C245 D1 C397 D1 C424 C3 C444 B1 C474 B4 C520 B3 C581 A1 C915 B4 C927 D2 D201 D1 FB201B4 FB39 D2 IC110 A4 IC44 C1 L303 A3 L45 C1 LP100C1 Q500 D1 R108 A3 R125 A4 R142 A1 R178 A4 R211 A4 R377 B2 R396 B3 R430 D1 R451 D2 R472 C2 R497 C1 R608 D1 R802 D1
C125 A1 C141 A4 C156 C1 C174 C2 C195 D1 C212 A1 C228 C1 C246 D1 C399 C1 C425 C3 C445 B2 C475 B4 C600 D1 C582 C1 C916 B4 C928 C2 D202 D2 FB202B4 FB40 D2 IC23 A1 IR1 D2 L31 A1 L46 D1 Q22 A2 Q502 D1 R109 A3 R126 A4 R143 A1 R179 A4 R213 A4 R378 B2 R406 B4 R431 D1 R452 D2 R473 C2 R499 C1 R609 D1 R805 D3



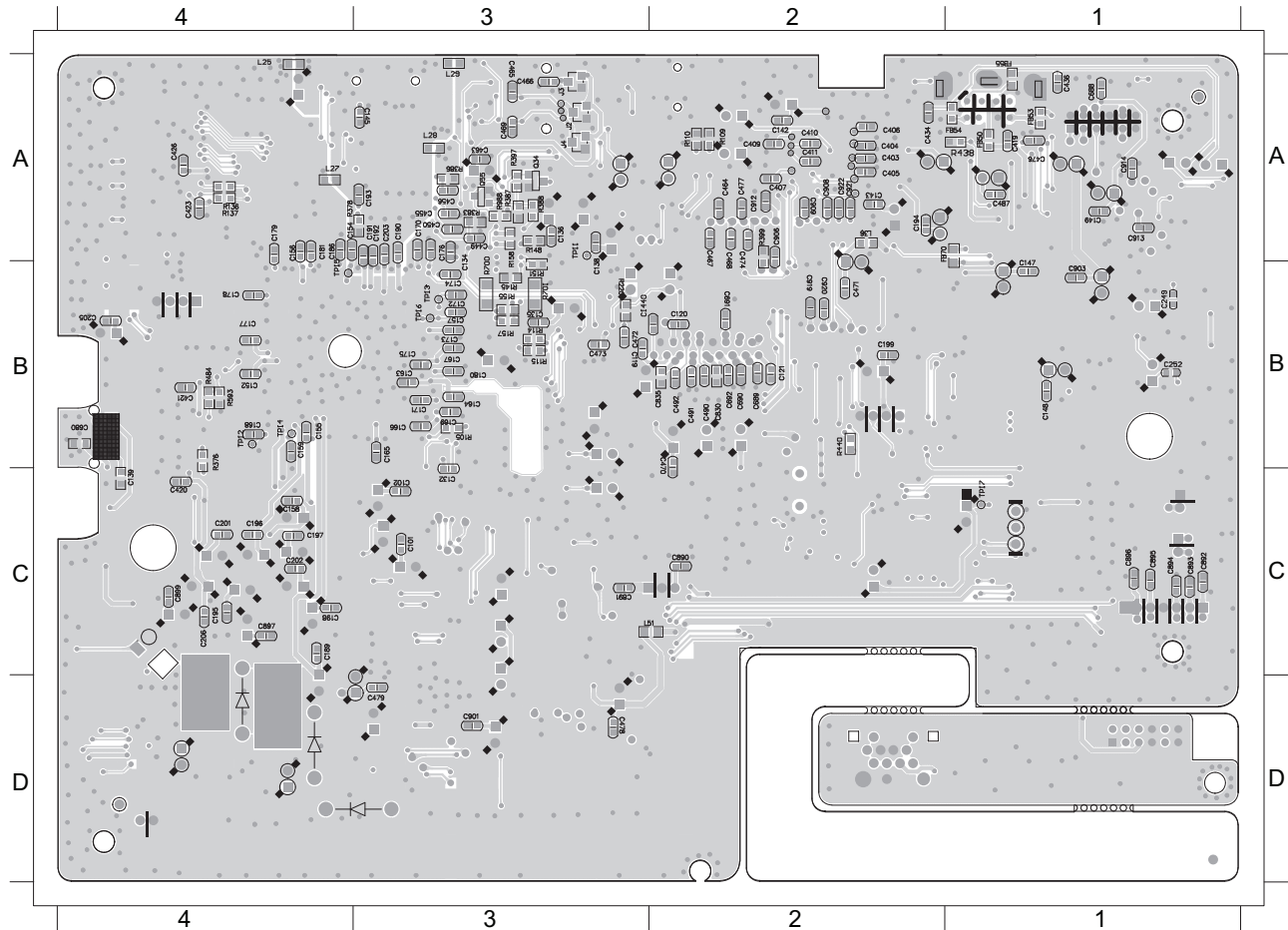
PCB LAYOUT - TOP VIEW

C103 D3	C131 C3	C210 C3	C226 A4	C244 A1	C399 D4	C438 C3	C481 D3	C915 B1	CN31C2	D8 C2	FB203A1	FB40 B2	IC24 B3	IR2 B4	L40 C4	L57 A3	Q40 C2	R106 B3	R128 D4	R153 A2	R183 A2	R325 C3	R389 B3	R425 C4	R448 C2	R469 D4	R495 C4	R607 D4	R805 C4
C104 C3	C133 B3	C211 C3	C227 B3	C245 B2	C400 D4	C439 C4	C482 C2	C916 A2	CN32D4	D9 C2	FB204B1	FB41 B2	IC26 B1	J5 A3	L400 C4	L58 B1	Q44 B2	R107 C3	R129 C2	R164 A3	R188 A2	R326 C3	R390 A3	R426 B2	R449 B1	R470 B2	R496 D4	R608 D4	R807 C4
C105 C3	C137 A3	C212 B3	C228 A1	C246 B1	C401 B4	C440 C4	C483 D3	C917 A1	CN4 D1	FB188C3	FB205A1	FB42 B2	IC27 B1	JK2 D2	L41 B2	L59 B1	Q45 B1	R108 B2	R130 B3	R165 B3	R189 A2	R368 C3	R391 A3	R427 A1	R450 B1	R471 B2	R497 A2	R609 D4	R809 A2
C106 C3	C140 B1	C213 B3	C229 B3	C247 A1	C402 C4	C441 C3	C485 A2	C918 A1	CN5 B2	FB189C3	FB206A1	FB43 B3	IC30 A2	JK6 A3	L42 C4	L60 D3	Q50 B2	R111 C3	R131 B3	R166 A2	R199 A2	R369 C3	R392 A3	R428 B1	R451 B2	R472 B1	R499 C2	R610 A3	R810 A2
C107 C3	C141 B1	C214 B3	C230 A2	C248 B1	C408 A1	C442 C3	C486 D3	C923 B2	D10 B3	FB190C1	FB207A1	FB44 B3	IC32 C3	L300 A3	L43 C4	LD100C4	Q500 B1	R113 C3	R132 B3	R167 A2	R201 A2	R370 C4	R393 A3	R429 B4	R452 B2	R473 B1	R591 B2	R651 A3	R812 B1
C108 B3	C144 A1	C215 B3	C231 A2	C250 B1	C421 A3	C443 C3	C520 A4	CN1 D3	D11 B3	FB191C1	FB208A1	FB45 B3	IC33 C4	L301 A3	L44 C4	LP100D4	Q502 C4	R116 C3	R133 B3	R168 A3	R202 A2	R371 C3	R396 A2	R430 A1	R458 C2	R474 B2	R592 B2	R652 A3	R813 A1
C113 A3	C146 A3	C216 B3	C233 A2	C251 A1	C422 B4	C444 C4	C600 D4	CN18C1	D13 A1	FB192C2	FB209B2	FB46 B3	IC333B2	L302 A3	L45 C4	Q22 A3	Q503 D4	R117 C4	R134 A4	R169 B2	R203 A2	R372 C3	R406 A3	R431 B1	R459 C2	R476 B2	R594 B1	R681 C2	R815 C1
C116 C3	C150 B1	C217 C2	C234 A2	C257 C1	C424 A4	C445 A3	C681 B4	CN2 C2	D18 C2	FB193C2	FB210B2	FB47 A1	IC34 A4	L303 A3	L46 D4	Q25 C3	Q504 D4	R118 C3	R135 A4	R170 C2	R206 B2	R373 C4	R408 A3	R435 C2	R460 C2	R477 B1	R595 B1	R682 C2	XL4 B3
C117 C3	C151 B1	C218 C2	C235 B1	C301 D3	C425 A4	C451 A3	C808 B2	CN22C1	D188 D4	FB194C2	FB211B2	FB56 A2	IC36 A3	L31 D3	L47 B4	Q26 C3	Q505 C2	R119 D3	R138 A4	R171 C2	R207 A2	R374 C4	R410 A3	R436 C2	R461 C1	R478 B1	R596 B1	R683 C4	XL6 B2
C122 C3	C153 C4	C219 B3	C236 B1	C306 C4	C427 A4	C452 A3	C809 B2	CN23A2	D189 D3	FB195C2	FB212B2	FB59 A2	IC37 A1	L32 D3	L48 C4	Q27 C3	Q507 B1	R120 C3	R139 A4	R172 C2	R208 B2	R375 C4	R415 B2	R437 C2	R462 B4	R479 B2	R597 B1	R688 A1	ZD14A1
C125 C3	C160 B4	C220 B3	C238 B2	C307 C4	C428 A4	C453 A2	C811 A1	CN24A1	D19 A3	FB196C2	FB213B2	FB62 A3	IC38 B1	L33 C3	L49 A1	Q28 C3	Q51 B2	R121 C3	R140 A4	R174 A2	R209 A2	R377 A4	R416 A1	R442 C2	R463 B4	R480 D4	R598 C2	R690 B1	ZD8 A2
C126 C3	C188 D4	C221 A1	C239 B2	C308 C4	C429 A4	C454 A2	C888 C1	CN25C3	D190 D4	FB197B2	FB35 B2	FB64 A3	IC39 B4	L34 B1	L52 A4	Q29 C3	Q600 B1	R122 B1	R141 A4	R178 B1	R211 B2	R380 A4	R418 B4	R443 C2	R464 C2	R481 B2	R600 C4	R691 B1	ZD9 A2
C127 C3	C200 C4	C222 B3	C240 B1	C313 C4	C430 B1	C457 A3	C889 C1	CN27B2	D20 A3	FB198B2	FB35 B2	FB67 A3	IC42 D4	L35 B1	L53 A3	Q30 B3	Q601 B1	R123 C2	R142 C3	R179 B1	R213 B2	R381 A4	R419 B4	R444 C4	R465 C2	R482 C2	R602 A2	R692 B1	
C128 C3	C204 C2	C223 A3	C241 B1	C315 B2	C431 B4	C458 A3	C898 C4	CN28B4	D200 D4	FB199B2	FB37 B3	IC100C2	IC43 D4	L37 C4	L54 A3	Q31 C2	R102 D3	R124 C2	R143 B3	R180 B1	R322 D4	R382 A4	R421 C2	R445 C2	R466 C2	R483 D4	R603 B1	R693 B1	
C129 C3	C207 C2	C224 A3	C242 A1	C321 C4	C432 B4	C475 A1	C900 C4	CN3 A1	D201 D4	FB201A2	FB38 A3	IC110A1	IC44 C2	L38 C4	L55 A3	Q33 C2	R103 D3	R125 B1	R144 A3	R181 B1	R323 C4	R384 A3	R423 C1	R446 C2	R467 C2	R493 C4	R604 B1	R800 C2	
C130 C3	C209 C3	C225 A3	C243 A1	C397 C4	C437 C3	C480 D4	C904 B1	CN30B2	D202 C2	FB202A1	FB39 B2	IC23 C4	IR1 B4	L39 C4	L56 A2	Q37 A3	R104 C3	R126 A1	R152 B3	R182 A2	R324 C3	R385 A3	R424 B1	R447 C2	R468 C2	R494 D4	R606 D4	R802 B1	



PCB LAYOUT - BOTTOM VIEW

C101C3 C132B2 C139C4 C147B1 C155B4 C163B3 C168B4 C173B3 C178B4 C189C4 C194A2 C199B2 C206C4 C405A2 C423A4 C465A3 C474A2 C487A1 C688A1 C830B2 C894C1 C901D3 C919B2 J2 A3 L28 A3 Q55 A3 R115B3 R378A3 R438A1 R701B3
C102C3 C134B3 C142A2 C148B1 C156A4 C164B3 C169B3 C174B3 C179A4 C190A3 C195C4 C201C4 C249B1 C407A2 C426A4 C466A3 C476A1 C490B2 C689B2 C890C2 C895C1 C903B1 C920B2 J3 A3 L29 A3 R105B3 R136A4 R383A3 R440B2 R988A3
C119B3 C135B3 C143A2 C149A1 C157B3 C165B3 C170A3 C175B3 C180B3 C191A3 C196C4 C202C4 C252B1 C409A2 C449A3 C467A2 C477A2 C491B2 C690B2 C891C3 C896C1 C912A2 C921A2 J4 A3 L36 A2 R109A2 R137A4 R386A3 R484B4
C120B2 C136A3 C1440B3 C152B4 C158C4 C166B3 C171B3 C176A3 C181A4 C192A3 C197C4 C203A3 C403A2 C410A2 C450A3 C469A3 C478D3 C492B2 C691B2 C892C1 C897C4 C913A1 C922A2 L25 A4 L51 C2 R110A2 R151B3 R387A3 R593B4
C121B2 C138B3 C145A3 C154A3 C159B4 C167B3 C172B3 C177B4 C186A4 C193A3 C198C4 C205B4 C404A2 C420C4 C455A3 C471B2 C479D3 C680B4 C692B2 C893C1 C899C4 C914A1 FB70A2 L27 A4 Q34 A3 R114B3 R376B4 R388A3 R700B3



Loader+Open/CloseDET+LEDx3 Board -main unit

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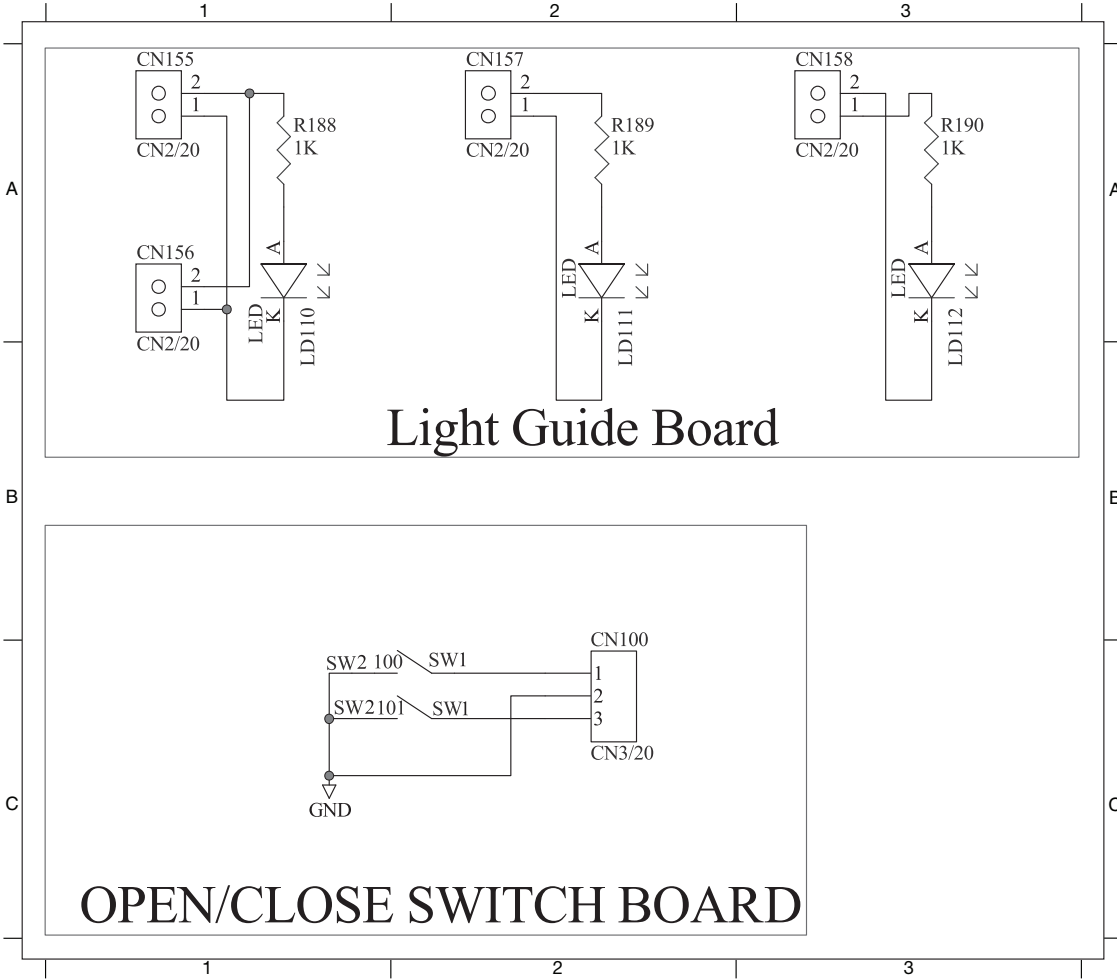
Circuit Diagram.....	7-2
PCB Layout Top & Bottom View.....	7-3

CIRCUIT DIAGRAM

7 - 2

7 - 2

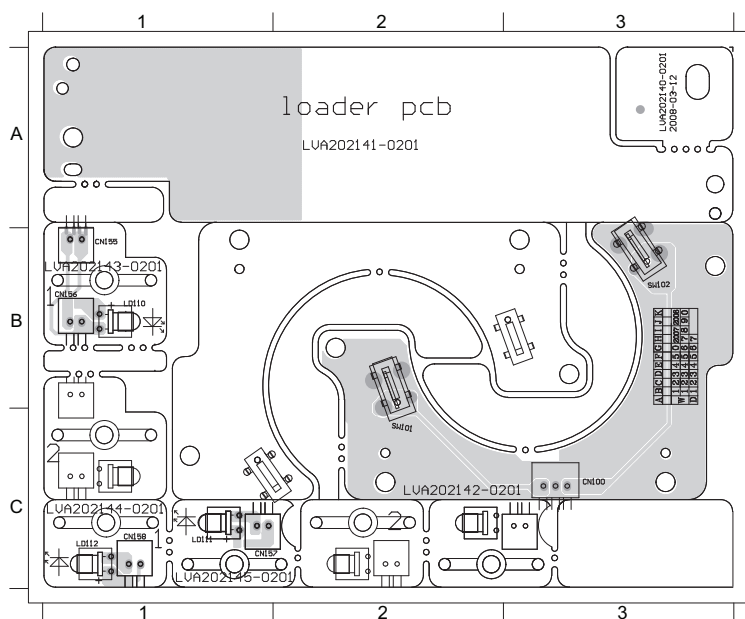
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PCB LAYOUT - TOP VIEW

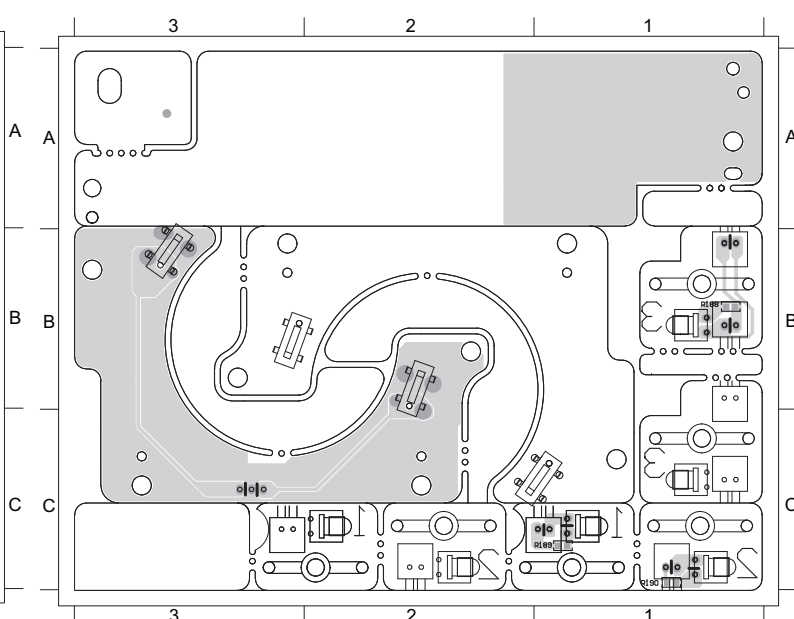
7 - 3

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PCB LAYOUT - BOTTOM VIEW

7 - 3



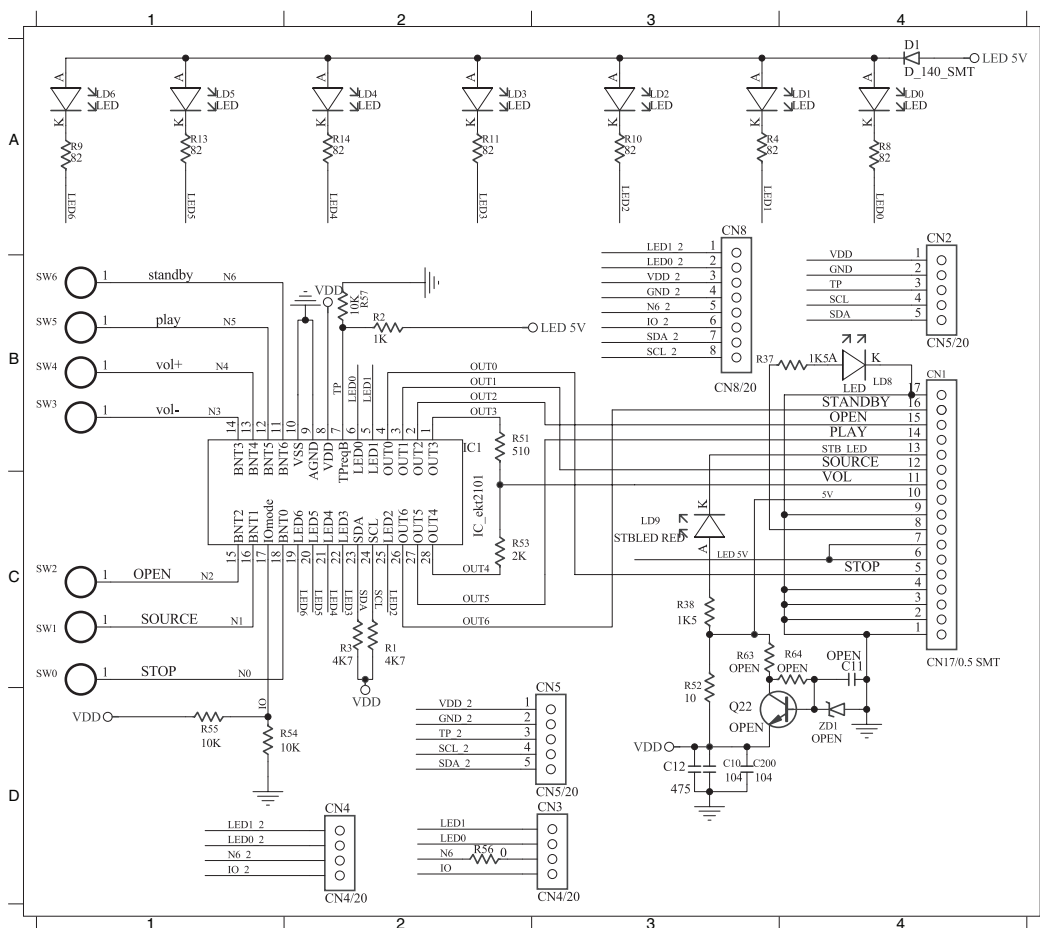
Touch Sensor BOARD-main unit

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PCB Layout Top View	8-3
PCB Layout Bottom View	8-4

8-2

8-2

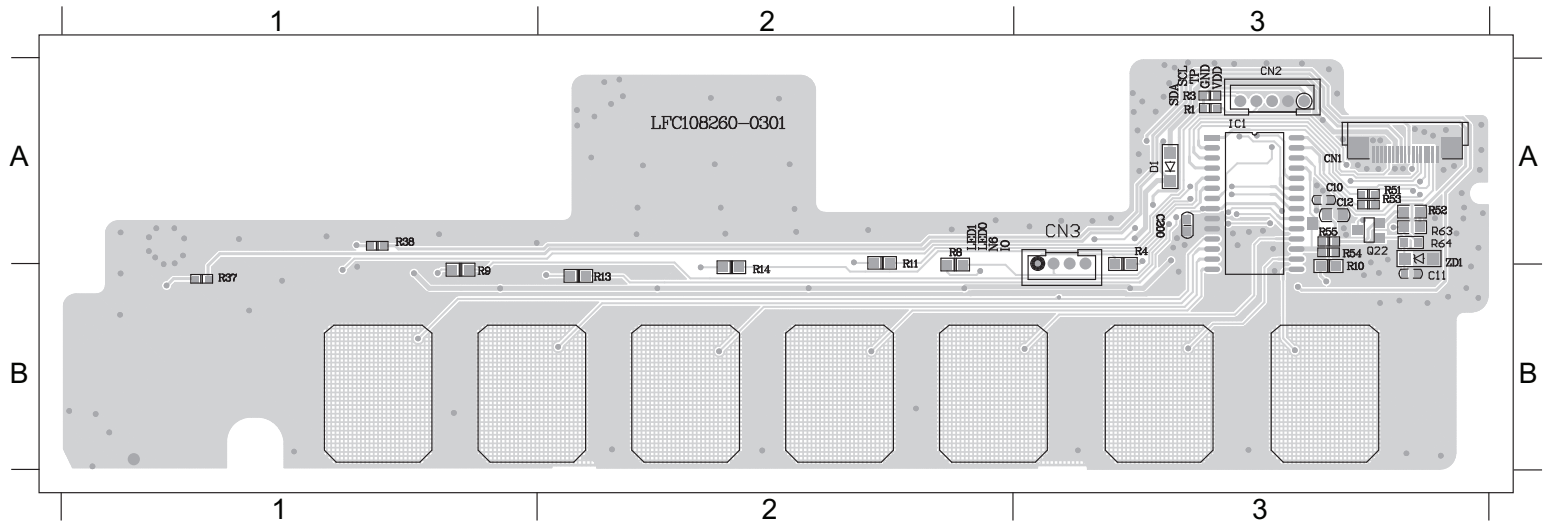


PCB LAYOUT - TOP VIEW

8 - 3

8 - 3

C10	A3	C200	A3	D1	A3	R1	A3	R11	A2	R14	B2	R37	B1	R4	A3	R52	A3	R54	A3	R8	A2
C12	A3	CN1	A3	IC1	A3	R10	A3	R13	B2	R3	A3	R38	A1	R51	A3	R53	A3	R55	A3	R9	B1

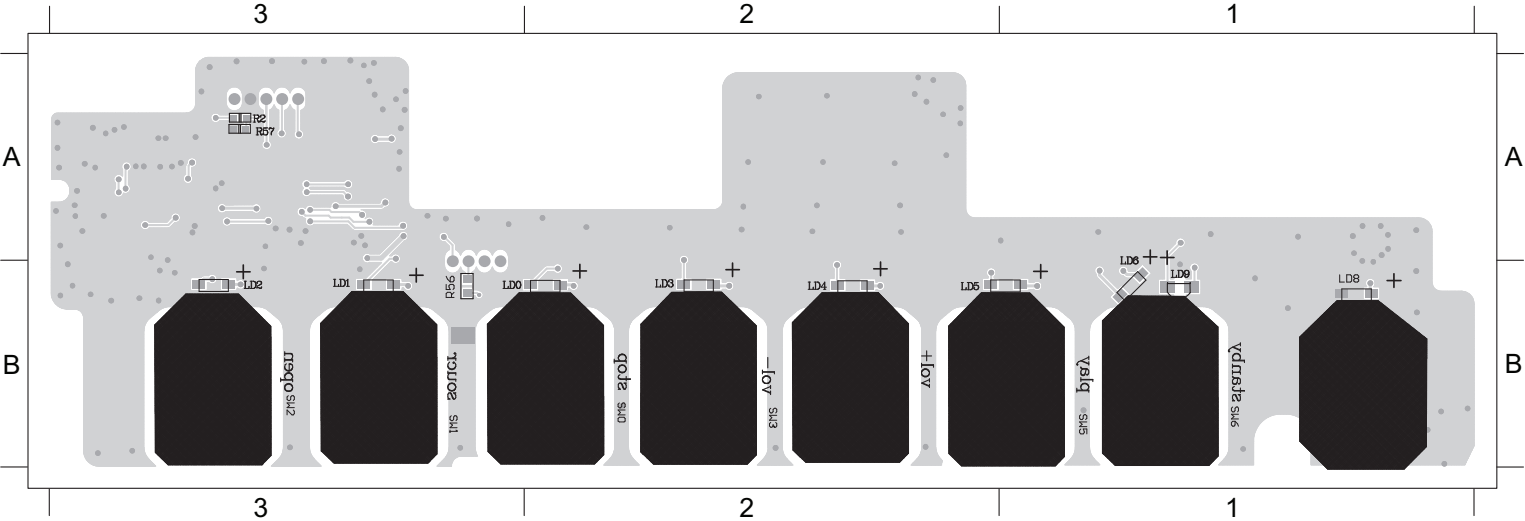


PCB LAYOUT - BOTTOM VIEW

8 - 4

8 - 4

LD0 B2 LD1 B3 LD2 B3 LD3 B2 LD4 B2 LD5 B2 LD6 B1 LD8 B1 LD9 B1 R2 A3 R57 A3



IPOD BOARD-main unit

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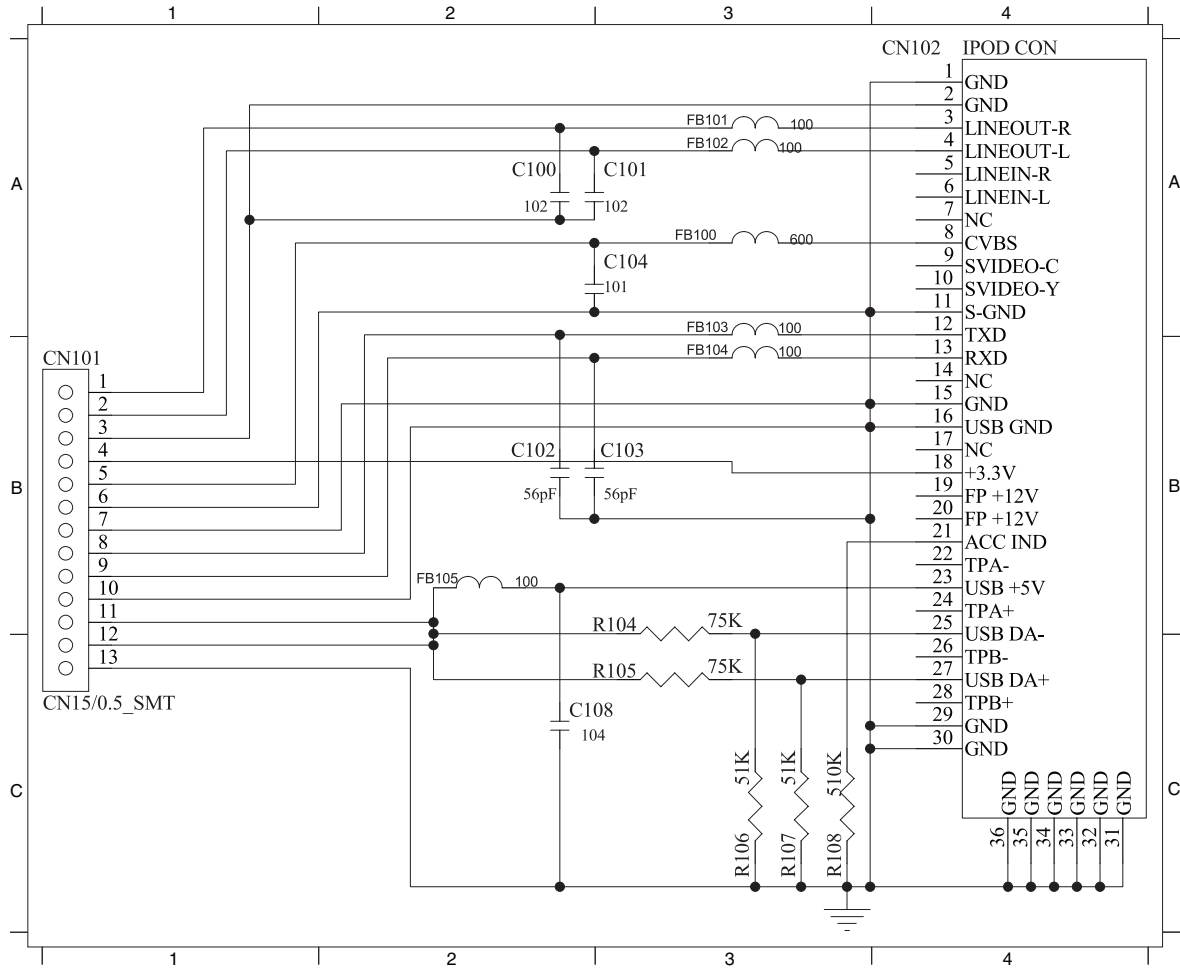
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PCB Layout View.....	9-3

CIRCUIT DIAGRAM

9 - 2

9 - 2

C100	A2	C102	B2	C104	A3	CN101	B1	FB100	A3	FB102	A3	FB104	B3	R104	B3	R106	C3	R108	C3
C101	A3	C103	B3	C108	C2	CN102	A4	FB101	A3	FB103	A3	FB105	B2	R105	C3	R107	C3		

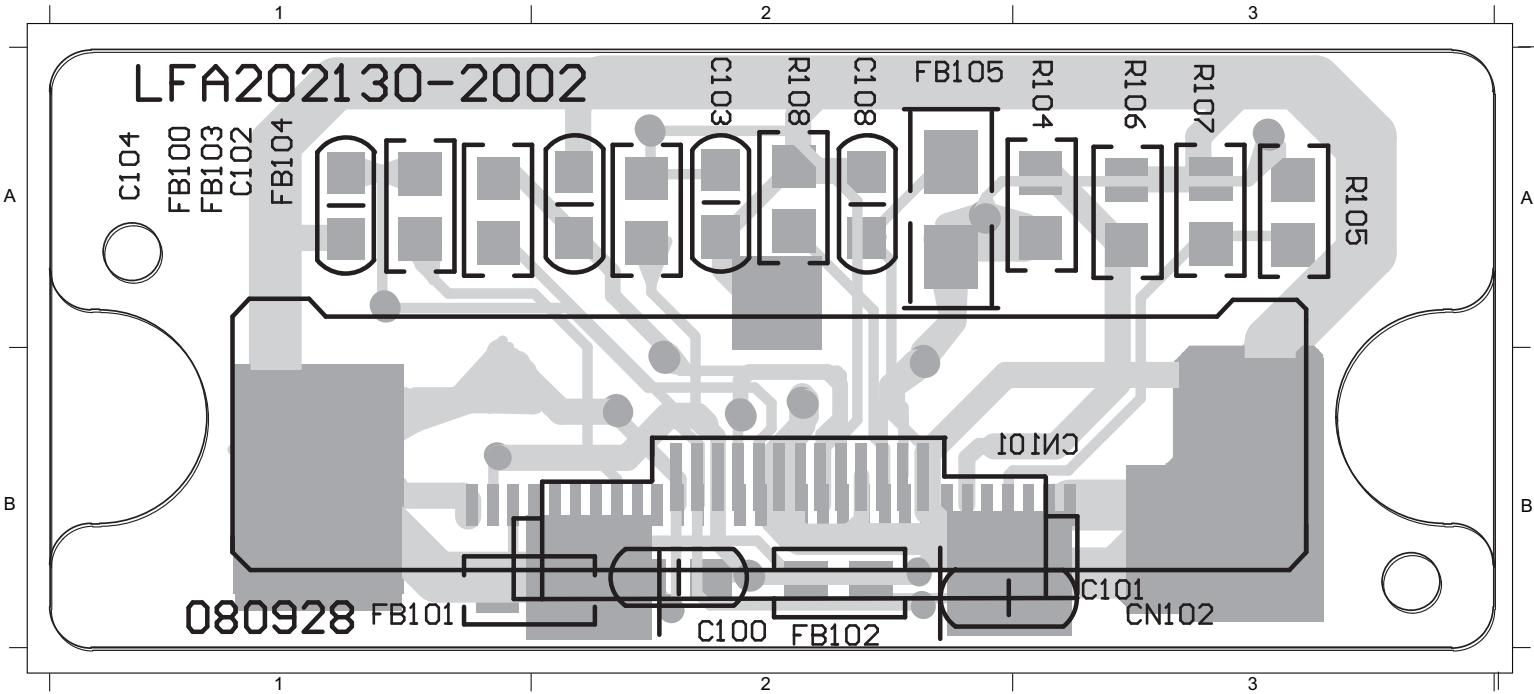


PCB LAYOUT - LAYOUT VIEW

9 - 3

9 - 3

C100 B2	C102 A1	C104 A1	CN101	B3	FB100A1	FB102B2	FB104A1	R104 A3	R106 A3	R108 A2
C101 B3	C103 A2	C108 A2	CN102	B3	FB101B1	FB103A1	FB105A2	R105 A3	R107 A3	



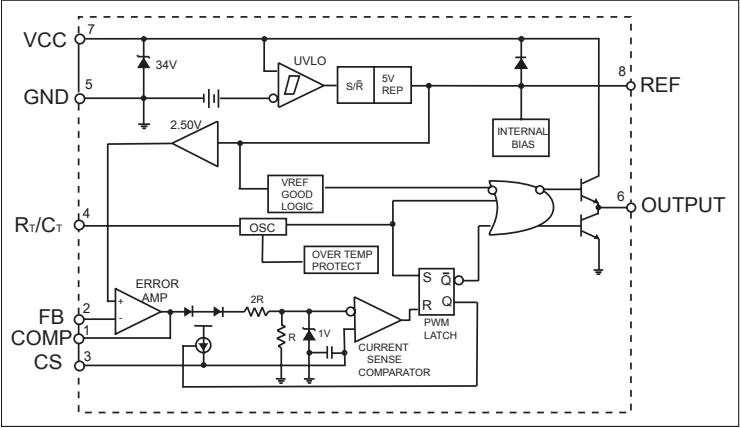
POWER BOARD-subwoofer

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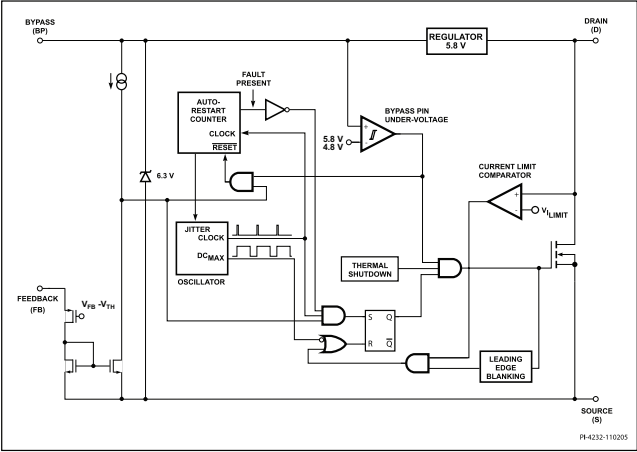
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INTERNAL IC DIAGRAM - AP3843GMTR



INTERNAL IC DIAGRAM - LNK362PN

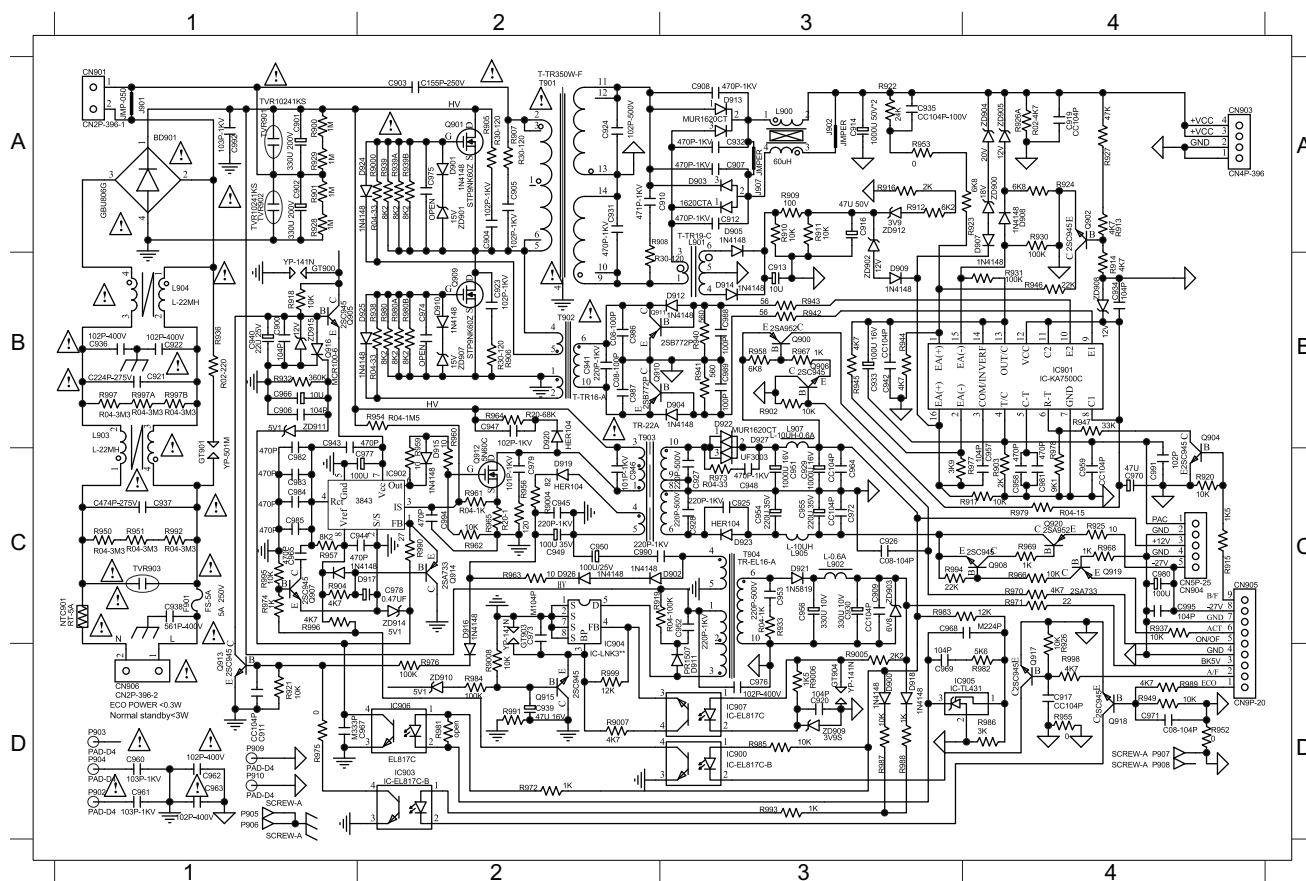


CIRCUIT DIAGRAM

10 - 2

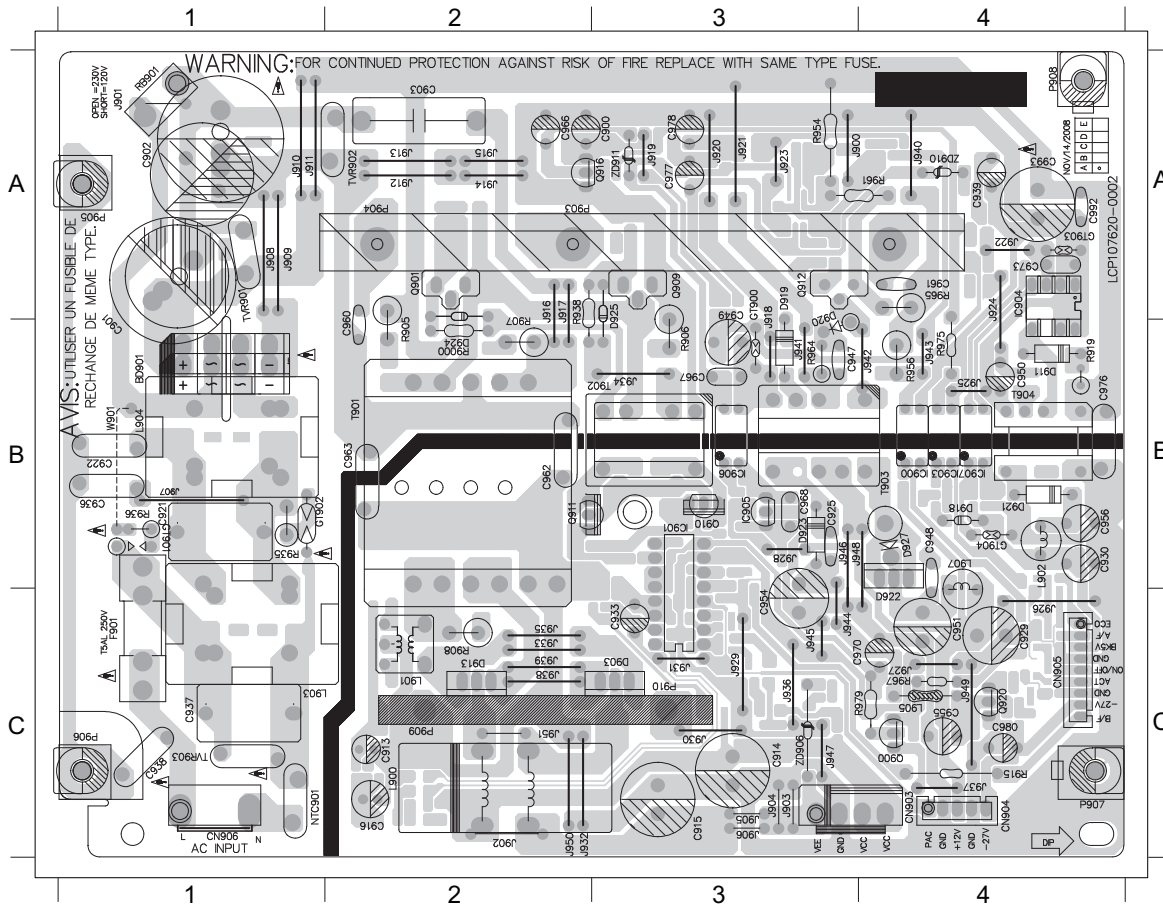
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C901 A1 C913 B3 C924 A2 C935 A3 C945 C2 C957 C4 C968 C3 C979 C2 C992 A1 D902 C2 D913 A3 D922 B3 IC904C2 L905 C3 Q908 C4 Q919 C4 R901 A1 R910 A3 R922 A3 R931 B4 R941 B3 R952 D4 R961 C2 R970 C4 R980 B2 R988 D3 R997AB1 TVR901A1 ZD908B4
C902 A1 C914 A3 C925 C3 C936 B1 C947 B2 C958 C4 C969 D3 C980 C4 C994 C2 D904 B3 D914 B3 D923 C3 IC905D3 L907 B3 Q909 B2 Q920 C4 R902 B3 R911 A3 R923 A4 R933 C3 R942 B3 R953 A3 R962 C2 R971 C4 R980AB2 R989 D4 R997BB1 TVR902A1 ZD912A3
C903 A2 C916 A3 C926 C3 C937 C1 C949 C2 C959 C4 C970 C4 C981 C4 C995 C4 D905 A3 D915 B2 D928 C2 IC906D2 HT900C1 Q910 B2 R900 A1 R903 C4 R912 A3 R924 A4 R936 B1 R943 B3 R954 B2 R963 C2 R972 D2 R980B52 R990 C2 R998 D4 TVR903C1 ZD914C2
C904 A2 C917 D4 C929 C3 C938 C1 C950 C2 C960 D1 C971 D4 C982 C1 CN903A4 D907 A4 D916 C2 F901 B3 IC907D3 Q900 B3 Q911 B3 R900A2 R904 C1 R915 C4 R925 C4 R937 C4 R944 B3 R955 D4 R964 B2 R974 C1 R981 D2 R992 C1 R999 D2 ZD900A4
C905 A2 C919 A4 C930 C3 C940 B1 C951 C3 C961 D1 C972 C3 C983 C1 CN904C4 D908 A4 D917 C2 GT901B1 L900 A3 Q901 A2 Q912 C2 R900A2C2 R905 A2 R917 C4 R926 C4 R938 B2 R945 B3 R956 C2 R965 C2 R975 D1 R982 D4 R993 D3 RB901A1 ZD901A2
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C909 C3 C921 B1 C932 A3 C942 B3 C953 C3 C964 C3 C976 D3 C985 C1 CN906D1 D910 B2 D919 C2 IC901B4 L902 C3 Q905 B1 Q914 C2 R9006D3 R907 A2 R919 C2 R928 A1 R939AA2 R950 C1 R959 C2 R968 C4 R978 C4 R986 D4 R996 C1 T902 B2 ZD904A4
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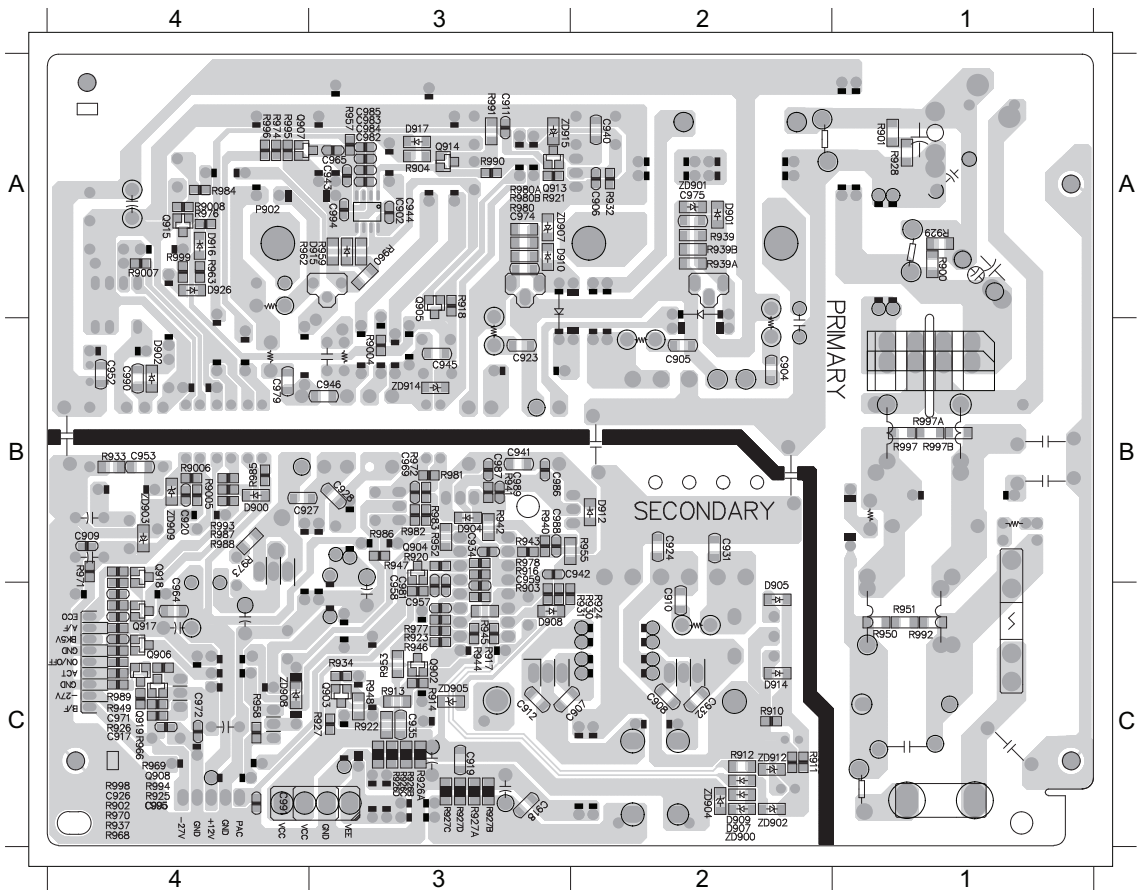
PCB LAYOUT - TOP VIEW

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C901 A1 C921 B1 C936 B1 C951 C4 C967 B3 C978 A3 CN805 C4 D919 A3 GT901B1 IC906 B3 J904 C3 J912 A2 J918 B3 J924 A4 J930 C3 J941 B3 J947 C3 L901 C2 Q900 C4 Q920 C4 R908 C2 R956 B4 R975 B4 T904 B4
C902 A1 C922 B1 C937 C1 C954 C3 C968 B3 C980 C4 CN806 C1 D920 B3 IC900 B4 IC907 B4 J907 B1 J913 A2 J919 A3 J925 B4 J931 C3 J942 B4 J948 B3 L902 B4 Q901 A2 R9000B2 R915 C4 R957 A2 R979 C4 TVR901A1
C903 A2 C925 B2 C938 C1 C956 B4 C970 C4 C991 C1 D911 B4 D921 B4 IC901 B3 IC908 B4 J908 A1 J914 A2 J920 A3 J926 C4 J932 C2 J943 B4 J949 C4 L903 C1 Q909 A3 R904 A2 R919 B4 R961 A4 RB901A1 TVR902A2
C913 C2 C929 C4 C947 B3 C960 B2 C973 A4 C992 A4 D912 B3 D922 C4 IC903 B4 J900 A3 J909 A1 J915 A2 J921 A3 J927 C4 J934 B3 J944 C3 J950 C2 L904 B1 Q910 B3 R905 B2 R936 B1 R964 B3 T901 B2 TVR903C1
C914 C3 C930 B4 C949 B3 C961 B2 C976 B4 CN903 C4 D913 C2 D923 B3 IC904 A4 J902 C2 J910 A1 J916 A2 J922 A4 J928 B3 J936 C3 J945 C3 J951 C2 L905 C4 Q911 B2 R906 B3 R938 A2 R965 A4 T902 B3 W901 B1



PCB LAYOUT - BOTTOM VIEW

C904 B2 C918 C3 C932 C2 C944 A3 C965 A3 C983 A3 D901 A2 D910 A3 Q904 B3 Q917 C4 R9007A4 R912 C2 R924 C2 R928 A1 R939AA2 R945 C3 R955 B2 R968 C4 R977 C3 R983 B3 R992 C1 R997BB1 ZD905C3
C905 B2 C919 C3 C934 B3 C945 B3 C969 B3 C984 A3 D902 B4 D912 B2 Q905 A3 Q918 B4 R901 A1 R917 C3 R925 C4 R929 A1 R939BA2 R947 B3 R958 C4 R969 C4 R978 B3 R985 B4 R993 B4 R998 C4 ZD907A3
C908 C2 C920 B4 C935 C3 C952 B4 C971 C4 C985 A3 D904 B3 D914 C2 Q906 C4 Q919 C4 R902 C4 R918 A3 R926 C4 R930 C2 R940 B3 R949 C4 R959 A3 R970 C4 R980 A3 R986 B3 R994 C4 R999 A4 ZD908C4
C909 B4 C923 B3 C940 A2 C953 B4 C972 C4 C990 B4 D905 C2 D916 A4 Q907 A4 R900 A1 R903 C3 R920 B3 R926AC3 R931 C2 R941 B3 R950 C1 R960 A3 R971 B4 R980AA3 R987 B4 R995 A4 ZD900C2 ZD912C2
C910 C2 C924 B2 C941 B3 C957 C3 C979 B4 C994 A3 D907 C2 D917 A3 Q908 C4 R9004B3 R909 C2 R921 A3 R926BC3 R933 B4 R942 B3 R951 C1 R962 A4 R972 B3 R980BA3 R988 B4 R996 A4 ZD901A2 ZD914B3
C911 A3 C926 C4 C942 B2 C958 C3 C981 C3 C995 C4 D908 C3 D926 A4 Q913 A3 R9005B4 R910 C2 R922 C3 R926CC3 R937 C4 R943 B3 R952 B3 R963 A4 R974 A4 R981 B3 R989 C4 R997 B1 ZD902C2
C917 C4 C931 B2 C943 A3 C964 C4 C982 A3 D900 B4 D909 C2 IC902 A3 Q914 A3 R9006B4 R911 C2 R923 C3 R926DC3 R939 A2 R944 C3 R953 C3 R966 C4 R976 A4 R982 B3 R990 A3 R997AB1 ZD904C2

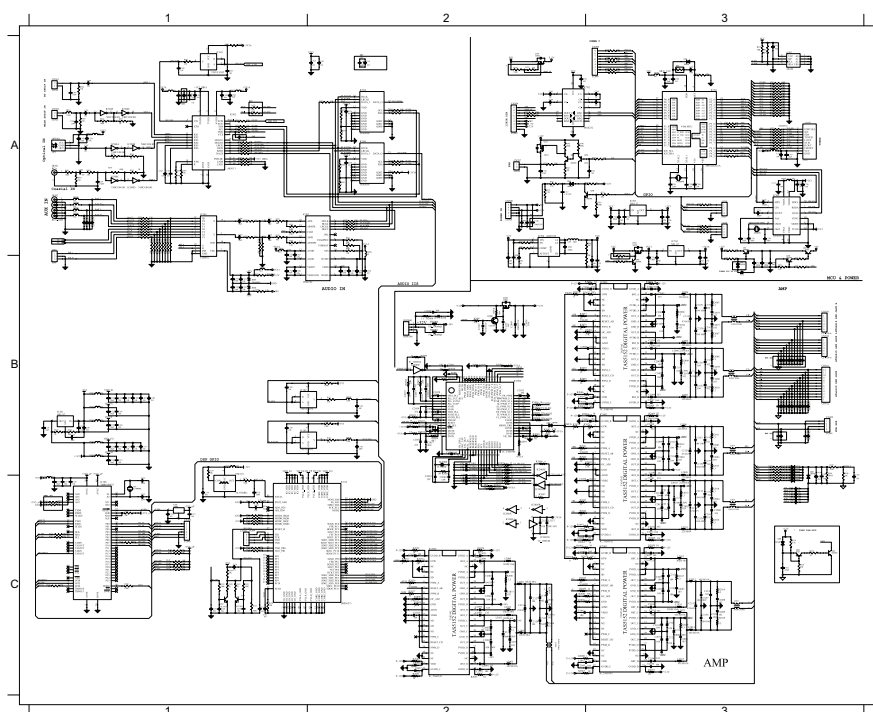


INTERNAL IC DIAGRAM - DSP56371

The block diagram illustrates the internal structure of the TDA19880. At the top, a Power Supply block is connected to various pins: AVSS, DVSS, DVSS2, DVSS3, DVSS4, DVSS5, DVSS6, DVSS7, DVSS8, DVSS9, DVSS10, DVSS11, DVSS12, DVSS13, DVSS14, DVSS15, DVSS16, DVSS17, DVSS18, DVSS19, DVSS20, DVSS21, DVSS22, DVSS23, DVSS24, DVSS25, DVSS26, DVSS27, DVSS28, DVSS29, DVSS30, DVSS31, DVSS32, DVSS33, DVSS34, DVSS35, DVSS36, DVSS37, DVSS38, DVSS39, DVSS40, DVSS41, DVSS42, DVSS43, DVSS44, DVSS45, DVSS46, DVSS47, DVSS48, DVSS49, DVSS50, DVSS51, DVSS52, DVSS53, DVSS54, DVSS55, DVSS56, DVSS57, DVSS58, DVSS59, DVSS60, DVSS61, DVSS62, DVSS63, DVSS64, DVSS65, DVSS66, DVSS67, DVSS68, DVSS69, DVSS70, DVSS71, DVSS72, DVSS73, DVSS74, DVSS75, DVSS76, DVSS77, DVSS78, DVSS79, DVSS80, DVSS81, DVSS82, DVSS83, DVSS84, DVSS85, DVSS86, DVSS87, DVSS88, DVSS89, DVSS90, DVSS91, DVSS92, DVSS93, DVSS94, DVSS95, DVSS96, DVSS97, DVSS98, DVSS99, DVSS100. The Device Control block is connected to MCLK, XTAL_OUT, PLL_F1LTM, PLL_F1LTM_Q, OSC_CAP, OSC, LINC1, SDIN, SDIN2, SDIN3, SDIN4, SDA, SCL, RESET_P, PDI, MUTE, and BND_FIR. The System Control block is connected to SDA, SCL, RESET_P, PDI, MUTE, and BND_FIR. The PWM Control block is connected to SDA, SCL, RESET_P, PDI, MUTE, and BND_FIR. The central processing blocks include 16x7 Biquads, 8x7 Biquads, and 8x7 Biquads, each with Soft Lim, Soft Vol, and Loud Comp. The output stage consists of 8x7 Biquads, 8x7 Biquads, and 8x7 Biquads, each with Soft Lim, Soft Vol, and Loud Comp. The final output is connected to the PSVCC pin.

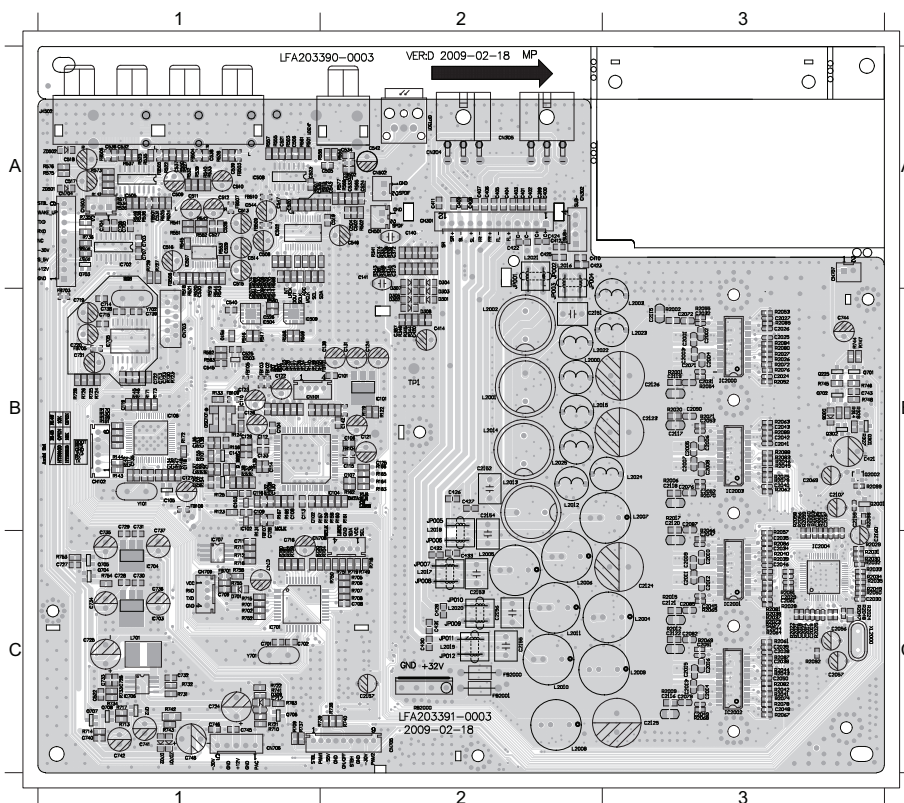
CIRCUIT DIAGRAM

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C102	B1	C126	B1	C2006B3	C2030B2	C2054B2	C2078B3	C2102C3	C2133B3	C2159B2	C420	B3	C514	B1	C538	A1	C724	B2	CN302B3	FB103B1	IC102	B1	L2000C2	Q102	C1	R131	B2	R156	C1	R2007B3	R2031B2	R2055C2	R2083C2	R345	B3	R526	A1	R554	A1	R701	A3	R726	A3	R750	A3				
C103	B1	C127	C1	C2007B3	C2031C2	C2055B2	C2079B3	C2103C3	C2134B3	C2160B2	C422	B3	C515	B2	C539	A1	C725	B3	CN304B4	FB104B1	IC103	B1	L2001C2	Q12	A3	R132	B2	R157	C2	R2008B3	R2032B2	R2056B2	R2084C2	R346	B3	R527	A1	R555	A1	R702	A3	R727	A3	R751	A3				
C104	B1	C128	B2	C2008B3	C2032C2	C2056B2	C2080B3	C2104C3	C2135C3	C338	C3	C423	B3	C516	B2	C540	A2	C726	B2	CN305B4	FB105B1	IC104	C2	L2002C2	Q2001B2	R133	B1	R158	C2	R2009B3	R2033B2	R2057B2	R2085C2	R501	A1	R528	A1	R556	A1	R703	A3	R728	A3	R752	A3				
C105	B1	C129	C1	C2009B3	C2033B2	C2057B2	C2081B3	C2105C3	C2136C3	C371	C3	C424	B3	C517	B1	C541	A2	C727	B3	CN502A1	FB106C1	IC106	C1	L2003C2	Q2002B2	R134	C2	R159	C2	R2010B3	R2034C2	R2058B2	R2086B2	R502	A1	R529	A1	R557	A1	R704	A3	R729	A3	R753	A3				
C106	B1	C130	B2	C2010B3	C2034B2	C2058B2	C2082B3	C2106C3	C2137C3	C372	C3	C425	B3	C518	B1	C542	A1	C728	A3	CN703A3	FB107B2	IC2000C2	L2004	B3	Q225	A2	R135	C1	R160	C2	R2011B3	R2035C2	R2059B2	R2087B2	R503	A1	R530	A1	R558	A2	R705	A3	R730	A3	R754	B3			
C107	B1	C131	B1	C2011C3	C2035B2	C2059C2	C2083B3	C2107B2	C2138C3	C373	C3	C426	B3	C519	A1	C543	A1	C729	B3	CN704A2	FB108B2	IC2001B3	L2005	B3	Q701	A2	R136	C1	R161	C2	R2012B3	R2036B2	R2060B2	R2088C2	R504	A1	R531	A1	R559	A2	R706	A3	R731	A2	R755	A3			
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C116	B1	C140	A2	C2020B2	C2044B2	C2068C2	C2092C2	C2123C2	C2147C3	C404	B3	C504	A1	C528	B1	C705	A3	C740	B3	D304	B3	FB506A1	IC508	A1	L2014	C3	R120	C1	R146	C1	R171	C1	R2021B2	R2045C2	R2069C3	R2099B2	R516	A2	R541	A1	R569	A1	R715	A3	R740	A3	R82000B2		
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C124	B1	C2004C2	C2028B2	C2052C3	C2076B3	C2100B3	C2131B3	C2155B3	C412	B3	C512	A1	C536	A1	C716	A3	C748	A2	FB101B1	FB705A3	JK501A1	OTP501A1	R128	C2	R154	C1	R2005B3	R2029B2	R2053C2	R2081B2	R341	C3	R524	A1	R552	A1	R579	A2	R724	A3	R748	A3							



PCB LAYOUT - TOP VIEW

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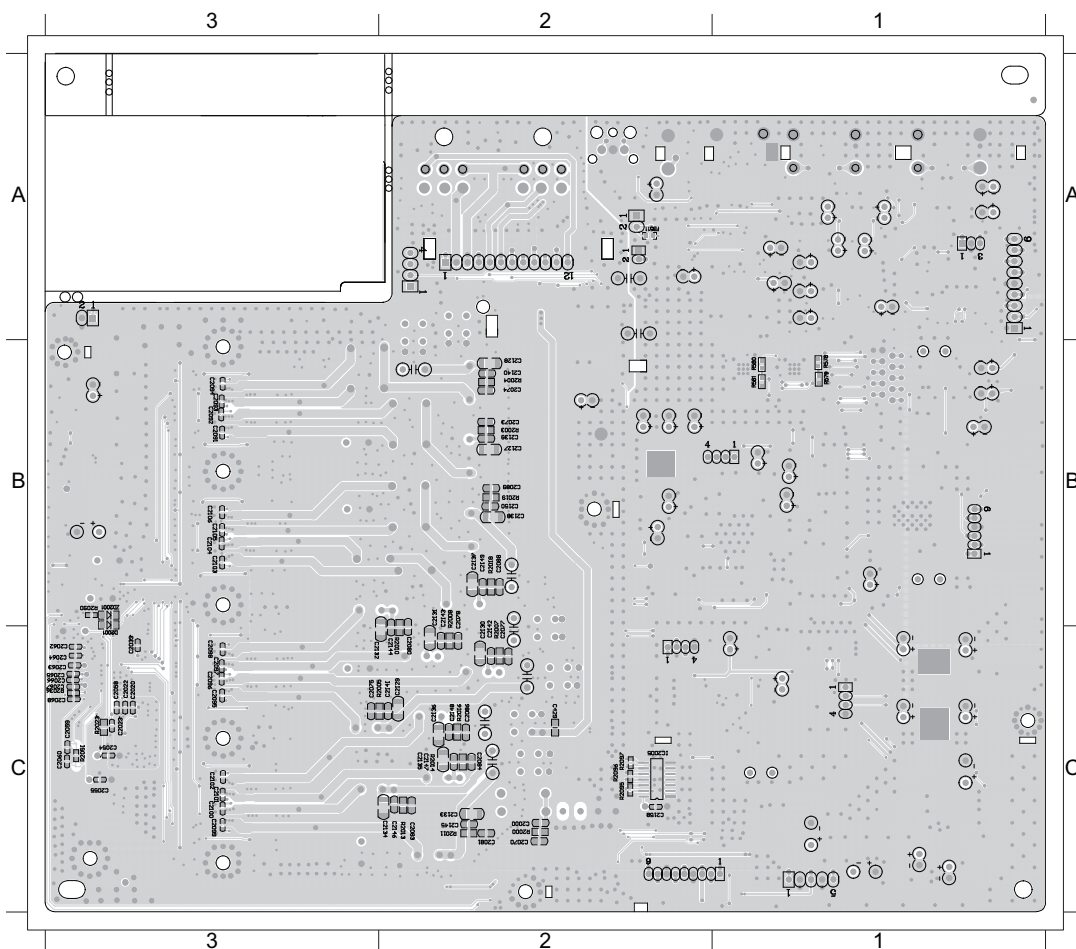


PCB LAYOUT - BOTTOM VIEW

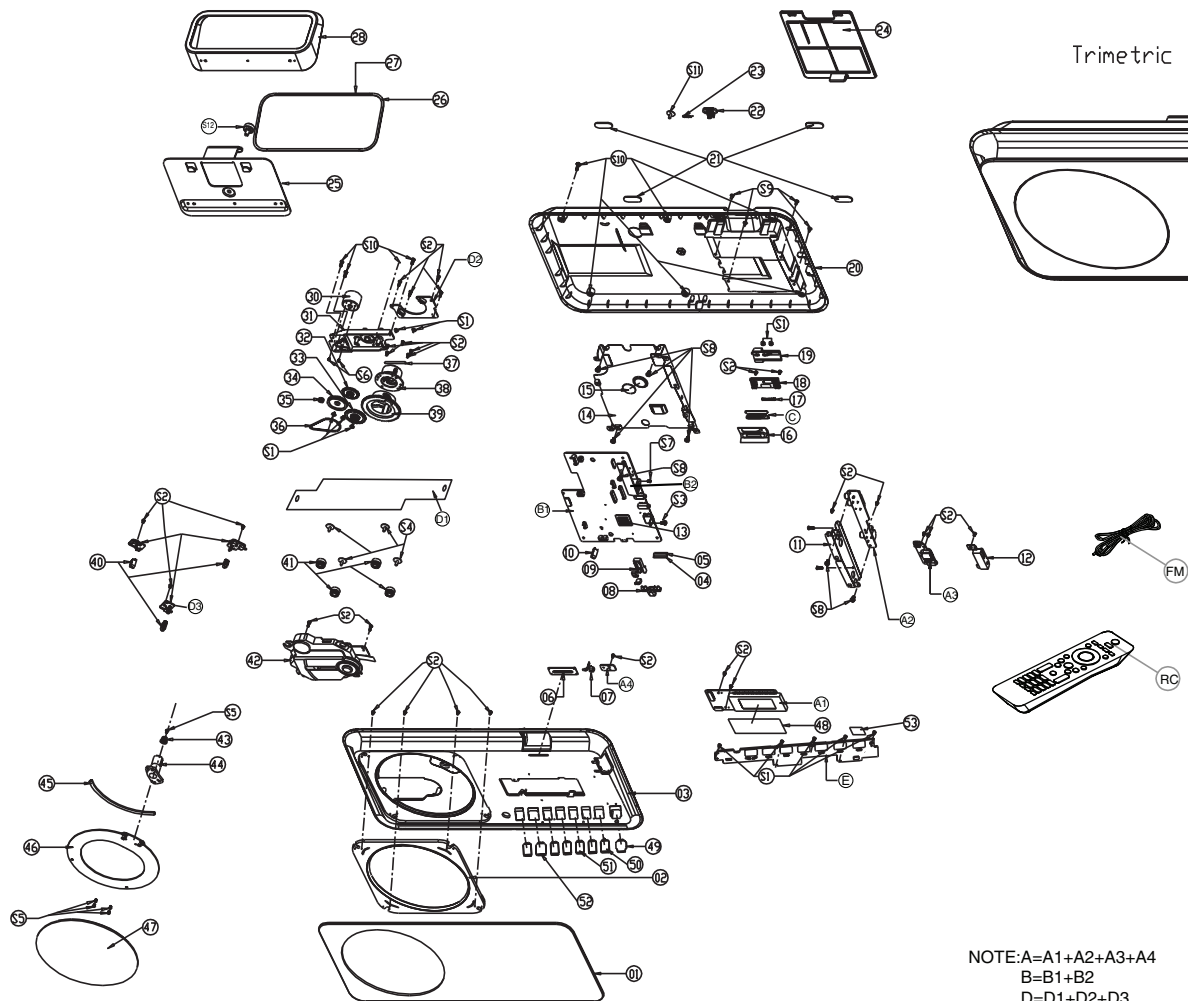
11 - 4

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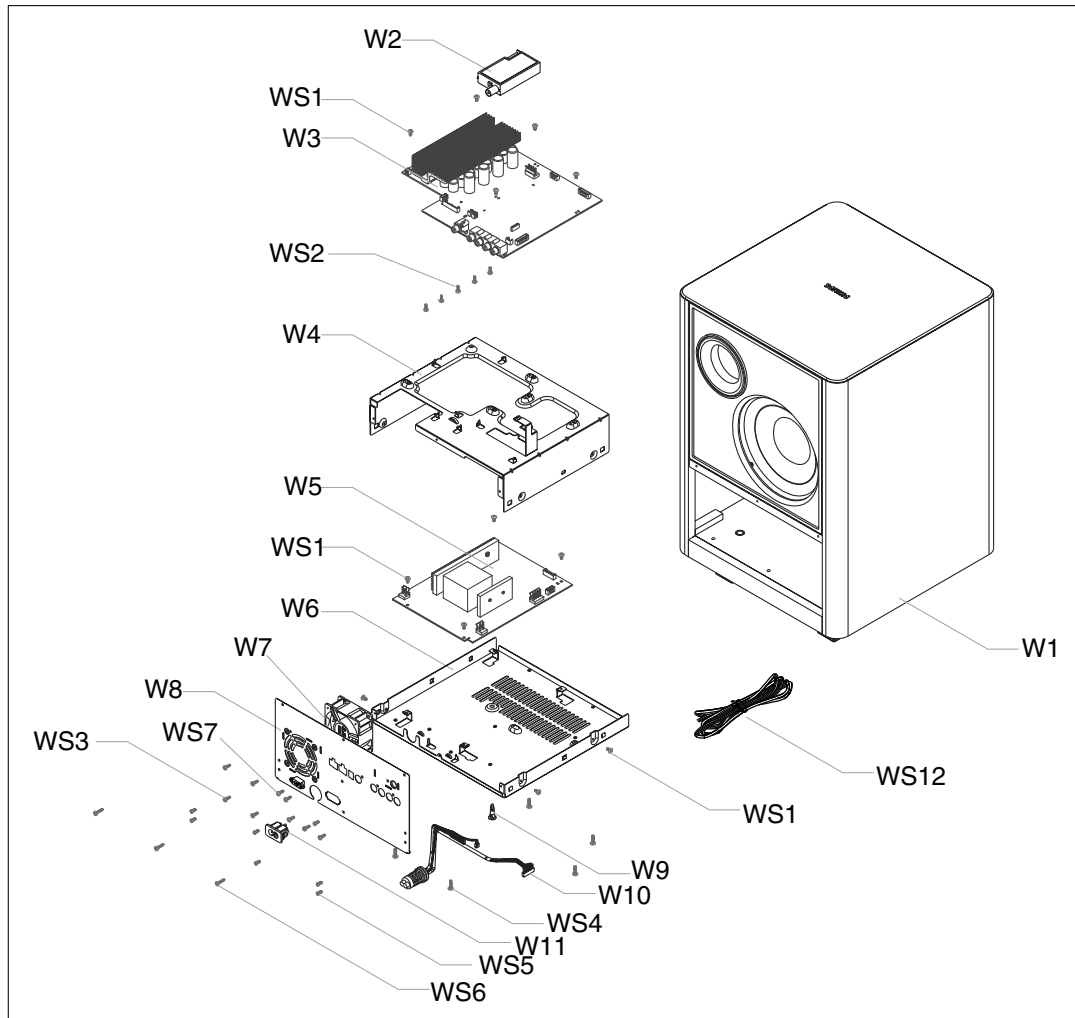
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Mechanical Exploded View_Main unit



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PART LIST

Loc.	Part No.	Description
MAIN UNIT		
1	996510024878	TOP PANEL LENS PMMA
10	996510024859	LED HOLDER C ABS
12	996510024861	USB COVER
16	996510024868	IPOD DOCK ABS
18	996510016458	IPOD TRACK
19	996510016459	IPOD HOOK
2	996510024854	DISC LIGHT GUIDE LENS
20	996510025484	BACK CABINET ABS
21	996510014258	RUBBER FOOT
24	996510024875	CABLE COVER ABS
26	996510014270	WALL MOUNT RUBBER A
27	996510014271	WALL MOUNT RUBBER B
28	996510014269	WALL MOUNT STAND ABS
3	996510024883	FNT CAB ABS
30	996510024862	TRAY MOTOR
31	996510024879	GEAR BRACKET ABS
32	996510024866	GEAR MIDDLE ARNITEL
33	996510024876	GEAR A POM DURACON
34	996510024884	BELT GEAR POM DURACON
35	996510024864	GEAR-G POM
36	996510005614	BELT RUBBER D33.5mm
38	996510014260	GEAR SLIDE HOLDER PC+ABS
39	996510014259	GEAR POM DURACON
40	996510016591	LED HOLDER A ABS
41	996510014257	RUBBER CUSHION GRAY
42	996510013538	PICKUP SONY KHM-313AHD
49	996510024887	LIGHTGUIDE_AMBISOUND PMMA
50	996510024863	LIGHTGUIDE_POWER PMMA
51	996510024886	LIGHTGUIDE_A PMMA
52	996510024872	LIGHTGUIDE_SOURCE PMMA
54	996510007322	POWER CORD
6	996510016461	IPOD LIGHT GUIDE LENS
7	996510024869	LED HOLDER B ABS
8	996510014254	IR LENS PMMA
9	996510024877	IR HOLDER ABS
Audio	996500013058	RCA CABLE 2P 1.2M
VIDEO	996510014273	RCA CABLE 1500mm
FM	996510014250	FM ANT 1.5M
HDMI	996510013544	HDMI CABLE 1500mm
HDMI	996510020159	HDMI CABLE 1500 20276#30 BLK
RC	996510022456	REMOTE CONTROL 41KEYS
F	996510024874	DOOR ASSY
47	996510025476	DOOR LENS
45	996510025464	DOOR SHAFT POM DURACON
44	996510025462	DOOR RUBBER
V1	996510016469	FFC CABLE
V3	996510024865	FFC CABLE 17P
V2	996510024853	FFC CABLE 17P
V4	996510014265	FFC CABLE
A	996510025452	DISPLAY+SCART+USB+LED PCB AY
E	996510024867	TOUCH SENSOR PCB
B	996510025473	MAIN+DIN PCB ASSY
C	996510024881	IPOD PCB
D	996510015389	LOADER PCB+OPEN/CLOSEDET+LEDx3

DISPLAY+SCART+USB+LED PCB

CN108	996510025454	FFC HOUSING 17P
CN109	996510025458	C/W 2P 80mm
CN180	996500018030	CONNECTOR 2P
IC100	996500029614	IC 52 PIN PT6311(PTC)
IC100	996500041280	IC 52P ET16311 VFD DRIVER
IC101	996500029614	IC 52 PIN PT6311(PTC)
IC101	996500041280	IC 52P ET16311 VFD DRIVER
IC108	996510016614	IC 4P PRTR5V0U2X SOT143B
JK1	996510016616	RCA JACK2PWHT-RED RCA-214D-011

Loc.	Part No.	Description
JK101	996500012608	RCA JACK YELLOW
JK102	996510016889	USB JACK 4P TYPE A FLAT 90 DIP
LD150	996510025456	LED 3D 2P
Q100	996510000593	XISTR PNP 8550SS-D TO-92 CJ
Q106	996510005667	XISTR 8050S TO92
Q107	996510000580	XISTR NPN MMS8050L
Q108	996510000593	XISTR PNP 8550SS-D TO-92 CJ
Q188	996510005667	XISTR 8050S TO92
Q189	994000000921	XISTR PNP 2SA812 HFE:200-400
Q190	994000000921	XISTR PNP 2SA812 HFE:200-400
Q191	996510000580	XISTR NPN MMS8050L
VFD100	996510016612	VFD 68P AOTOM:33080-1A01

TOUCH SENSOR PCB

IC1	996510025481	IC 28P EKT2101SO28J
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MAIN+DIN PCB

CN18	996500015898	CONNECTOR 2 PIN PITCH=2.0MM
CN2	996500015900	CONNECTOR 3 PIN P=2.0MM
CN22	996500015901	CONNECTOR 6 PIN P=2.0MM
CN27	996500015859	CONNECTOR 4PIN P2.0MM
CN28	996510025477	HOUSING 4P
CN3	996510016604	HOUSING 2x6P H4.3xW4.5xP2.0mm
CN30	996510025459	FFC HOUSING 17P
CN31	996510016606	CONNECTOR 2P P=2.0mm 180 RED
CN32	996500018030	CONNECTOR 2P
CN4	996510025465	HEADER PIN 2x6P
D188	996510010358	DIODE 1N4007
D189	996510010358	DIODE 1N4007
D190	996510004297	IN5819 1A 28V SCHOTTKY
IC100	996510025466	IC 44P MPC82G516AF
IC110	996510016598	IC 6P SN74LVC2G04DCKR SC-70 TI
IC23	996510021082	IC 256P MT1389FXE/SN LQFP
IC24	996510021056	IC 20P WM8781GEDS SSOP
IC26	996510020341	IC 8P D4558 SOP SILICORE
IC26	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC27	996510016594	IC 16P MAX232DR SOIC TI
IC30	996510004287	IC 16P 4052L-S16-R SOP 4CH SW
IC30	994000000841	IC 16PIN TC4052BFN
IC32	996510012506	IC 28P AM5888S L/F HSOP AMTEK
IC33	996510025468	IC 48P KH29LV320DBTC-70G
IC333	996510017705	IC 3P UR622533AE3-3-RSOT-23UTC
IC34	996510004115	IC 54P AS81F641642C-6P TSOPII
IC34	996510009895	IC 54P A641604L-6T TSOPII
IC34	996510016601	IC 54P HY57V641620F(L/S)TP-6
IC36	996510004634	IC 16P TS5V330DBQR QSOP
IC37	996510017707	IC 8P AOZ1016AI SO ALPHA&OMEGA
IC38	996510017707	IC 8P AOZ1016AI SO ALPHA&OMEGA
IC39	996510004289	IC 8P TU24C16CS2 SOIC TURBO
IC42	996510016597	IC 3P AZ1117D-ADJ TO-252 AAC
IC43	996510016597	IC 3P AZ1117D-ADJ TO-252 AAC
IC44	996510025451	IC 20P MFI341S2161
IR1	996510019932	PHOTO-SENSOR 4.5-5.5V36KHz
IR2	996510019933	PHOTO-SENSOR 4.5-5.5V 36KHz
J5	996510016600	PH JACK D3.6 8P L17.3xW6.6xH5
JK2	996510016607	DIN JACK 13P SMK:LAC1315-0102F
JK6	996510012507	HDMI JACK 19P PDVBT8-19 FLBS4N
L300	996510025455	HDMI COMMON MODE CHOKE
L301	996510025455	HDMI COMMON MODE CHOKE
L302	996510025455	HDMI COMMON MODE CHOKE
L303	996510025455	HDMI COMMON MODE CHOKE
L400	996510025455	HDMI COMMON MODE CHOKE
LD100	996510025457	LED 3DIA
Q22	996500041281	FET 2N7002 60V/115MA
Q25	996510004117	FET 2SK3018 30V/0.1A SC-70
Q26	996510004117	FET 2SK3018 30V/0.1A SC-70
Q27	996500026927	XISTR PNP 2SB1132RT100 ROHM HF
Q28	996500026927	XISTR PNP 2SB1132RT100 ROHM HF
Q29	996510004282	XISTR NPN SMT (2SC945)

Loc.	Part No.	Description
Q30	994000000921	XISTR PNP 2SA812 HFE:200-400
Q31	994000000921	XISTR PNP 2SA812 HFE:200-400
Q33	996510004282	XISTR NPN SMT (2SC945)
Q34	996510004282	XISTR NPN SMT (2SC945)
Q37	996510004282	XISTR NPN SMT (2SC945)
Q40	996510000593	XISTR PNP 8550SS-D TO-92 CJ
Q44	996510000580	XISTR NPN MMS8050L
Q45	996510000580	XISTR NPN MMS8050L
Q50	994000000921	XISTR PNP 2SA812 HFE:200-400
Q500	996510000580	XISTR NPN MMS8050L
Q502	996510016599	MOSFET CES2312 SOT-23 CET 20V
Q503	996510000580	XISTR NPN MMS8050L
Q504	996510000580	XISTR NPN MMS8050L
Q505	996510000580	XISTR NPN MMS8050L
Q507	996500041969	FET AO3403 ALPHA -30V/-2.6A
Q51	994000000921	XISTR PNP 2SA812 HFE:200-400
Q55	996510004282	XISTR NPN SMT (2SC945)
Q600	996500041969	FET AO3403 ALPHA -30V/-2.6A
Q601	996510000580	XISTR NPN MMS8050L
XL4	996510000568	CRYST 27.0000MHZ +/-20PPM
XL6	996510016608	CRYSTAL 11.0592MHZ HC-49US

IPOD PCB

CN102 996510025479 IPOD CONN. 30P

LOADER PCB+OPEN/CLOSEDET+LEDx3 PCB

LD110	--	LED 3DIA
LD110	--	LED 3DIA
LD111	--	LED 3DIA
LD111	--	LED 3DIA
LD112	--	LED 3DIA
LD112	--	LED 3DIA

SUBWOOFER

W10	996510014249	INTERFACE CABLE
W2	996510018486	TUNER PACK KST-MT004FS1-6D
W7	996510013560	FAN
W8	996510025488	BACK PANEL
WV1	996510000673	FFC CABLE 10P 100MM P1.25MM
WV1	996510007429	FFCCBLE 10P100mmUL20798 P=1
W3	996510025471	AMP+CONNECTOR PCB ASSY
W5	996510025475	POWER PCB ASSY

AMP+CONNECTOR PCB

L2000	996510021604	AIR COIL 30NH I=10A
L2001	994000005332	INDUCTOR 10UH/10A 20%
L2002	994000005332	INDUCTOR 10UH/10A 20%
L2003	996510021604	AIR COIL 30NH I=10A
L2004	996510025463	INDUCTOR 22UH
L2005	996510025463	INDUCTOR 22UH
L2006	996510025463	INDUCTOR 22UH
L2007	996510025463	INDUCTOR 22UH
L2008	996510025463	INDUCTOR 22UH
L2009	996510025463	INDUCTOR 22UH
L2010	996510025463	INDUCTOR 22UH
L2011	996510025463	INDUCTOR 22UH
L2012	996510021604	AIR COIL 30NH I=10A
L2013	994000005332	INDUCTOR 10UH/10A 20%
L2014	994000005332	INDUCTOR 10UH/10A 20%
L2015	996510021604	AIR COIL 30NH I=10A
L2022	996510021604	AIR COIL 30NH I=10A
L2023	996510021604	AIR COIL 30NH I=10A
L2024	996510021604	AIR COIL 30NH I=10A
L2025	996510021604	AIR COIL 30NH I=10A
Q101	996510000578	XISTR NPN KTC3875-Y

Loc.	Part No.	Description
Q102	996510000578	XISTR NPN KTC3875-Y
Q12	996510000578	XISTR NPN KTC3875-Y
Q2001	996510000578	XISTR NPN KTC3875-Y
Q2002	996500041969	FET AO3403 ALPHA -30V/-2.6A
Q225	996500041969	FET AO3403 ALPHA -30V/-2.6A
Q701	996510000578	XISTR NPN KTC3875-Y
Q702	994000000921	XISTR PNP 2SA812 HFE:200-400
Q703	996500041969	FET AO3403 ALPHA -30V/-2.6A
Q704	996500041969	FET AO3403 ALPHA -30V/-2.6A
Q705	996510000578	XISTR NPN KTC3875-Y
Q706	996510000578	XISTR NPN KTC3875-Y
Q707	994000000921	XISTR PNP 2SA812 HFE:200-400
Q708	996510000578	XISTR NPN KTC3875-Y
XL2000	996510021233	X'TAL 13.5MHz 15ppm 20pF
Y101	996510016546	CRYSTAL 22.1184MHz 20ppm HC-49
Y701	996510016608	CRYSTAL 11.0592MHz HC-49US

POWER PCB

BD901	996500041973	BRIDGE KBU808 8A 800V
BD901	996510011372	BRIDGE KBU808 8A 800V
BD901	996500038405	BRIDGE KBU808 8A 800V
C9002	996510004633	COND MYLAR 0.1 uF 100V 5%
C901	996500027123	CAP.E 330UF 200V 20% 105°C D18
C902	996500027123	CAP.E 330UF 200V 20% 105°C D18
C903	996500027124	COND METAL 1.5UF 250V DC /-10
C921	994000005343	COND SAFETY 0.22UF 275V 20%
C922	994000005344	CAP.SAFETY Y1 560PF 400V 10%
C936	994000005344	CAP.SAFETY Y1 560PF 400V 10%
C937	994000005343	COND SAFETY 0.22UF 275V 20%
C938	994000005344	CAP.SAFETY Y1 560PF 400V 10%
C947	996500020261	COND DISC 0.001UF 1KV 20%
C960	996500018042	COND DISC 0.01UF 1KV 20%
C961	996500018042	COND DISC 0.01UF 1KV 20%
C963	996500027115	CAP.SAFETY Y1 102PF 250V 20% Y5
C973	996510004633	COND MYLAR 0.1 uF 100V 5%
C976	996500027115	CAP.SAFETY Y1 102PF 250V 20% Y5
C992	996500018042	COND DISC 0.01UF 1KV 20%
CN903	996510025461	C/W 4P 150mm
CN904	996510025453	C/W 5P 140mm
CN905	996510025467	FLAT CABLE 9P 120mm
CN906	996500015936	CONNECTOR 4PIN P=3.96MM
D911	994000000938	DIODE PR1507 1.5A 1000V
D913	996500041972	DIODE STPR1620CT 3P
D913	994000005346	RECTIFIER UF1602CT TO-220AB 3P
D919	996510025474	DIODE HER105 1A 400V
D920	994000000938	DIODE PR1507 1.5A 1000V
D921	996510004297	IN5819 1A 28V SCHOTTKY
D922	994000005459	DIODE STPR1020CT
D923	996510025474	DIODE HER105 1A 400V
F901	996500042572	FUSE 5A 250V SLOW
GT901	996510021084	SURGE PROTECTOR DSP-501N-A21F
IC900	994000000946	OPTICAL SENSOR 4P
IC901	996510008293	IC 16P AZ7500BP-E1
IC902	996510004113	IC 8P AP3843GMTR-E1
IC903	994000000946	OPTICAL SENSOR 4P
IC904	996510013921	IC 8PLNK362PNDIP-8B2.8WPIPMIC
IC905	994000000952	IC 3PIN TL431
IC905	994000001572	IC 3P TL431
IC906	994000000946	OPTICAL SENSOR 4P
IC907	994000000946	OPTICAL SENSOR 4P
IC908	994000000952	IC 3PIN TL431
IC908	994000001572	IC 3P TL431
L900	994000005341	COMMON COIL 65UH +/-10% 2XD1.2
L901	996500027102	TOROID COIL S1=1TS D0.65MMX2 P
L902	996500016694	6UH 13.5TS 2UEW
L903	994000005233	COMMON COIL 22MH
L904	994000005233	COMMON COIL 22MH
L905	996500015871	INDUCTOR 10 UH 10%
L907	996500016694	6UH 13.5TS 2UEW
NTC901	996510008294	NTC THERMISTOR

Loc.	Part No.	Description
Q900	996510000593	XISTR PNP 8550SS-D TO-92 CJ
Q901	996510021085	MOSFET STK1060F TO220F AUK600V
Q904	996510004282	XISTR NPN SMT (2SC945)
Q905	996510004282	XISTR NPN SMT (2SC945)
Q906	996510004282	XISTR NPN SMT (2SC945)
Q907	996510004282	XISTR NPN SMT (2SC945)
Q908	996510004282	XISTR NPN SMT (2SC945)
Q909	996510021085	MOSFET STK1060F TO220F AUK600V
Q910	996510000593	XISTR PNP 8550SS-D TO-92 CJ
Q911	996510000593	XISTR PNP 8550SS-D TO-92 CJ
Q912	996510022024	STK0380F TO220F AUK 800V
Q913	996510004282	XISTR NPN SMT (2SC945)
Q914	994000000921	XISTR PNP 2SA812 HFE:200-400
Q917	996510004282	XISTR NPN SMT (2SC945)
Q918	996510004282	XISTR NPN SMT (2SC945)
Q919	994000000921	XISTR PNP 2SA812 HFE:200-400
Q920	996510010356	XISTR PNP 2SB647 TO-92MOD
Q920	996510025483	XISTR PNP
R905	996510012519	RES. 120 OHM 3W 5% MOF
R906	996510012519	RES. 120 OHM 3W 5% MOF
R907	996510012519	RES. 120 OHM 3W 5% MOF
R908	996510012519	RES. 120 OHM 3W 5% MOF
R956	996510012519	RES. 120 OHM 3W 5% MOF
R965	996510012520	RES. 1 OHM 2W 5% MO
T901	996510016551	SW TRANSFORMER ERL-35 7+7PIN
T901	996510016552	SW TRANSFORMER ERL-35 7+7PIN
T902	994000001057	SW. MODEL TRANSFORMER
T903	996510016549	SW TRANSFORMER EEL-22 5+5PIN
T903	996510016550	SW TRANSFORMER EEL-22 5+5PIN
T904	996510013924	SW TRANS EE-16 DW:KB486-8373
T904	996510013925	SW TRANS EE-16 5+5PIN
T904	996510025449	SW TRANS
TVR901	996510021072	SURGEORBER :VCR-10D241KSP
TVR902	996510021072	SURGEORBER :VCR-10D241KSP
TVR903	996510011373	METAL OXIDE VARISTOR 50A560V

SPEAKER

SPKSUB	996510024882	SPEAKER BOX-SUBWOOFER
RFS	996510001542	RUBBER FOOT SUB
SPKMLMR	996510024873	SPEAKER BOX
RFF	996510014277	RUBBER FOOT-front
RFR	996510014278	RUBBER FOOT-back

SCREW

S1	--	T1.7x0.63PxL4 ZINC CHROMATE
S10	--	T3.0xP1.06x8mm
S11	--	L8xP1.06xT3.0mm D=7.5mm
S12	--	M5.0x0.8PxH28.5 BLACK OXIDE
S2	--	T2.6x0.91PxL6 NICKEL
S3	--	M3x6x0.5P
S4	--	T3.0xL8.0xW/@ 10.0mm
S5	--	M2.5x0.45PxL4 ZINC CHROMATE
S6	--	M2.0xP0.4xL4mm
S7	--	M2.6x0.45PxL4mm BLACK OXIDE
S8	--	M3.0x0.5PxL6mm NICKEL
S9	--	T2.5xP0.91xL6.0mm
WS1	--	M3.0x0.5PxL6mm NICKEL
WS2	--	T3.0x1.06PxL8mm NICKEL
WS3	--	T3.0x1.06PxL8mm BLACK OXIDE
WS4	--	M3x0.5PxL12mm BLACK OXIDE
WS5	--	M3.0x0.5PxL6mm BLACK OXIDE
WS6	--	T3.0x1.06PxL13 BLK OXIDE JAPAN
WS7	--	M3.0x0.5PxL8mm BLACK OXIDE

REVISION LIST

Version 1.0
*Initial release