Wireless Music Center

waC3500D

all versions

Service
Service
Service

Service Manual

Plays Windows Media™ | MP3-CD PLAYBACK MP3 | COMPACT disc DIGITAL AUDIO | COMPACT disc DIGITAL AUDIO Recordable | COMPACT disc DIGITAL AUDIO ReWritable

connectedplanet

CLASS 1 LASER PRODUCT

Published by YB 0720 Service Audio

Subject to modification

GB 3141 785 31890

Version 1.0

PHILIPS

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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

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.

ESD

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 ⚠.

CLASS 1
LASER PRODUCT

INFORMATION ABOUT LEAD-FREE SOLDERING

Philips CE is producing lead-free sets from 1.1.2005 onwards.
IDENTIFICATION:

Regardless of special logo (not always indicated) one must treat all sets from 1 Jan 2005 onwards, according next rules:

- 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
  - Lead free

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

For additional questions please contact your local repair-helpdesk.

SERVICE INSTRUCTION

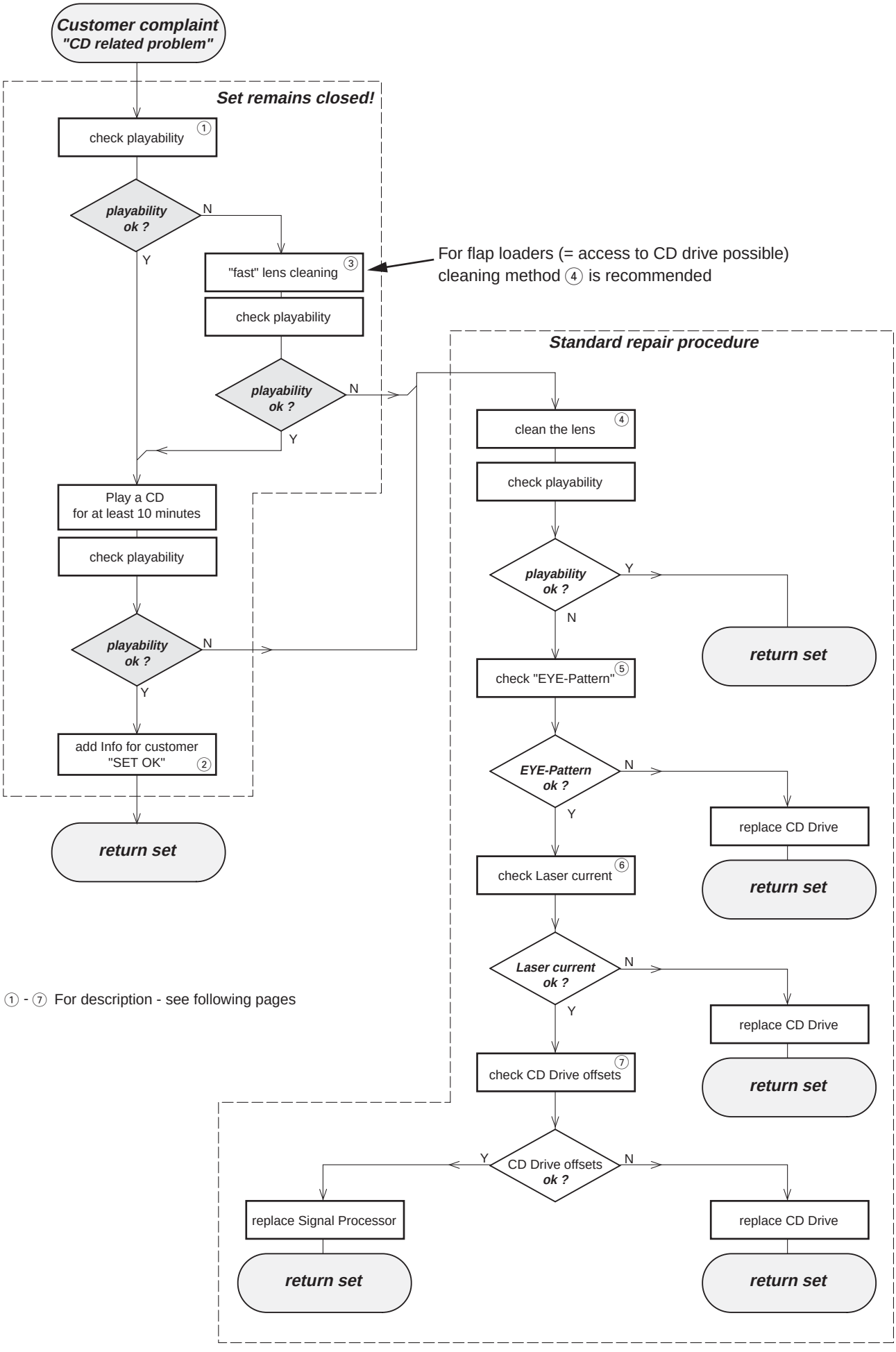
Safety regulations require that after a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the AC Power lead for external damage.
- Check the strain relief of the AC Power cord for proper function.
- Check the electrical DC resistance between the AC Power Plug and the secondary side (only for sets which have a AC Power isolated power supply):

1. Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
2. Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
3. Measure the resistance value between the pins of the AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be larger than 4.5 Mohm (For U.S. it should be between 4.2 Mohm and 12 Mohm).
4. Switch "off" the set, and remove the wire between the two pins of the AC Power plug.

- Check the cabinet for defects, to avoid touching of any inner parts by the customer.

CD PLAYABILITY CHECK



CD PLAYABILITY CHECK

(1)

PLAYABILITY CHECK

For sets which are compatible with **CD-RW** discs
use CD-RW Printed Audio Disc.....7104 099 96611
TR 3 (Fingerprint)
TR 8 (600µ Black dot) **maximum at 01:00**

- playback of these two tracks without audible disturbance
  playing time for: Fingerprint ≥10seconds
  Black dot from 00:50 to 01:10
- jump forward/backward (search) within a reasonable time

For all other sets
use CD-DA SBC 444A.....4822 397 30245
TR 14 (600µ Black dot) **maximum at 01:15**
TR 19 (Fingerprint)
TR 10 (1000µ wedge)

- playback of all these tracks without audible disturbance
  playing time for: 1000µ wedge ≥10seconds
  Fingerprint ≥10seconds
  Black dot from 01:05 to 01:25
- jump forward/backward (search) within a reasonable time

(2)

CUSTOMER INFORMATION

It is proposed to add an addendum sheet to the set which informs the customer that the set has been checked carefully - but no fault was found.
The problem was obviously caused by a scratched, dirty or copy-protected CD. In case problems remain, the customer is requested to contact the workshop directly.
The lens cleaning (method (3)) should be mentioned in the addendum sheet.

The final wording in national language as well as the printing is under responsibility of the Regional Service Organizations.

(3)

FAST LENS CLEANING (dry brush)

Use lens cleaning CD
SBC AC300.....9082 100 00043

Insert the lens cleaning CD, press PLAY and follow the voice guide´s instructions on the CD.

(4)

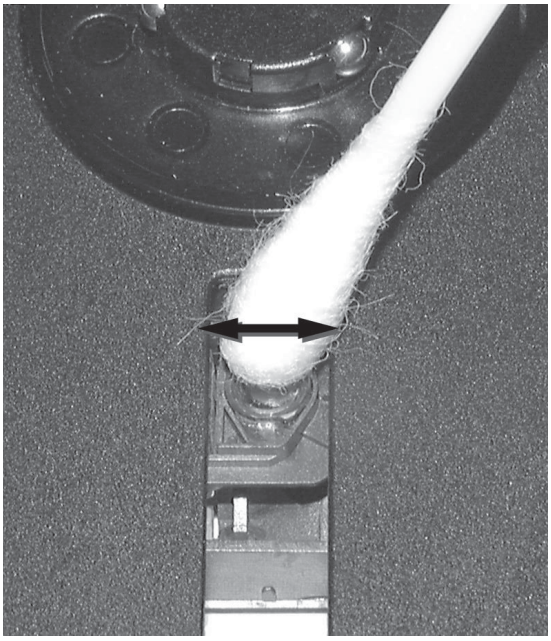
LIQUID LENS CLEANING

Before touching the lens it is advised to clean the surface of the lens by blowing clean air over it. This to avoid that little particles make scratches on the lens.

Because the material of the lens is synthetic and coated with a special anti-reflectivity layer, cleaning must be done with a non-aggressive cleaning fluid. It is advised to use “Cleaning Solvent B4-No2”, available with codenumber 4822 389 10026.

The actuator is a very precise mechanical component and may not be damaged in order to guarantee its full function. Clean the lens gently (don’t press too hard) with a soft and clean cotton bud moistened with the special lens cleaner.

The direction of cleaning must be in the way as indicated in the picture below.

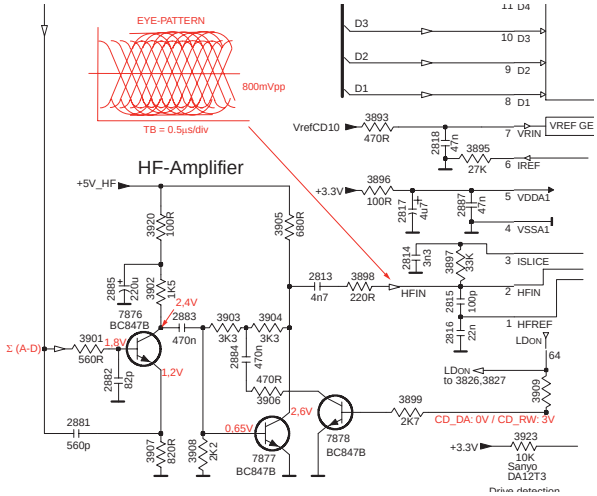


CD PLAYABILITY CHECK

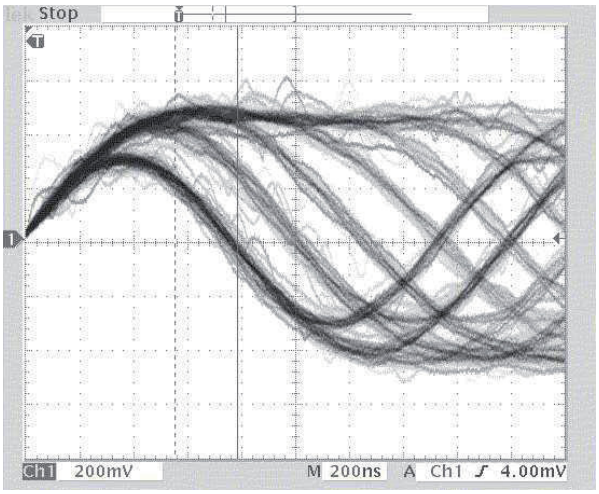
⑤

EYE-PATTERN SIGNAL – JITTER MEASUREMENT

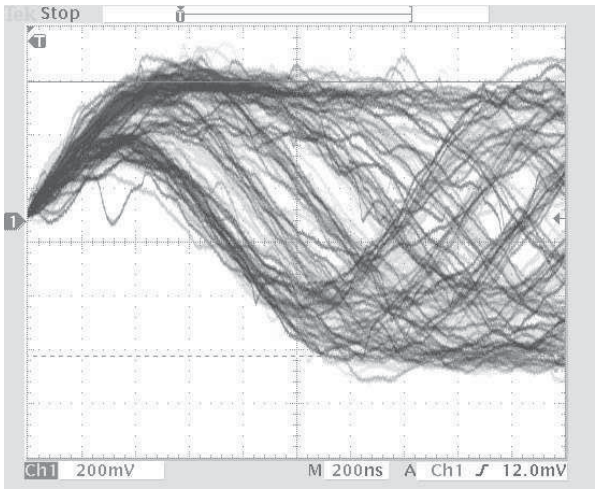
Measure the signal on the input of the Signal processor using an **analog** oscilloscope. Please find the exact measuring point in your Service Manual.



See below examples of the signal. Amplitude should read at least 700mVpp using SBC444A.



good



bad

If the oscilloscope shows a signal like the 'bad' one, and/or the amplitude decreases within 1 minute - the CD drive has to be replaced.

⑥

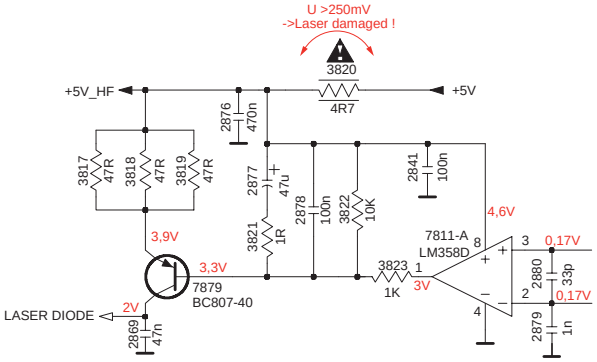
CD DRIVE – LASER CURRENT MEASUREMENT

The laser current can be measured as a voltage drop on a resistor. The resistor is marked in every Service Manual. The value depends on the type of CD drive.

	typical value	most probably defect
VAMxxxx	: 150-230mV	≥350mV
MCDxx	: 170-230mV	≥300mV
DA1x	: 210-250mV	≥350mV
DA2x	: 175-200mV	≥250mV

Use SBC444A (CD-DA) for measurement.

Laser power control



⑦

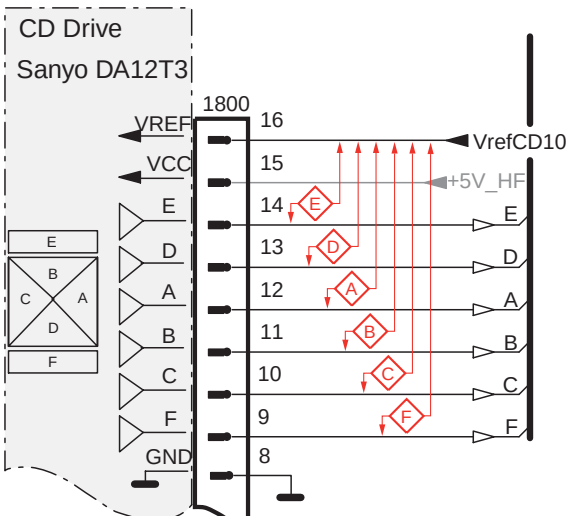
CD DRIVE – OFFSET MEASUREMENT

The photodiodes of the CD-drive may have an offset. These offsets have to be compensated by the signal processor. High offsets can lead to poor playability of some CDs (skipping tracks).

To measure the offset values, start the **Service Test Program** - section "Focus Test" without a CD.

The offsets can be measured with a DC Millivoltmeter directly on the connector (see drawing below). Pin numbering varies from drive to drive.

The values from diode A-D should read 0±10mV. Diodes E and F are less critical.



If one of the offsets is higher than ±10mV the CD drive has to be replaced. Otherwise replace the Signal Processor.

TECHNICAL SPECIFICATION

General

AC Power .....230V ±10%
Dimensions (w x h x d) .....185 x 210 x 248mm
Weight (with/without speakers) .....
.....approx. 5.5 kg / 3.5 kg

Power consumption

Active.....< 45W
Standby.....< 20W
Eco Power Standby .....< 0.9W

Amplifier

Output power ..... 2 x 40 W (RMS)
Frequency response ..... 60-20,000Hz, - 3dB
Signal-to-noise ratio .....≥ 72 dBA (IEC)
Input sensitivity
AUX IN..... 500mV
Impedance speakers .....12 Ohm
Impedance headphones .....16 Ohm-150 Ohm

Wireless

Wireless standard .....
.....802.11g, backwards compatible to 802.11b
Wireless security .....
.....WEP (64 or 128bit), WPA-PSK
Frequency range 2412-2462 MHz (CH1-CH11)

Wired (LAN / Ethernet)

Wired standard .....802.3 / 802.3u
Speed.....10 / 100 MBit/s
Mode.....half / full duplex
Crossover detection (Auto MDIX).....Yes

USB player

USB 12Mb/s, V1.1
.....support MP3, WMA and AAC files
USB class.....MSC, MTP
Number of albums/folders .....maximum 99
Number of tracks/titles .....maximum 999

Speakers

2-way bass reflex system
Dimensions (w x h x d) .....160 x 208 x 263mm

Tuner

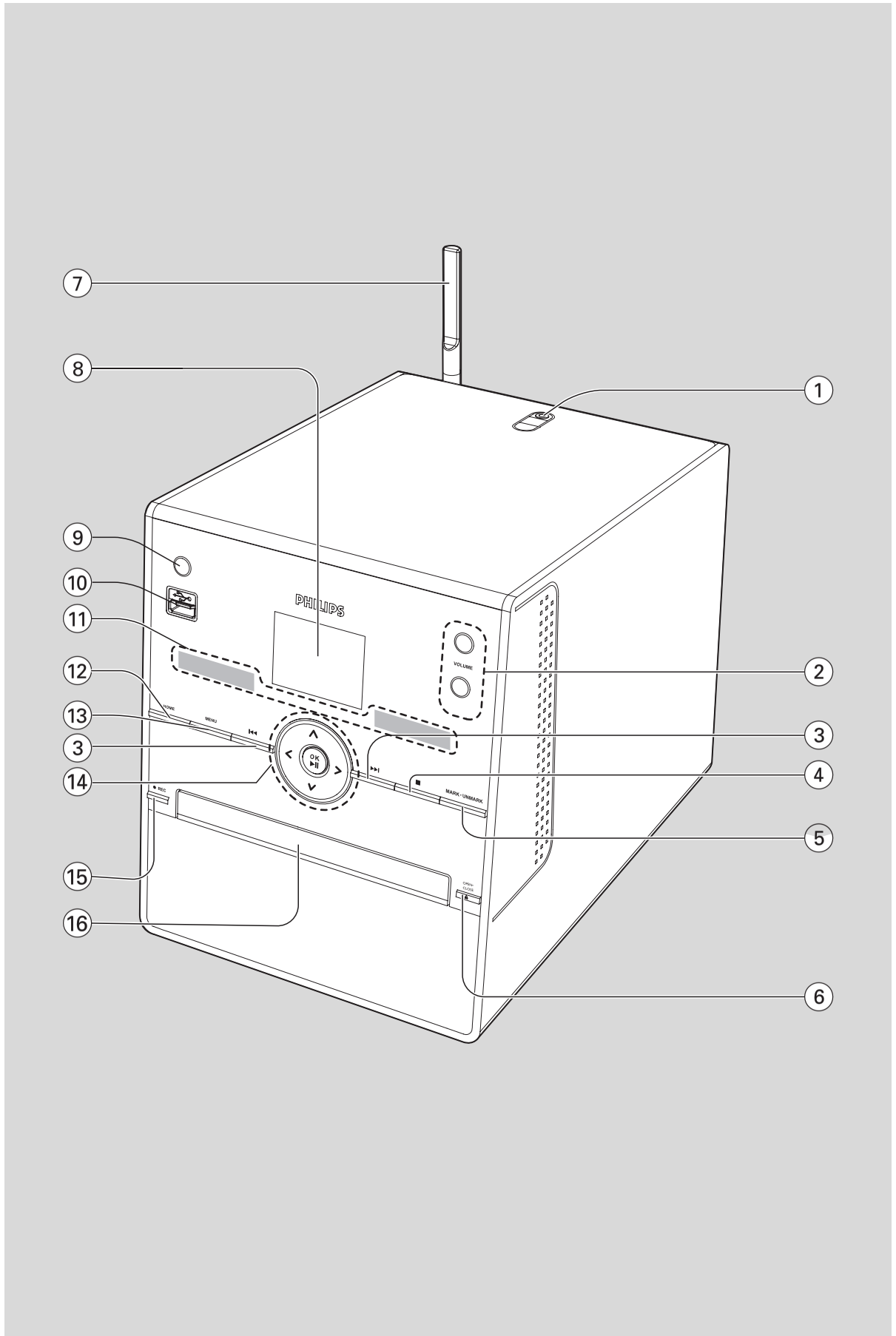
FM wave range .....87.5-108 MHz
Number of presets.....60
FM antenna/cable.....
COAX / Dipole-antenna (75W IEC-connector)

HDD/CD player

Frequency range .....60-20,000 Hz, -3 dB
Signal-to-noise ratio.....72 dBA (IEC)
MPEG 1 Layer 3 (MP3-CD) .....MPEG AUDIO
MP3-CD bit rate .....
.....32-320 kbps, VBR
WMA bit rate .....up to 160 kbps
Sampling frequencies.....32, 44.1, 48 kHz
HDD storage capacity 80GB*
Recording quality.....
.....128, or 160, or 192, or 256, or 320 kbps
Recording speed.....1x, 4x
CDDB (CD recognition database) .....
.....internal Gracenote® / online access enabled

Actual free space is 75GB or less due to the buffer partition for MP3 Compression , firmware ,music CD database and demo tracks storing.

Controls



2.1 Controls on The Center
(Top and front panels)

① 🎧
– 3.5 mm headphone socket
Helpful hints:
– *Adjust the volume to a moderate level before plugging in the headphones.*
– *Connecting headphones will switch off the speakers.*

② **VOL + / -**
– adjusts the volume level

③ **⏮ / ⏭**
– **HD/CD/UPnP/Portable:** skips/searches tracks/passage backward/forward (in playback screen)
– **FM Radio**: go to previous / next preset radio station (in tuner playback screen)
⏮
– **Text entry**: deletes the input before cursor

④ **STOP**
– stops playback or recording

⑤ **MARK•UNMARK**
– Selects or deselects tracks to be recorded

⑥ **OPEN/CLOSE**
– opens or closes the CD door

⑦ **Wi-Fi antenna**

⑧ **DISPLAY**
– shows status of the set

⑨ **STANDBY-ON/ ECO POWER**
– press briefly to switch on the set or put it on standby mode;
– press and hold to switch the set to power-saving mode or on
– **Green indicator**: lights up in green when the set is switched on
– **Red indicator**: lights up in red when the set is switched to standby mode or power-saving mode

⑩ 🔌
– jack for the external USB device

⑪ **IR**
– sensor for the infrared remote control
Helpful hint:
– *Always point the remote control towards this sensor.*

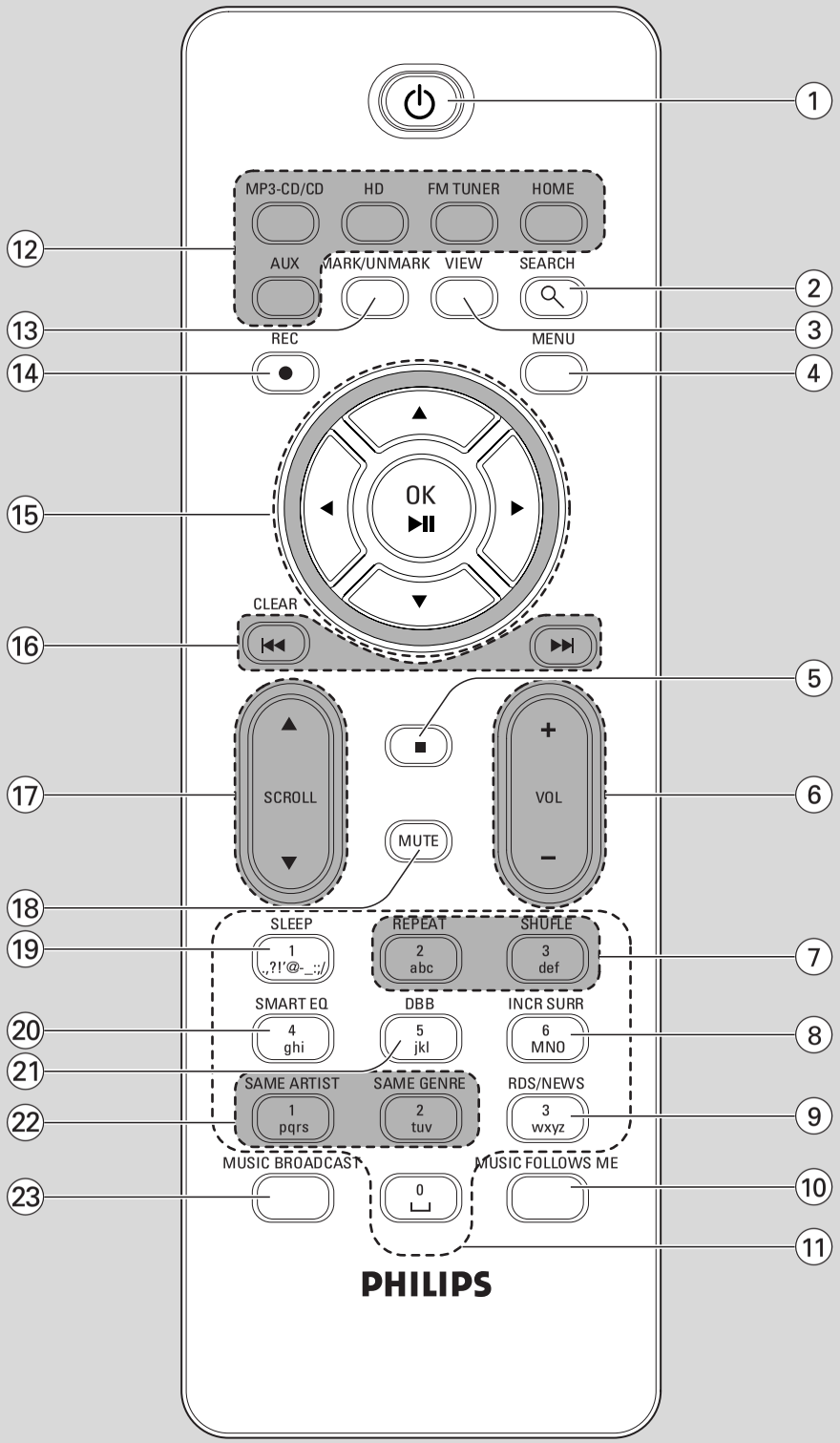
⑫ **HOME**
– selects sound source: HD (hard disk), CD, Radio, UPnP, Portable or AUX
– In standby mode: switches the set on and selects sound source: HD, CD, Radio, UPnP, Portable or AUX

⑬ **MENU**
– enters or exits setup menu

⑭ **◀ / ▶ / ▲ / ▼**
– navigation controls (left, right, up, down) for scrolling through the option lists
◀
– **HD/CD/UPnP/Portable:** returns to previous option lists
– **▲ / ▼**
– HD/CD/Portable/UPnP: skips/searches tracks/passage backward/forward (in playback screen); fast scrolling in option lists
– **FM Radio**: tunes to radio stations
▶
– confirms selection
FM Radio: enters the list of preset stations
OK/▶II
– starts or pauses playback

⑮ **RECORD**
– **CD/FM Radio/AUX**: starts to record onto the hard disk

⑯ **CD door**



Remote control

2.2 Remote control

① ⏻
– press briefly to switch on the set or put it on standby mode;
– press and hold to switch the set to power-saving mode

② **SEARCH**
– enters the search mode and searches by keywords

③ **VIEW**
– toggles between playback screen and previous option list

④ **MENU**
– enters or exits setup menu

⑤ ■
– stops playback or recording

⑥ **VOL + / -**
– adjusts the volume level

⑦ **REPEAT**
– selects continuous playback

SHUFFLE
– selects random playback

⑧ **INCR. SURR.**
– selects surround sound effect

⑨ **RDS/NEWS**
– **Radio**: selects RDS information
– **HD/CD/UPnP/Portable/AUX**: toggles between NEWS function on or off

⑩ **MUSIC FOLLOWS ME**
– HD: moves music playback between Center and Station

⑪ **Alphanumeric keys**
– for text entry

⑫ **MP3-CD/CD**
– selects CD source
– In standby mode: switches on the set and selects the CD source.

HD
– selects HD (hard disk) source
– **In standby mode**: switches on the set and selects the HD source

FM TUNER
– selects FM RADIO source
– **In standby mode**: switches on the set and selects the FM RADIO source

HOME
– select from: HD source, CD source, Radio source, UPnP source, Portable source or AUX (from a separately connected device)
– **In standby mode**: switches on the set and select from the following music source: HD, CD, Radio, UPnP, Portable or audio input from a separately connected device

AUX
– selects AUX source
– **In standby mode**: switches on the set and selects the AUX source

⑬ **MARK/UNMARK**
– Selects or deselects tracks to be recorded

⑭ **REC ●**
– **CD/Radio/AUX**: starts to record onto the hard disk

⑮ ◀ / ▶ / ▲ / ▼
– navigation controls (left, right, up, down) for scrolling through the option lists

◀
– **HD/CD/USB/UPnP**: returns to previous option lists
– **Text input**: moves the cursor backward

▲ / ▼
– **HD/CD/USB/UPnP**: skips/searches tracks/passage backward/forward (in playback screen); fast scrolling in option lists
– **FM Radio**: tunes to radio stations

▶
– confirms selection
– **FM Radio**: enters the list of preset stations
Text entry: confirms input and moves the cursor forward

OK/▶II
– Confirm selection
– Starts playing

⑯ **⏮ (CLEAR) / ⏭**
– **HD/CD/USB/UPnP**: skips/searches tracks/passage backward/forward (in playback screen)
– **FM Radio**: go to previous / next preset radio station (in tuner playback screen)

⏮ (CLEAR)
– **Text entry**: deletes the input before cursor

⑰ **SCROLL ▲ / ▼**
– scrolls the display screen upward or downward

Controls

⑱ **MUTE**
– temporarily switches off the sound

⑲ **SLEEP**
– adjusts, displays or switches off the sleep timer

⑳ **SMART EQ**
– **HD**: selects the sound settings that match the current Genre

㉑ **DBB (Dynamic Bass Boost)**
– toggles the bass enhancement on (DBB1, DBB2, DBB3) or off

㉒ **SAME GENRE**
– **HD**: plays all the tracks of current Genre
SAME ARTIST
– **HD**: plays all the tracks of current Artist
– **HD**: enable Wireless Range Extender (refer to Extender's manual for details)

㉓ **MUSIC BROADCAST**
– **HD**: broadcasts music from Center to Station

For more information onoperation instruction please visit Philips Audio internet site :

http://www.audio.philips.com

DISASSEMBLY INSTRUCTION

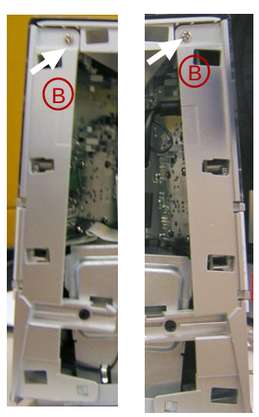
1. Remove Left & Right Cabinet

a. remove screws M3x12 - 4 pcs

b. pull the left or right cabinet and then lift it.

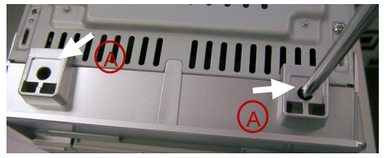
2. Remove Top Cabinet

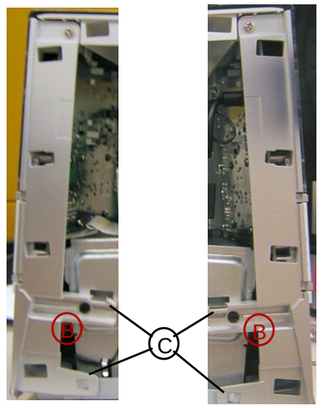
a. remove screws M3x10 - 2 pcs (A)
b. remove screws M3x10 - 2 pcs (B)
c. lift the Top Cabinet



3. Separate Front and Back Cabinet.

a. remove screws T3x10 - 2 pcs. (A)
b. remove screws T3x10 - 2 pcs. (B)
c. release the catches. (C)
d. pull out the front cabinet.





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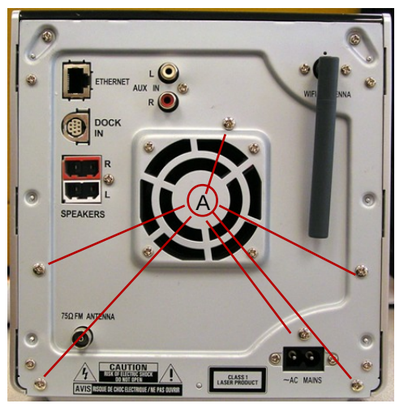
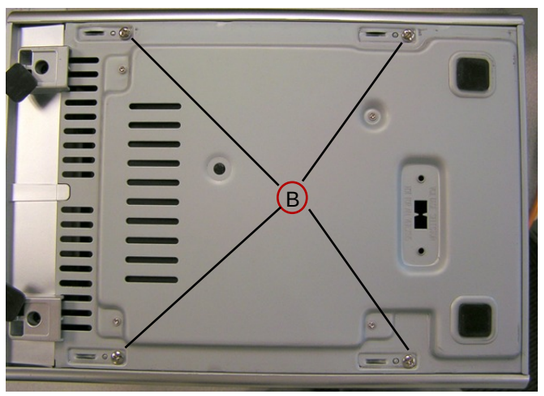
4. Remove Amplifier board

a. remove screws M3x10 - 2 pcs (A)
b. remove screws M3x10 - 2 pcs (B)

3. Separate rar and bottom Cabinet.

a. remove screws T3x6 - 6 pcs. (A)
b. remove screws T3x6 - 4 pcs. (B)





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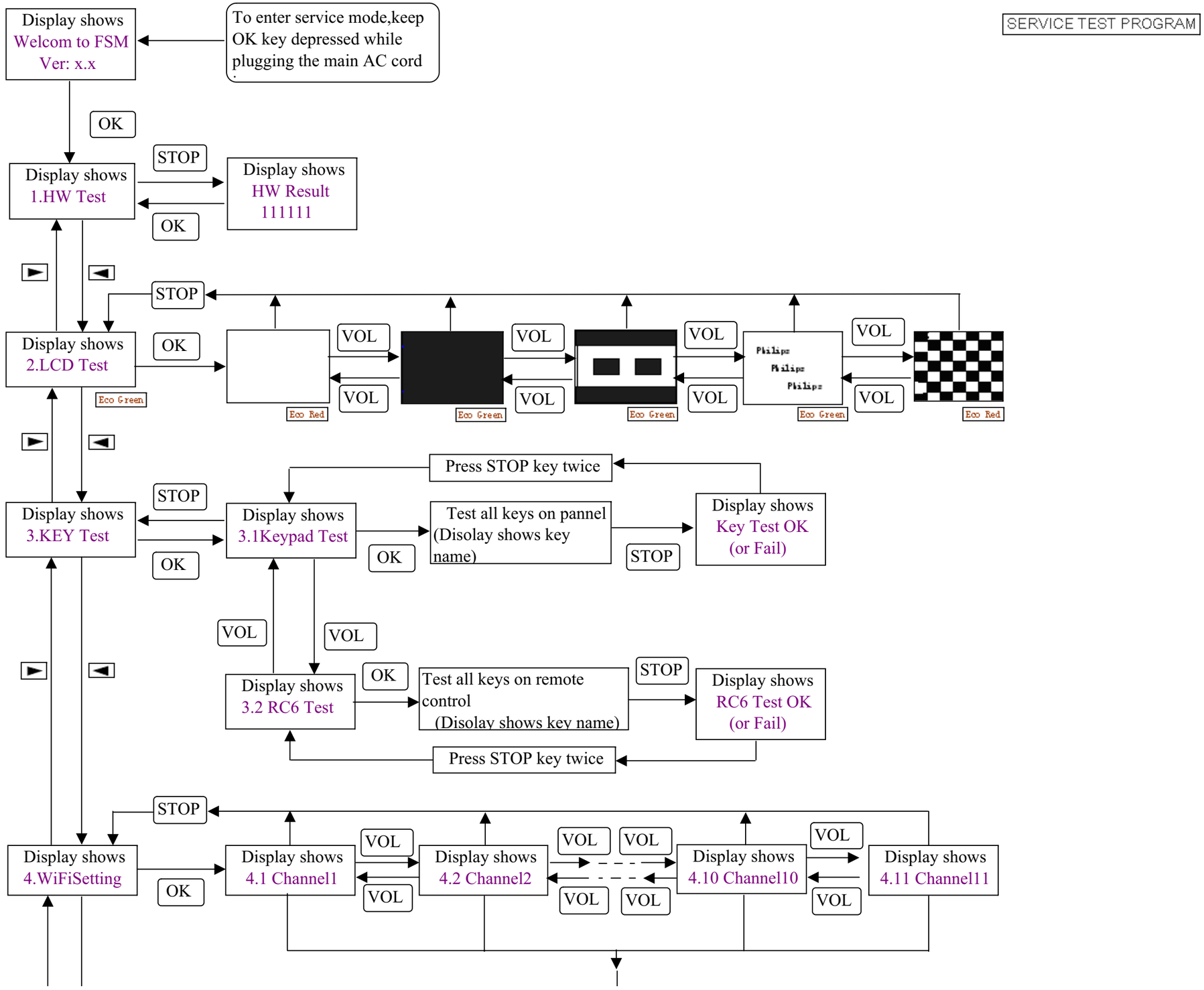
SERVICE TEST PROGRAM



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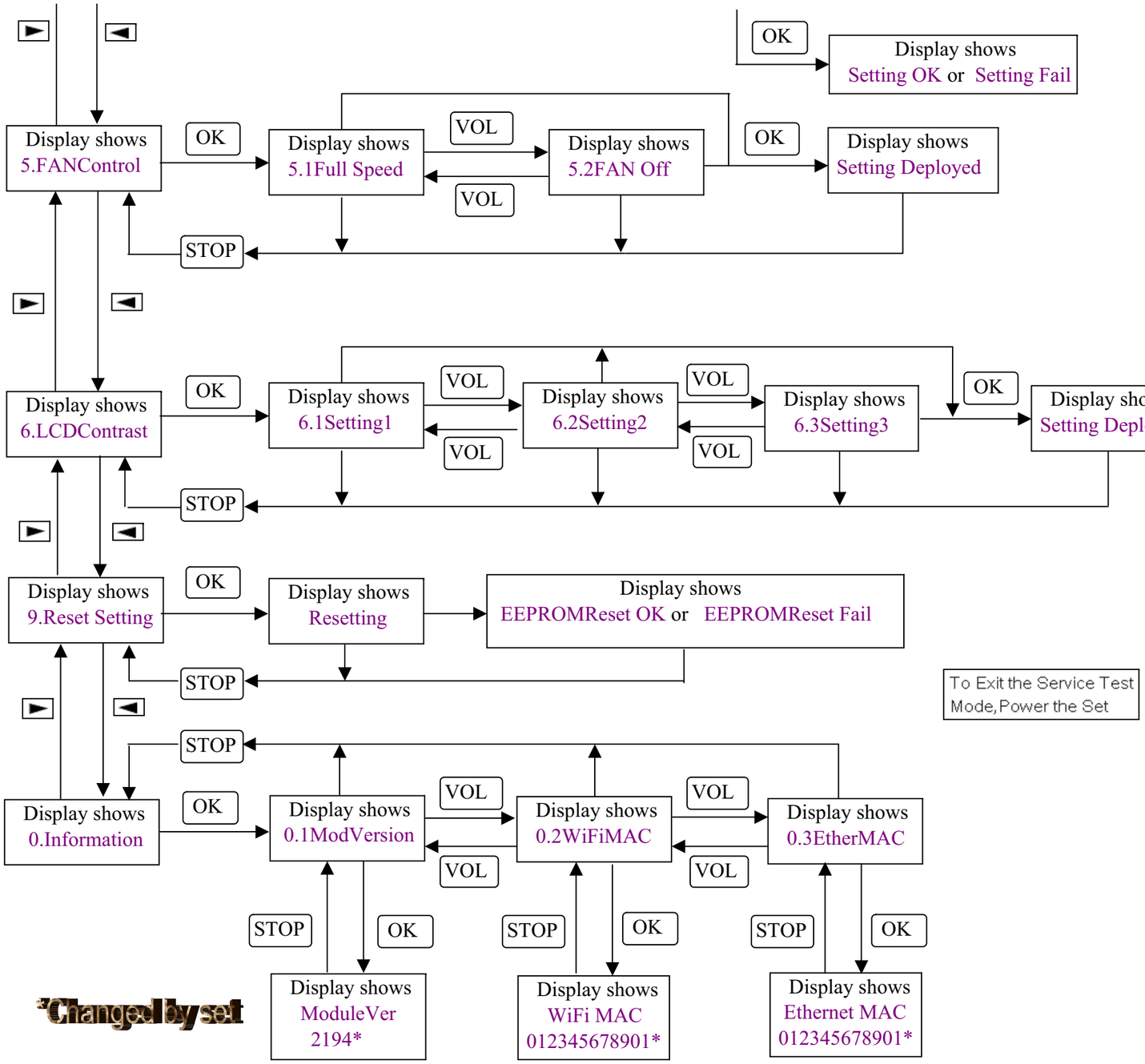
SERVICE TEST PROGRAM



SOFTWARE UPGRADING PROCEDURE

Software Version Verification Procedure
It is important to write down the system version information of your Center before you start the upgrade procedure. This information is also useful in case you need to call Philips Customer Care Center.

1. Press **MENU**.
2. Press ▲/▼ to select "**Information**". Press **OK**.
3. Press ▲/▼ to select "**System**". Press **OK**.
4. The software version number is shown on the display.
5. If the software version is not the latest one, you need to upgrade waC3500D.

There are 3 ways to update the software.

A) Using CD-Rom
B) Using WADM

A. Using CD-Rom

1. Software Upgrade Disc Preparation

Tools Required : You will need the following items :
- PC (Pentium III 300MHz processor or higher)
- CD-R/RW writer and writing application software
- Blank CD-R or CDRW disc
- Broadband / High speed internet connection

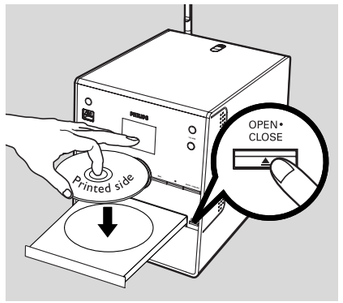
2. How to download the software to your computer

1. To download free firmware and software upgrades for your product, please login to www.club.philips.com
   Download the firmware upgrade files and store them on your PC
2. Unzip the .zip file and extract files into your PC.

***Note**:*
- Please do not rename the filename.
- If you do not have the software to open the .zip file, please visit below website to download the software.
http://www.winzip.com/

3. Steps to upgrade the waC3500D

1. Make sure the Audio Station has connected to the Audio Center.
2. Burn the file to blank CD-R or CDRW. Finalize the disc. (The application may do this automatically.)
3. Turn on the Audio Center and turn on the Audio Station, insert the CD to the slot loader, CD graphic printed side facing you.



4. The Audio Center will upgrade automatically.
   - The message "**Updating firmware, please wait.....**" and the "**process bar**" show on the display of the Audio Center.
   - The upgrade process of the Center will reboot twice

Note: Do NOT power off the Audio Center or eject the disc at this stage.

5. It takes around 5 mins to complete the firmware upgrade for the Audio Center.

6. When done, the Audio Center will go to the HD mode automatically.

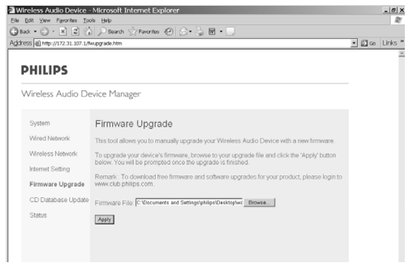
4. After the upgrade

Do confirm the software version by checking the system version.
Please follow the procedure described in the section "**Software Version Verification Procedures**".

B. Upgrading firmware

The supplied PC Installer CD Wireless Audio Device Manager (WADM) helps you get the upgrades for WAC3500 Center.

1. Register your Philips Wireless Music Center with www.club.philips.com
2. Download the firmware upgrade files and store them on your PC
3. Place Center on a flat and firm surface
4. Connect Center to power supply
   ➜ HD screen appears on Center
5. Connect Center to your PC via the supplied ethernet cable.
6. Install and launch WADM (see **Connect to your PC section B**)
7. Click **Device Configuration**, and then click the **Firmware upgrade** sub-menu
8. As prompted, click **Browse** and indicate the location where you kept the firmware upgrade files on PC



9. Click **Apply** to start upgrading firmware

On Philips Wireless Music Center:
➜ The display shows "**Updating firmware, please wait...**"
➜ Center will reboot itself during the installation process
➜ When Center returns to HD screen, the installation is completed

IMPORTANT!
On Philips Wireless Music Center
– Never interrupt the firmware upgrading before its completion.
– Before finishing the installation, never operate other functions.

* Hints: Restoring previous firmware

After the Center's firmware is upgraded, you can restore it to its previous version as desired.

1. Select HD mode, and then select **Restore firmware**
   a. Press **MENU** to enter the MENU screen
   b. Press the navigation controls ▲ or ▼ and ▶ to enter **Settings**, **Firmware** and **Restore firmware** one by one.
2. Press ▶ to select **Yes**

Helpful hint:
– After restoration to previous firmware, the set will lost Wi-Fi links to associated stations or external network.

* Reset

When to reset the Center:
– Resetting the Center helps to re-establish the Wi-Fi connection between the Center and Station.
– Change the way the Center connects to an external Wi-Fi/wired network.

1. Check that the set is switched on (see **5.Basic functions**).
2. Press **MENU** to enter the menu screen
3. Press the navigation controls ▲ or ▼ and ▶ to enter **Settings** followed by **Restore settings**.

4. Press ▶ to select **Yes**
   ➜ The set is rebooted. Language selection screen appears.
5. Select your desired language: **English**, **Français**, **Español**, **Nederlands**, **Italiano** or **Deutsch**
   ➜ The set enters Installation Mode
   ➜ The search for Center starts. The Wi-Fi connection is being re-established

Helpful hint:
– After restoration to default settings, the network mode will go back to Ad-Hoc mode.
– Restoring to default settings does not delete any stored music tracks

Gracenote CD Information

The Gracenote music recognition service enables the set to look up CD track information (including album, artist, genre, track information) from its built-in database. It allows the recorded CD tracks to be properly categorized (for example, under Artists, Albums, Genres or All tracks) and also be merged with the existing tracks in the hard disk.

12.1 Gracenote music recognition database

A 800 MB CD database (contains 800,000 most popular CDs) is embedded in every WAC3500 Center for quick look-up on track information. An update file that contains newly released CDs is available quarterly on www.club.philips.com for download.

12.1.1 To update Gracenote music recognition database

1. Use your PC to register your product on www.club.philips.com and go to "Show Upgrades & Support" page to download Gracenote Music recognition database update. Note that the updates are posted quarterly and each update is independent of each other, i.e. a later update could be installed without an earlier update.
2. After storing the file on your PC, you can either burn a CD with the update file using your favorite CD burning software and drop the CD into the WAC3500 Center for automatic update, or you can use WADM's Gracenote update option if you have connected your PC to WAC3500 Center.

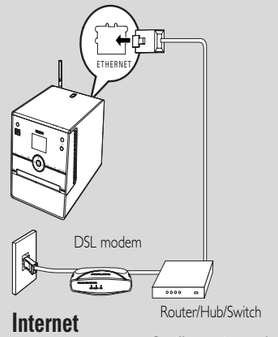
12.2 Gracenote Internet Query

If the CD track information of your new CD disc cannot be displayed on the WAC3500, the quickest and surest solution is to look it up from the internet by following steps below.

12.2.1 Connecting to the Internet

1. Check that you have connected the Center to an Access Point or Router with Internet access or connect the Center to an ADSL modem with Internet access directly

Connect to Internet for Gracenote Internet sevices



for illustration only

Helpful hint:

– Make sure that no dial-up, user name or password is required for the Internet access.

2. Set DNS and Gateway
   - ***If you are using a DHCP* enabled Access Point, Router or ADSL modem,*** the DNS and Gateway can be got automatically, so you need only to set the Center to Automatic (DHCP) mode by following steps below:

*DHCP stands for Dynamic Host Configuration Protocol. It is a protocol for assigning dynamic IP addresses to devices on a network.

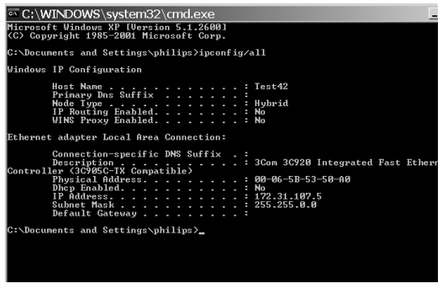
a. Press **MENU**
b. Press ▲ or ▼ and ▶ to select **Settings** > **Network** > **Wired**
c. Press ▶ to continue
d. Press ▲ or ▼ and ▶ to select **Automatic** (DHCP).

   - ***If there is no DHCP,*** set the DNS and Gateway manually by following steps below:

On your PC, carry out the following steps:
a. Click **Start** > **Run**

b. Type **cmd** and click **OK**
c. Type **ipconfig/all**

d. Write down the DNS and Gateway of the current connection



On the Center

a. Press **MENU** to enter the menu screen
b. Press ▲ or ▼ and ▶ to enter **Settings** > **Network** > **Internet**
c. Press ▶ to continue
d. Set DNS

1) Enter the DNS server you wrote down
2) Press **OK/▶II** to confirm
3) Press **OK/▶II** to skip Set DNS2

Helpful hint:

– If necessary, follow Steps 1) to 2) above to set a secondary DNS server in Set DNS2

e. Set Gateway
1) Enter the Gateway you wrote down
2) Press **OK/▶II** to confirm
f. Set proxy
If you are using a proxy server to visit websites, enable Proxy and proceed with the proxy setting as prompted, then press **OK/▶II** to confirm
Otherwise, press **OK/▶II** to skip

3. Choose to apply the settings as prompted
   ➜ Settings will change. **Connection to station could be lost** appears.

12.2.2 Looking up CD track information

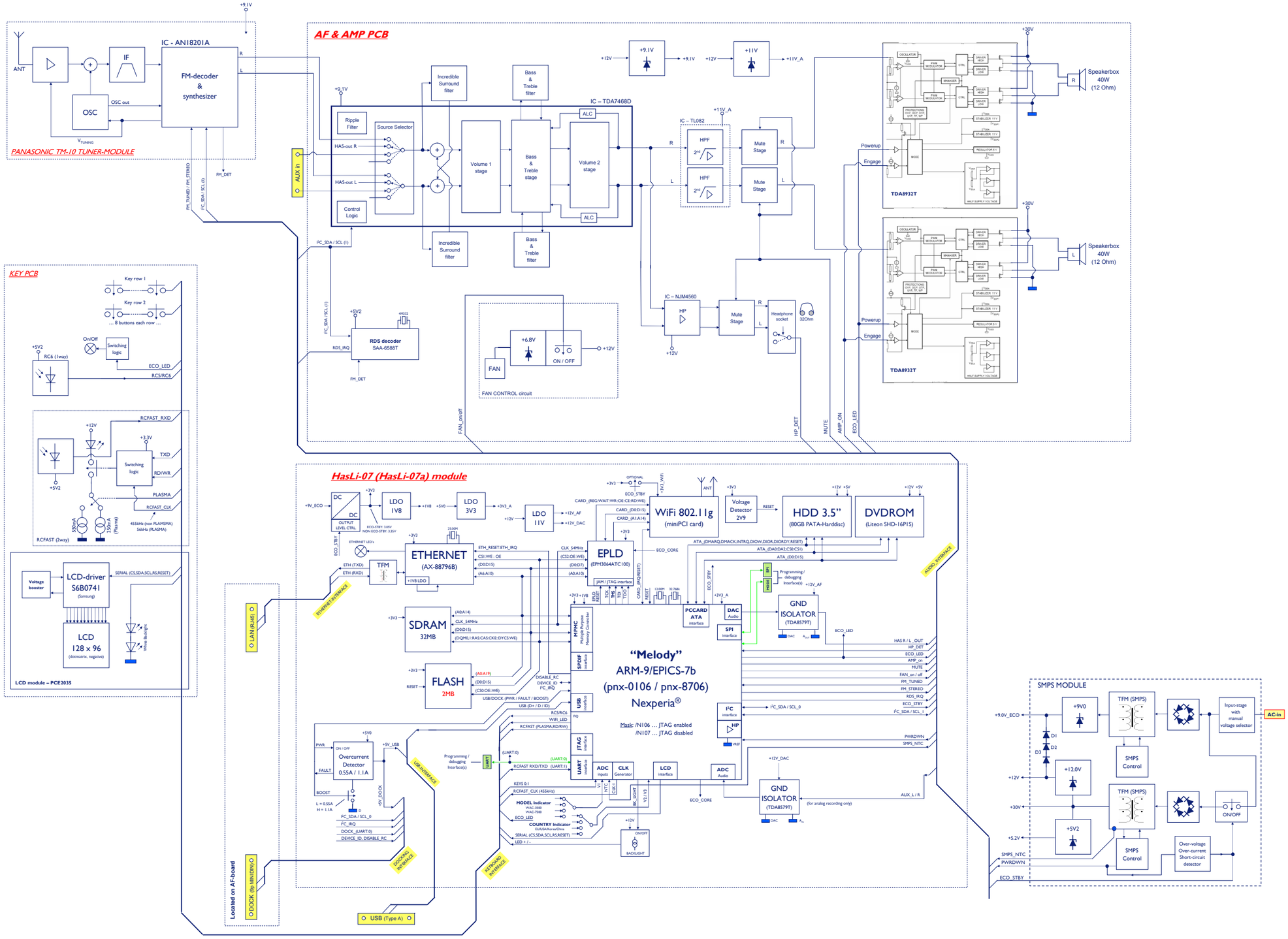
When the internet connection is made, insert the CD disc that you want to look for its information into the CD loader on the Center. Searching start immediately. It will search from local Gracenote CD database firstly. If can't find the CD track information, online searching will then start. The searching results will be shown on the Center's display,

Helpful hint:

If the internet query failed due to failure in internet connection, the error message "Check the internet setup for Gracenote online" will appear. Check if your internet connection is correct (see **12.2.1** *above)*

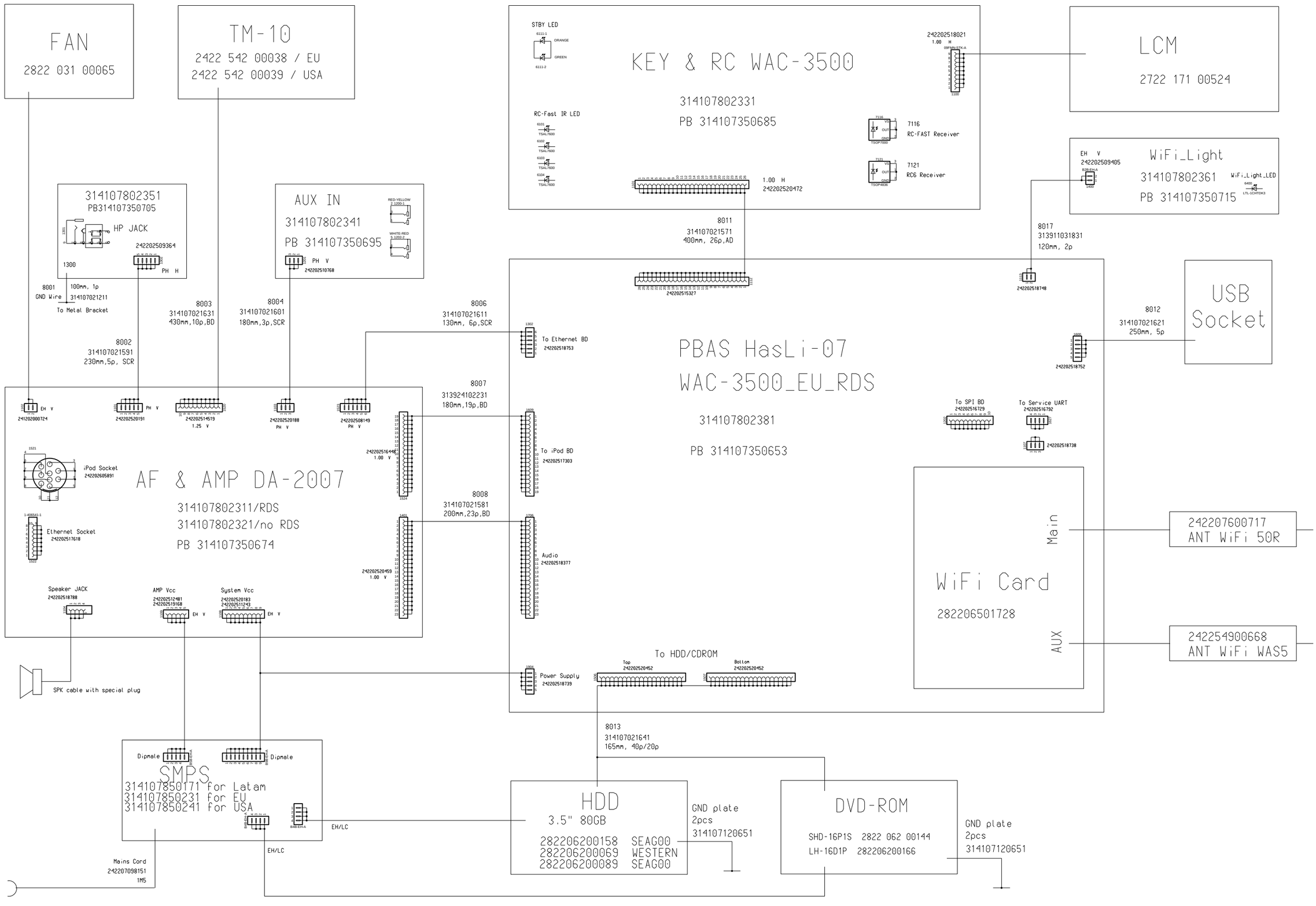
6 - 1

SET BLOCK DIAGRAM



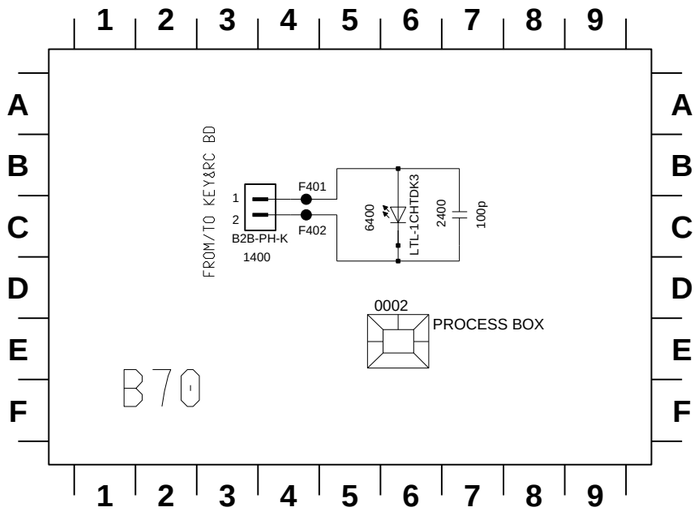
7 - 1

SET WIRING DIAGRAM

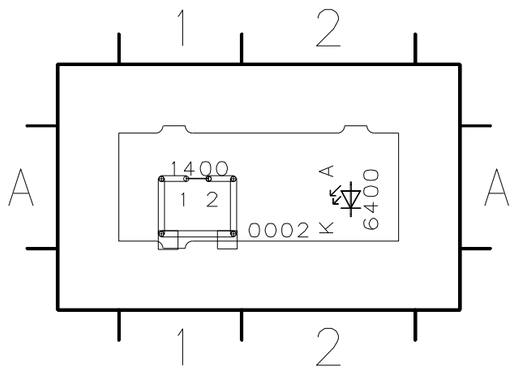


PB-Wifi-light

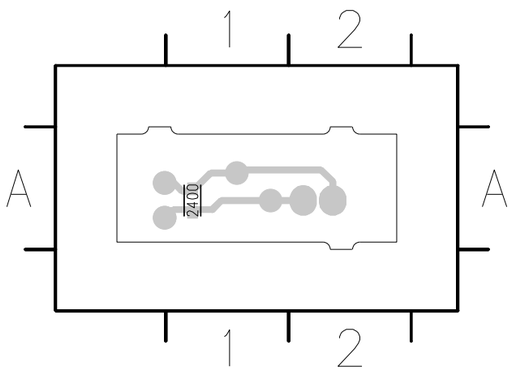
1400 B3 2400 C7 6400 C6 F401 B4 F402 C4



8 - 1



0002 A2
1400 A1
6400 A2



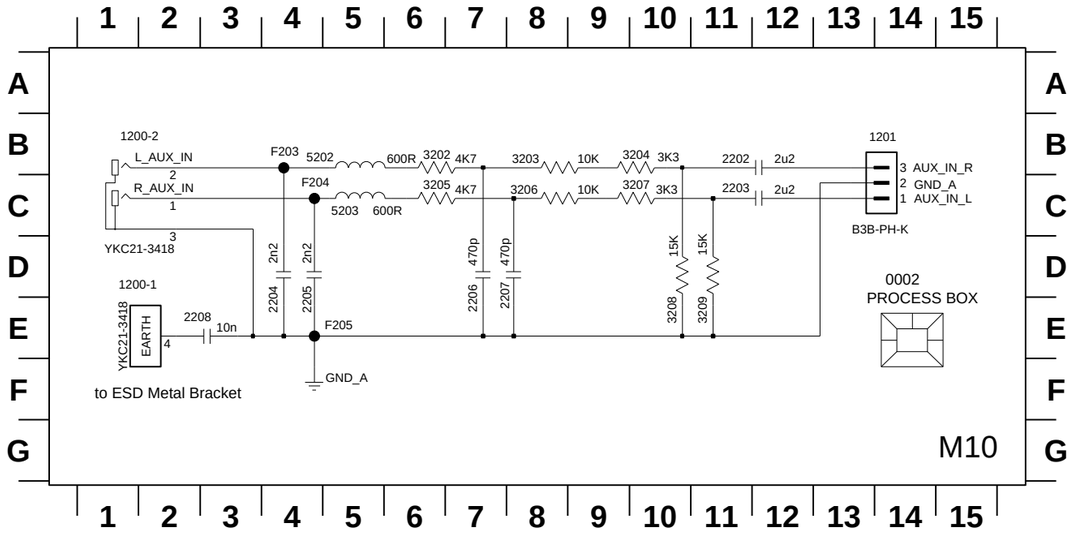
2400 A1

8 - 2

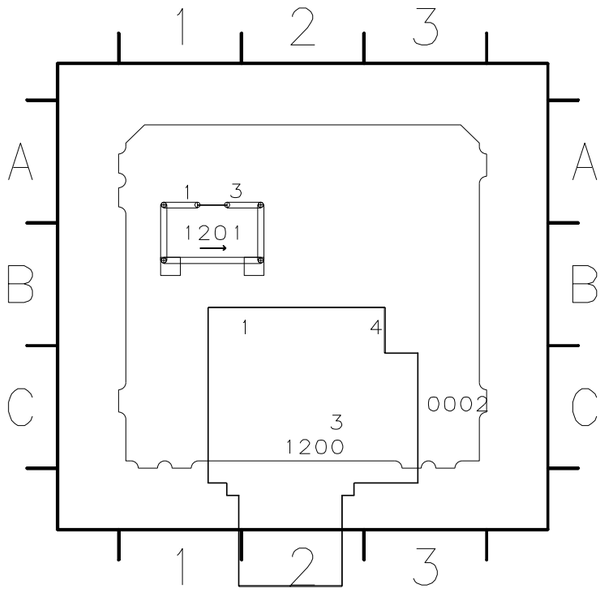
PB AUDIO In/out

Circuit Diagram

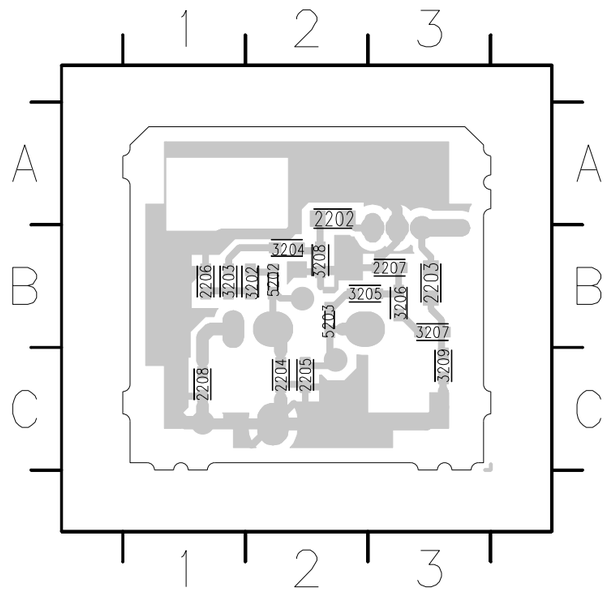
0002 D14	**1201 B13**	**2204 E4**	**2207 D8**	**3203 B8**	**3206 C8**	**3209 E11**	**F203 B4**
1200-1 B2	**2202 B11**	**2205 E4**	**2208 E2**	**3204 B10**	**3207 C10**	**5202 B4**	**F204 C4**
1200-2 D1	**2203 C11**	**2206 E7**	**3202 B6**	**3205 C6**	**3208 E10**	**5203 C5**	**F205 E5**



Layout Diagram

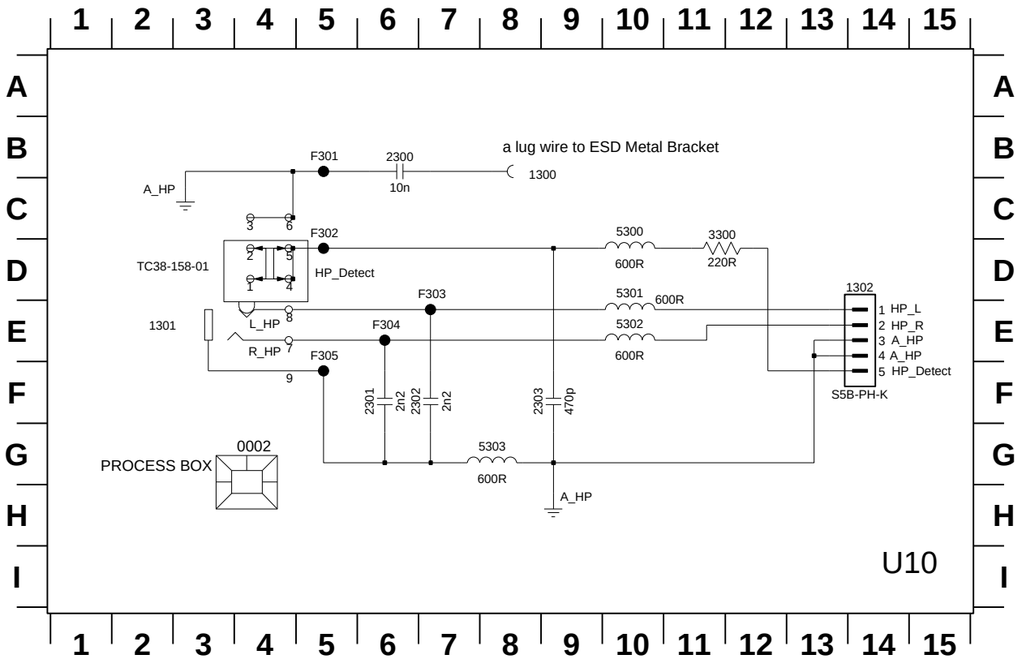


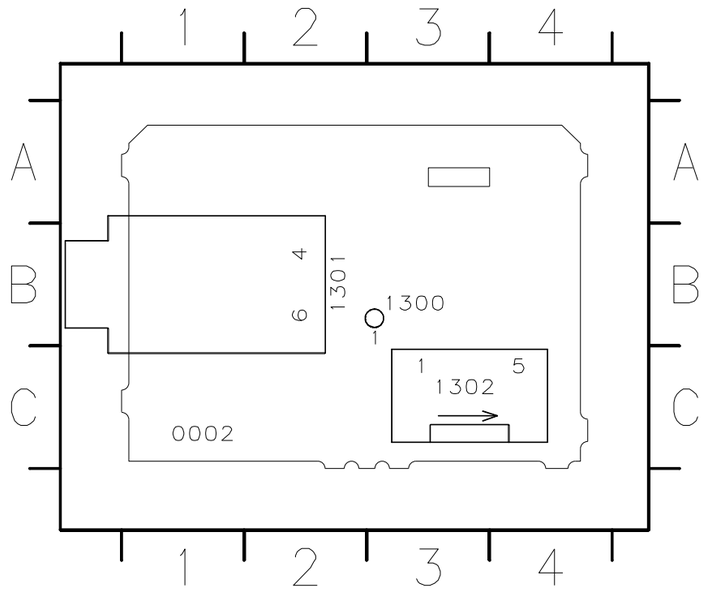
0002 C3
1200 C2
1201 B1

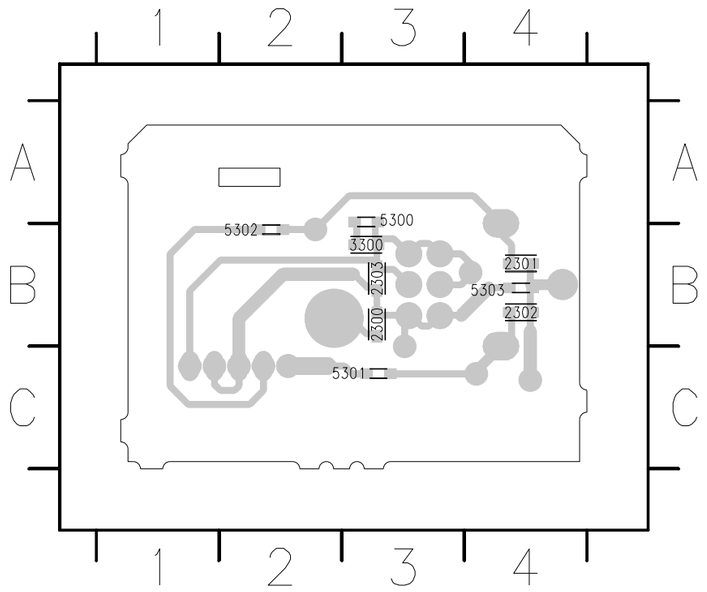


2202 A2
2203 B3
2204 C2
2205 C2
2206 B1
2207 B3
2208 C1
3202 B2
3203 B1
3204 B2
3205 B2
3206 B3
3207 B3
3208 B2
3209 C3
5202 B2
5203 B2

0002 G4	1301 E2	2300 B6	2302 F7	3300 C11	5301 D10	5303 G8	F302 C5	F304 E6
1300 B9	1302 D14	2301 F6	2303 F9	5300 C10	5302 E10	F301 B5	F303 D7	F305 E5

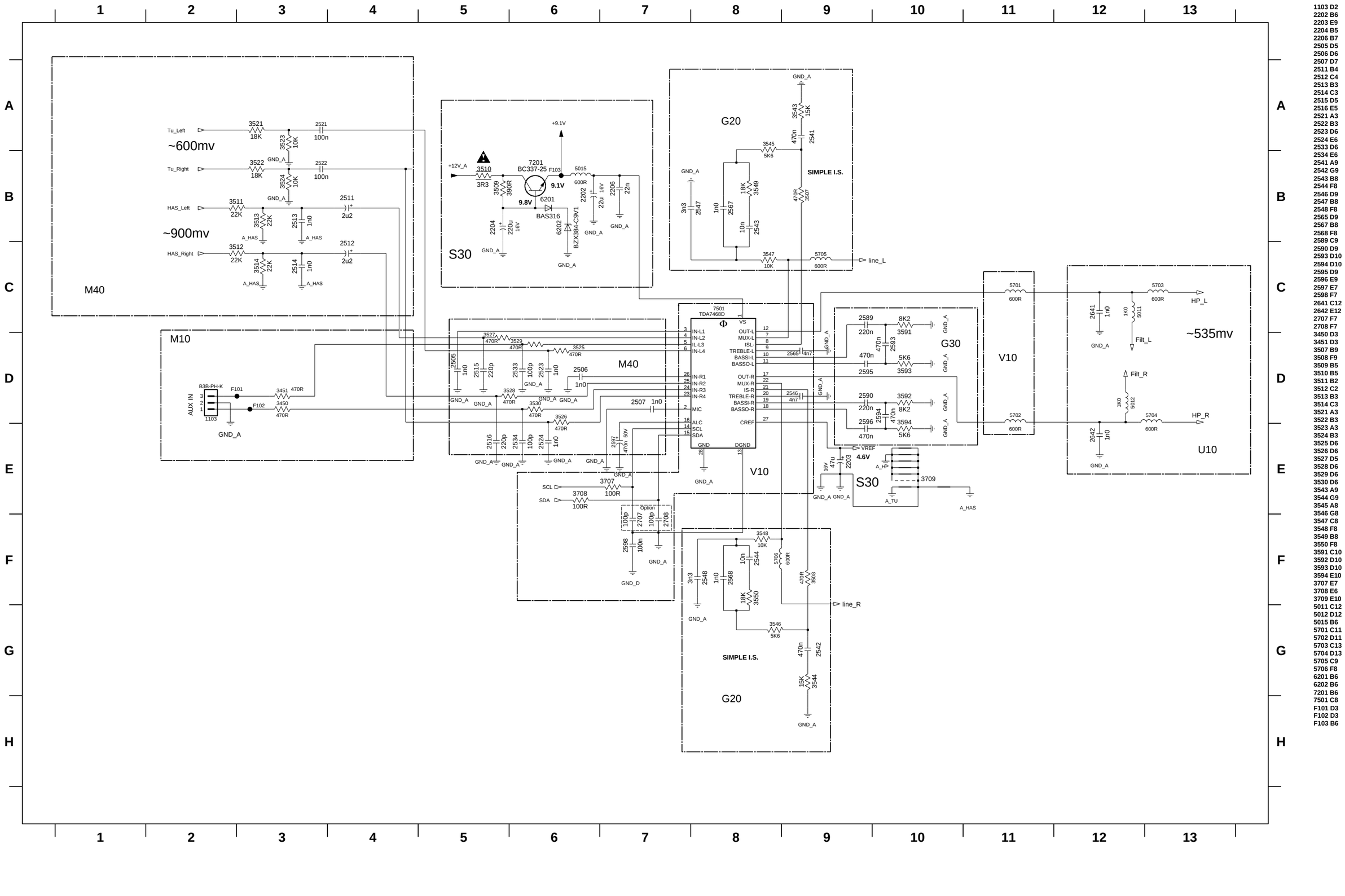






9 - 1

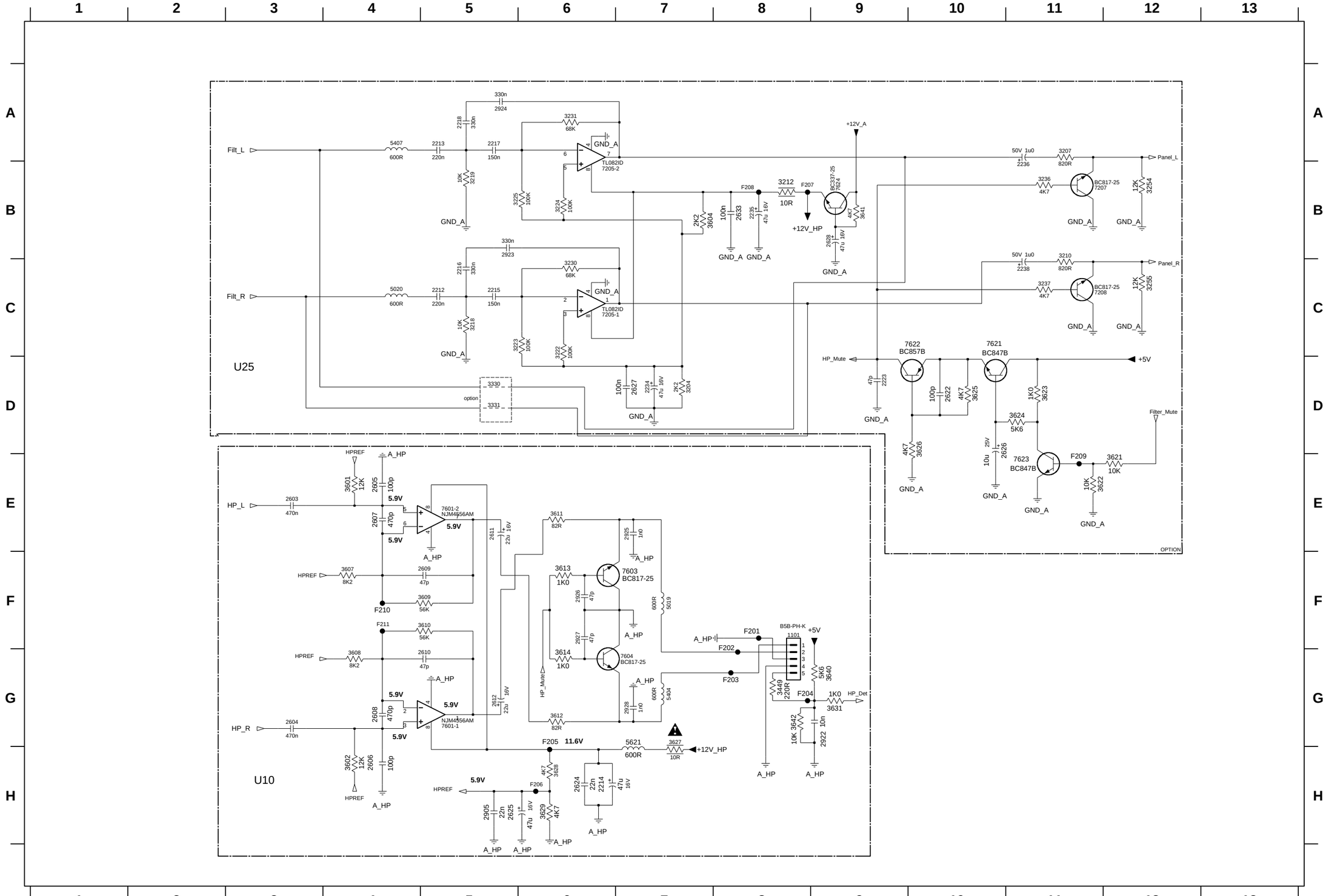
PB-AF&AMP - Circuit Diagram (Part1)



1103 D2
2202 B6
2203 E9
2204 B5
2206 B7
2505 D5
2506 D6
2507 D7
2511 B4
2512 C4
2513 B3
2514 C3
2515 D5
2516 E5
2521 A3
2522 B3
2523 D6
2524 E6
2533 D6
2534 E6
2541 A9
2542 G9
2543 B8
2544 F8
2546 D9
2547 B8
2548 F8
2565 D9
2567 B8
2568 F8
2589 C9
2590 D9
2593 D10
2594 D10
2595 D9
2596 E9
2597 E7
2598 F7
2641 C12
2642 E12
2707 F7
2708 F7
3450 D3
3451 D3
3507 B9
3508 F9
3509 B5
3510 B5
3511 B2
3512 C2
3513 B3
3514 C3
3521 A3
3522 B3
3523 A3
3524 B3
3525 D6
3526 D6
3527 D5
3528 D6
3529 D6
3530 D6
3543 A9
3544 G9
3545 A8
3546 G8
3547 C8
3548 F8
3549 B8
3550 F8
3591 C10
3592 D10
3593 D10
3594 E10
3707 E7
3708 E6
3709 E10
5011 C12
5012 D12
5015 B6
5701 C11
5702 D11
5703 C13
5704 D13
5705 C9
5706 F8
6201 B6
6202 B6
7201 B6
7501 C8
F101 D3
F102 D3
F103 B6

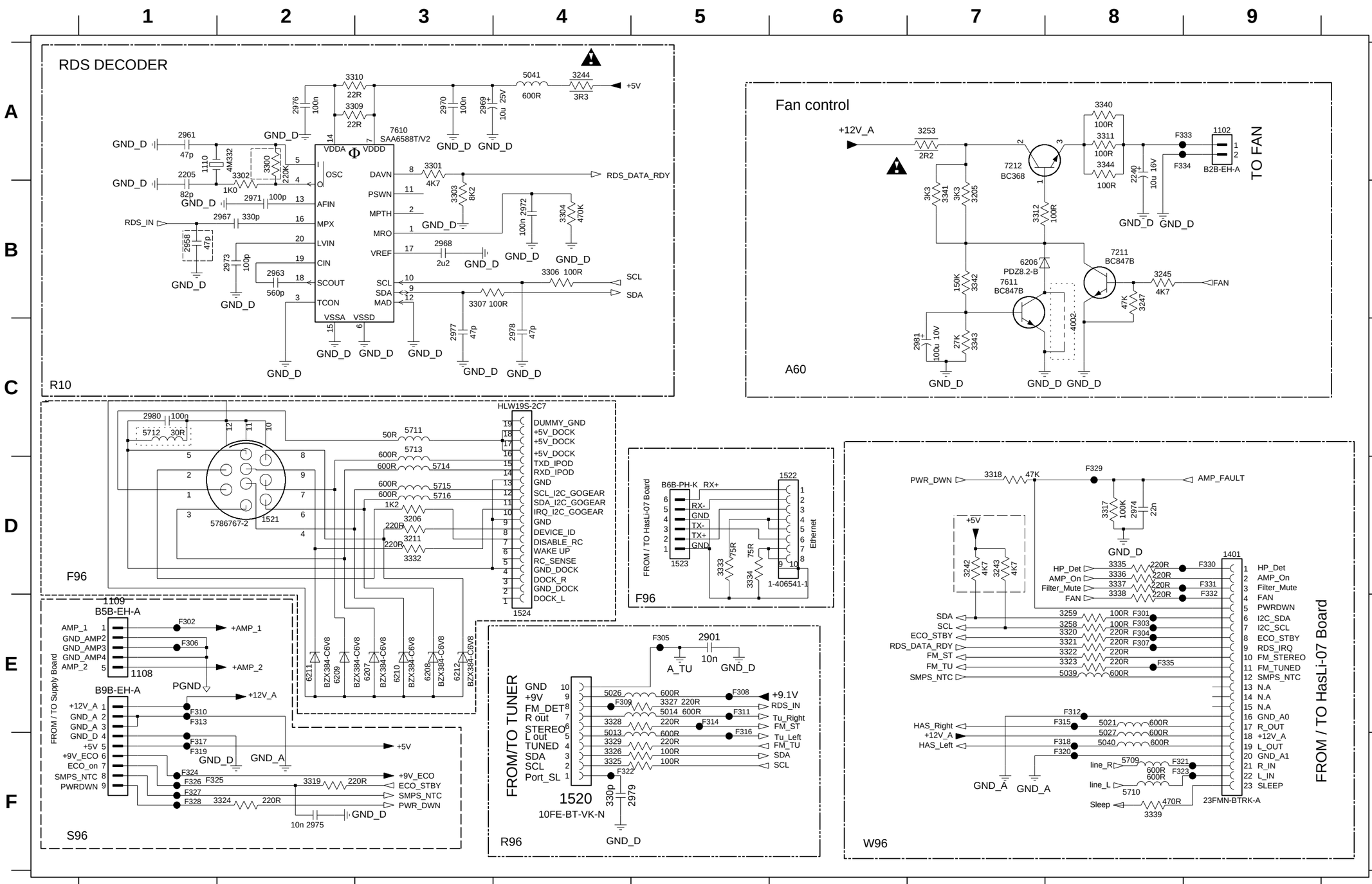
9 - 2

PB-AF&AMP - Circuit Diagram (Part2)



9 - 3

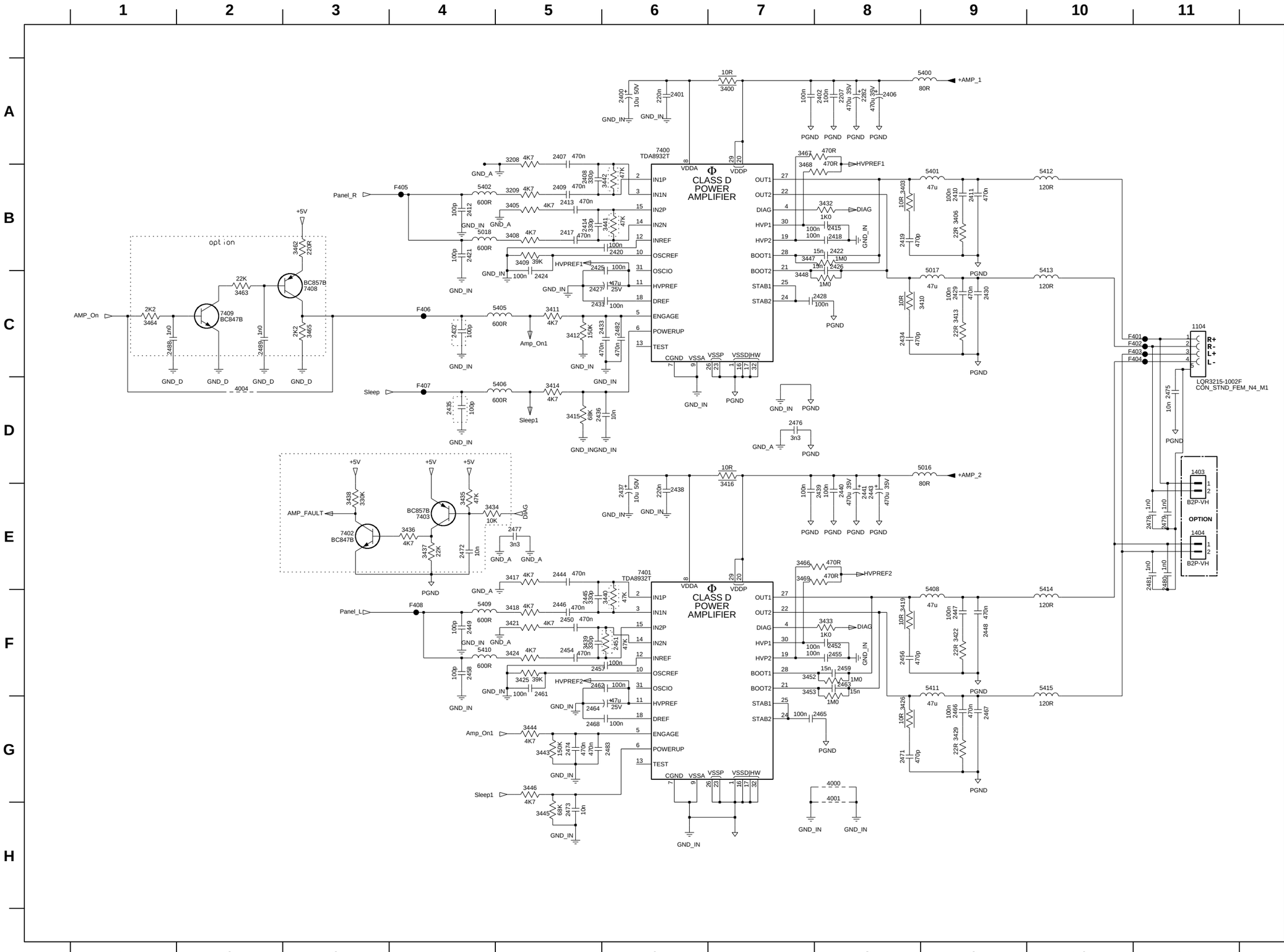
PB-AF&AMP - Circuit Diagram (Part3)



1102	A9	5013	F4
1108	E1	5014	E5
1109	E1	5021	E8
1110	A1	5026	E4
1401	D9	5027	F8
1520	F4	5039	E8
1521	D2	5040	F8
1522	D6	5041	A4
1523	D5	5709	F8
1524	E4	5710	F8
2205	A1	5711	C3
2240	A8	5712	C1
2901	E5	5713	C3
2958	B1	5714	D3
2961	A1	5715	D3
2963	B2	5716	D3
2967	B2	6206	B7
2968	B3	6207	E3
2969	A3	6208	E3
2970	A3	6209	E2
2971	B2	6210	E3
2972	B4	6211	E2
2973	B2	6212	E3
2974	D8	7211	B8
2975	F2	7212	A7
2976	A2	7610	A3
2977	C3	7611	B7
2978	C4	F301	E8
2979	F4	F302	E1
2980	C1	F303	E8
2981	C7	F304	E8
3205	B7	F305	E5
3206	D3	F306	E1
3211	D3	F307	E8
3242	D7	F308	E5
3243	D7	F309	E4
3244	A4	F310	E1
3245	B8	F311	E5
3247	B8	F312	E8
3253	A7	F313	E1
3258	E8	F314	E5
3259	E8	F315	E8
3300	A2	F316	F5
3301	A3	F317	F1
3302	A2	F318	F8
3303	B3	F319	F1
3304	B4	F320	F8
3306	B4	F321	F8
3307	B3	F322	F4
3309	A2	F323	F8
3310	A2	F324	F1
3311	A8	F326	F1
3312	B7	F327	F1
3317	D8	F328	F1
3318	D7	F329	D8
3319	F2	F330	D9
3320	E8	F331	D9
3321	E8	F332	E9
3322	E8	F333	A9
3323	E8	F334	A8
3324	F2	F335	E8
3325	F4		
3326	F4		
3327	E5		
3328	E4		
3329	F4		
3332	D3		
3333	D5		
3334	D5		
3335	D8		
3336	D8		
3337	D8		
3338	E8		
3339	F8		
3340	A8		
3341	B7		
3342	B7		
3343	C7		
3344	A8		
4002	C8		

9 - 4

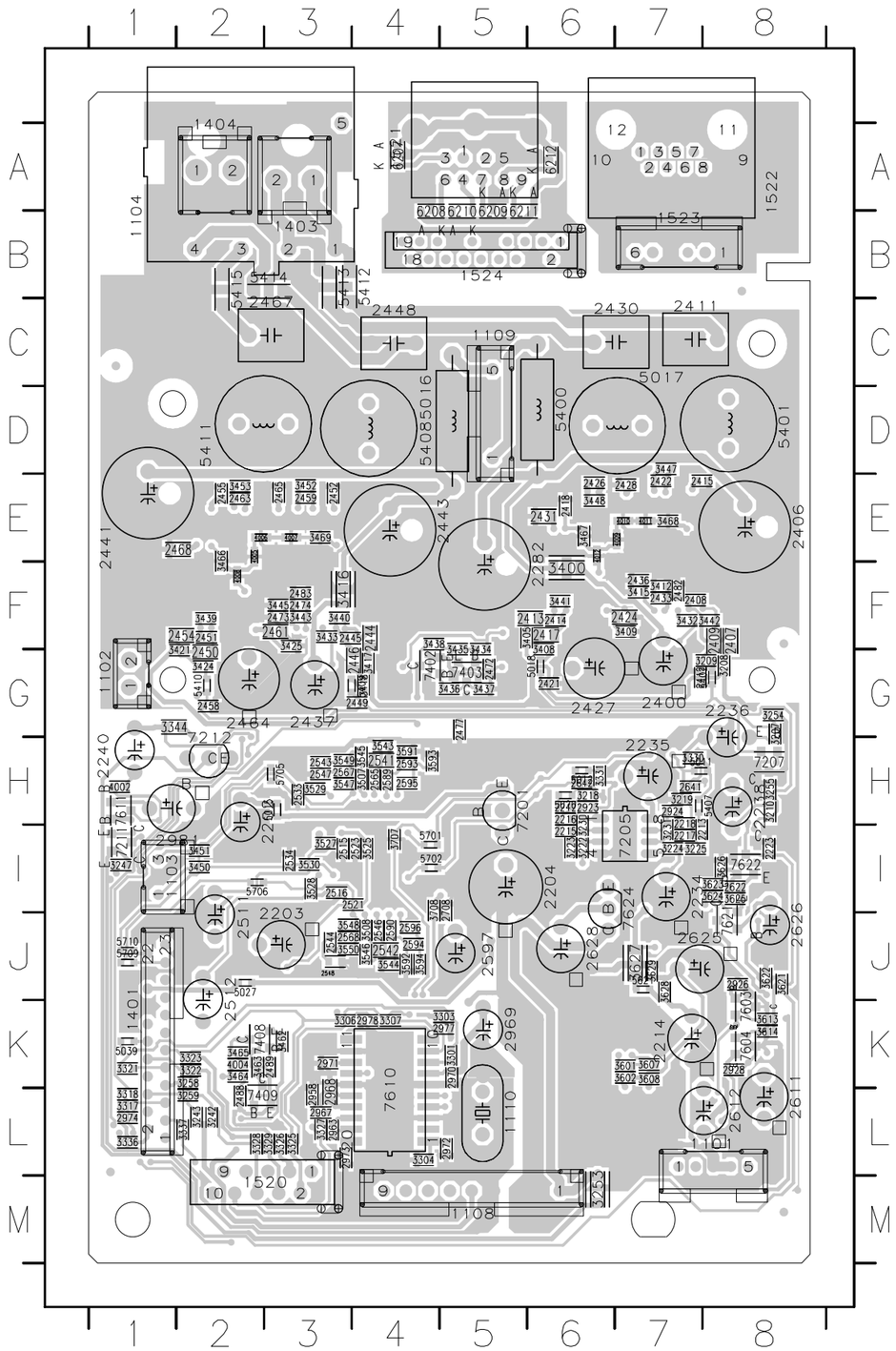
PB-AF&AMP - Circuit Diagram (Part4)



1104 C11	3426 G8
1403 D11	3429 G9
1404 E11	3432 B8
2207 A8	3433 F8
2282 A8	3434 E4
2400 A6	3435 E4
2401 A6	3436 E4
2402 A8	3437 E4
2406 A8	3438 E3
2407 A5	3439 F5
2408 B5	3440 F6
2409 B5	3441 B6
2410 B9	3442 B6
2411 B9	3443 G5
2412 B4	3444 G5
2413 B5	3445 H5
2414 B5	3446 G5
2415 B8	3447 B7
2417 B5	3448 C7
2418 B8	3452 F7
2419 B8	3453 F7
2420 B6	3462 B3
2421 B4	3463 C2
2422 B8	3464 C1
2424 C5	3465 C3
2425 B5	3466 E7
2426 B8	3467 A7
2427 C5	3468 A7
2428 C8	3469 E7
2429 C9	4000 G8
2430 C9	4001 G8
2431 C5	4004 D2
2432 C4	5016 D9
2433 C6	5017 C9
2434 C8	5018 B4
2435 D4	5400 A9
2436 D5	5401 B9
2437 E6	5402 B4
2438 E6	5405 C5
2439 E8	5406 D5
2440 E8	5408 F9
2441 E8	5409 F4
2443 E8	5410 F4
2444 E5	5411 F9
2445 F5	5412 B10
2446 F5	5413 C10
2447 F9	5414 F10
2448 F9	5415 F10
2449 F4	7400 A6
2450 F5	7401 E6
2451 F6	7402 E3
2452 F8	7403 E4
2454 F5	7408 C3
2455 F8	7409 C2
2456 F8	F401 C11
2457 F5	F402 C11
2458 F4	F403 C11
2459 F8	F404 C11
2461 F5	F405 B4
2462 F5	F406 C4
2463 F8	F407 D4
2464 G5	F408 F4
2465 G8	
2466 G9	
2467 G9	
2468 G5	
2471 G8	
2472 E4	
2473 H5	
2474 G5	
2475 D11	
2476 D7	
2477 E5	
2478 E11	
2479 E11	
2480 E11	
2481 E11	
2482 C6	
2483 G6	
2488 C1	
2489 C2	
3208 A5	
3209 B5	
3400 A7	
3403 B8	
3405 B5	
3406 B9	
3408 B5	
3409 B5	
3410 C8	
3411 C5	
3412 C5	
3413 C9	
3414 D5	
3415 D5	
3416 D7	
3417 E5	
3418 F5	
3419 F8	
3421 F5	
3422 F9	
3424 F5	
3425 F5	

9 - 5

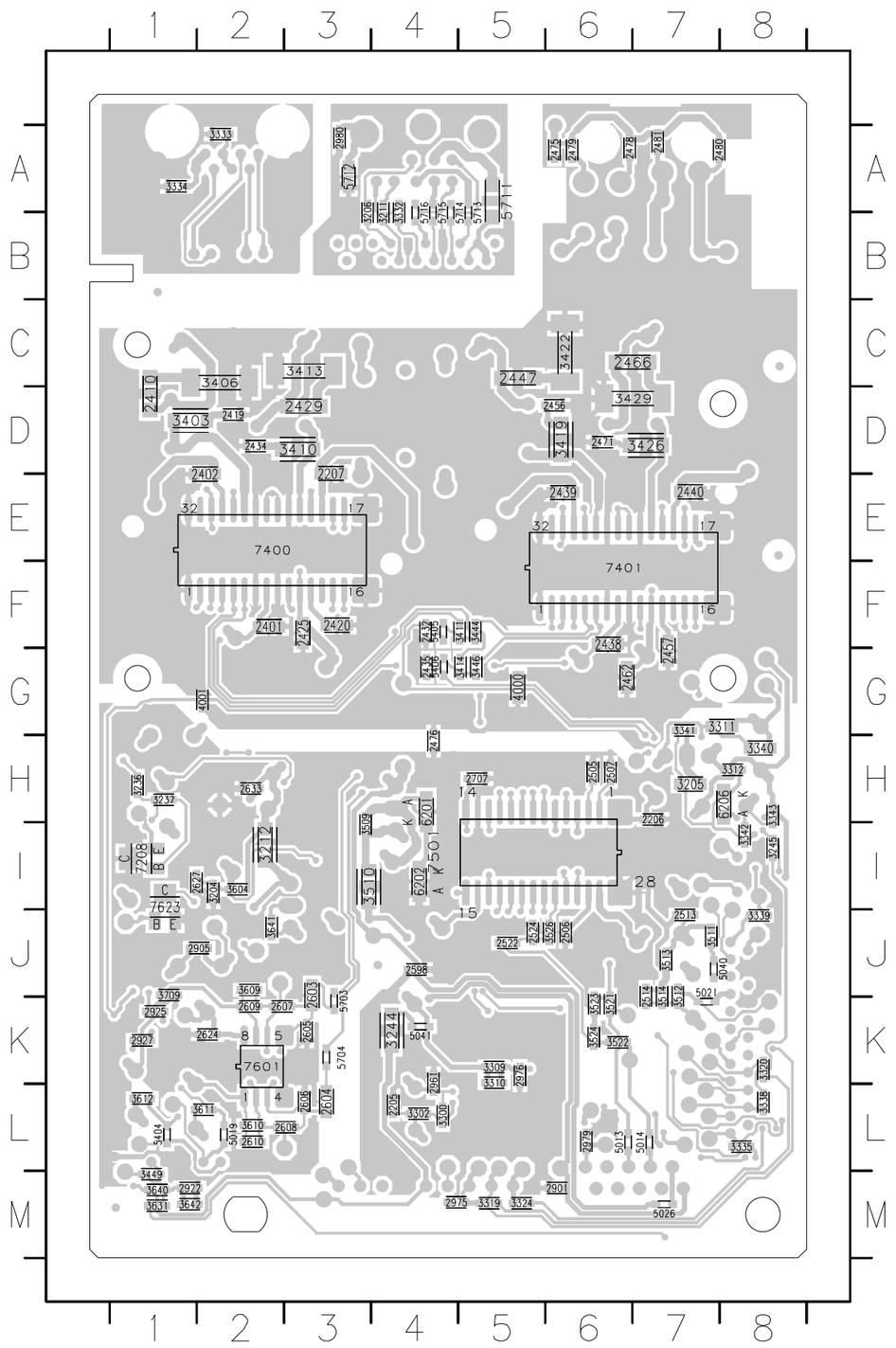
PB-AF&AMP - Layout Diagram (SideA)



1101	L8	2489	K3	3325	L3	3629	J7
1102	G1	2511	J2	3326	L3	3707	I4
1103	I1	2512	J2	3327	L3	3708	I4
1104	B1	2515	I3	3328	L2	4002	H1
1108	M5	2516	I3	3329	L3	4004	K2
1109	C5	2521	I4	3330	H7	4005	E2
1110	L5	2523	I4	3331	H6	4006	E2
1401	K1	2533	H3	3336	L1	4007	E3
1403	B3	2534	I3	3337	L2	4008	F2
1404	A2	2541	H4	3344	G1	4009	E7
1520	M3	2542	J4	3400	F6	4010	E7
1521	A4	2543	H3	3405	F5	4011	E7
1522	A8	2544	J3	3408	G6	4012	E6
1523	B7	2546	J4	3409	F7	5011	H7
1524	B5	2547	H3	3412	F7	5012	H6
2202	H3	2548	J3	3415	F7	5015	H3
2203	J3	2565	H4	3416	F3	5016	D4
2204	I6	2567	H3	3417	G4	5017	C7
2212	H6	2568	J3	3418	G4	5018	G6
2213	I7	2589	H4	3421	G2	5020	H6
2214	K7	2590	J4	3424	G2	5027	J2
2215	I6	2593	H4	3425	F3	5039	K1
2216	H6	2594	J4	3432	F7	5400	D6
2217	I7	2595	H4	3433	F3	5401	D8
2218	H7	2596	J4	3434	G5	5402	G8
2223	I8	2597	J5	3435	G5	5407	H8
2234	I7	2611	L8	3436	G5	5408	D4
2235	H7	2612	L8	3437	G5	5409	G4
2236	G8	2622	I8	3438	F4	5410	G2
2238	H8	2625	J7	3439	F2	5411	D2
2240	H1	2626	J6	3440	F3	5412	B4
2282	F6	2628	J6	3441	F6	5413	B3
2400	G7	2641	H7	3442	F8	5414	B3
2406	E8	2642	H6	3443	F3	5415	B2
2407	F8	2708	I5	3445	F3	5621	J7
2408	F7	2923	H6	3447	D7	5701	I4
2409	F8	2924	H7	3448	E6	5702	I4
2411	C7	2926	J8	3450	I2	5705	H3
2412	G7	2928	K8	3451	I2	5706	I2
2413	F6	2958	L3	3452	E3	5709	J1
2414	F6	2963	L3	3453	E2	5710	J1
2415	E7	2967	L3	3462	K3	6207	A4
2417	F6	2968	L3	3463	K2	6208	B4
2418	E6	2969	K5	3464	K2	6209	B5
2421	G6	2970	K5	3465	K2	6210	B5
2422	F7	2971	K3	3466	E2	6211	B5
2424	F7	2972	L3	3467	E6	6212	A6
2426	E6	2973	L3	3468	E7	7201	H5
2427	G6	2974	L1	3469	E3	7205	I7
2428	E7	2977	K5	3507	H4	7207	H8
2430	C7	2978	K4	3508	J4	7211	I1
2431	E6	2981	J2	3525	I4	7212	H2
2433	F7	3207	G8	3527	I3	7402	G4
2436	F7	3208	G8	3528	I3	7403	G5
2437	G3	3209	G8	3529	H3	7408	K2
2441	F1	3210	H8	3530	I3	7409	L2
2443	F5	3218	H6	3543	H4	7603	K8
2444	F4	3219	H7	3544	J4	7604	K8
2445	F3	3222	I6	3545	H4	7610	L4
2446	G4	3223	I6	3546	J4	7611	H1
2448	C4	3224	I7	3547	H3	7621	J8
2449	G4	3225	I7	3548	J3	7622	I8
2450	G2	3230	I6	3549	H3	7624	I7
2451	F2	3231	I7	3550	J3		
2452	E3	3242	L2	3591	H4		
2454	F2	3243	L2	3592	J4		
2455	E2	3247	I1	3593	H4		
2458	G2	3253	M6	3594	J4		
2463	E2	3254	G8	3601	K7		
2464	G2	3255	H8	3602	K7		
2465	E3	3258	K2	3607	K7		
2467	C3	3301	K5	3608	K7		
2468	E2	3303	K5	3613	K8		
2472	G5	3304	L4	3614	K8		
2473	F3	3306	K3	3621	J8		
2474	F3	3307	K4	3622	J8		
2477	G5	3317	L1	3623	I8		
2482	F7	3318	L1	3624	I8		
2483	F3	3321	K1	3625	I8		
2488	L2	3322	K2	3626	I8		
		3323	K2	3627	J7		
				3628	J7		

9-6

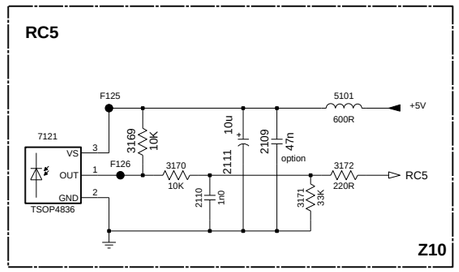
PB-AF&AMP - Layout Diagram (SideB)

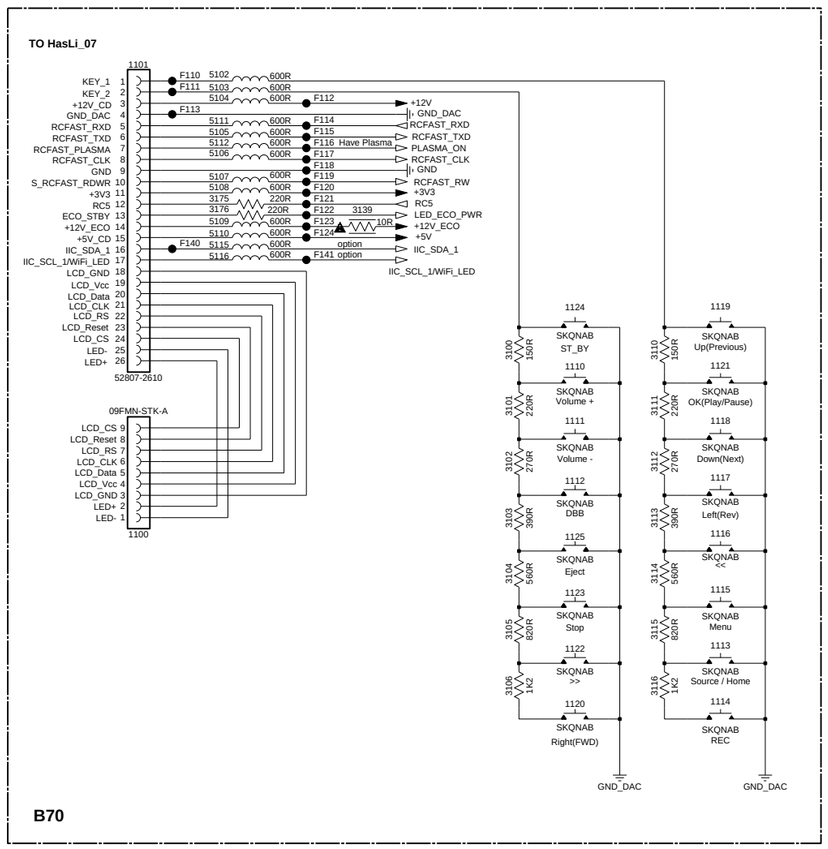


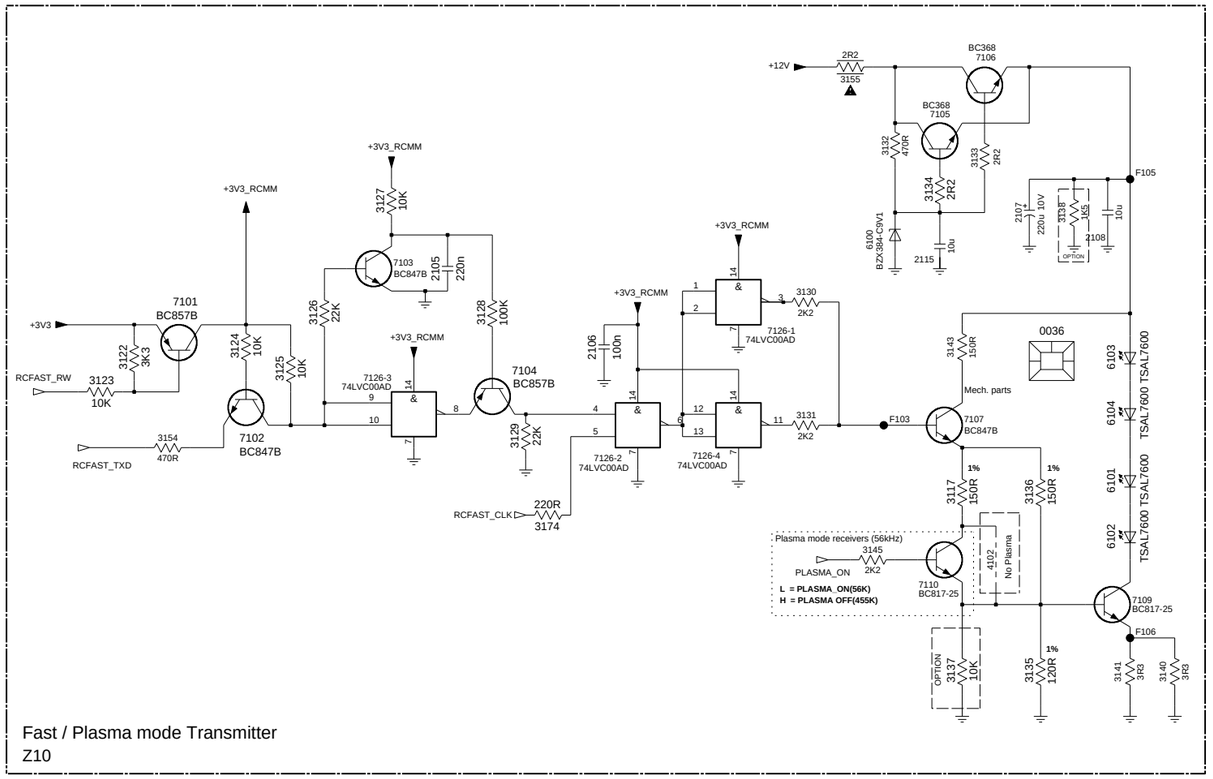
2205	L4	3340	H8
2206	H7	3341	G7
2207	D3	3342	I8
2401	F2	3343	H8
2402	E2	3403	D1
2410	D1	3406	C2
2419	D2	3410	D3
2420	F3	3411	F5
2425	F3	3413	C3
2429	D3	3414	G5
2432	F4	3419	D6
2434	D2	3422	C6
2435	G4	3426	D7
2438	F6	3429	D7
2439	E6	3444	F5
2440	E7	3446	G5
2447	C5	3449	M1
2456	D6	3509	I3
2457	G7	3510	I3
2462	G6	3511	J7
2466	C7	3512	J7
2471	D6	3513	J7
2475	A6	3514	J7
2476	H4	3521	K6
2478	A6	3522	K6
2479	A6	3523	K6
2480	A7	3524	K6
2481	A7	3526	J6
2505	H6	3604	I2
2506	J6	3609	J2
2507	H6	3610	L2
2513	J7	3611	L2
2514	J7	3612	L1
2522	J5	3631	M1
2524	J5	3640	M1
2598	J4	3641	J2
2603	J3	3642	M1
2604	L3	3709	J1
2605	K3	4000	G5
2606	L3	4001	G2
2607	K2	5013	L6
2608	L3	5014	L7
2609	K2	5019	L2
2610	L2	5021	J7
2624	K2	5026	M7
2627	I1	5040	J8
2633	H2	5041	K4
2707	H5	5404	L1
2901	M6	5405	F4
2905	J2	5406	G4
2922	M1	5703	K3
2925	K1	5704	K3
2927	K1	5711	A5
2961	K4	5712	A3
2975	M4	5713	B5
2976	K5	5714	B5
2979	L6	5715	B4
2980	A3	5716	B4
3204	I2	6201	H4
3205	H7	6202	I4
3206	B3	6206	H8
3211	B4	7208	I1
3212	I2	7400	E2
3236	H1	7401	F6
3237	H1	7501	I4
3244	K4	7601	K2
3245	I8	7623	I1
3300	L4		
3302	L4		
3306	K5		
3310	K5		
3311	G8		
3312	H8		
3319	M5		
3320	K8		
3324	M5		
3332	B4		
3333	A2		
3334	A1		
3335	L8		
3338	L8		
3339	J8		

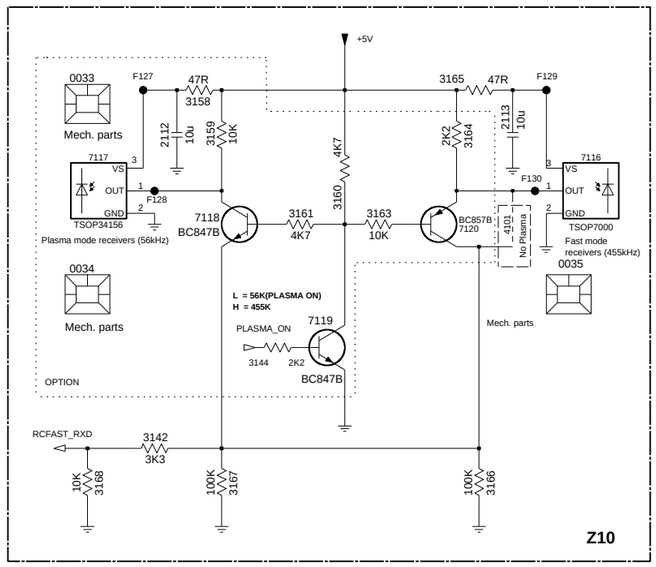
10 - 1

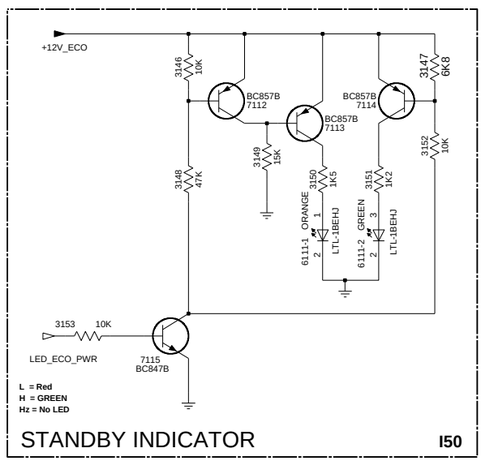
PB-KEYS & IR - Circuit Diagram











0033 F6	5111 E2
0034 H6	5112 E2
0035 G9	5115 F2
0036 C12	5116 F2
1100 G1	6100 B11
1101 D1	6101 D13
1110 F4	6102 D13
1111 G4	6103 C13
1112 G4	6104 C13
1113 H5	6111-1 H12
1114 H5	6111-2 H13
1115 H5	7101 B7
1116 G5	7102 C7
1117 G5	7103 B8
1118 G5	7104 C9
1119 F5	7105 A12
1120 H4	7106 A12
1121 F5	7107 C12
1122 H4	7109 D13
1123 H4	7110 D12
1124 F4	7112 G12
1125 G4	7113 G12
2105 B9	7114 G13
2106 C10	7115 I11
2107 B12	7116 G10
2108 B13	7117 G6
2109 C3	7118 G7
2110 C3	7119 H8
2111 C3	7120 G9
2112 G7	7121 C2
2113 G9	7126-1 C11
2115 B12	7126-2 C10
3100 F4	7126-3 C8
3101 G4	7126-4 C10
3102 G4	F103 C12
3103 G4	F105 B13
3104 H4	F106 E13
3105 H4	F110 D1
3106 H4	F111 E1
3110 F4	F112 E2
3111 G4	F113 E1
3112 G4	F114 E2
3113 G4	F115 E2
3114 H4	F116 E2
3115 H4	F117 E2
3116 H4	F118 E2
3117 D12	F119 E2
3122 C7	F120 E2
3123 C6	F121 E2
3124 C7	F122 E2
3125 C8	F123 E2
3126 B8	F124 E2
3127 B8	F125 C2
3128 B9	F126 C2
3129 C9	F127 F7
3130 B11	F128 G7
3131 C11	F129 F9
3132 A11	F130 G9
3133 B12	F140 F1
3134 B12	F141 F2
3135 E12	
3136 D12	
3137 E12	
3138 B13	
3139 E3	
3140 E13	
3141 E13	
3142 I7	
3143 C12	
3144 H7	
3145 D11	
3146 G12	
3147 G13	
3148 H12	
3149 G12	
3150 H12	
3151 H13	
3152 G13	
3153 H11	
3154 C7	
3155 A11	
3158 F7	
3159 G7	
3160 G8	
3161 G8	
3163 G8	
3164 G9	
3165 F9	
3166 I9	
3167 I7	
3168 I6	
3169 C2	
3170 C2	
3171 C3	
3172 C4	
3174 D9	
3175 E2	
3176 E2	
4101 G9	
4102 D12	
5101 C4	
5102 D2	
5103 E2	
5104 E2	
5105 E2	
5106 E2	
5107 E2	
5108 E2	
5109 E2	
5110 E2	

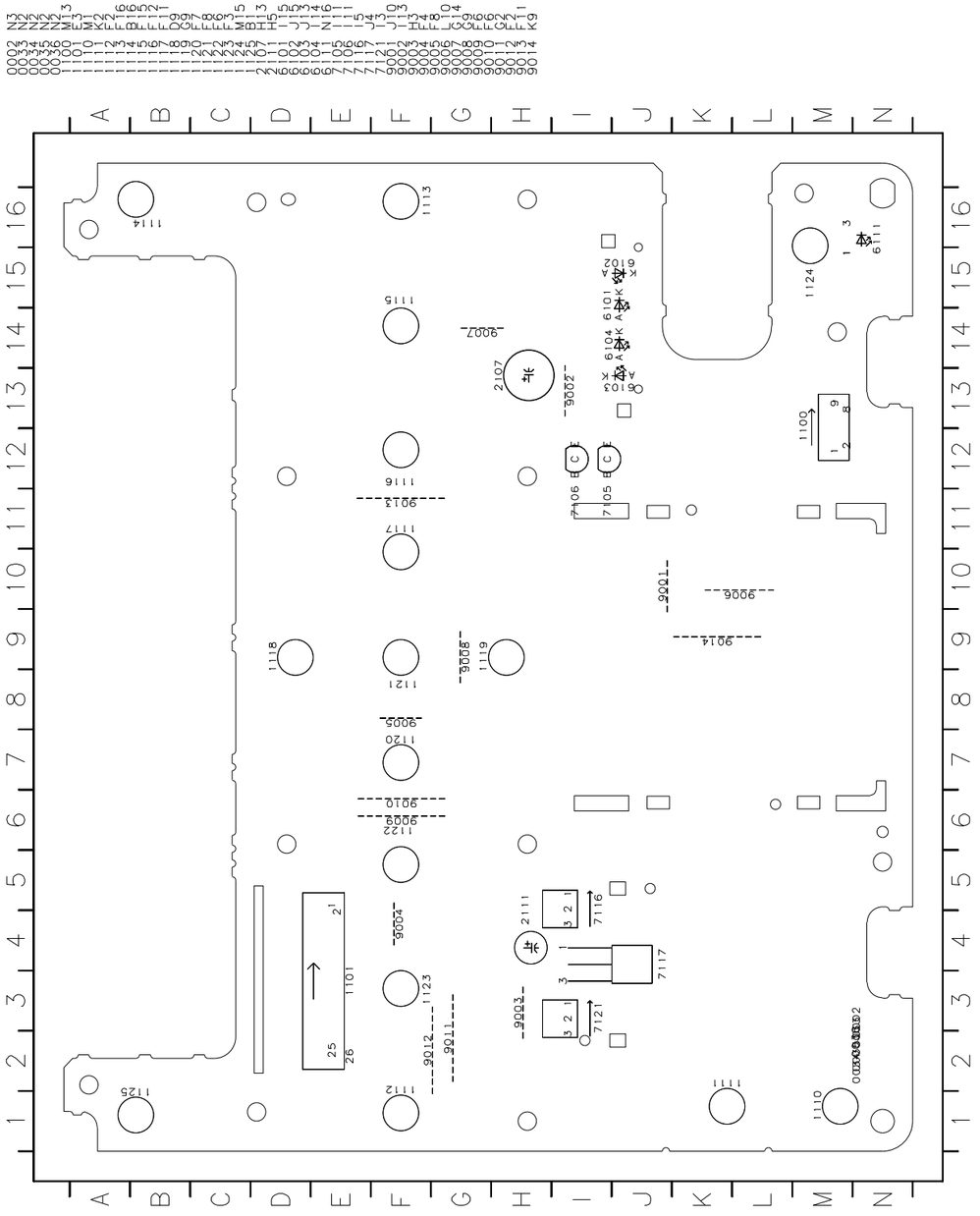
0002

PROCESS BOX

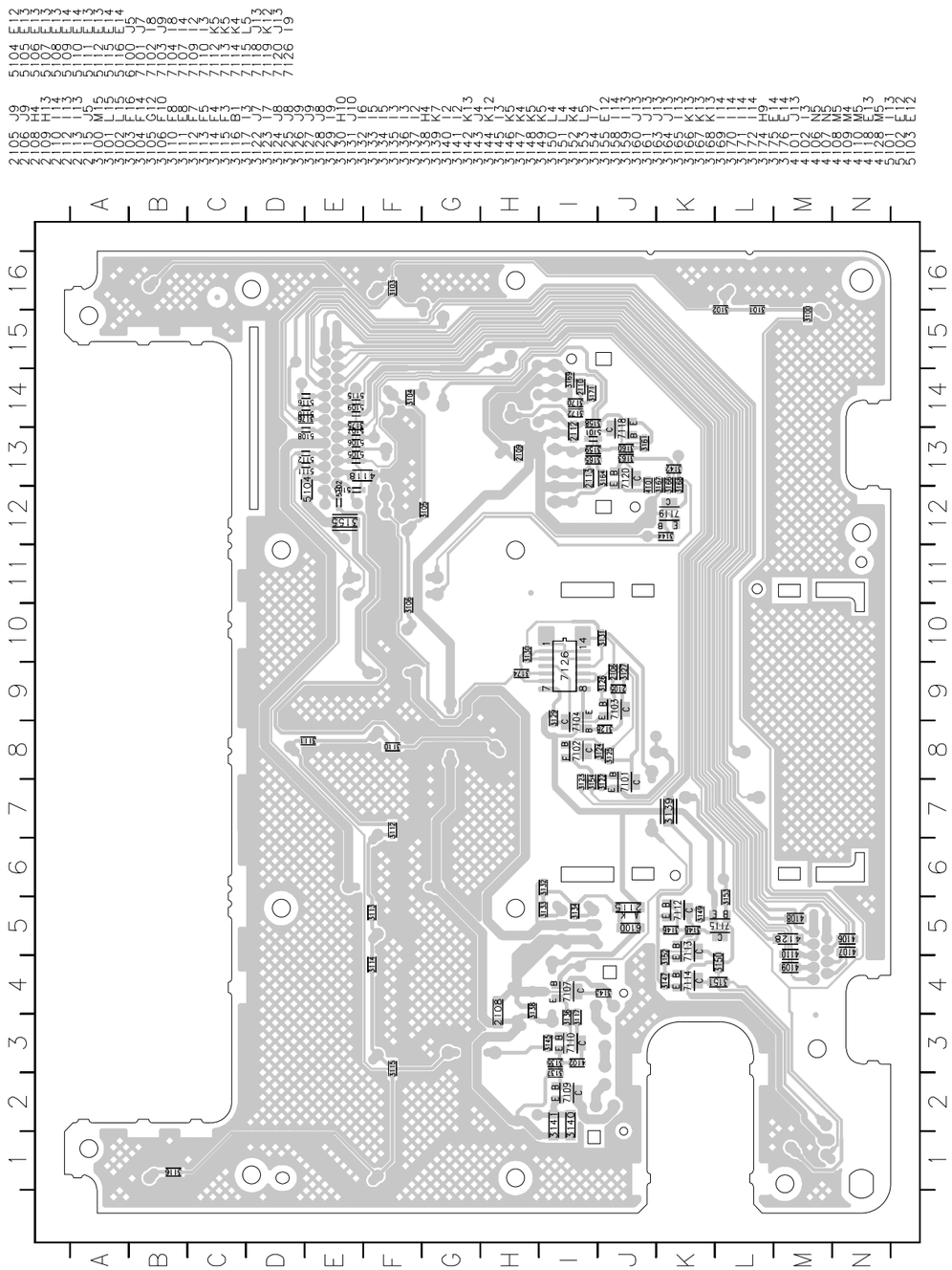
10 - 2

PB-KEYS & IR - Layout Diagram

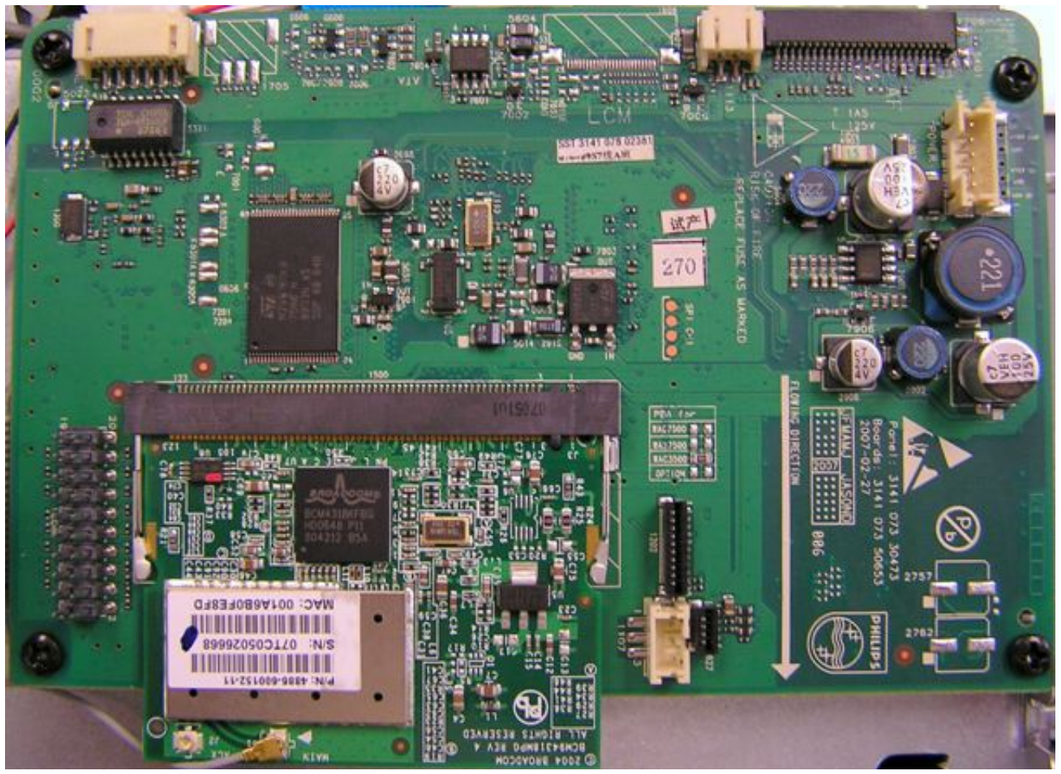
SIDE A



SIDE B



11 - 1



HAS MODULE

This module can only be repaired on component level
at authorized service workshop.

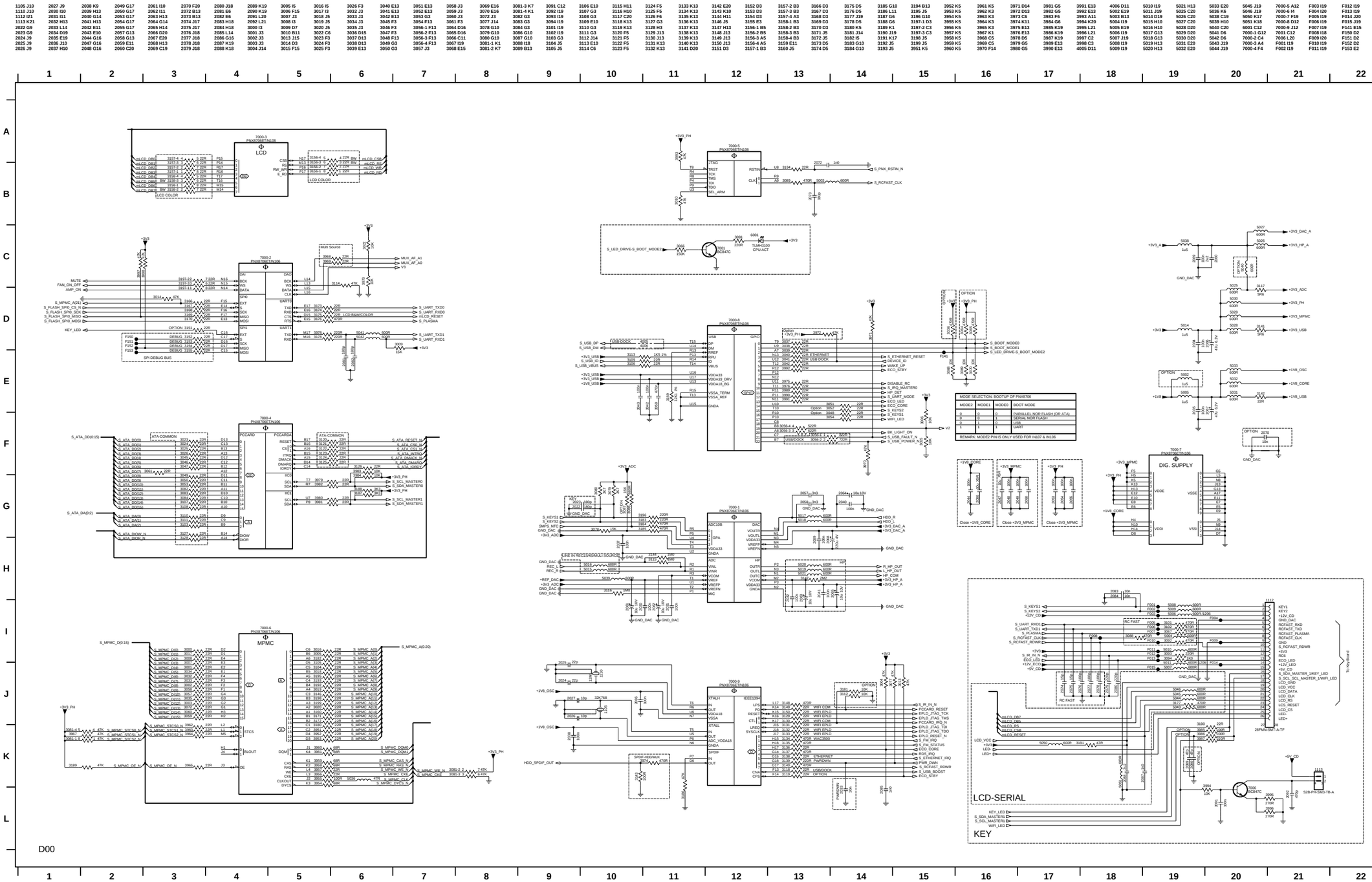
In case of defects please replace the entire board resp. the WiFi Card.

3141 078 02381 .....HAS Printed Board Assembly - Europe

2822 065 01728 .....WiFi Card Mini PCI

11 - 2

CIRCUIT DIAGRAM - Part 1 (MELODY)



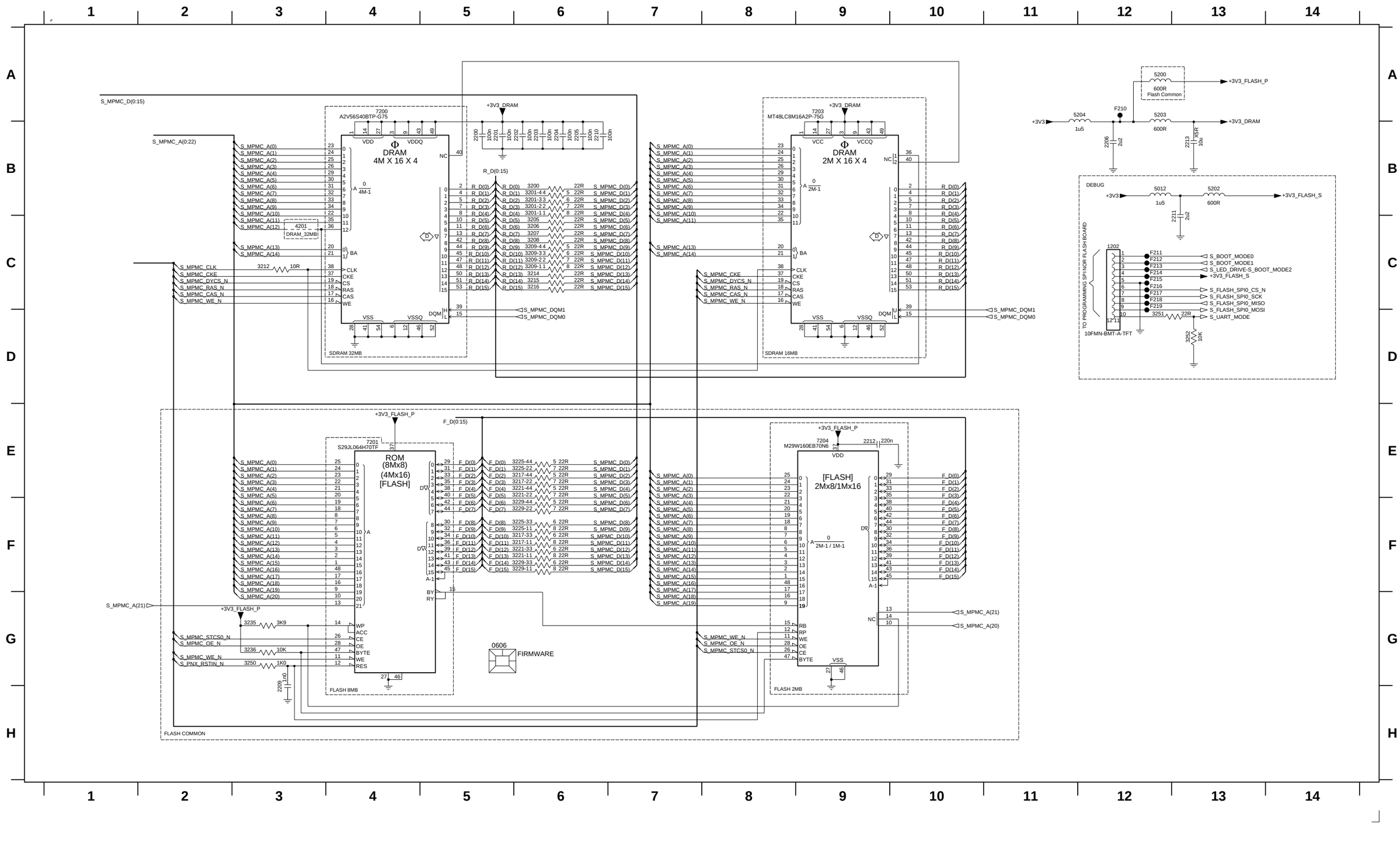
Ref Des	WAC3000
3078	319803101530
	15K
	319803104710
3134	319803104710
	470R

Ref Des	WACS-EU-NORDS	WACS-EU-RDS	WACS-FULL	WACS-KOREA	WACS-OVS	WACS-PRC-SCH	WACS-PRC-TCH	WACS-USA
3006	319803101030	319803101030	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED
	10K	10K						
3015	NOT USED	NOT USED	NOT USED	319803101030	NOT USED	319803101030	319803101030	319803101030
				10K		10K	10K	10K
3022	NOT USED	NOT USED	NOT USED	319803101030	NOT USED	319803101030	319803101030	NOT USED
				10K		10K	10K	
3973	319803101030	319803101030	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	319803101030
	10K	10K						10K

11 - 3

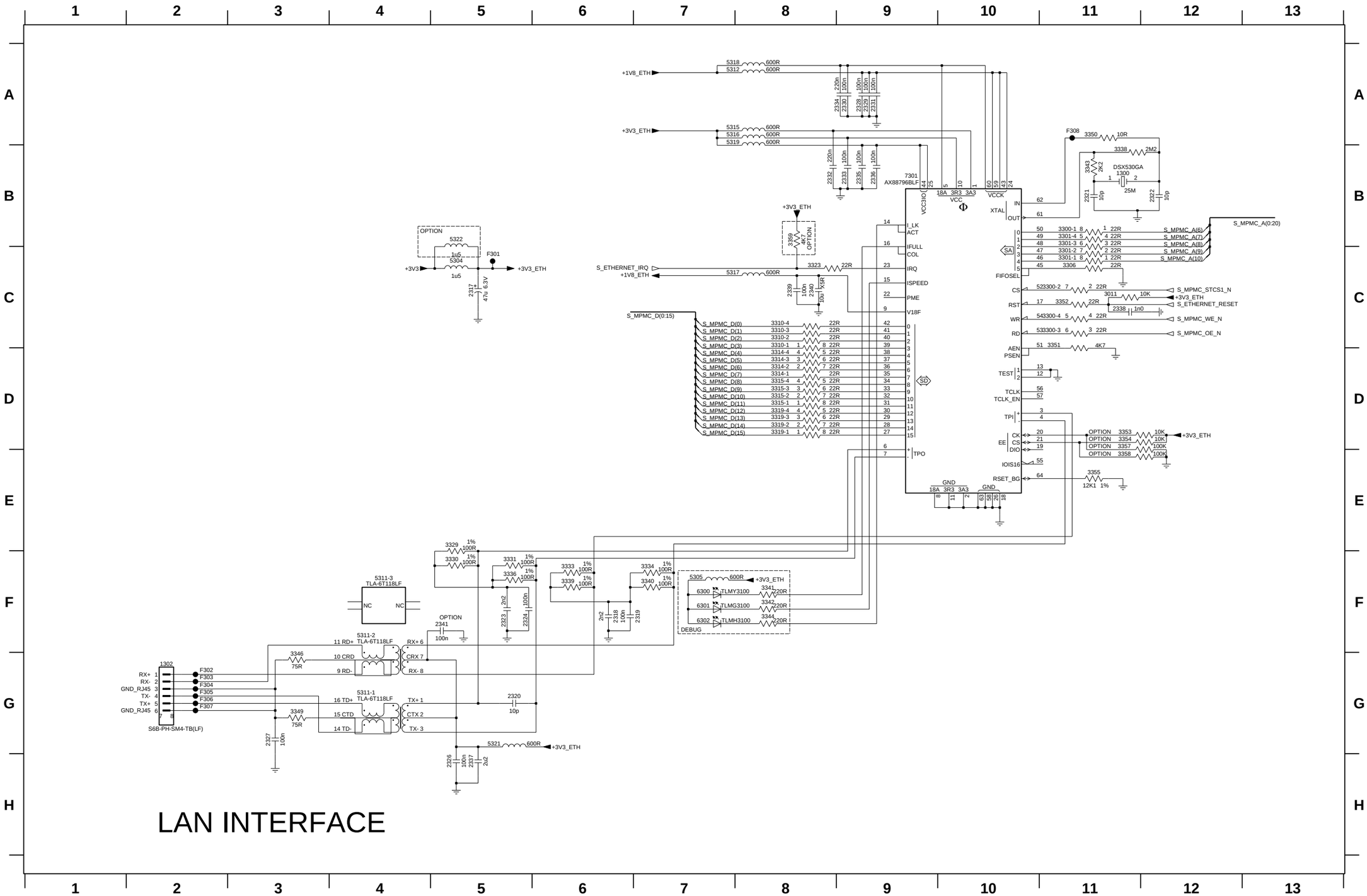
CIRCUIT DIAGRAM - Part 2 (FLASH & SDRAM)

0606 G5	2201 B5	2204 B6	2209 H3	2212 E9	3201-1 B6	3201-4 B6	3207 C6	3209-2 C6	3212 C3	3216 C6	3217-3 F6	3221-2 E6	3225-1 F6	3225-4 E6	3229-3 F6	3236 G3	3252 D13	5200 A12	5204 A12	7203 A9	F211 C12	F214 C12	F217 C12
1202 C12	2202 B6	2205 B6	2210 B6	2213 B13	3201-2 B6	3205 C6	3208 C6	3209-3 C6	3214 C6	3217-1 F6	3217-4 E6	3221-3 F6	3225-2 E6	3229-1 F6	3229-4 F6	3250 G3	4201 C3	5202 B13	7200 A4	7204 E9	F212 C12	F215 C12	F218 C12
2200 B5	2203 B6	2206 B12	2211 C13	3200 B6	3201-3 B6	3206 C6	3209-1 C6	3209-4 C6	3215 C6	3217-2 E6	3221-1 F6	3221-4 E6	3225-3 F6	3229-2 F6	3235 G3	3251 D12	5012 B12	5203 A12	7201 E4	F210 A12	F213 C12	F216 C12	F219 C12



11 - 4

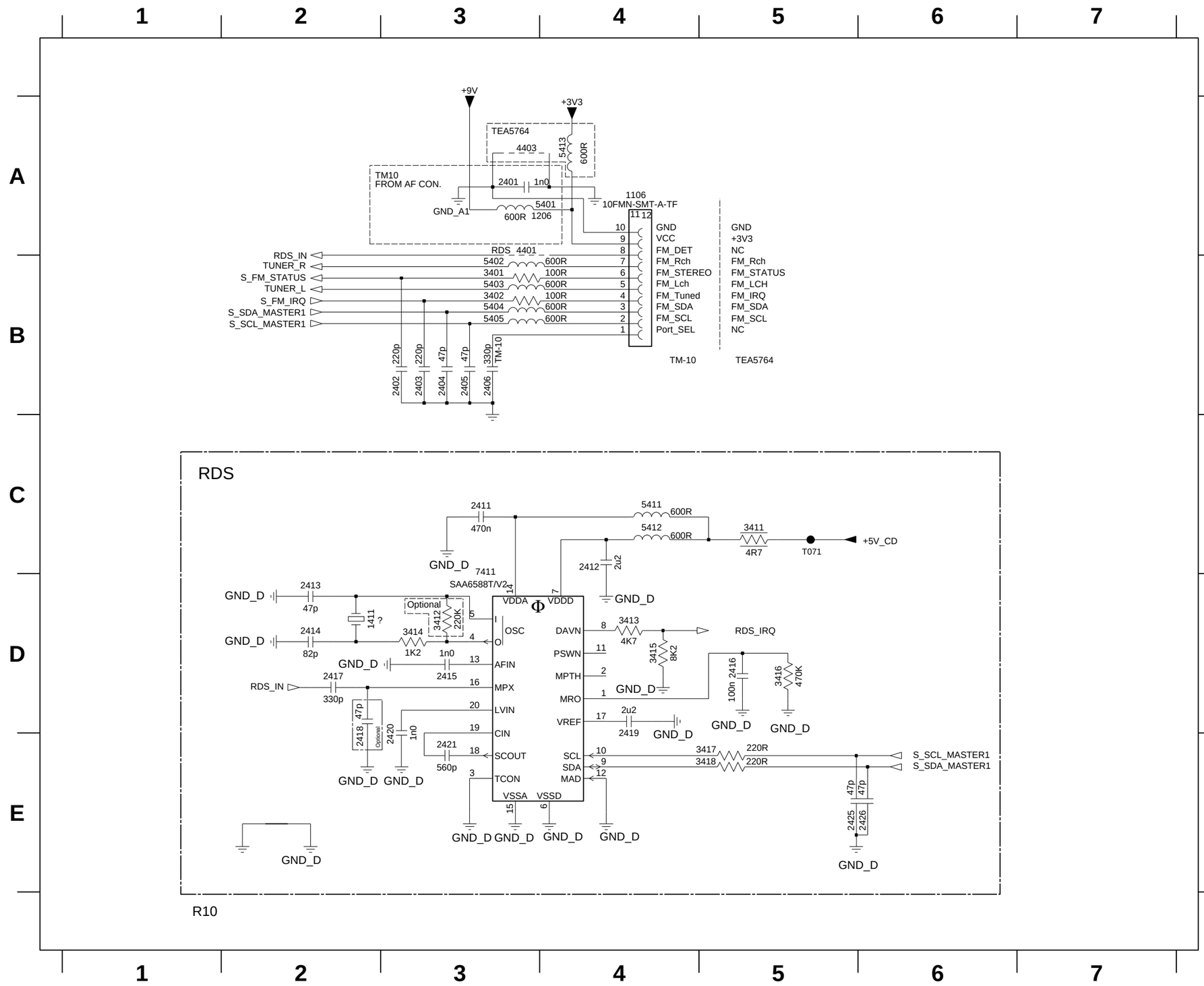
CIRCUIT DIAGRAM - Part 3 (ETHERNET)



1300 B11
1302 G2
2317 C5
2318 F6
2319 F7
2320 G5
2321 B11
2322 B12
2323 F5
2324 F5
2326 H5
2327 G3
2328 A9
2329 A9
2330 A9
2331 A9
2332 B8
2333 B9
2334 A9
2335 B9
2336 B9
2337 H5
2338 C11
2339 C8
2340 C8
2341 F5
3011 C11
3300-1 B11
3300-2 C11
3300-3 C11
3300-4 C11
3301-1 C11
3301-2 C11
3301-3 B11
3301-4 B11
3306 C11
3310-1 C8
3310-2 C8
3310-3 C8
3310-4 C8
3314-1 D8
3314-2 D8
3314-3 D8
3314-4 D8
3315-1 D8
3315-2 D8
3315-3 D8
3315-4 D8
3319-1 D8
3319-2 D8
3319-3 D8
3319-4 D8
3323 C8
3329 E5
3330 F5
3331 F5
3333 F6
3334 F7
3336 F5
3338 B11
3339 F6
3340 F7
3341 F8
3342 F8
3343 B11
3344 F8
3346 G3
3349 G3
3350 A11
3351 C11
3352 C11
3353 D11
3354 D11
3355 E11
3357 D11
3358 E11
3359 B8
5304 C5
5305 F7
5311-1 G4
5311-2 F4
5311-3 F4
5312 A7
5315 A7
5316 A7
5317 C7
5318 A7
5319 A7
5321 G5
5322 B5
6300 F7
6301 F7
6302 F7
7301 B9
F301 C5
F302 G2
F303 G2
F304 G2
F305 G2
F306 G2
F307 G2
F308 A11

11 - 5

CIRCUIT DIAGRAM - Part 4 (TUNER)

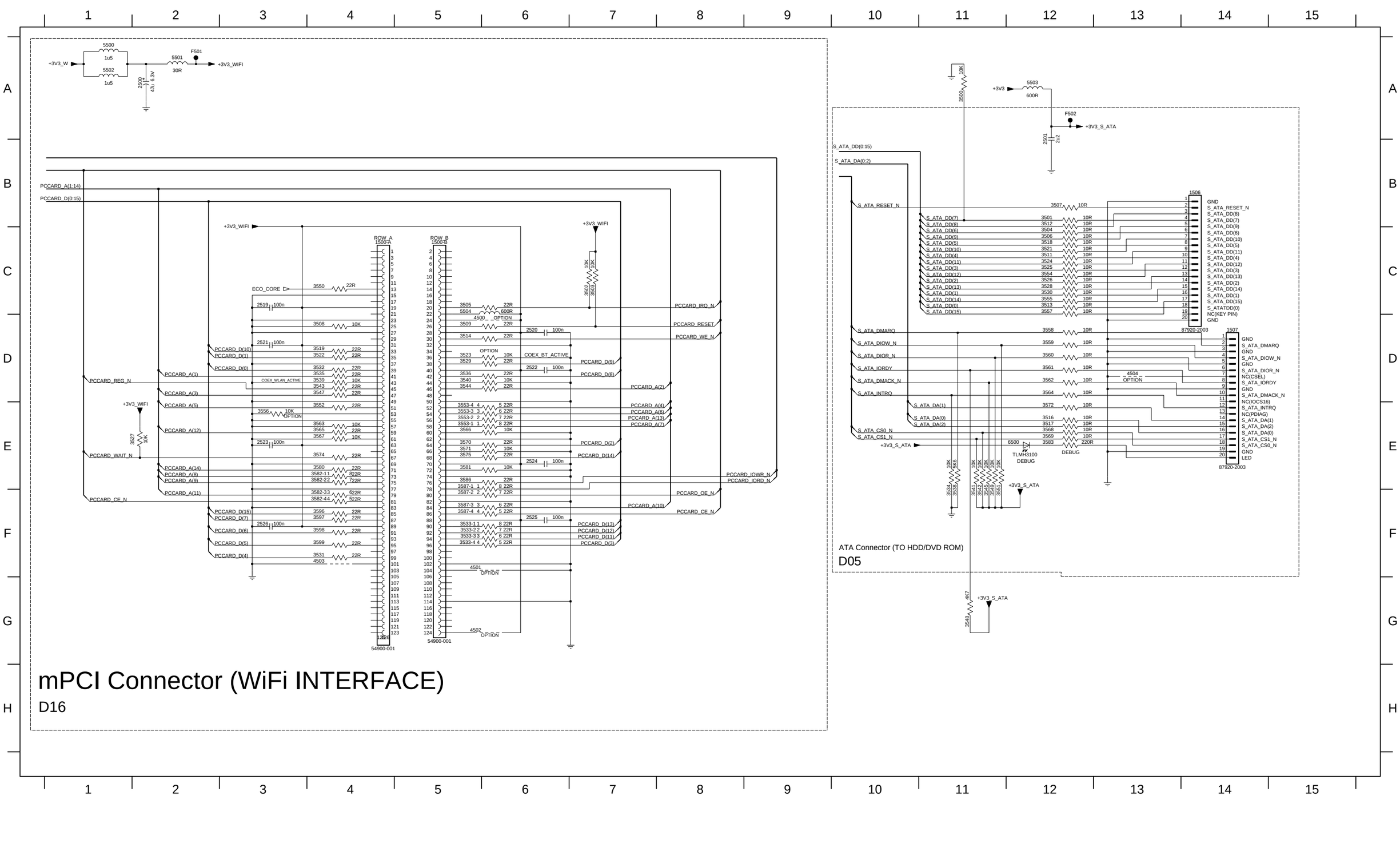


1106 A4
1411 D2
2401 A3
2402 B3
2403 B3
2404 B3
2405 B3
2406 B3
2411 C3
2412 C4
2413 D2
2414 D2
2415 D3
2416 D5
2417 D2
2418 E2
2419 D4
2420 E3
2421 E3
2425 E5
2426 E6
3401 B3
3402 B3
3411 C5
3412 D3
3413 D4
3414 D3
3415 D4
3416 D5
3417 E5
3418 E5
4401 A3
4403 A3
5401 A4
5402 B3
5403 B3
5404 B3
5405 B3
5411 C4
5412 C4
5413 A4
7411 D3
T071 C5

11 - 6

CIRCUIT DIAGRAM - Part 5 (mPCI & ATA Connector)

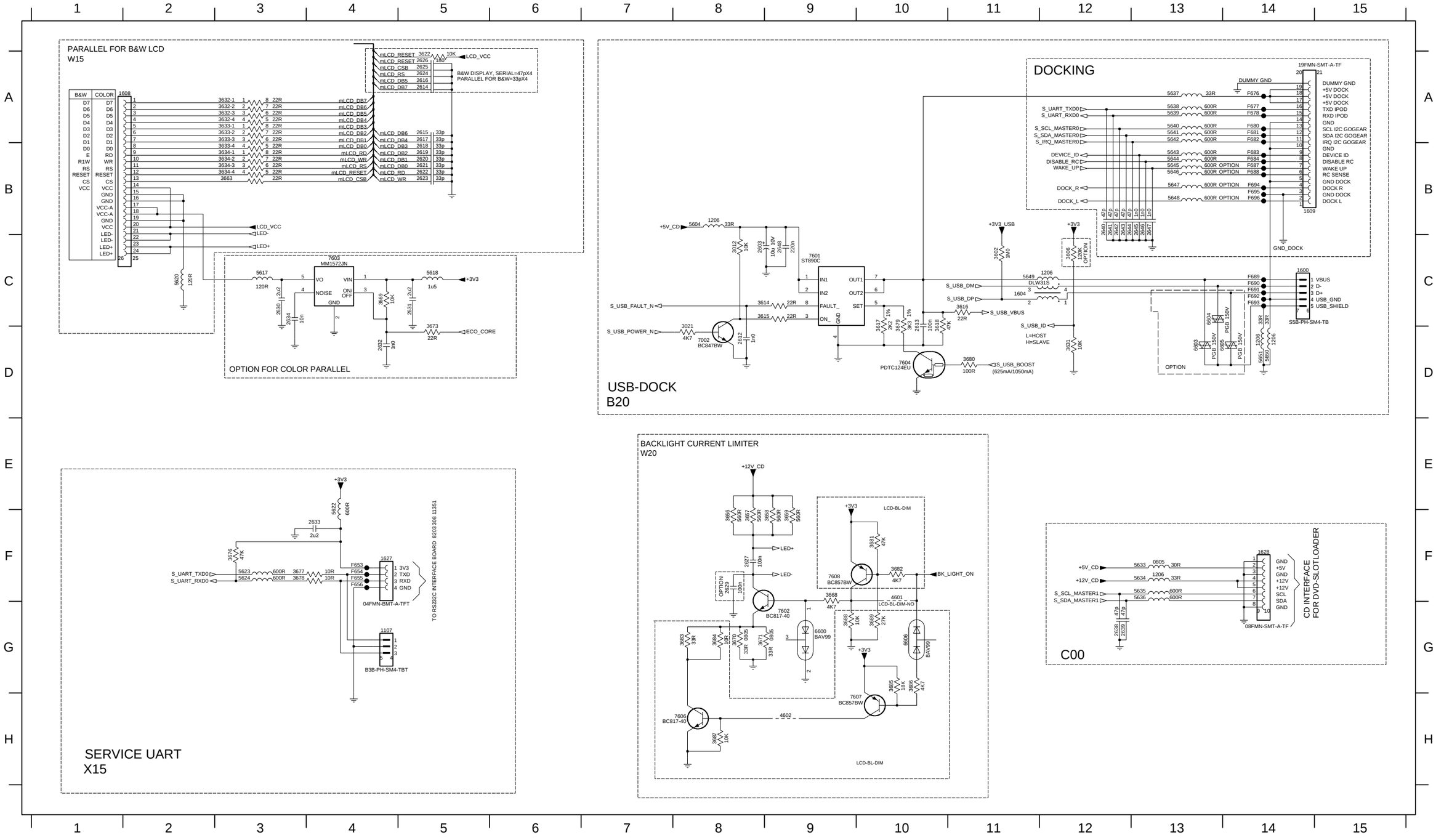
1500-A C4	2500 A2	2521 D3	2525 F6	3502 C7	3506 C12	3511 C12	3516 E12	3521 C12	3525 C12	3529 D5	3533-1 F5	3534 F11	3539 D4	3543 D4	3548 G11	3552 E4	3553-4 E5	3557 C12	3561 D12	3565 E4	3569 E12	3574 E4	3582-1 E4	3583 E12	3587-3 F5	3598 F4	4502 G5	5501 A2	6500 E12
1500-B C5	2501 A12	2522 D6	2526 F3	3503 C7	3507 B12	3512 B12	3517 E12	3522 D4	3526 C12	3530 C12	3533-2 F5	3535 D4	3540 D5	3544 D5	3549 F11	3553-1 E5	3554 C12	3558 D12	3562 D12	3566 E5	3570 E5	3575 E5	3582-2 E4	3586 E5	3587-4 F5	3599 F4	4503 F4	5502 A1	F501 A2
1506 B14	2519 C3	2523 E3	3500 A11	3504 C12	3508 D4	3513 C12	3518 C12	3523 D5	3527 E2	3531 F4	3533-3 F5	3536 D5	3541 F11	3545 F11	3550 C4	3553-2 E5	3555 C12	3559 D12	3563 E4	3567 E4	3571 E5	3580 E4	3582-3 F4	3587-1 E5	3596 F4	4500 D5	4504 D13	5503 A12	F502 A12
1507 D14	2520 D6	2524 E6	3501 B12	3505 C5	3509 D5	3514 D5	3519 D4	3524 C12	3528 C12	3532 D4	3533-4 F5	3538 F11	3542 F11	3547 D4	3551 F11	3553-3 E5	3556 E3	3560 D12	3564 D12	3568 E12	3572 E12	3581 E5	3582-4 F4	3587-2 F5	3597 F4	4501 F5	5500 A1	5504 C5	



11 - 7

CIRCUIT DIAGRAM - Part 6 (I/O Interface)

1107 G4 1627 F4 2614 A5 2619 B5 2624 A5 2630 C3 2638 G12 2643 B12 2648 C9 3614 C8 3622 A5 3632-4 A3 3634-1 B3 3657 F8 3669 C4 3677 F3 3682 F10 3687 H8 5604 B8 5623 F3 5636 F13 5641 A13 5646 B13 5651 D14 6606 G10 7604 D10 F654 F4 F678 A14 F684 B14 F691 C14 F696 B14
1600 C14 1628 F14 2615 A5 2620 B5 2625 A5 2631 C5 2639 G12 2644 B13 3012 C8 3615 C8 3631 D12 3633-1 A3 3634-2 B3 3658 F9 3670 G8 3678 F3 3683 G8 3688 G9 3689 G10 5617 C5 5624 F3 5637 A13 5642 A13 5647 B13 5648 B13 6600 G9 6603 D13 7002 D8 7606 H8 F655 F4 F680 A14 F687 B14 F692 C14
1604 C11 2603 C8 2616 A5 2621 B5 2626 A5 2632 D4 2640 B12 2645 B13 3021 D8 3616 C11 3632-1 A3 3633-2 A3 3634-3 B3 3659 F9 3671 G8 3679 C10 3684 G8 3689 G10 5618 C5 5625 F13 5638 A13 5643 B13 5648 B13 6601 C9 7607 H10 F656 F4 F681 A14 F688 B14 F693 C14
1608 A2 2612 D8 2617 A5 2622 B5 2627 F8 2633 F4 2641 B12 2646 B13 3602 C11 3617 C10 3632-2 A3 3633-3 A3 3634-4 B3 3660 G9 3672 F3 3680 D11 3685 G10 4601 F10 5620 C2 5634 F13 5639 A13 5644 B13 5649 C11 6604 C13 7602 G9 7608 F9 F676 A14 F682 A14 F689 C14 F694 B14
1609 B14 2613 C10 2618 B5 2623 B5 2629 F8 2634 C3 2642 B12 2647 B13 3606 C12 3618 C10 3632-3 A3 3633-4 B3 3656 F8 3668 F9 3676 F3 3681 F10 3686 G10 4602 H9 5622 E4 5635 F13 5640 A13 5645 B13 5650 D14 6605 D14 7603 C4 F653 F4 F677 A14 F683 B14 F690 C14 F695 B14



Ref Des	LCD-BL-DIM	LCD-BL-DIM-NO
3670	319802151010 0805 100R	319802153390 0805 33R

BK_LIGHT_ON	DIM NO	DIM
1	ON	OFF
HZ	-	MEDIUM
0	OFF	HIGH

11 - 8

CIRCUIT DIAGRAM - Part 7 (AF Part)

DIGITAL AUDIO OUTPUT
U70

iPOD ISOLATION(GND)
M70

SOURCE SELECTOR
M00

LINE IN ISOLATION(GND)
M60

AF OUT ISOLATION(GND)
M50

S10

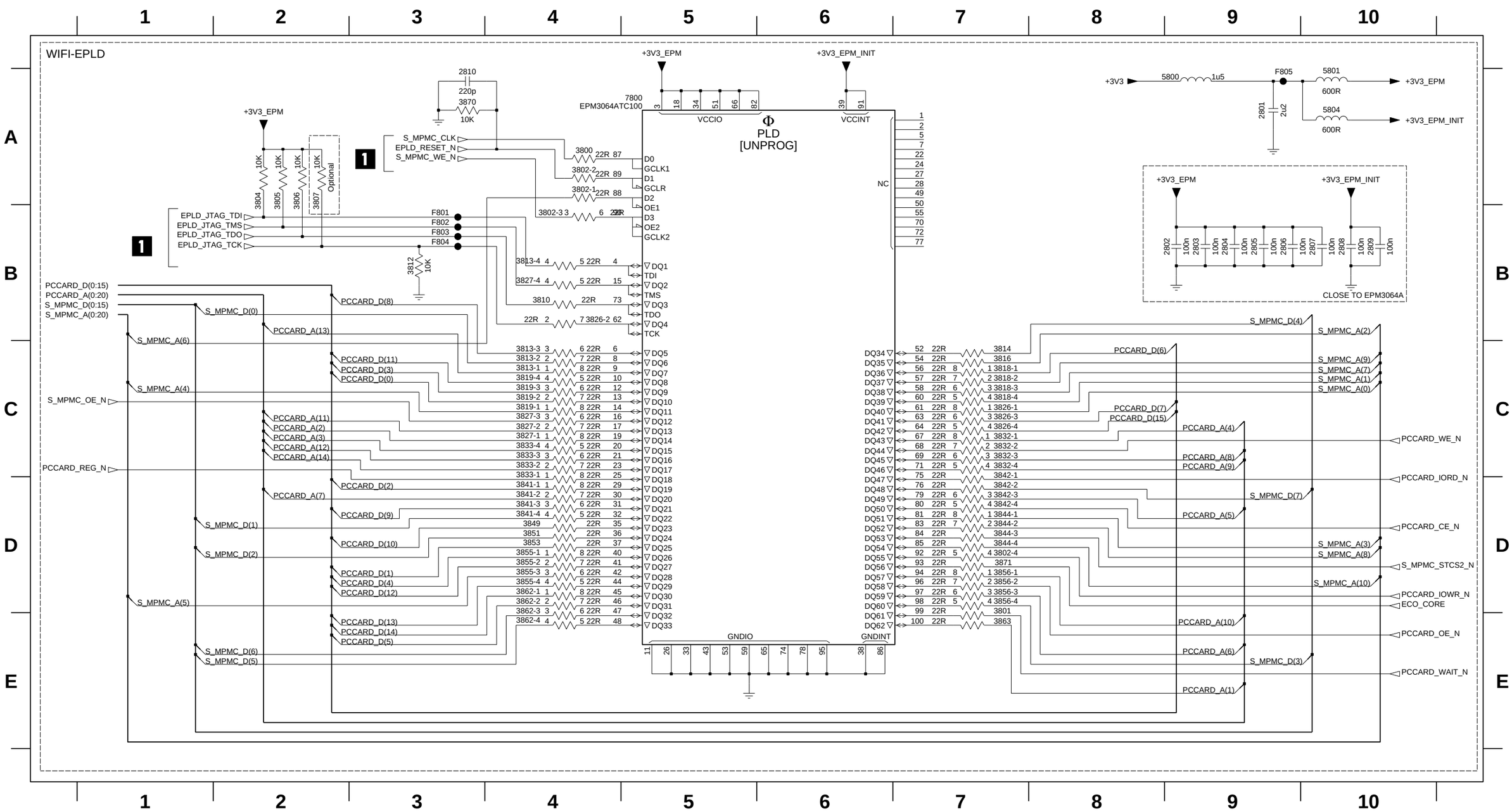
S10

AF OUT
D00

11 - 9

CIRCUIT DIAGRAM - Part 8 (PLD)

2801 A9	2806 B9	3800 A4	3802-4 D7	3810 B4	3813-4 B4	3818-3 C7	3819-4 C4	3827-1 C4	3832-2 C7	3833-3 C4	3841-4 D4	3844-1 D7	3851 D4	3855-4 D4	3862-1 D4	3870 A3	7800 A5	F805 A9
2802 B9	2807 B10	3801 E7	3804 A2	3812 B3	3814 C7	3818-4 C7	3826-1 C7	3827-2 C4	3832-3 C7	3833-4 C4	3842-1 D7	3844-2 D7	3853 D4	3856-1 D7	3862-2 D4	3871 D7	F801 B3	
2803 B9	2808 B10	3802-1 A4	3805 A2	3813-1 C4	3816 C7	3819-1 C4	3826-2 B4	3827-3 C4	3832-4 C7	3841-1 D4	3842-2 D7	3844-3 D7	3855-1 D4	3856-2 D7	3862-3 E4	5800 A9	F802 B3	
2804 B9	2809 B10	3802-2 A4	3806 A2	3813-2 C4	3818-1 C7	3819-2 C4	3826-3 C7	3827-4 B4	3833-1 D4	3841-2 D4	3842-3 D7	3844-4 D7	3855-2 D4	3856-3 D7	3862-4 E4	5801 A10	F803 B3	
2805 B9	2810 A3	3802-3 B4	3807 A2	3813-3 C4	3818-2 C7	3819-3 C4	3826-4 C7	3832-1 C7	3833-2 C4	3841-3 D4	3842-4 D7	3849 D4	3855-3 D4	3856-4 D7	3863 E7	5804 A10	F804 B3	



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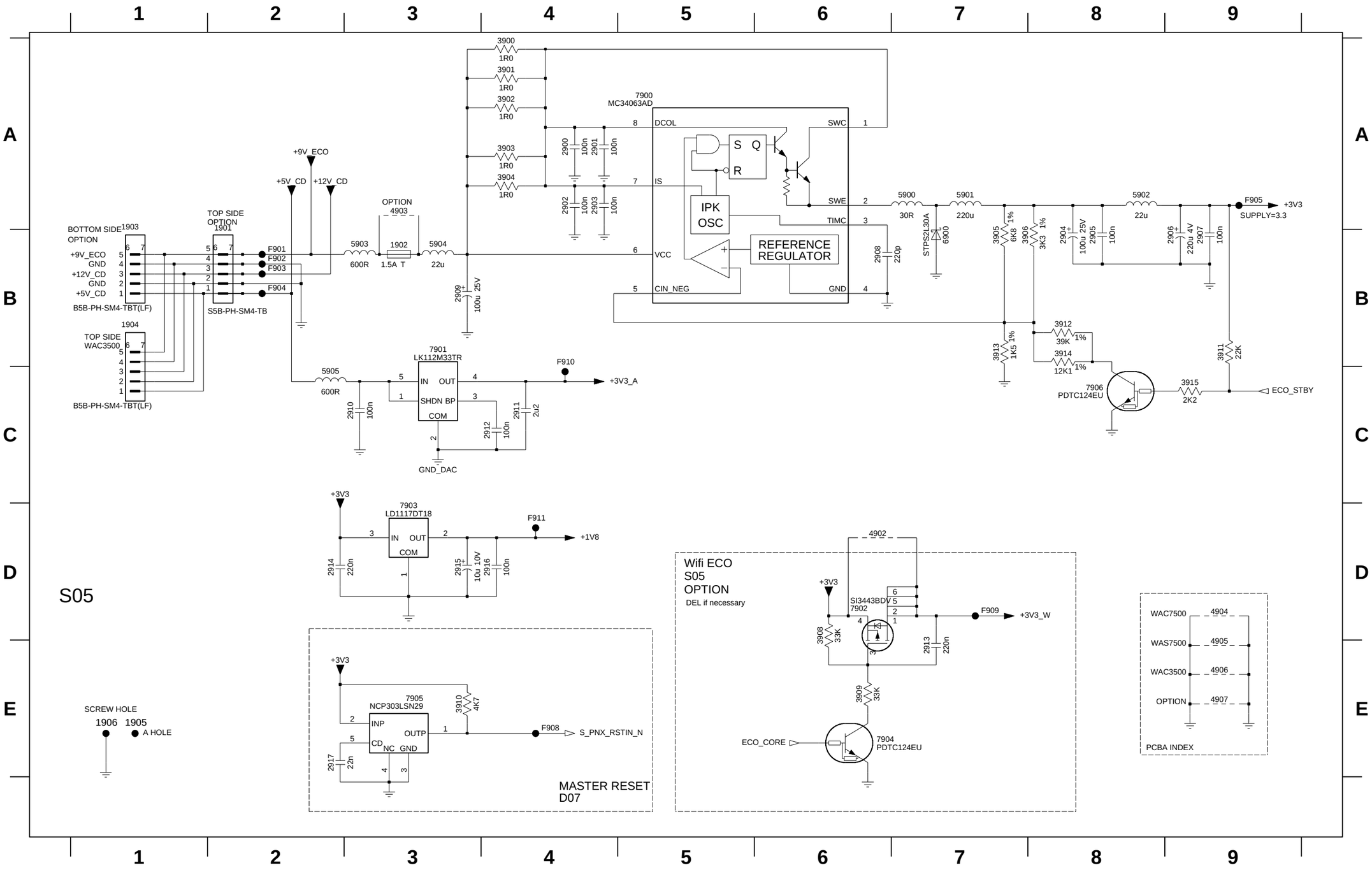
CIRCUIT DIAGRAM - Part 9 (SUPPLY)



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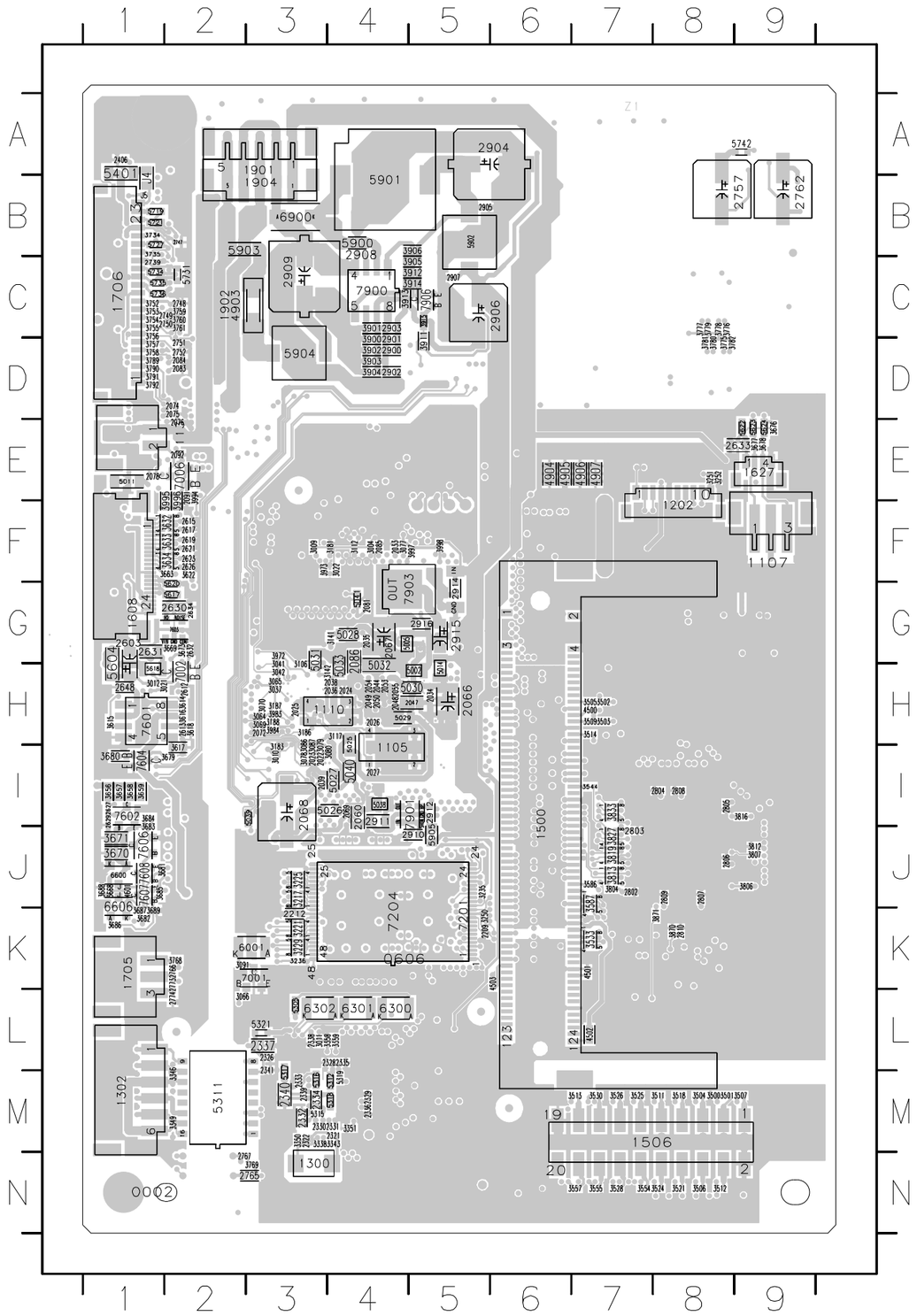
LAYOUT DIAGRAM (side A)



J4	B1	2627	I1	3251	E8	3777	C8	5719	B1						
J5	B1	2629	I1	3252	E8	3778	C8	5721	B1						
0002	N1	2630	G2	3338	M3	3779	C8	5727	B1						
0606	K4	2631	G1	3343	M4	3780	D8	5731	C2						
1105	I4	2632	G2	3346	M2	3781	D8	5734	C1						
1107	F9	2633	E9	3349	M2	3782	D8	5735	C1						
1110	H4	2634	G2	3350	M3	3789	D1	5736	C1						
1113	E2	2648	H1	3351	M4	3790	D1	5742	A9						
1202	F8	2739	C1	3358	L4	3791	D1	5900	B4						
1300	N3	2747	B2	3359	L4	3792	D1	5901	B4						
1302	M1	2748	C2	3500	M8	3804	J7	5902	B5						
1500	I6	2749	C2	3501	M8	3806	J9	5903	B2						
1506	M7	2750	C2	3502	H7	3807	J9	5904	D3						
1608	G1	2751	D2	3503	H7	3812	J9	5905	J5						
1627	E9	2752	D2	3504	M8	3813	J7	6001	K3						
1705	K1	2757	B9	3505	H7	3816	I9	6300	L4						
1706	C1	2762	B9	3506	N8	3819	J7	6301	L4						
1901	A3	2765	N3	3507	M9	3827	J7	6302	L3						
1902	C2	2766	K2	3509	H7	3833	I7	6600	J1						
1904	B3	2767	N2	3511	M8	3870	K8	6606	J1						
2022	I3	2773	K2	3512	N8	3871	K8	6900	B3						
2023	I3	2774	L2	3513	M7	3900	D4	7001	K3						
2024	H4	2802	J7	3514	H7	3901	C4	7002	H2						
2025	H3	2803	J7	3518	M8	3902	D4	7006	E2						
2026	H4	2804	I8	3521	N8	3903	D4	7201	K5						
2027	I4	2805	I8	3524	N8	3904	D4	7204	K4						
2033	F4	2806	J8	3525	M7	3905	C5	7601	H1						
2034	H5	2807	J8	3526	M7	3906	B5	7602	I1						
2035	G4	2808	I8	3528	N7	3911	D5	7603	G2						
2036	H4	2809	J8	3530	M7	3912	C5	7604	I1						
2038	H4	2810	K8	3533	K7	3913	C4	7606	J1						
2039	I3	2900	D4	3544	I7	3914	C5	7607	J1						
2044	H4	2901	D4	3554	N7	3915	C5	7608	J1						
2047	H5	2902	D4	3555	N7	3972	G3	7900	C4						
2048	H4	2903	C4	3557	N7	3973	F3	7901	I5						
2049	H4	2904	A6	3586	J7	3983	H3	7903	G5						
2050	H4	2905	B5	3587	J7	3984	H3	7906	C5						
2053	H4	2906	C6	3614	H2	3994	E2								
2054	H4	2907	C5	3615	H1	3995	E2								
2055	H4	2908	B4	3616	H2	3996	F2								
2060	I4	2909	C3	3617	I2	3997	F5								
2066	H5	2910	J5	3618	H2	3998	F5								
2067	G4	2911	I4	3622	F2	4500	H7								
2068	I3	2912	I5	3632	F2	4501	K7								
2069	I4	2914	G5	3633	F2	4502	L7								
2072	H3	2915	G5	3634	F2	4503	K6								
2074	D2	2916	G5	3656	I1	4601	J1								
2075	D2	3004	F4	3657	I1	4903	C2								
2076	E2	3009	F3	3658	I1	4904	E6								
2078	E1	3010	I3	3659	I1	4905	E6								
2081	G4	3011	L3	3663	F2	4906	E7								
2083	D2	3012	H1	3668	J1	4907	E7								
2084	D2	3021	H1	3669	G2	5002	H5								
2085	F4	3022	F4	3670	J1	5005	G4								
2086	G4	3037	H3	3671	J1	5011	E1								
2091	E2	3041	H3	3673	G2	5014	H5								
2092	E2	3042	H3	3676	E9	5025	H4								
2209	K5	3064	H3	3677	E9	5026	I4								
2212	K3	3065	H3	3678	E9	5027	I4								
2321	M4	3066	L2	3679	I2	5028	G4								
2322	M3	3069	H3	3680	I1	5029	H4								
2326	L3	3070	H3	3681	J1	5030	H5								
2328	L4	3077	F4	3682	K1	5031	G3								
2329	M4	3078	I3	3683	J1	5032	H4								
2330	M3	3079	I3	3684	I1	5033	H4								
2331	M4	3080	I4	3685	J1	5038	I4								
2332	M3	3086	I3	3686	K1	5039	I3								
2333	M3	3087	I3	3687	K1	5040	I4								
2334	M3	3091	K2	3688	J1	5041	G4								
2335	L4	3106	H3	3689	K1	5305	L3								
2336	M4	3112	F4	3734	B1	5311	M2								
2337	L3	3117	H4	3735	B1	5312	M4								
2338	L3	3141	G4	3752	C1	5315	M3								
2339	M3	3142	H4	3753	C1	5316	M3								
2340	M3	3181	F4	3754	C1	5317	M3								
2341	L3	3183	I3	3755	C1	5318	M4								
2406	A1	3186	H3	3756	C1	5319	M4								
2603	G1	3187	H3	3757	D1	5321	L3								
2612	H2	3188	H3	3758	D1	5401	A1								
2613	H2	3217	J3	3759	C2	5604	G1								
2615	F2	3221	K3	3760	C2	5617	G2								
2617	F2	3225	J3	3761	C2	5618	H1								
2619	F2	3229	K3	3768	K2	5620	G2								
2621	F2	3235	J5	3769	N3	5622	E9								
2623	F2	3236	K3	3775	D8	5623	E9								
2626	F2	3250	K5	3776	C8	5624	E9								

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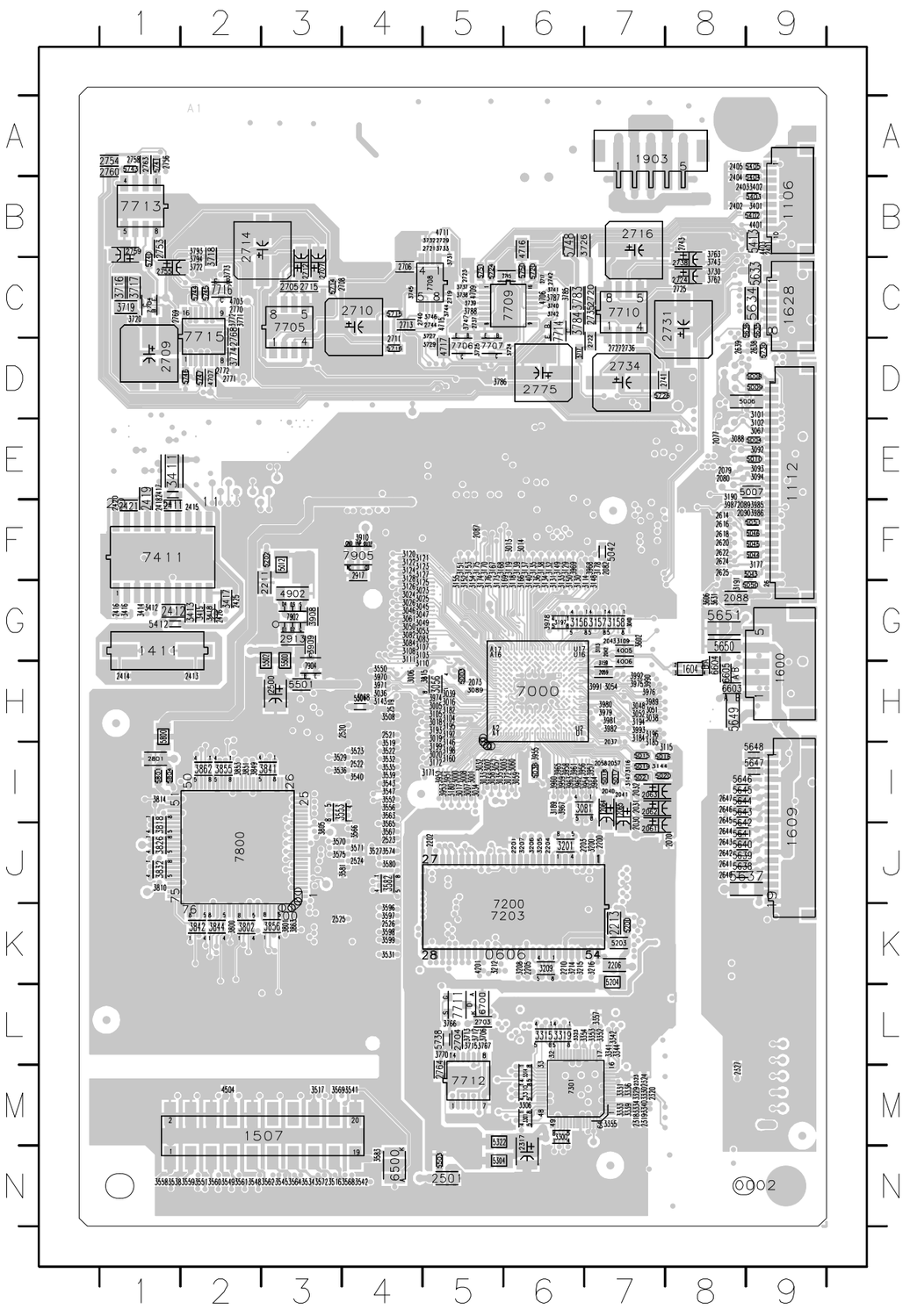
LAYOUT DIAGRAM (side B)



1106	B9	2625	F8	3033	I5	3158	G7	3534	N3	3784	C6	5010	E9	7704	C1
1112	E9	2638	D9	3034	I5	3159	H7	3535	I4	3785	C6	5012	F3	7705	C3
1411	G1	2639	D8	3035	I5	3160	I5	3536	I3	3786	D5	5015	I7	7706	D5
1507	M3	2640	J8	3036	H4	3166	G6	3538	N1	3787	C6	5016	I7	7707	D5
1600	H9	2641	J8	3038	H7	3167	F5	3539	I4	3788	C5	5017	I7	7708	C5
1604	H8	2642	J8	3039	H5	3168	F5	3540	I4	3793	B2	5018	I7	7709	C6
1609	J9	2643	J8	3040	G7	3169	G6	3541	M4	3794	C2	5019	I7	7710	C7
1628	C9	2644	J8	3045	G4	3170	F5	3542	N4	3800	K2	5020	I7	7711	L5
1903	A7	2645	I8	3046	G4	3171	I5	3543	I4	3801	K3	5021	I7	7712	M5
2030	J7	2646	I8	3047	G4	3172	I5	3545	N3	3802	K2	5036	I6	7713	B1
2031	I7	2647	I8	3048	H7	3173	G5	3547	I4	3805	J3	5042	F7	7714	C6
2032	I7	2703	L5	3049	G4	3174	G5	3548	N2	3810	J1	5043	F9	7715	C2
2037	I7	2704	L5	3050	G4	3175	F5	3549	N2	3814	I1	5044	F9	7716	C2
2040	I7	2705	C3	3051	H7	3176	G5	3550	H4	3818	J1	5045	F9	7800	J2
2041	I7	2706	C4	3052	H7	3177	F9	3551	N2	3826	J1	5046	F9	7902	G3
2042	G7	2707	C3	3053	G4	3178	F7	3552	I4	3832	J1	5050	G9	7904	H3
2043	G7	2708	C3	3054	H7	3180	I5	3553	I3	3841	I3	5051	F9	7905	F4
2057	I7	2709	D1	3056	H5	3182	H5	3556	I4	3842	K2	5200	K7		
2058	I7	2710	C4	3057	I5	3184	H7	3558	N1	3844	K2	5202	F3		
2059	H7	2711	D4	3058	I5	3185	I7	3559	N2	3849	I2	5203	K7		
2061	J7	2712	C3	3059	I6	3188	I6	3560	N2	3851	I2	5204	K7		
2062	I7	2713	C4	3060	I6	3190	E8	3561	N2	3853	I2	5304	N5		
2063	I7	2714	B2	3061	G4	3191	G8	3562	N3	3855	I2	5322	M5		
2064	I7	2715	C3	3067	E9	3192	H5	3563	I4	3856	K3	5402	B9		
2065	I7	2716	B7	3068	H4	3193	H5	3564	N3	3862	I2	5403	B9		
2070	J8	2717	C6	3072	I6	3194	H7	3565	J4	3863	K3	5404	B9		
2073	H5	2719	C5	3081	I6	3195	H5	3566	J4	3908	G3	5405	A9		
2077	E8	2720	C7	3082	G4	3196	H7	3567	J4	3909	G3	5411	F1		
2079	E8	2721	B5	3083	G4	3197	G6	3568	N4	3910	F4	5412	G1		
2080	E8	2722	D7	3084	G4	3198	I5	3569	M3	3951	I5	5413	B9		
2082	F7	2723	C5	3088	E8	3199	I5	3570	J3	3952	I5	5500	G3		
2087	F5	2724	C8	3089	H5	3200	J7	3571	J4	3953	I5	5501	H3		
2088	G8	2725	C8	3092	E9	3201	J6	3572	N3	3954	I7	5502	G3		
2089	E8	2727	D7	3093	E9	3205	J6	3574	J4	3955	I6	5503	N5		
2090	F8	2729	B5	3094	E9	3206	J6	3575	J3	3956	I6	5504	H4		
2200	J7	2731	C8	3101	D9	3207	J6	3580	J4	3957	I7	5633	C9		
2201	J6	2734	D7	3102	E9	3208	K6	3581	J4	3958	I6	5634	C9		
2202	J5	2735	C7	3103	G4	3209	K6	3582	J4	3959	I6	5635	C9		
2203	J6	2736	D7	3104	H5	3212	K5	3583	N4	3960	I6	5636	C9		
2204	J6	2737	C5	3105	H5	3214	K6	3596	K4	3961	I6	5637	J9		
2205	K6	2738	C8	3107	G4	3215	K6	3597	K4	3962	I6	5638	J8		
2206	K7	2740	C4	3108	G4	3216	K7	3598	K4	3963	I6	5639	J8		
2210	K6	2741	D7	3109	G7	3300	M6	3599	K4	3964	I7	5640	J8		
2211	G3	2742	C6	3110	H4	3301	M6	3602	G7	3965	I6	5641	J8		
2213	K7	2743	B8	3111	G4	3306	M6	3606	G8	3967	I6	5642	J8		
2317	M6	2744	C5	3113	G7	3310	M6	3631	G8	3968	F7	5643	I8		
2318	M7	2745	C6	3114	G7	3314	M6	3706	L5	3969	F6	5644	I8		
2319	M7	2753	B1	3115	I8	3315	L6	3712	L5	3970	H4	5645	I8		
2320	M7	2754	A1	3116	I7	3319	L6	3713	L5	3971	H4	5646	I8		
2323	M7	2755	C1	3118	G6	3323	L6	3715	L5	3974	H5	5647	I9		
2324	M7	2756	A1	3119	F6	3329	M7	3716	C1	3975	H7	5648	I9		
2327	M8	2758	A1	3120	F4	3330	M7	3717	C1	3976	H7	5649	H8		
2401	B9	2759	B1	3121	F4	3331	M7	3718	B2	3978	G6	5650	G8		
2402	B8	2760	A1	3122	F4	3333	M7	3719	C1	3979	H7	5651	G8		
2403	B8	2763	A1	3123	F4	3334	M7	3720	C1	3980	H7	5714	C3		
2404	B8	2764	M5	3124	F4	3336	M7	3722	C2	3981	H7	5715	C4		
2405	A8	2768	C2	3125	G4	3339	M7	3724	D6	3982	H7	5716	D4		
2411	F1	2769	C1	3126	G4	3340	M7	3725	D5	3985	F9	5717	D6		
2412	G1	2770	C2	3127	F4	3341	L7	3726	B6	3986	F9	5720	C6		
2413	H2	2771	D2	3128	F4	3342	L7	3727	C5	3987	F8	5724	C5		
2414	H1	2772	D2	3129	F6	3344	L7	3729	D5	3989	H7	5726	D7		
2415	F2	2775	D6	3130	G6	3352	L7	3730	C8	3990	H7	5730	D9		
2416	G1	2801	I1	3131	G6	3353	L7	3731	C5	3991	H7	5738	L5		
2417	F1	2913	G3	3132	F6	3354	L6	3732	B5	3992	H7	5740	C1		
2418	F1	2917	F4	3133	G6	3355	M7	3733	B5	3993	H7	5741	A1		
2419	F1	3000	I5	3134	G6	3357	L7	3737	C5	4005	G7	5743	A1		
2420	F1	3001	I5	3135	F6	3401	B9	3738	C5	4006	H7	5744	C2		
2421	F1	3002	I5	3136	G6	3402	B9	3739	C5	4201	K5	5745	C2		
2425	G2	3003	I6	3137	F6	3411	E1	3740	C6	4401	B9	5746	D2		
2426	G2	3005	H5	3138	F6	3412	G1	3741	C6	4403	B9	5747	D2		
2500	H3	3006	H4	3139	F6	3413	G2	3742	C6	4504	M2	5748	B6		
2501	N5	3007	I5	3140	G6	3414	G1	3743	C8	4703	C2	5750	C6		
2519	H4	3008	I5	3143	H4	3415	G2	3744	C5	4706	C6	5751	C5		
2520	H4	3013	F6	3144	I7	3416	G1	3745	C4	4707	D2	5800	H1		
2521	H4	3014	F6	3146	I5	3417	G2	3746	C5	4709	C5	5801	I1		
2522	I4	3015	H5	3147	I7	3418	G2	3747	C5	4711	B5	5804	I1		
2523	J4	3016	H5	3148	G7	3508	H4	3762	C8	4715	C5	6500	N4		
2524	J4	3017	I5	3149	F6	3516	N3	3763	B8	4716	B6	6603	H8		
2525	K3	3018	H5	3150	G6	3517	M3	3766	L5	4717	D5	6604	H8		
2526	K4	3019	H5	3151	F5	3519	I4	3767	L5	4902	G3	6605	H8		
2614	F8	3020	I5	3152	G5	3522	I4	3770	L5	5003	H5	6700	L5		
2616	F8	3023	G4	3153	F5	3523	I4	3771	C2	5004	E9	7000	H6		
2618	F8	3024	G4	3154	G5	3527	J4	3772	C2	5006	D9	7200	K6		
2620	F8	3025	G4	3155	G5	3529	I3	3773	C2	5007	E9	7203	K6		
2622	F8	3026	G4	3156	G6	3531	K4	3774	D2	5008	D9	7301	M6		
2624	F8	3032	I5	3157	G7	3532	I4	3783	C6	5009	D9	7411	F1		

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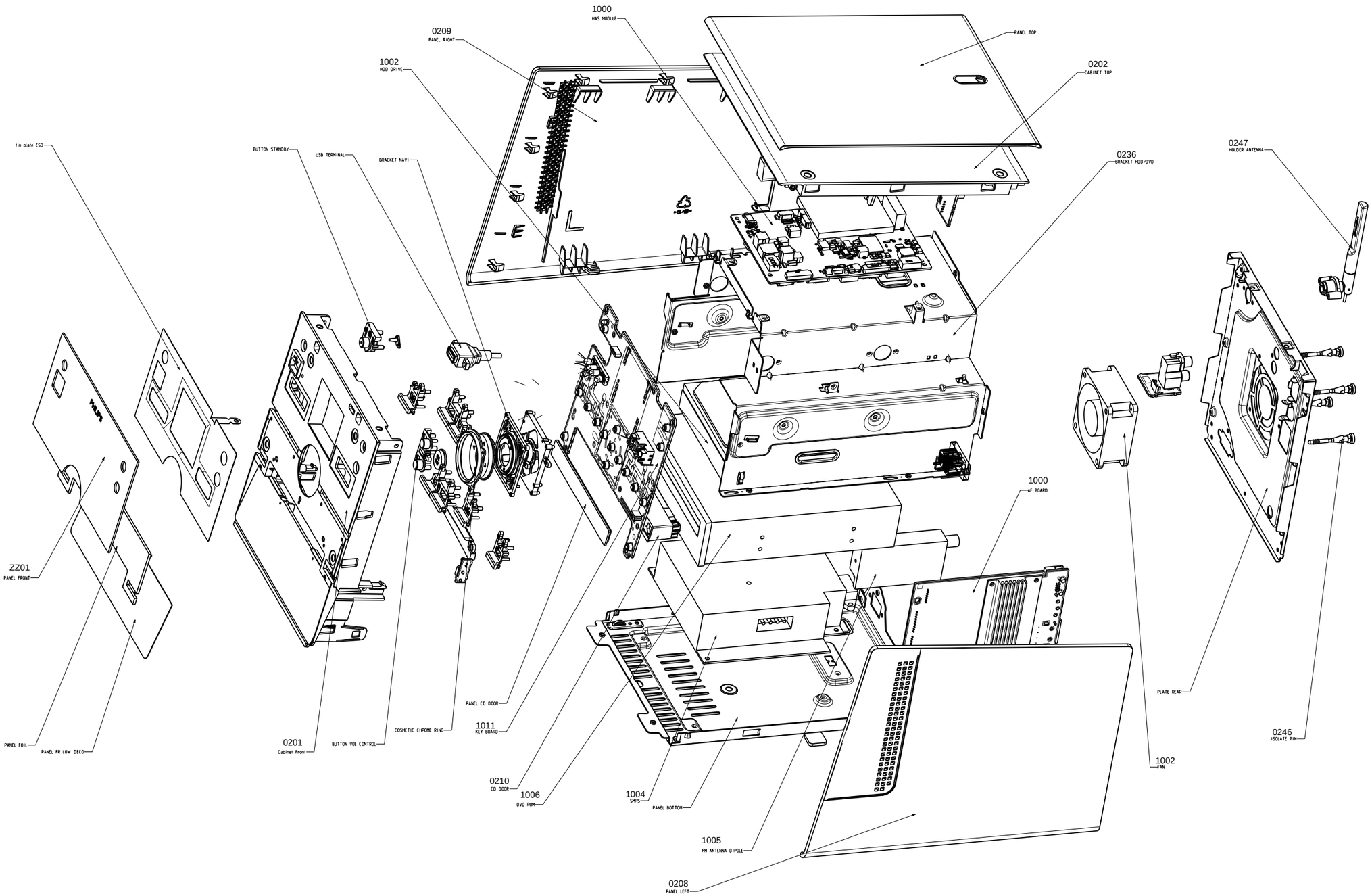
EXPLODED VIEW DIAGRAM



ACCESSORIES PARTS LIST

0455	2422 076 00652	CBLE CINCH 1M5 CINCH WHRD B
0456	2422 076 00687	ANT FM DIP SD-2380 B
0457	3141 078 70301	INSTALLER-SW(CDR) WAC-3500D/12
0458	2422 076 00569	CBLE LAN 1M5 LAN RJ45 B
0460	3139 238 14861	PROD ASSY RC2023612/01 PKD
0469 ⚠	2422 070 98151	MAINSCORD EUR 2A5 1M5 DET 2P B
0469 ⚠	2422 070 98248	MAINSCORD AUS/NZ 1M5 DET 2P B
0469 ⚠	2422 070 98151	MAINSCORD EUR 2A5 1M5 DET 2P B
0469 ⚠	2422 070 98147	MAINSCORD UK 2A5 1M5 DET 2P B
0470	3141 078 50181	BOX SPK ASSY WAC3500D
0471	3141 078 70321	Docking DC1050/00

MECHNICAL & ELECTRICAL PARTS LIST

0201	3141 077 51181	CAB F PRE-ASSY WAC3500D/12
0202	3141 077 51191	CABINET TOP PRE-ASSY WAC3500D
0208	3141 074 03761	PANEL LEFT WAC3500/12
0209	3141 074 03771	PANEL RIGHT WAC3500/12
0210	3141 077 51201	CD DOOR PRE-ASSY WAC3500D
0211	3141 074 01841	FOOT RUBBER WAC5
0236	3141 071 20641	BRACKET HDD/DVD WAC3500
0237	3141 074 04311	DAMPER HDD D25 WAC3500D
0245	3141 074 04301	PAD SMPS WAC3500D
0246	3141 074 04331	ISOLATOR PIN WAC3500D
0247	3141 074 03851	HOLDER ANTENNA WAC3500D
1000	3141 078 02311	PBAS AF & AMP WAC3500D/RDS
1002	2822 031 00065	FAN 12VDC 0.8W 3100RPM B
1000	3141 078 02381	PBAS HasLi-07(WAC3K5D_EU_RDS)
1003	2822 065 01728	WMOD WIFIG MPCI MP-G-BR-05 Y
1002	3141 070 50421	PRG. ASSY HDD WAC3500D V1.0
1004 ⚠	3141 078 50171	SMPS 135VA - WAC3500D/55
1004 ⚠	3141 078 50231	SMPS 135VA - WAC3500D/05
1005	2422 542 00049	TUN FM ENG07826QF EUR B
1006	3141 070 50401	PRG.ASSY DVDROM SHD-16P1S
1006	3141 070 50411	PRG.ASSY DVDROM LH-16D1P
1007	2722 171 00524	LCD MODULE PCE2035-02 (VARI) Y
1008	2422 076 00717	ANT WIFI 2450MHZ 50R Y
1009	2422 549 00668	ANT WIFI WAS5 B
1011	3141 078 02331	PBAS Keys & IR WAC3500D
1012	3141 078 02341	PBAS - AUDIO in/out WAC3500D
1013	3141 078 02351	PBAS 7 - Headphone WAC3500D
1014	3141 078 02361	PBAS 6 - WiFi-light WAC3500D
8003	3141 070 21691	FFC 10P/430/10P BD 1.25mm FOLD
8007	3141 070 21711	FFC 19P/180/19P BD 1MMP FOLD
8008	3141 070 21681	FFC 23P/200/23P 1MM BD FOLD
8011	3141 070 21701	FFC 26P/280/26P BD 1MM FOLD
8012	3141 070 21621	CBLE 5P PH/250 /USB-A (REC)
8013	3141 070 21721	CBLE IDE 40P/165/20P
8017	3141 070 21661	CBLE PH 02P/340/02P PH 26ST BK
ZZ01	3141 079 43291	PANEL FRONT WAC3500

Note: Only these parts mentioned in the list are normal service parts.