DVD Micro theatre

MCD759

all versions

Service
Service
Service

Service Manual

TABLE OF CONTENTS

**CLASS 1
LASER PRODUCT**

Version 1.1

PHILIPS

HANDLING CHIP COMPONENTS

GENERAL

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

SERVICE PACKAGE

DISMOUNTING

VACUUM PISTON
4822 395 10082
SOLDERING IRON
e.g. WELLER
solder tip PT-H7

A

SOLDERING IRON
SOLDER WICK
4822 321 40042

e.g. A PAIR OF TWEEZERS

HEATING   HEATING

B

SOLDERING IRON
CLEANING
SOLDER WICK

C

PRECAUTIONS

SOLDERING IRON
CORRECT
COPPER TRACK

SOLDERING IRON
CHIP COMPONENT

MOUNTING

e.g. A PAIR OF TWEEZERS

A

SOLDER
∅0.5-0.8mm
SOLDERING IRON   PRESSURE

SOLDERING TIME   SOLDER
<3 sec/side   ∅0.5-0.8mm
PRESSURE   SOLDERING IRON

B

EXAMPLES

CORRECT

SOLDERING IRON
NOI
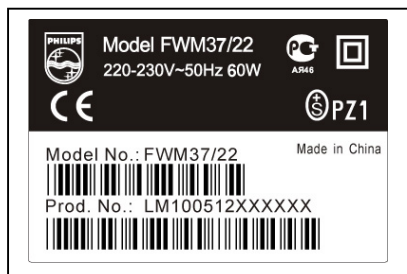
ESD

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:

Example S/N:

PHILIPS Model FWM37/22
220-230V~50Hz 60W
CE ⑤PZ1
Model No.: FWM37/22 Made in China
‖‖‖‖‖‖‖‖‖‖‖‖‖‖
Prod. No.: LM100512XXXXXX
‖‖‖‖‖‖‖‖‖‖‖‖‖‖

Bottom line of typeplate gives a 14-digit S/N. Digit 5&6 is the year, digit 7&8 is the week number, so in this case 2005 wk12

So from ⟨0501⟩ onwards = from 1 Jan 2005 onwards

Important note: In fact also products of year 2004 must be treated in this way as long as you avoid mixing solder-alloys (leaded/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.

- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
  o To reach at least a solder-temperature of 400°C,
  o To stabilize the adjusted temperature at the solder-tip
  o 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 un-used 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.

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.

TECHNICAL SPECIFICATIONS

SYSTEM

Power supply ....-/98   110 – 127 / 220 – 240 V;
.... 50/60 Hz Switchable
Power supply ....-/93   220 /50Hz;
Rated working power consumption (1/8 rated
output power) ....≤ 52W
AUX input sensitivity ....≤ 350mV
Channel Separation ....≥ 40dB
Distortion 0.7%

DVD

Frequency response .... 100Hz-20kHz (±1dB)
Video output ....1 V_{P-P}
Horizontal definition ....≥ 500 (TV)
Dimensions .... 232 (W) × 75.5 (H) × 223.5 (D) mm
Weight .... 1.85 kg

AMPLIFIER

Rated output power (THD = 10%) ....
.... 5 ×22W (8 Ω)+1×50W (4Ω)
Frequency response .... 100Hz-20kHz (±1dB)
S/N Ratio ....≥ 60dB
Loaded impedance .... 8 Ω
Dimensions .... 232 (W) × 75.5 (H) × 223.5 (D) mm
Weight 3.55kg

TUNER

FM Frequency range .... 87.5-108 MHz
FM Noise limit sensitivity ....≤ 20µ V/M
FM S/N ....≥ 46dB
MW Frequency range .... 531-1602 kHz
MW Noise limit sensitivity ....≤ 3.0µ V/m
MW S/N ....≥ 40dB
Tuning grid 9/10kHz

SPEAKERS

Front Speakers

System .... 2-way shielded
Impedance .... 8 Ω
Speaker drivers .... 1× 3'' woofer, ribbon tw
Dimensions (w × h × d)120mm × 268 mm × 103 mm
Weight .... 0.85 kg

Center Speaker

System .... 2-way shielded
Impedance .... 8 Ω
Speaker drivers .... 4 × 2'' woofer, 1.75'' tw
Dimensions (w × h × d) ... 435mm × 85 mm × 70 mm
Weight .... 1.3 kg

Surround Speakers

System .... 2-way shielded
Impedance .... 8 Ω
Speaker drivers .... 1 × 3'' woofer, Pieze
Dimensions (w × h × d) ...... 120 mm × 268 mm × 103 mm
Weight .... 0.61 kg

SUBWOOFER

Subwoofer (not magnetically shielded design) 6.5''
Impedance .... 4 Ω
Dimensions (w × h × d) ...... 350 mm × 360 mm × 185 mm
Weight .... 4.7 kg

REMOTE

Distance 6m
Angle .... ± 30°

Specifications subject to change without prior notice

SERVICE TOOLS

TORX T10 screwdriver with shaftlength 150mm...4822 395 50423
TORX screwdriver set SBC 163...4822 295 50145

Audio signal disc SBC 429...4822 397 30184
Playability test disc SBC 444...4822 397 30245
Test disc 5   (disc without errors) +
Test disc 5A (disc with dropout errors, black spots and fingerprints)
          SBC 426/426A...4822 397 30096
Burn in test disc (65 min. 1kHz signal at -30 dB level without "pause").....4822 397 30155

Universal test cassette Fe SBC 420...4822 397 30071

AVAILABLE ESD PROTECTION EQUIPMENT

|			
anti-static table mat	large	1200x650x1.25mm	4822 466 10953
	small	600x650x1.25mm	4822 466 10958
anti-static wristband			4822 395 10223
connection box (3 press stud connections, 1MΩ)			4822 320 11307
extendible cable (2m, 2MΩ, to connect wristband to connection box)			4822 320 11305
connecting cable (3m, 2MΩ, to connect table mat to connection box)			4822 320 11306
earth cable (1MΩ, to connect any product to mat or to connection box)			4822 320 11308
KIT ESD3 (combining all 6 prior products - small table mat)			4822 310 10671
wristband tester			4822 344 13999

SERVICE MEASUREMENT

Tuner FW
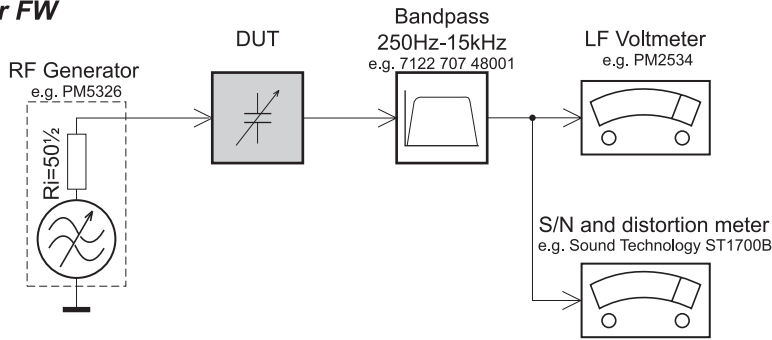
Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilottone (19kHz, 38kHz).
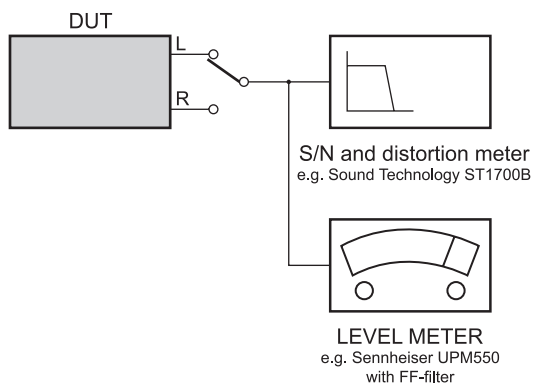
Tuner AM (MW,LW)
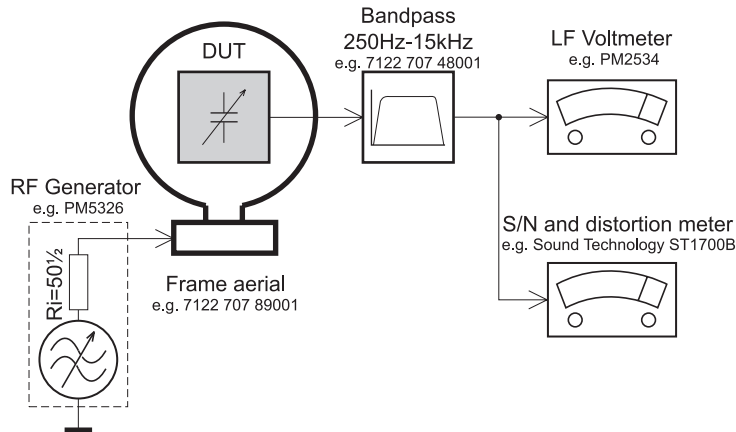
To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday«s cage.
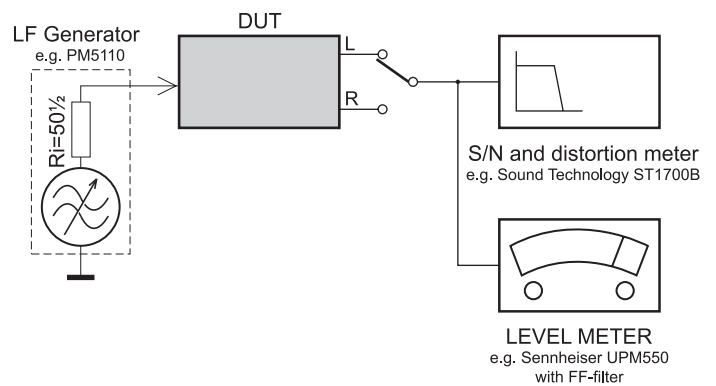Use a bandpass filter (or at least a high pass filter with 250kHz) to eliminate hum (50Hz, 100Hz).

CD

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

RECORDER

Use Universal Test Cassette Fe   SBC420   4822 397 30071

CONNECTION AND CONTROLS

Functional Overview

Remote control

1 ⏻
- switches the system on/ off.

2 ⏏
- opens or closes the disc compartment

3 Numeric Keypad (0-9)
- inputs a track/title/chapter number of the disc.
- inputs the number of a preset radio station.
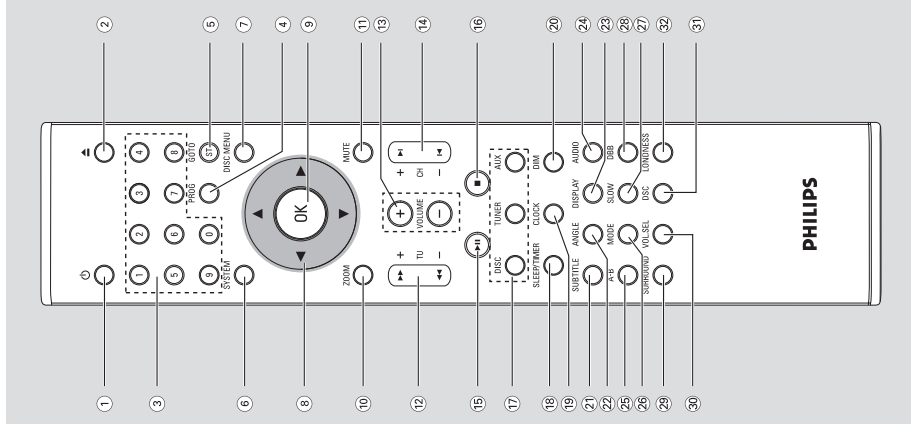
4 PROG
- DVD/VCD/CD: enters the program menu.
- MP3/WMA-CD: adds/deletes a programmed track to/from the program list.
- Picture CD: **during playback**, to select a slide show mode.
- Tuner: programs preset radio stations.

5 GOTO/ST
- Disc: fast searches in a disc by entering a time, title, chapter or track.
- FM: sets stereo or mono sound mode.

6 SYSTEM (disc mode only)
- enters or exits the system menu.

7 DISC MENU (disc mode only)
- DVD/VCD: enters or exits the disc contents menu.
- VCD2.0: switches the playback control mode on or off.
- MP3/WMA: switches between Album and Filelist.

8 ▼ / ◄ / ► / ▲
- selects an item in a menu.
- moves an enlarged picture up/down/left/right.

9 OK
- confirms a selection.

10 ZOOM
- DVD/VCD/Picture CD: enlarges or reduces a picture or active image on the TV screen.

11 MUTE
- disables or enables sound output.

12 TU +/- (◄◄ / ►►)
- Tuner
- press to tune to a lower/higher radio frequency gradually.
- press and hold, then release the key to start automatic search for a radio frequency downward/upward.
- Disc
- searches backward/forward in a disc at different speeds.

13 VOLUME +/-
- adjusts the volume upward/downward.
- adjusts the hours and minutes in clock/timer setting mode.
- switches the set timer ON or OFF.
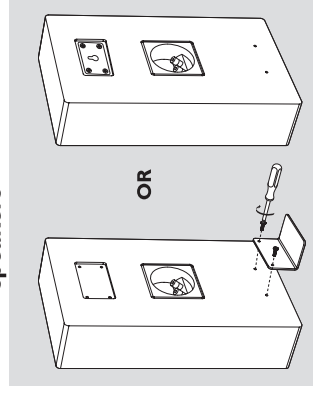
Functional Overview
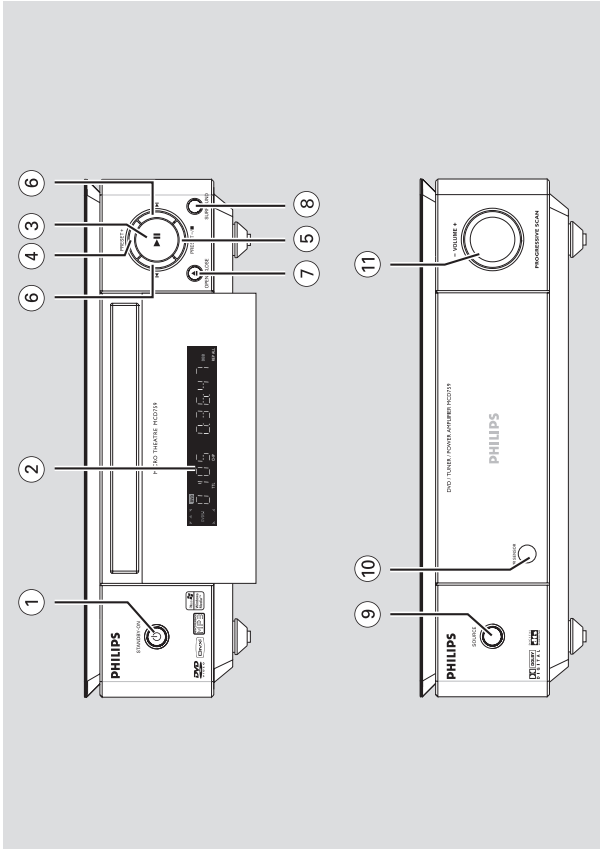
DVD player and power amplifier

1 STANDBY-ON ⏻
- switches the system on or to standby mode.

2 Display
- shows the current status of the DVD player.

3 ►II
- starts or interrupts disc playback.

4 PRESET +
- in tuner mode, selects a preset radio station forward.

5 PRESET-/■
- stops disc playback or erases a program.
- in tuner mode, selects a preset radio station backward.

6 ◄◄/►►
- Disc:
- skips to the previous/next chapter/title/track.
- Tuner:
- tunes to a higher/lower radio frequency.
- press and hold, then release the key to start automatic search for a radio frequency downward/upward.

7 OPEN•CLOSE ⏏
- opens or closes the disc tray.

8 SURROUND
- selects 2.1 channel output (2.1CH) or 5.1 channel output (SUR5.1 or DVD5.1).

9 SOURCE
- selects the respective sound source: DVD/AUX/TUNER (FM)/TUNER (MW).
- switches the system on.

10 IR SENSOR
- point the remote control towards this sensor.

11 VOLUME -/+
- adjusts the volume upward/downward.
- adjusts the hours and minutes in clock/timer setting mode.
- switches the set timer ON or OFF.

CONNECTION AND CONTROLS

Connections

Step 2: Placing the speakers and subwoofer

Front speaker (Left)

Center speaker and DVD system

Front speaker (Right)

Surround Speaker (Right)

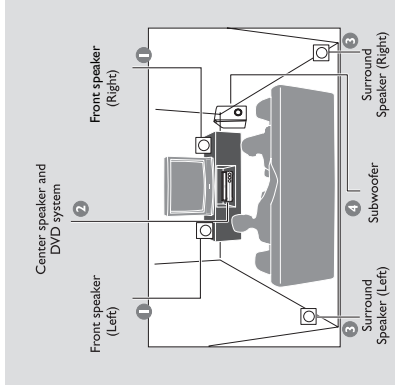Surround Speaker (Left)

Subwoofer

IMPORTANT!

– The type plate is located at the bottom of the system.

– The voltage selector located at the bottom of this system is preset at 220V-240V from the factory. For countries that operate at 110V-127V, please adjust to 110V-127V before you switch on the system.

– Before connecting the AC power cord to the wall outlet, ensure that all other connections have been made.

– Never make or change any connections with the power switched on.

– A separate power switch is provided on the back of the subwoofer. Please switch it on after completing all connections in order to enjoy 5.1-channel sound output.
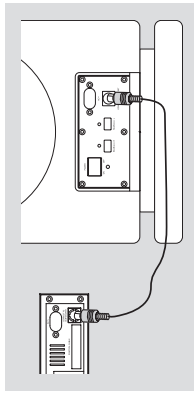
For best possible surround sound, all the speakers (except subwoofer) should be placed at the same distance from the listening position.

1 Place the front left and right speakers at equal distances from the TV and at an angle of approximately 45 degrees from the listening position.

2 Place the center speaker above the TV or the DVD system so that the center channel's sound is localized.

3 Place the rear speakers at normal listening ear level facing each other or hang on the wall.
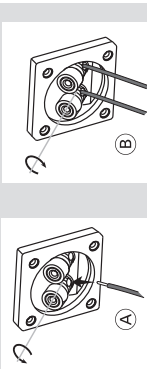
4 Place the subwoofer on the floor near the TV.

Notes:
– To avoid magnetic interference, do not position the front speakers too close to your TV.
– Allow adequate ventilation around the DVD system.

Step 1: Set up the surround speakers

OR

1 Before connecting the speakers to the DVD system, firmly attach the mini speaker stands to the surround speakers as shown in the above diagram.

OR

2 Alternatively, you can choose to mount the speakers on the wall. Mount a screw (not supplied) on the wall where the speaker is to be hung and hook the speaker securely onto the mounted screw.

Note:
– The surround speakers are labeled as REAR L. (left) or REAR R. (right).

Functional Overview

⑭ **CH +/- (◄ / ►)**
– Disc: skips to the previous/next chapter/title/track
– Tuner: selects a preset radio station.

⑮ **► II**
– starts or interrupts disc playback.

⑯ **■**
– stops disc playback or erases a program.

⑰ **DISC/TUNER/AUX**
– selects the respective sound source for DVD/AUX/FM/MW.
– For tuner (**TUNER**): press to switch between MW and FM.
– exits P-SCAN (progressive scan). (Only for **DISC**)

⑱ **SLEEP/TIMER**

Standby mode
– sets time for switching on the system automatically.

Power-on mode
– sets the sleep timer function (auto off).

⑲ **CLOCK**

Standby mode
– sets the system clock.

Playback mode
– displays the system clock.

⑳ **DIM**
– selects different levels of brightness for the display screen.

㉑ **SUBTITLE**
– selects a subtitle language.

㉒ **ANGLE**
– selects a DVD camera angle.

㉓ **DISPLAY**
– displays information on TV screen during playback

㉔ **AUDIO**

for VCD/DivX
– sets Stereo, Mono-Left or Mono-Right sound mode.

for DVD
– selects an audio language.

㉕ **A-B**
– repeats playback of a specific section on a disc.

㉖ **MODE**
– selects various repeat modes or the shuffle play mode for a disc.

㉗ **SLOW**
– selects different slow playback modes for a DivX/VCD/SVCD/DVD.

㉘ **DBB**
– enables or disables bass enhancement.

㉙ **SURROUND**
– selects 2.1 channel output (2.1CH) or 5.1 channel output (SUR5.1 or DVD5.1).

㉚ **VOL.SEL**
– adjusts volume level for individual speakers.

㉛ **DSC**
– selects different types of preset sound equalizer settings (FLAT, POPS, JAZZ, CLASSIC or ROCK).

㉜ **LOUDNESS (unavailable for this version)**
– enables or disables automatic loudness adjustment.

Notes for remote control:
– First, select the source you wish to control by pressing one of the source select keys on the remote control (DISC or TUNER, for example).
– Then select the desired function (►II, I◄, ►I for example).

CONNECTION AND CONTROLS

Connections

Step 3: Connecting speakers and subwoofer

1 Connect the terminal marked **CONNECT TO SUBWOOFER** on the rear of the amplifier to **CONNECT TO MAIN SET** on the rear of the subwoofer with the supplied DIN cable by matching the pins.

2 Connect the center and front speakers to the corresponding terminals on the rear of the amplifier by matching the colors.
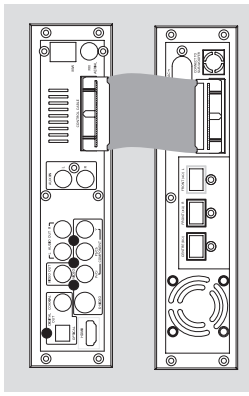
Connection to terminals on the speakers and subwoofer

2 Connect the rear speakers to the corresponding terminals on the rear of the subwoofer by matching the colors.

Note:
– Ensure that the speaker cables are correctly connected. Improper connections may damage the system due to short-circuit.

Step 4: Connecting the control cable

● Connect the serial port marked "**CONTROL CABLE**" at the rear of the DVD player to the same port at the rear of the power amplifier with the supplied flat control cable.

Step 5: Connecting TV

IMPORTANT!
– You only need to make one video connection from the following options, depending on the capabilities of your TV.
– Connect the DVD system directly to the TV.

Using Composite Video jack

Option 1
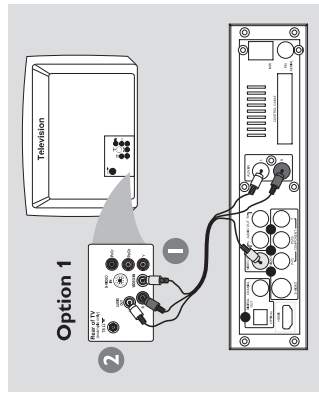
1 Use the composite video connectors (yellow) of the supplied audio and composite video cables (2-in1) to connect the DVD system's **VIDEO OUT** jack to the video input jack (or labeled as A/V In, CVBS, Composite or Baseband) on the TV.

Connections

2 To hear the TV channels through this DVD system, use the audio connectors (white/ red) of the supplied audio and composite video cables (2-in1) to connect **AUX IN** jacks to the corresponding AUDIO OUT jacks on the TV.

Using Component Video jacks (Y Pb Pr)

IMPORTANT!
– The progressive scan video quality is only possible when using Y Pb Pr, and a progressive scan TV is required.

Option 2
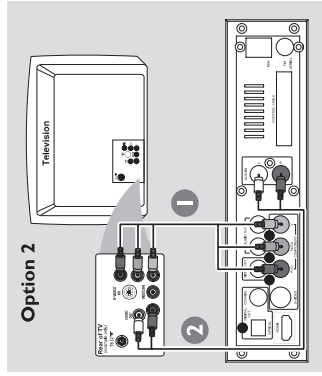
1 Use component video cables (red/blue/green - not supplied) to connect the DVD system's Y Pb Pr jacks to the corresponding Component video input jacks (or labeled as Y Pb/Cb Pr/Cr or YUV) on the TV.

2 To hear the TV channels through this DVD system, use the audio cables (white/red) to connect AUX IN jacks to the corresponding AUDIO OUT jacks on the TV.
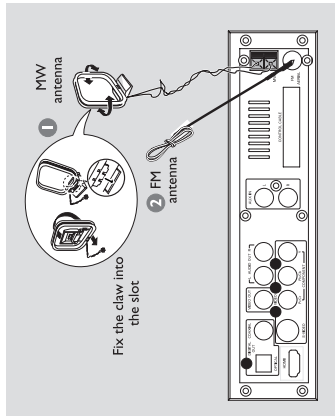
3 If you are using a Progressive Scan TV (TV must indicate Progressive Scan or ProScan capability), to activate TV Progressive Scan, please refer to your TV user manual. For DVD system Progressive Scan function, see "Getting Started-Setting up Progressive Scan feature".

Note:
– If your TV does not support Progressive Scan, you will not be able to view the picture.
Press SYSTEM on the remote to exit the system menu and then DISC and "1" to exit progressive scan.

**Using S-Video jack**

IMPORTANT!
– If S-Video is used for DVD playback connection, the system's VIDEO OUT setting will need to be changed accordingly.

Option 3

1 Use an S-Video cable (not supplied) to connect the DVD system's S-VIDEO jack to the S-Video input jack (or labeled as Y/C or S-VHS) on the TV.

2 To hear the TV channels through this DVD system, use the audio cables (white/red) to connect AUX IN jacks to the corresponding AUDIO OUT jacks on the TV.

CONNECTION AND CONTROLS

Connections

Step 7: Connecting the power cord
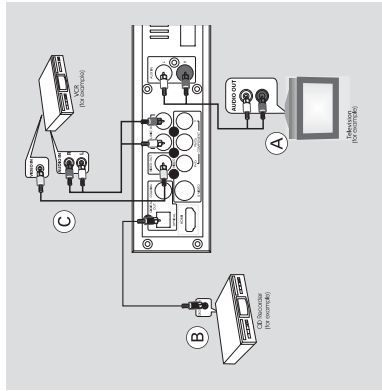

Power Outlet

After everything is connected properly, plug in the AC power cords of the main set, subwoofer and TV set to the power outlet. Make sure to turn on the power switch on the rear of the subwoofer in order to enjoy 5.1-channel output.

Never make or change any connection with the power switched on.

Additional: Connecting additional equipment

IMPORTANT!

– Some discs are copy-protected. You cannot record the disc through a VCR or digital recording device.

– When making connections, make sure the colour of cables matches the colour of jacks.

– Always refer to the owner's manual of the other equipment for complete connection and usage details.

Viewing and listening to the playback of other equipment Ⓐ

● Connect the system's **AUX IN (R/L)** jacks to the AUDIO OUT jacks on the other audio/visual device (such as a TV, VCR, Laser Disc player or cassette deck).

Before starting operation, press **SOURCE** on the front panel to select AUX or press **AUX** on the remote in order to activate the input source.

Recording (digital) Ⓑ

● Connect the system's **COAXIAL** or **OPTICAL** jack to the DIGITAL IN jack on a digital recording device (such as DTS-Digital Theatre compatible, with Dolby Digital decoder). Before starting operation, set the DIGITAL OUT according to the audio connection. (See "DIGITAL OUT".)

Using the VCR for recording DVDs Ⓒ

● Connect one of the system's **VIDEO** jacks to the corresponding VIDEO IN jack and **LINE OUT (R/L)** jacks to the AUDIO IN jacks on the VCR. This will allow you to make analogue stereo (two channel, right and left) recordings.

Connections

Step 6: Connecting FM/MW antennas

MW antenna

FM antenna

Fix the claw into the slot

1 Connect the supplied MW loop antenna to the MW jack. Place the MW loop antenna on a shelf or attach to a stand or wall.

2 Connect the supplied FM antenna to the FM (75 ?) jack. Extend the FM antenna and fix its end to the wall.
For better FM stereo reception, connect an external FM antenna (not supplied).
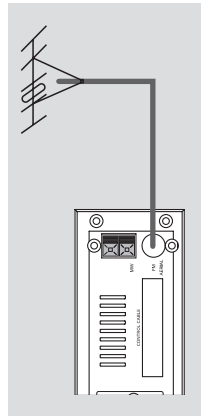
Note:
– Adjust the position of the antennas for optimal reception.
– Position the antennas as far as possible from your TV, VCR or other radiation source to prevent unwanted interference.

Using an accessory RF modulator

IMPORTANT!

– If your TV only has a single Antenna In jack (labeled as 75 ohm or RF In), you will need an RF modulator in order to view DVD playback on the TV. See your electronics retailer or contact Philips for details on RF modulator availability and operations.

RF coaxial cable to TV
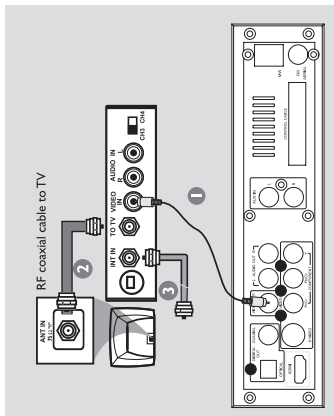
1 Use the composite video cable (yellow) to connect the DVD system's VIDEO OUT jack to the video input jack on the RF modulator.

2 Use an RF coaxial cable (not supplied) to connect ANTENNA OUT or TO TV jack on the RF modulator to the Antenna IN jack on the TV.

3 Connect the Antenna or Cable TV service signal to the ANTENNA IN or RF IN jack on the RF modulator. (It may have been connected to your TV previously. Disconnect it from the TV.)
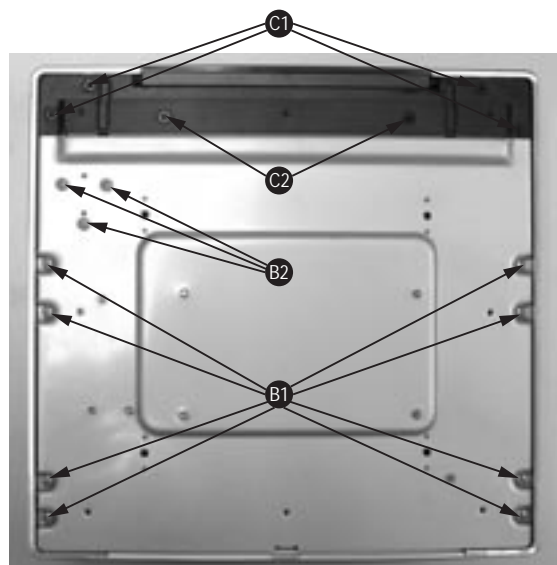
DISASSEMBLY DIAGRAM - DVD PART

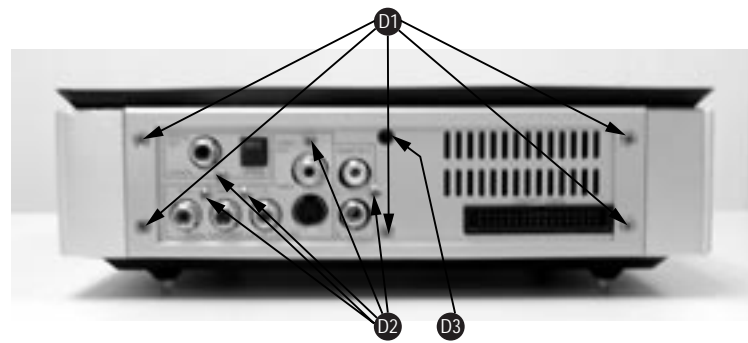A.Remove Bottom Cover
   A1.remove screws M2.5x4(8pcs)
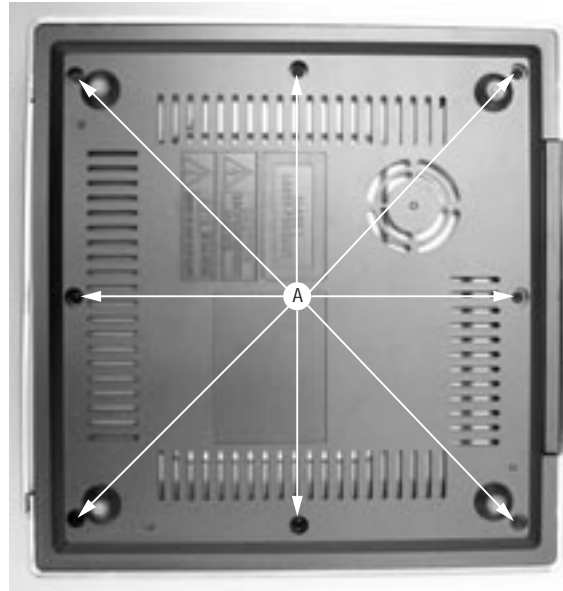
B*.remove screws M3x10(8pcs) and M3x8(3pcs)
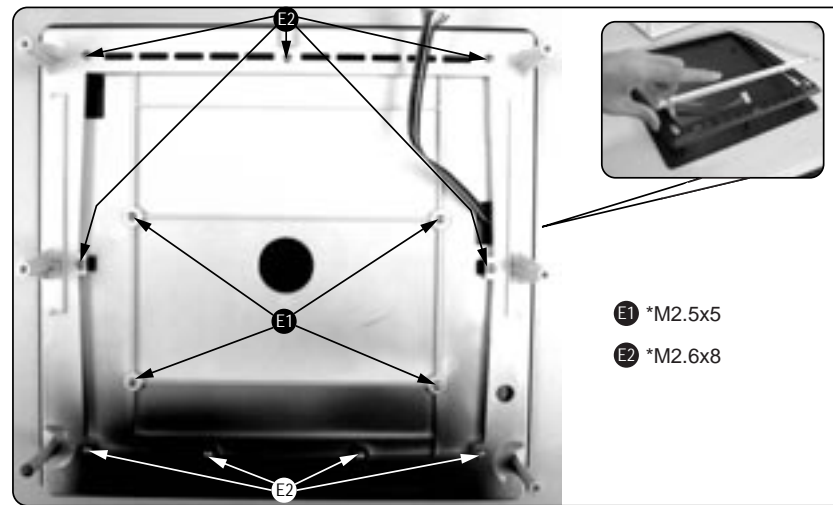C*.remove screws M3x8(4pcs) and T3x4(2pcs)
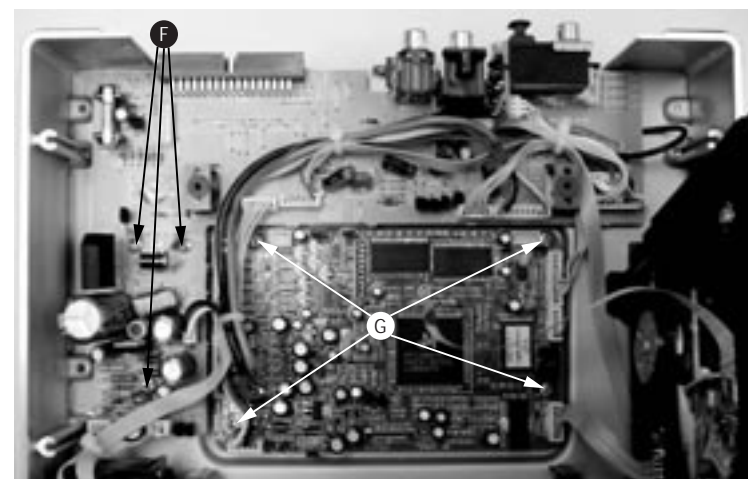
D.Remove Back Panel
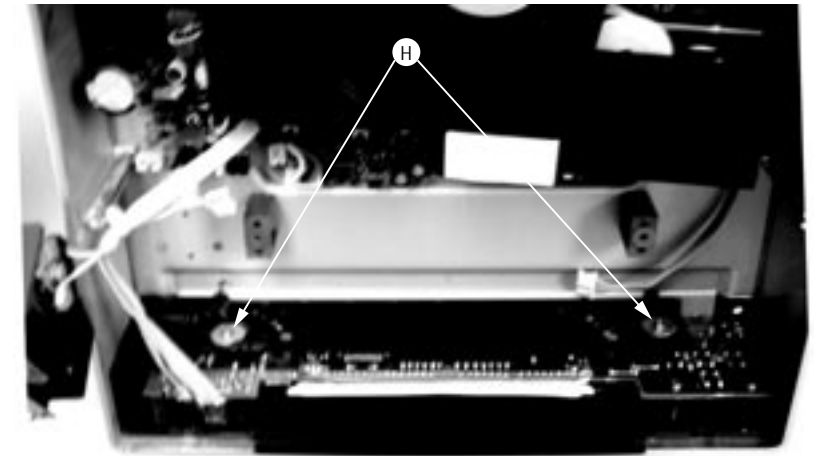D*remove screws T3x4(5pcs)and M3x10(5pcs)and T3x8(1pc)
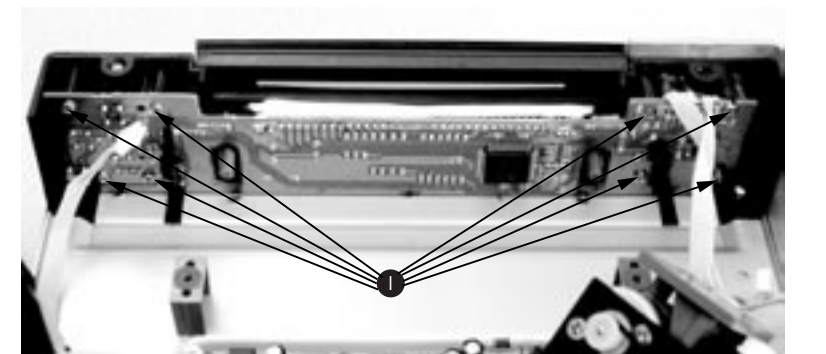
E. Remove Top Cover

E1 *M2.5x5
E2 *M2.6x8

G. Remove DVD Rom and then remove DVD Decoder Card Assy
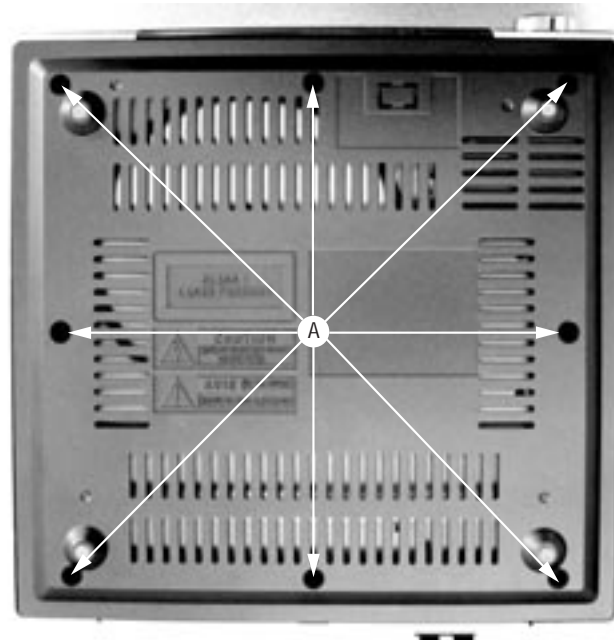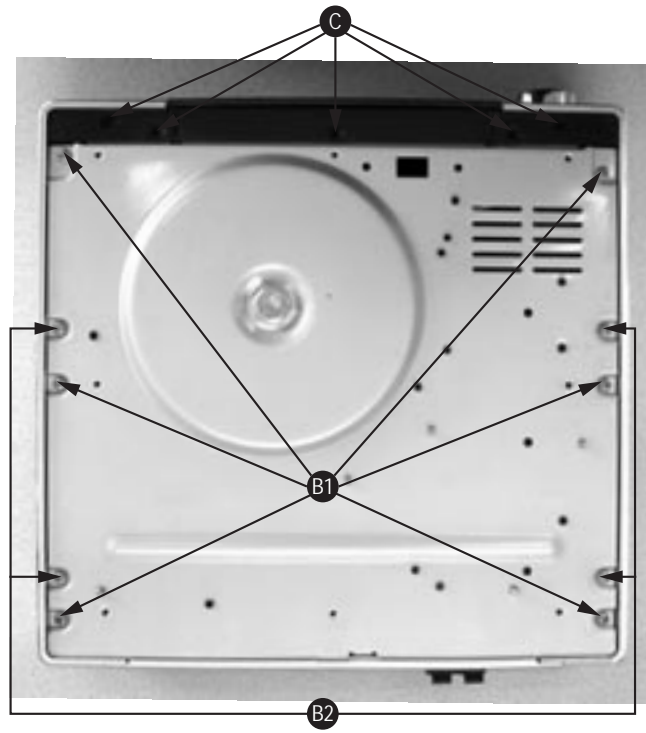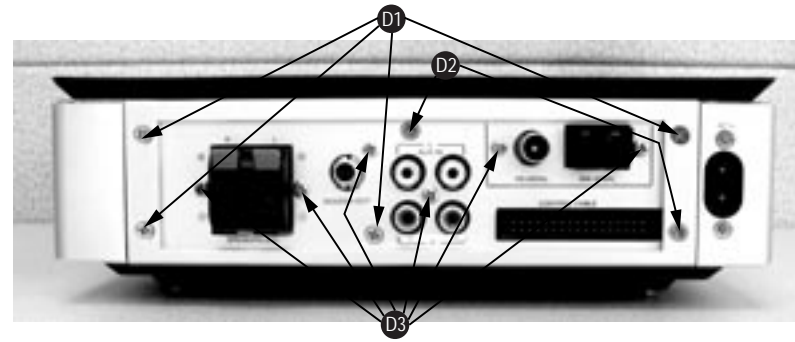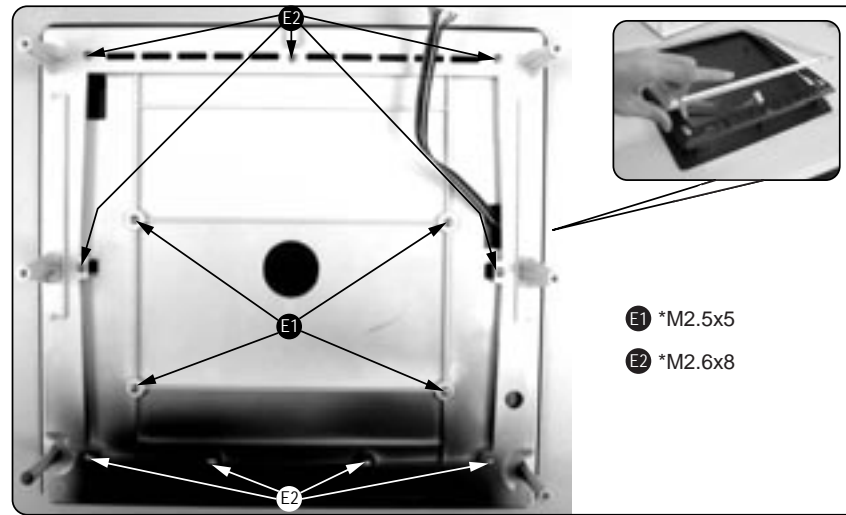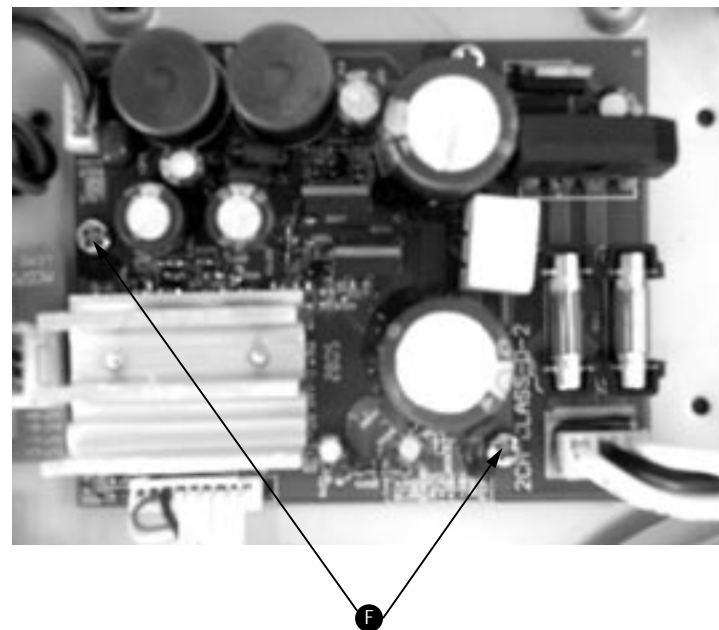
H.Remove Slid Plank

I.Remove VFD board assy

I.Remove Side metal Plate

DISASSEMBLY DIAGRAM - AMP PART

A.Remove Bottom Cover
  A1.remove screws M2.5x4(8pcs)

B*.remove screws M3x10(6pcs) and T3x10(4pcs)
C*.remove screws T3x4(5pcs)

D.Remove Back Panel
D*remove screws T3x4(4pcs)and T3x8(2pcs)and M3x10(6pcs)

E. Remove Top Cover

E1 *M2.5x5
E2 *M2.6x8

F. Remove AMP Board Assy

G.Remove ALC Volume board assy
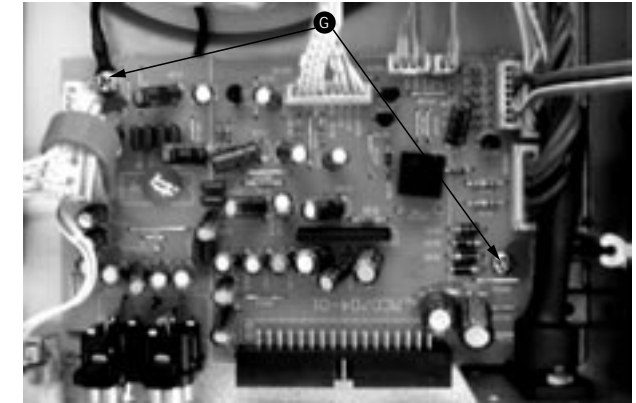
H.Remove AMP Front board assy
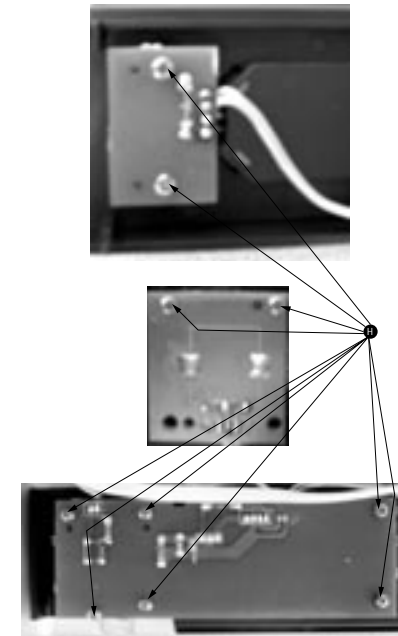
I.Remove Side metal Plate

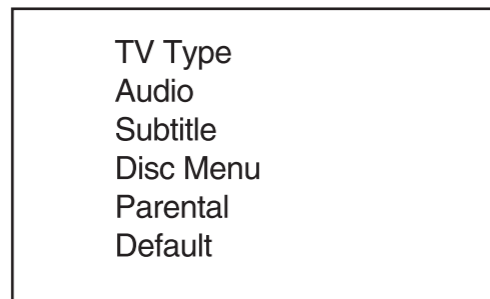**SOFTWARE VERSION CHECK AND UPGRADING**

A.MPEG SOFTWARE VERSION CHECK

1.Press SYSTEM key (on the remote control) to open setup page,

TV Screen shows:

```
TV Display

Osd Lang
Screen Saver
DIVX(R) VOX
```
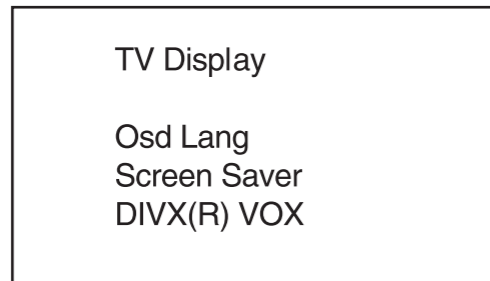
2.Press REMOVAL key (on the remote control) to the original setup page,

TV Screen shows:

```
TV Type
Audio
Subtitle
Disc Menu
Parental
Default
```

3.Enter the password "811502" (on the remote control)

TV Screen shows:

```
Ver        MCD759/xxxx
Date       mm  dd  yyyy
Time       hh:mm:ss
Region code     x
```
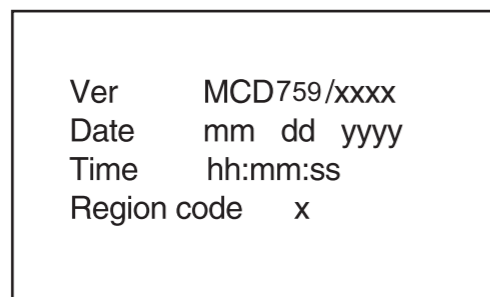
4.Press ▲ or ▼ button (on the remote control) to change region.
   Press OK to confirm.

B.CPU VERSION CHECK

Keep PLAY/PAUSE and STOP buttons (on the set) depressed while pressing POWER on.
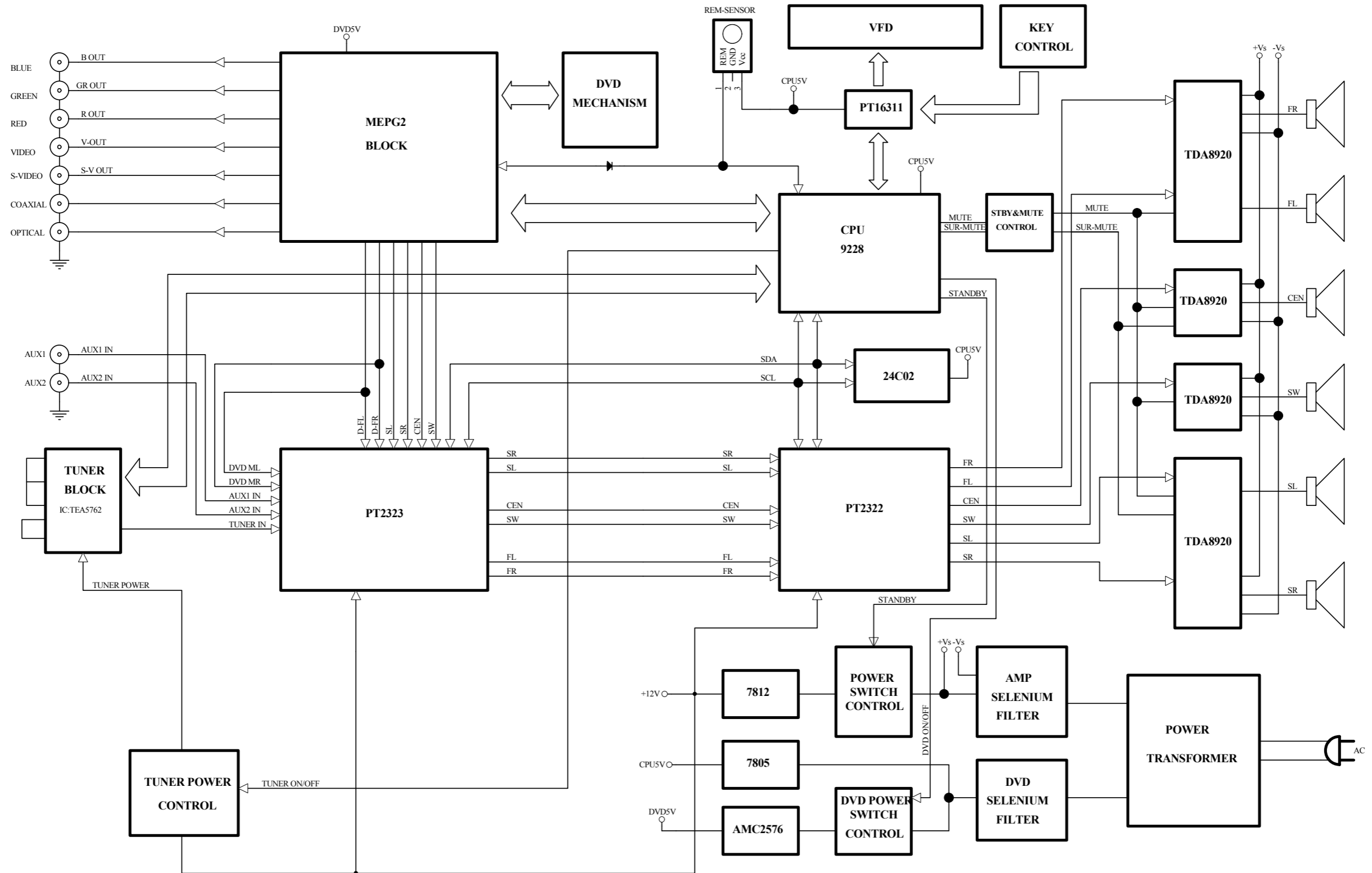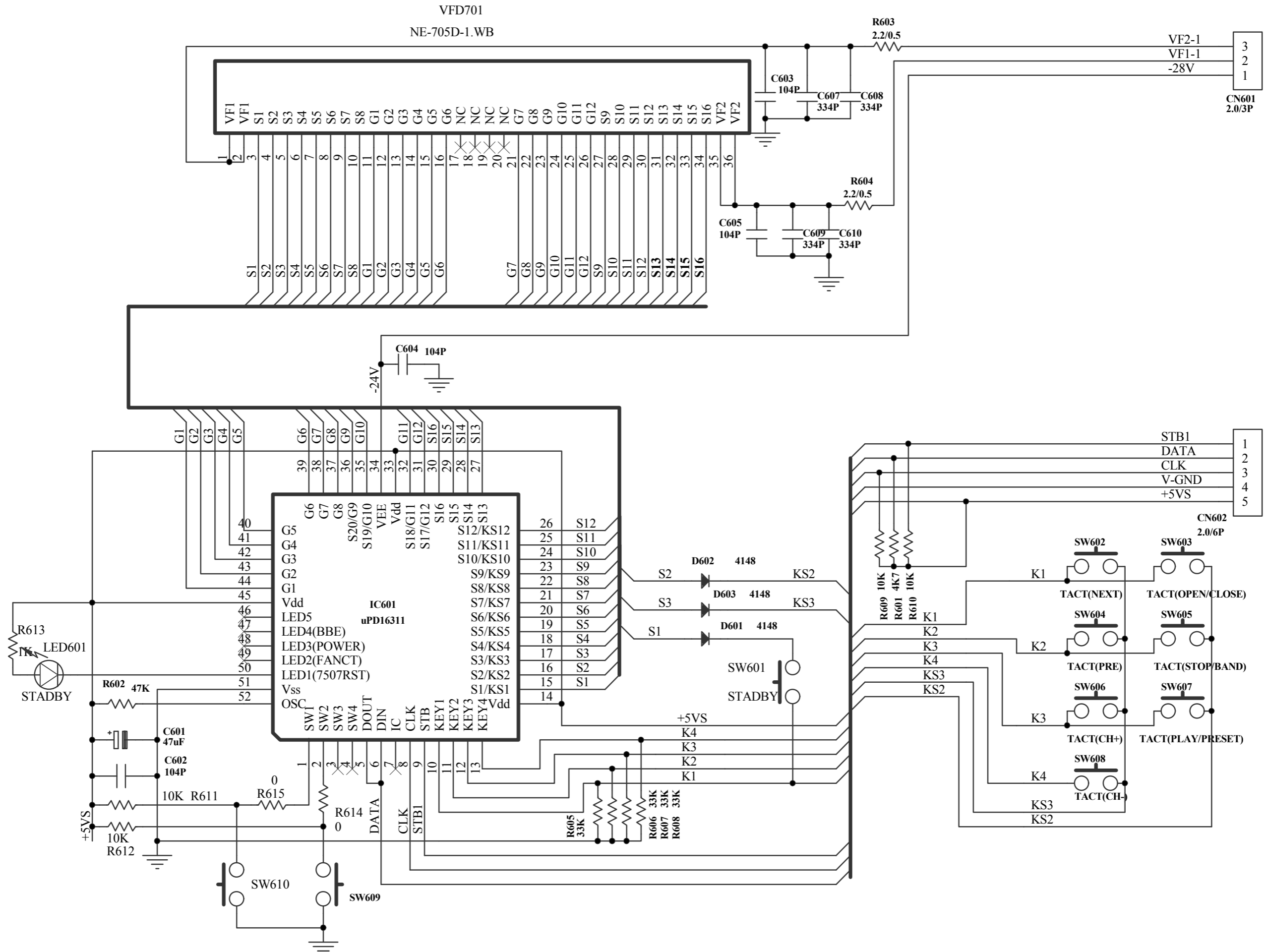
TV screen shows

```
MCD 759 V xx
```
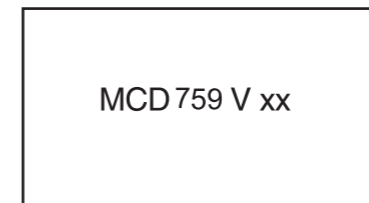
C. MPEG SOFTWARE UPGRADING

1. download the firmware from Philips support website
   http://www.philips.com/support

2. Prepare a uploading CD

3. Put the CD in the CD tray

4. TV Screen shows

```
Upgade file deteced
Upgade?
Press PLAY to start
upgrading
```
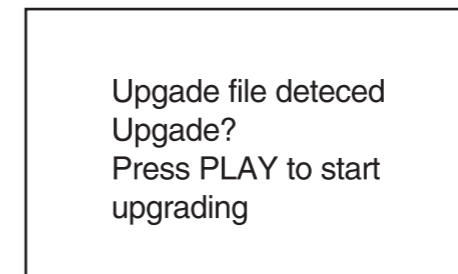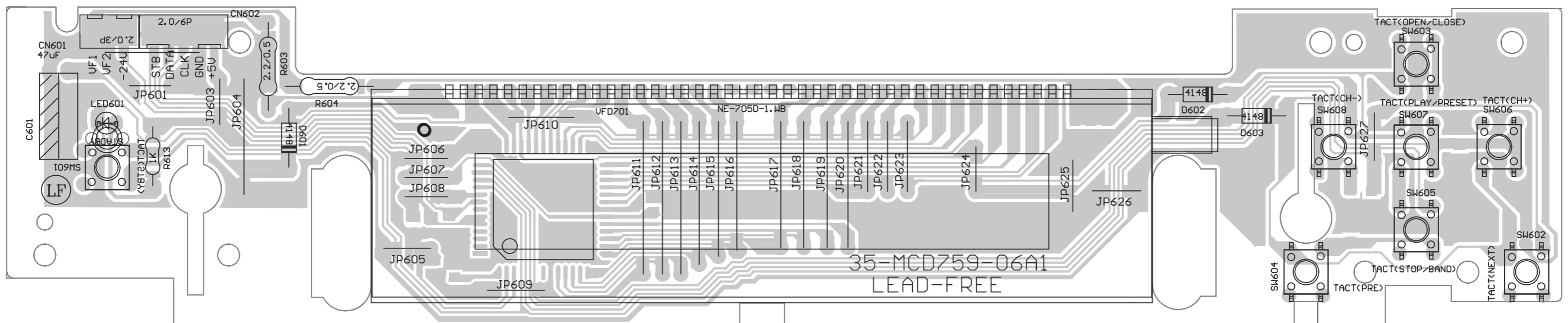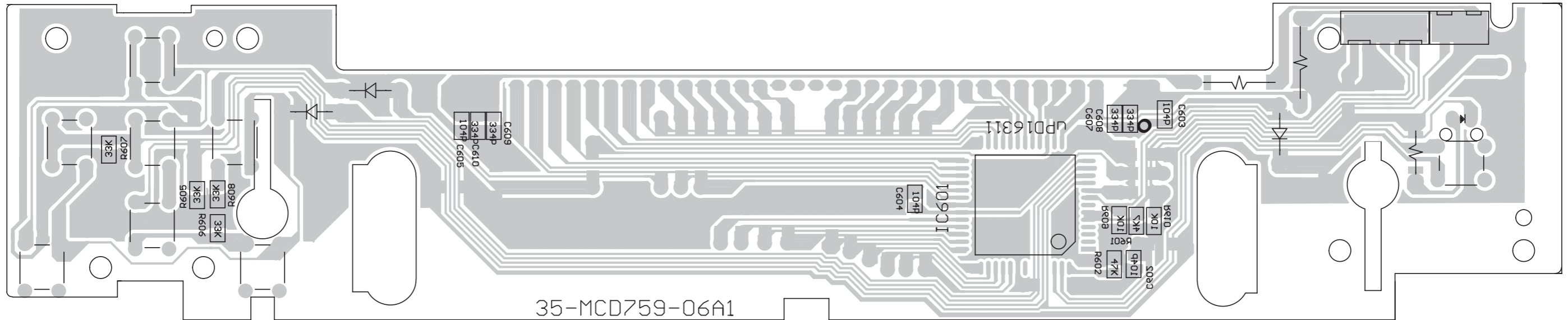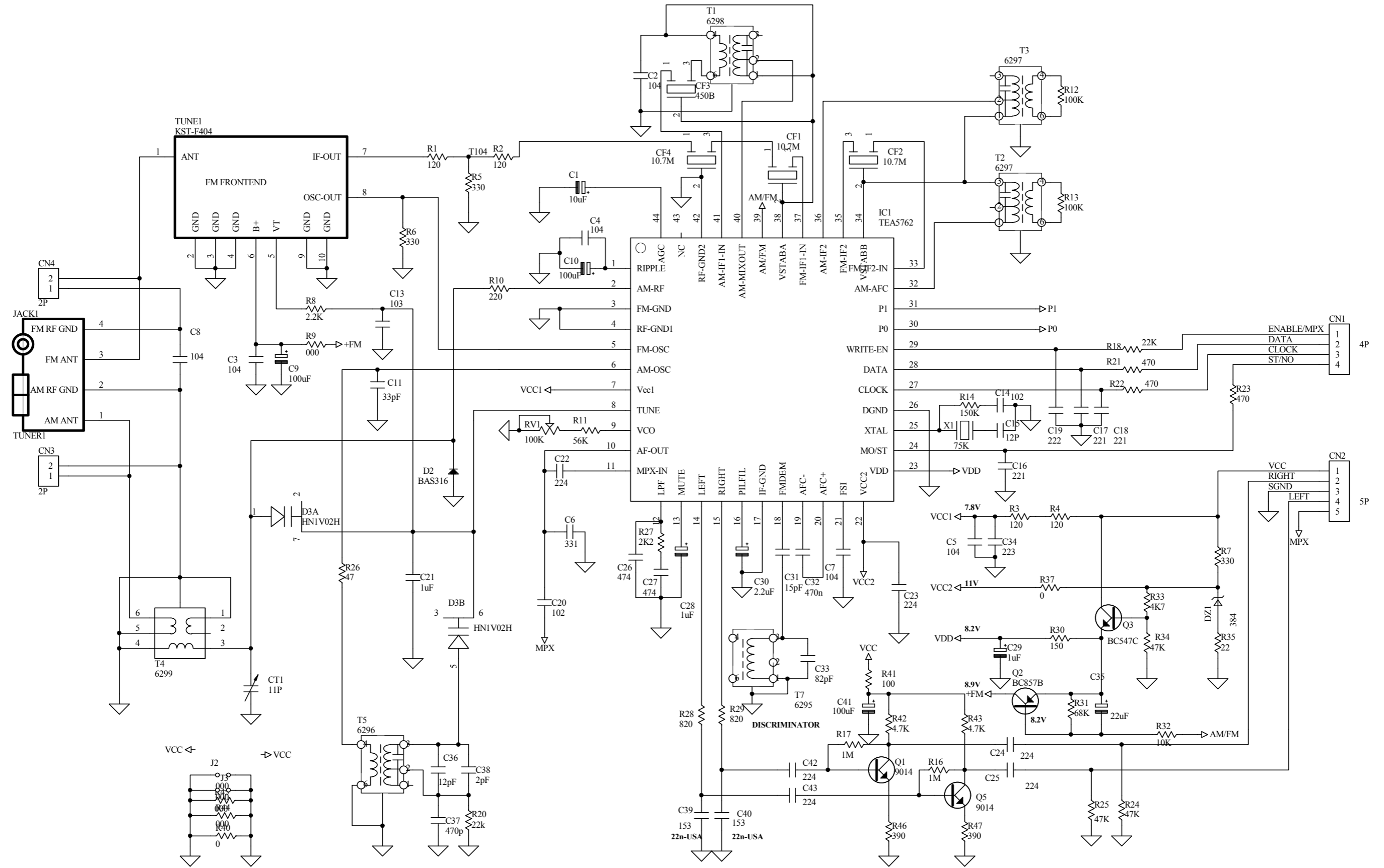
SET BLOCK DIAGRAM

SET WIRING DIAGRAM

CIRCUIT DIAGRAM - VFD BOARD

LAYOUT DIAGRAM - VFD BOARD

35-MCD759-06A1
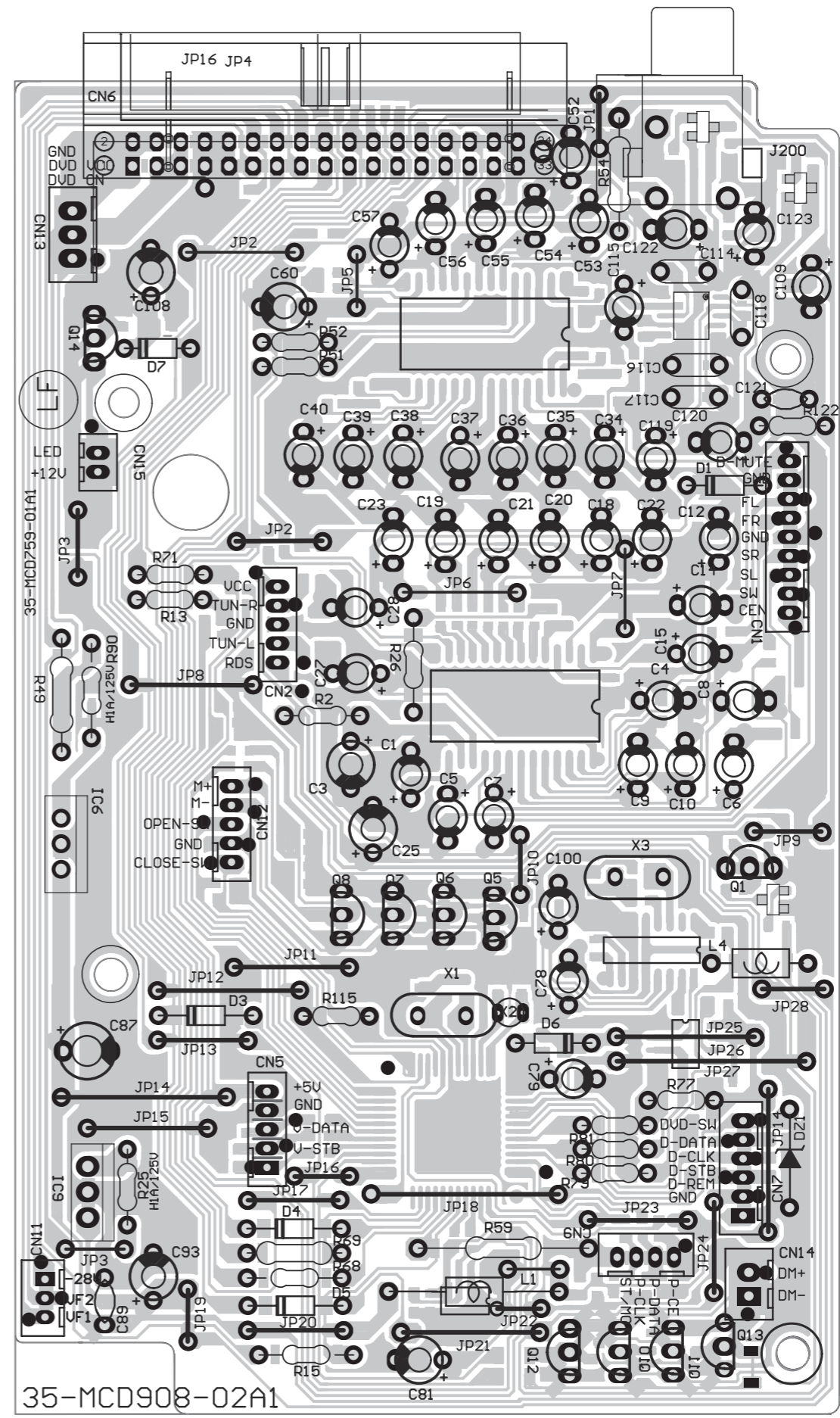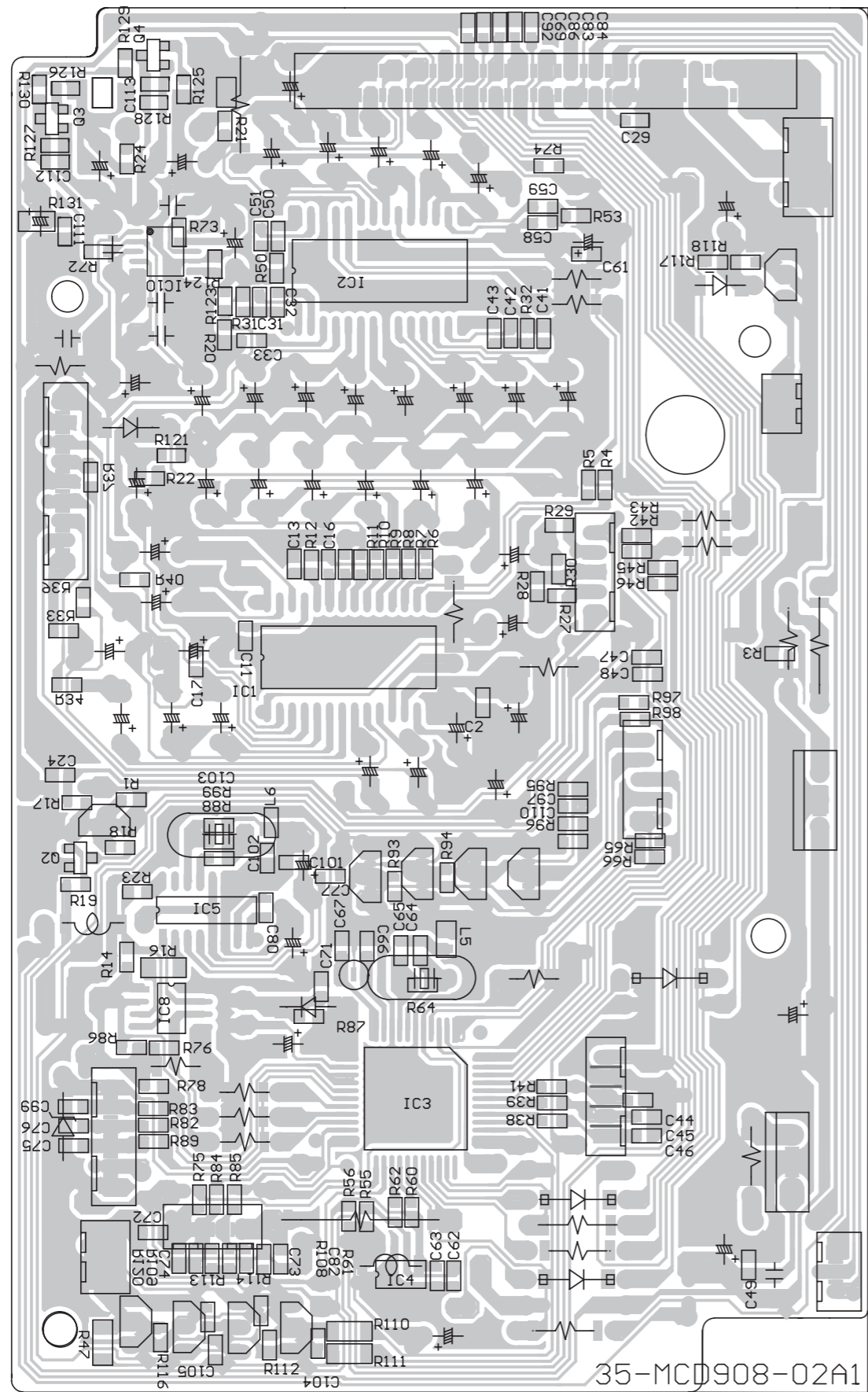

35-MCD759-06A1
LEAD-FREE

CIRCUIT DIAGARM - TUENR BOARD

LAYOUT DIAGARM - TUNER BOARD

CIRCUIT DIAGRAM - CPU BOARD

LAYOUT DIAGRAM - CPU BOARD

35-MCD908-02A1

35-MCD908-02A1
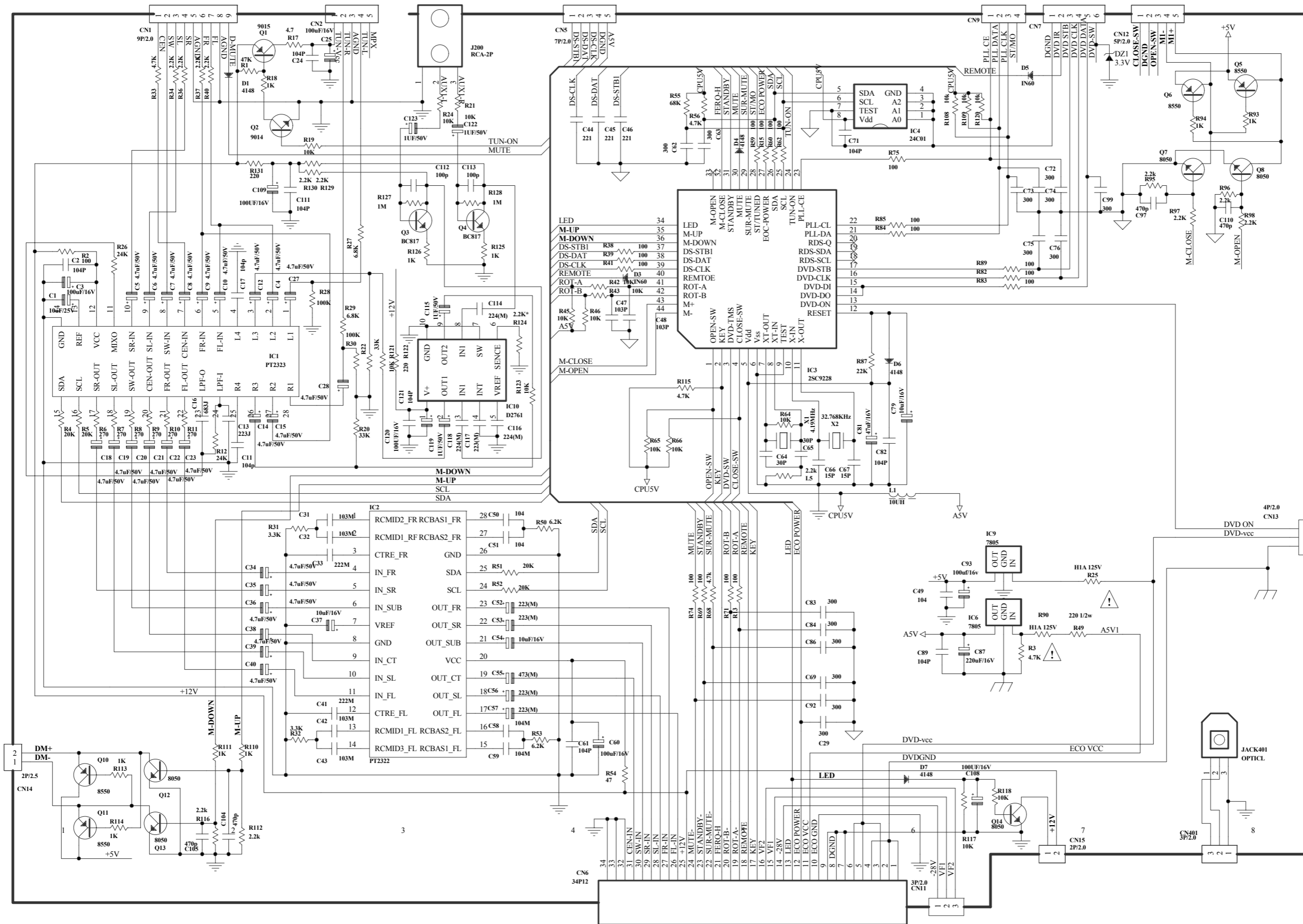
CIRCUIT DIAGRAM - AMP BOARD & POWER BOARD
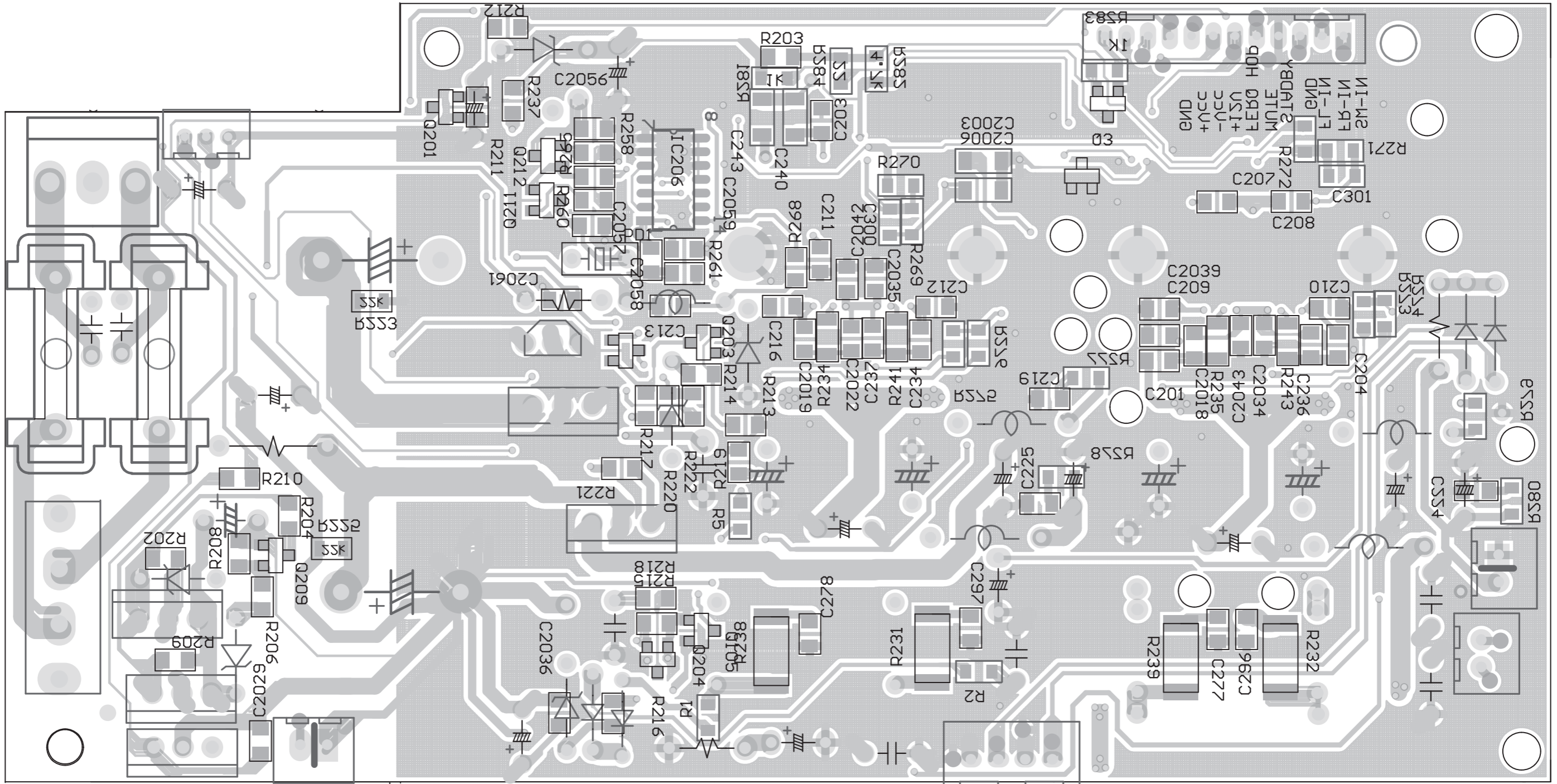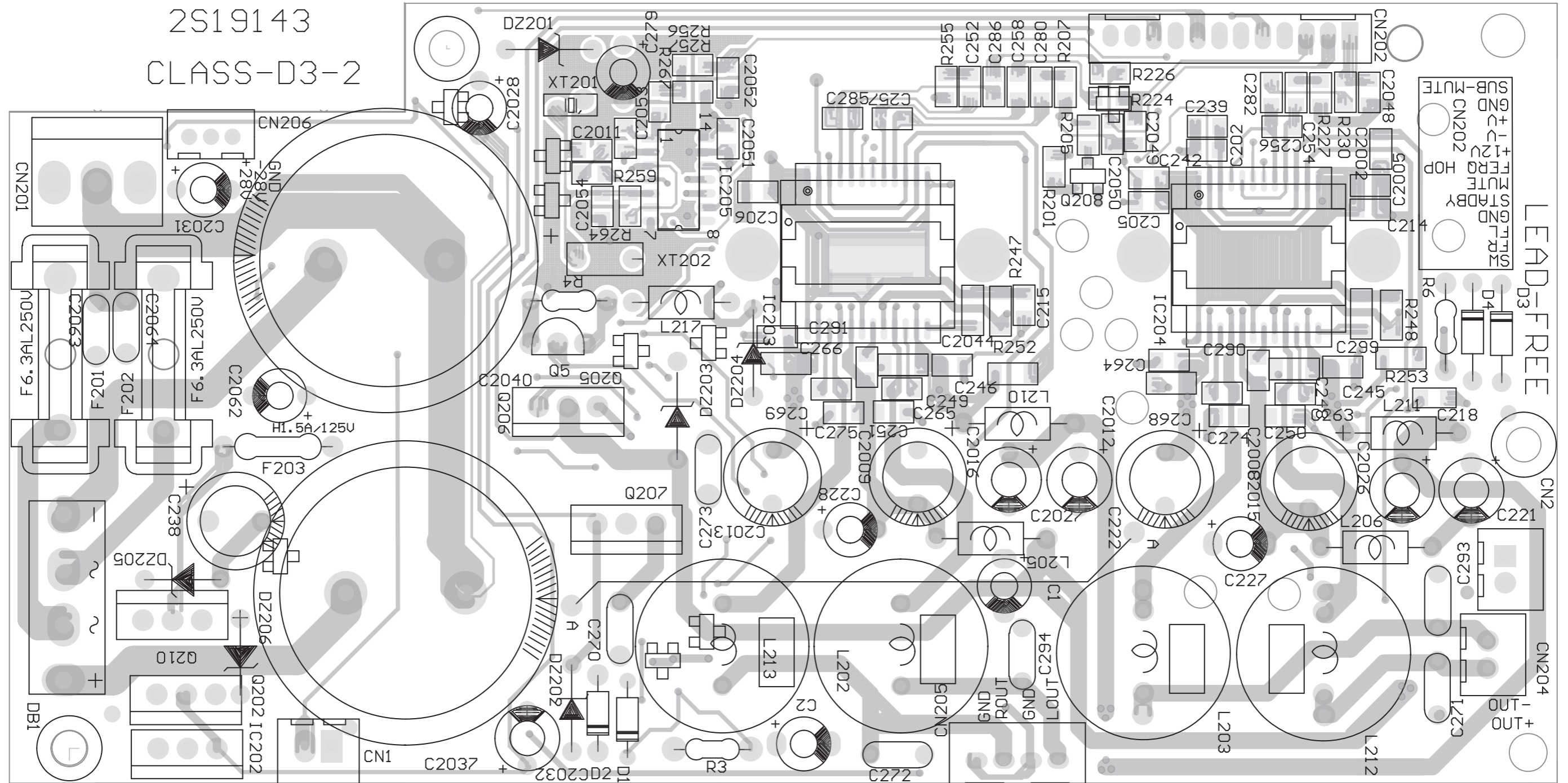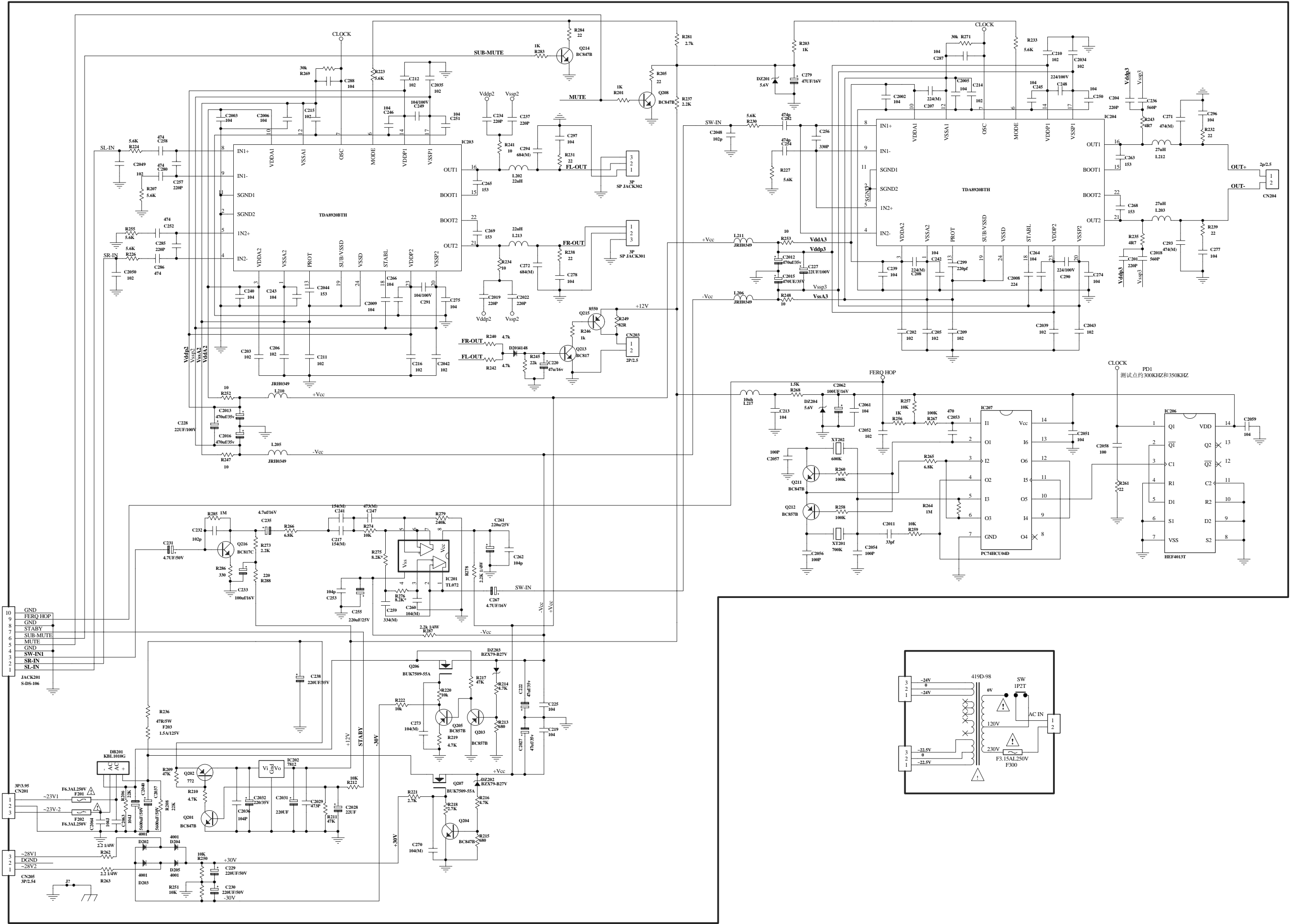
LAYOUT DIAGRAM - POWER BOARD
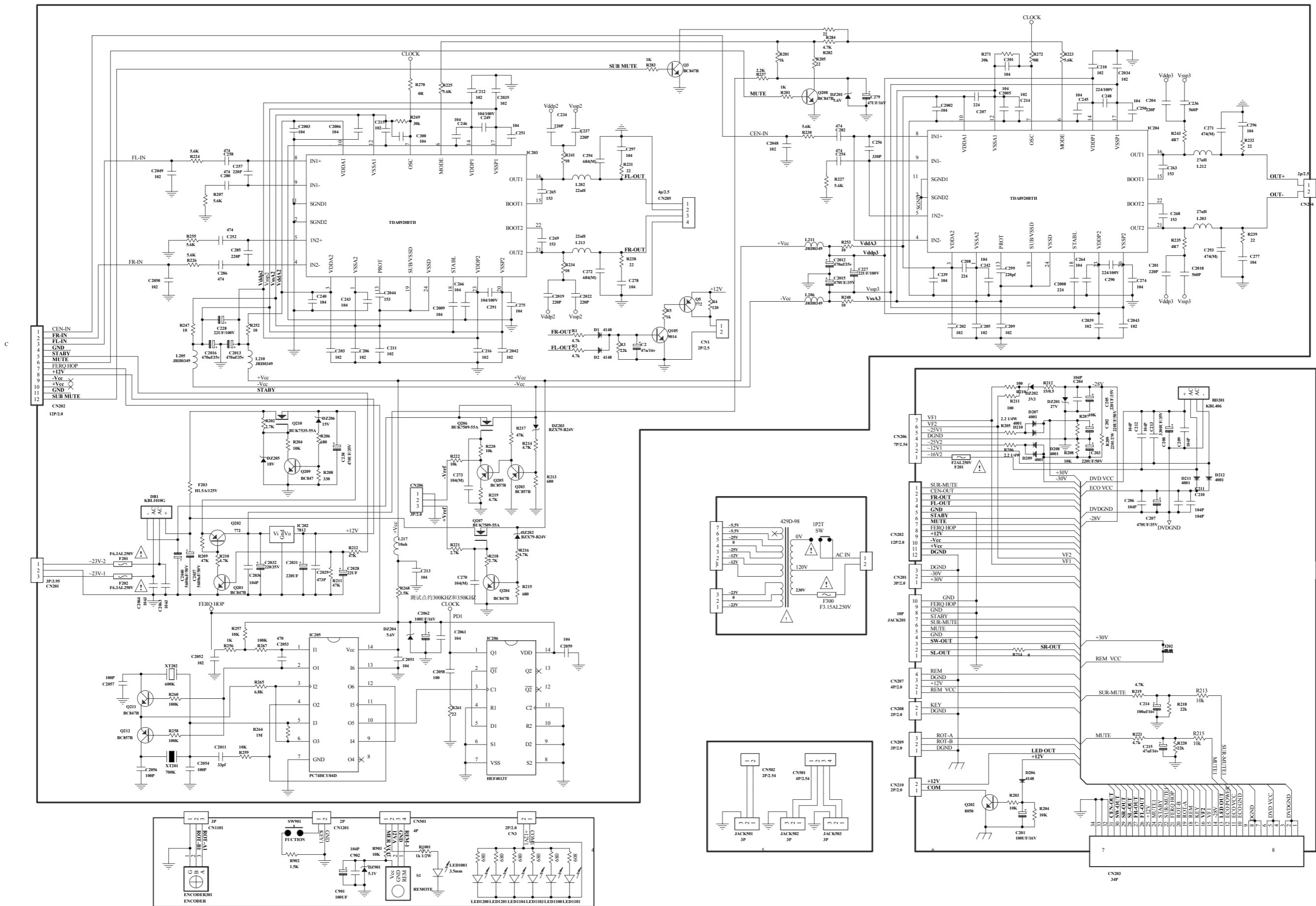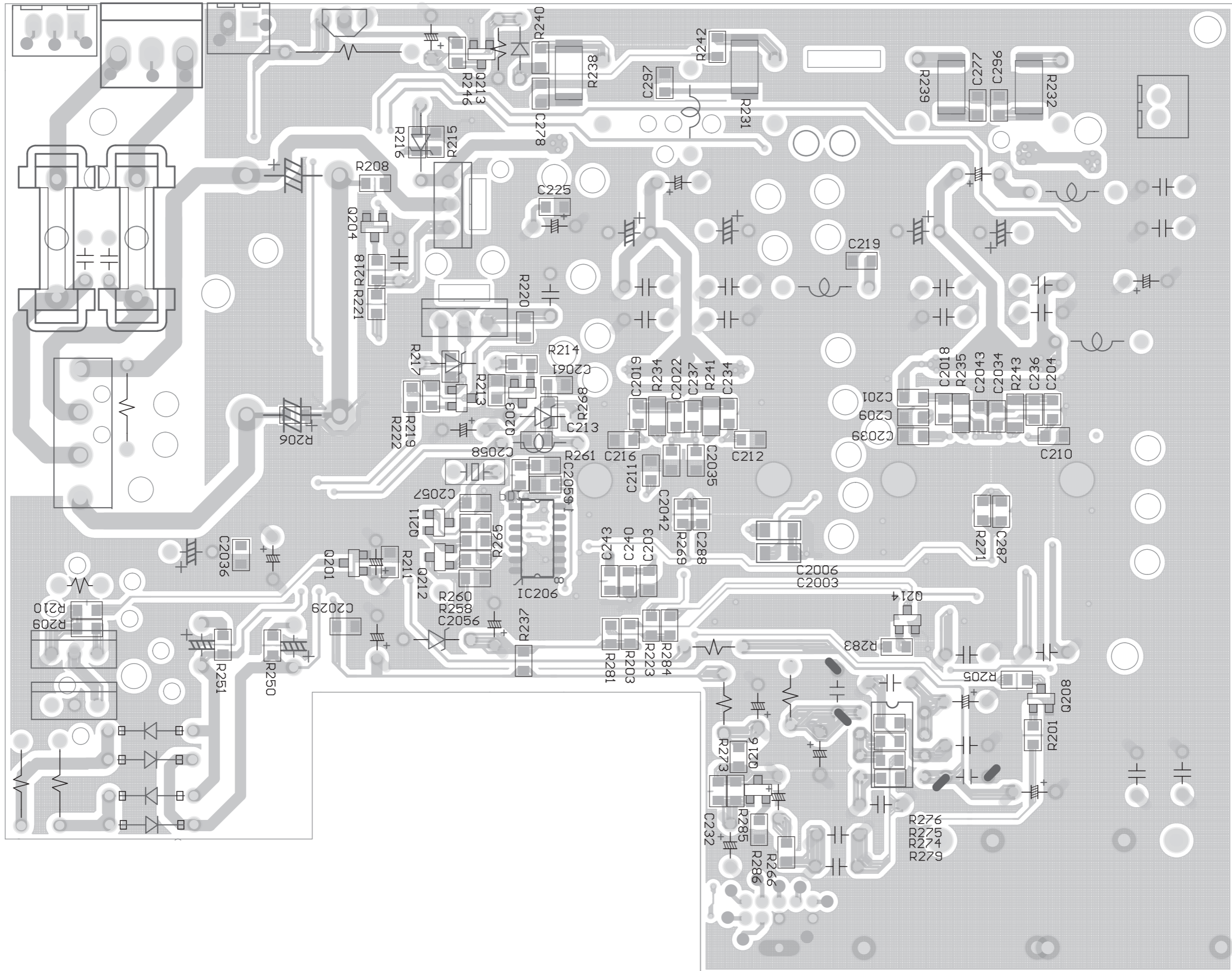
LAYOUT DIAGRAM - AMP BOARD

LAYOUT DIAGRAM - AMP BOARD

CIRCUIT DIAGRAM - WOOFER AMP BOARD

LAYOUT DIAGRAM - WOOFER AMP BOARD

LAYOUT DIAGRAM - WOOFER AMP BOARD

CIRCUIT DIAGRAM - DVD MPEG BOARD
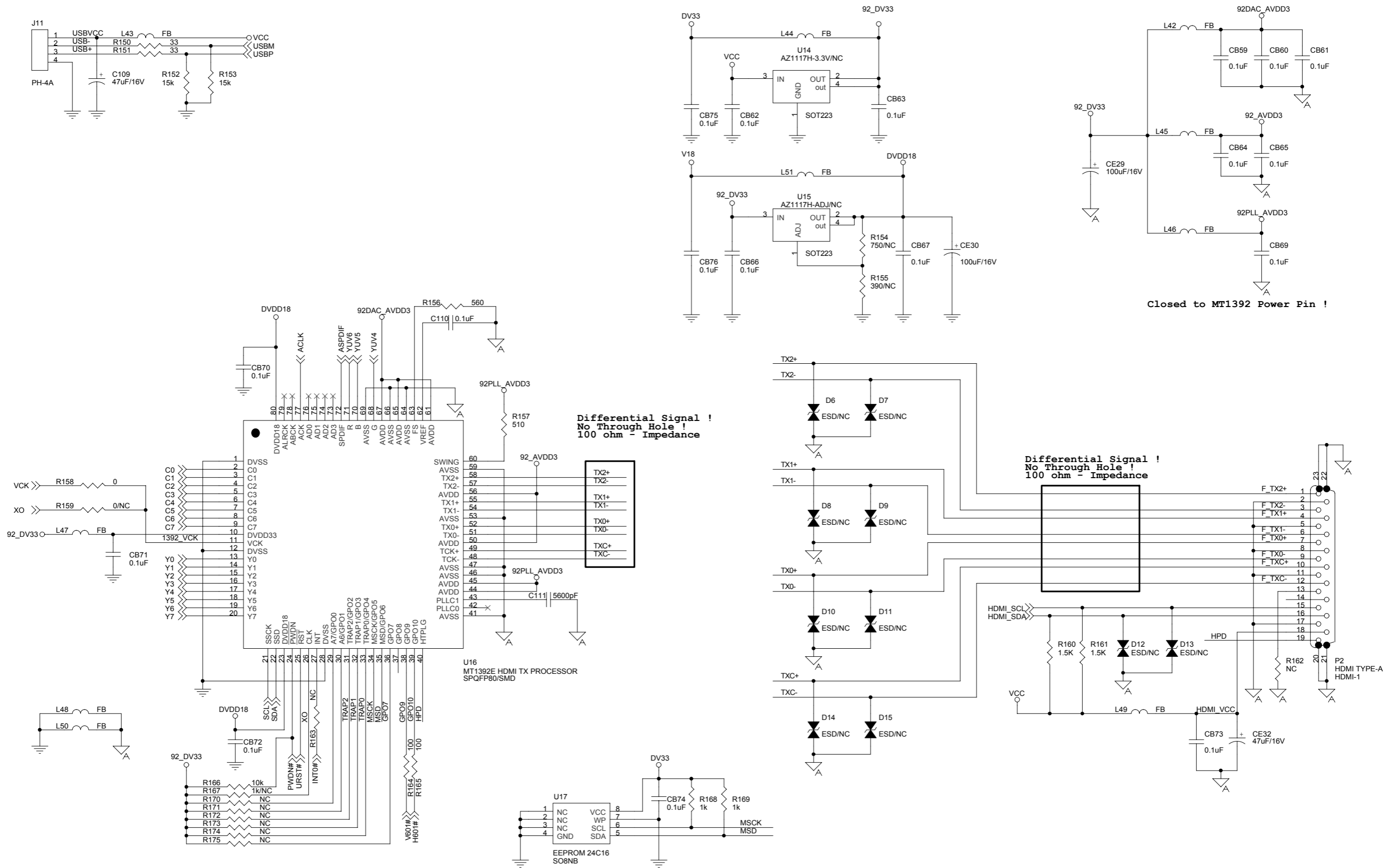
MPEG is not repaired, diagram for referrence only.

Differential Signal !
No Through Hole !
100 ohm - Impedance

Differential Signal !
No Through Hole !
100 ohm - Impedance

Closed to MT1392 Power Pin !

U14 AZ1117H-3.3V/NC SOT223

U15 AZ1117H-ADJ/NC SOT223

U16 MT1392E HDMI TX PROCESSOR SPQFP80/SMD

U17 EEPROM 24C16 SO8NB

P2 HDMI TYPE-A HDMI-1

J11 PH-4A

CIRCUIT DIAGRAM - DVD MPEG BOARD

MPEG is not repaired,diagram for referrence only.
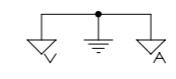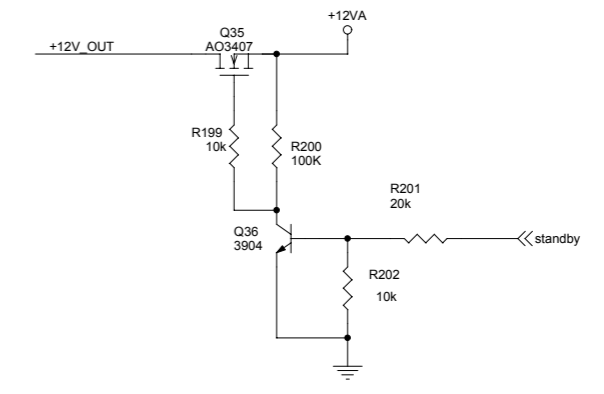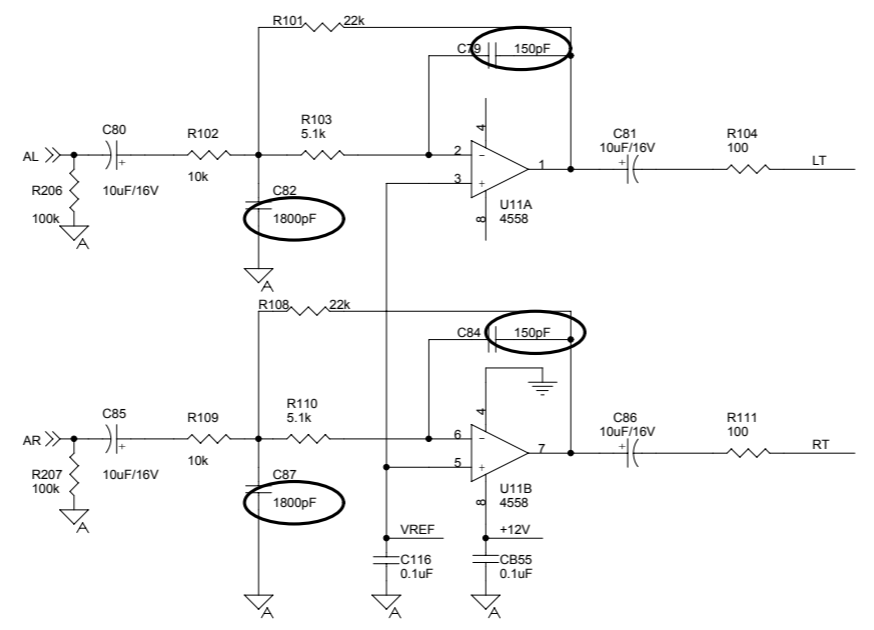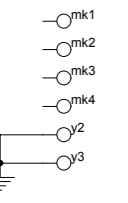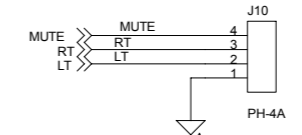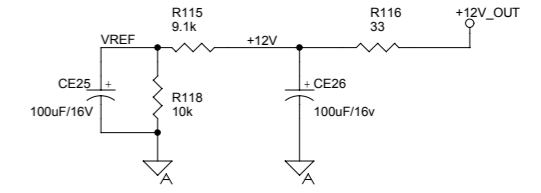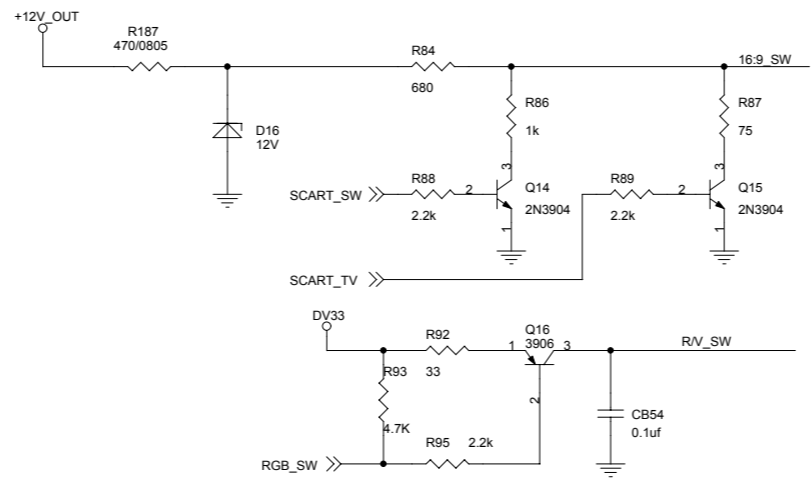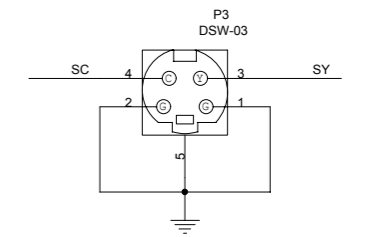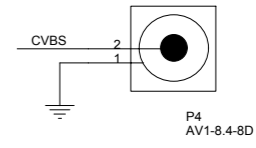
CIRCUIT DIAGRAM - DVD MPEG BOARD

MPEG is not repaired,diagram for referrence only.

CIRCUIT DIAGRAM - DVD MPEG BOARD

MPEG is not repaired,diagram for referrence only.
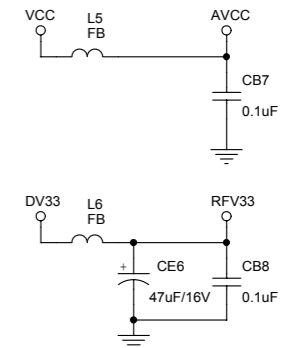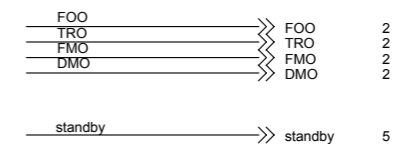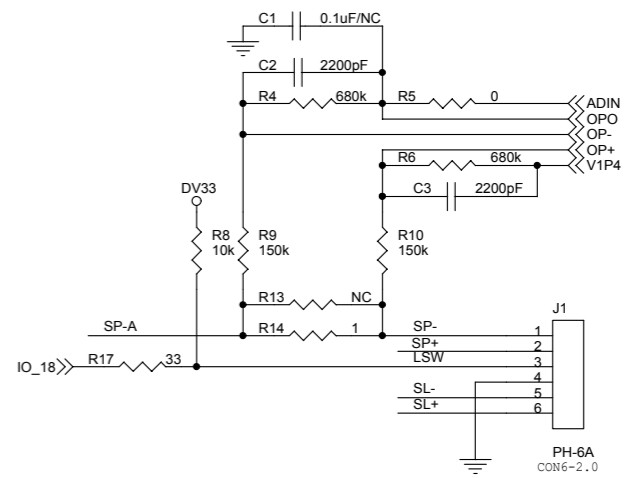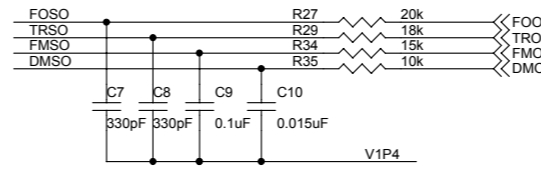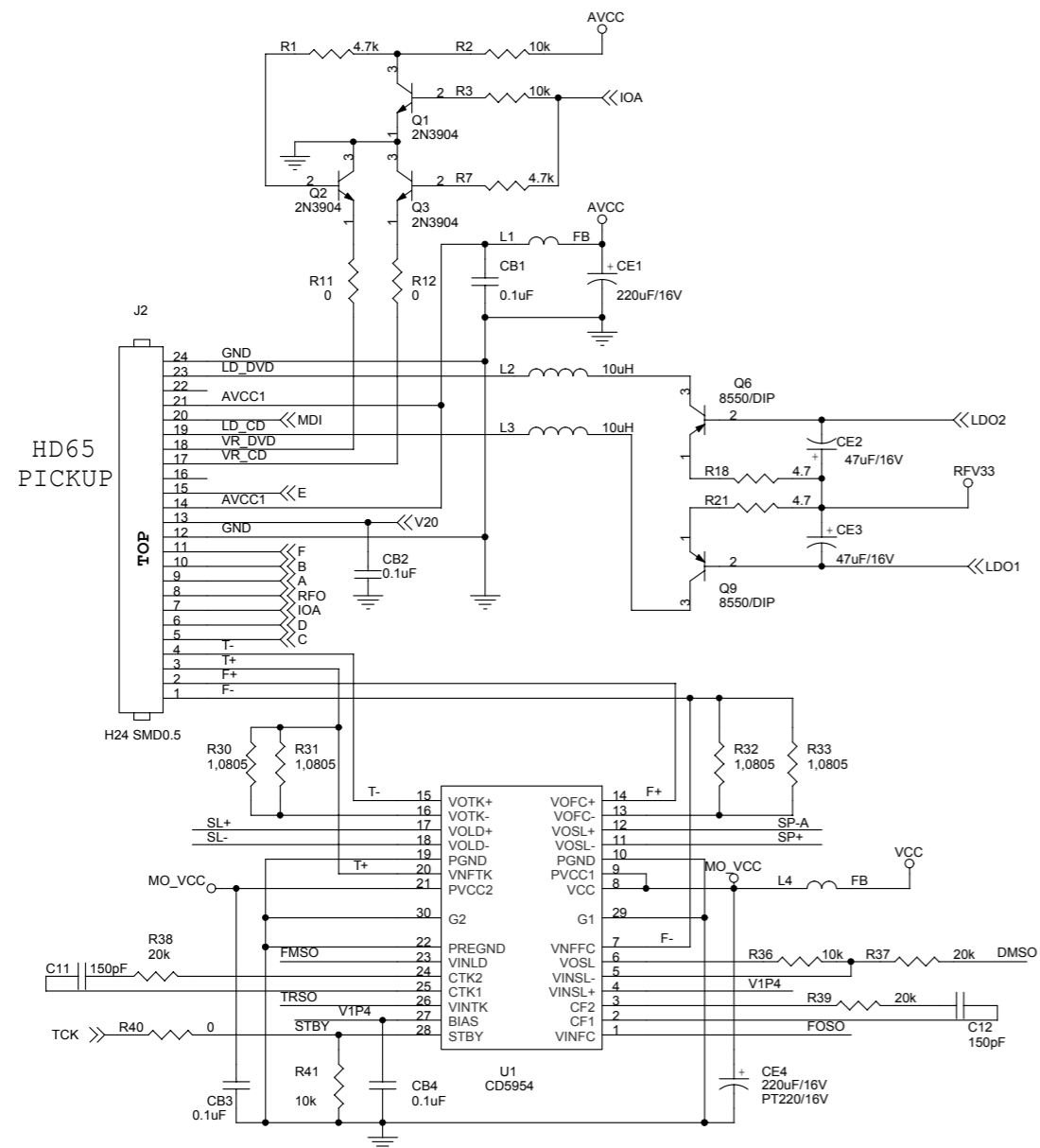
LAYOUT DIAGRAM - DVD MPEG BOARD

MPEG is not repaired,diagram for referrence only.
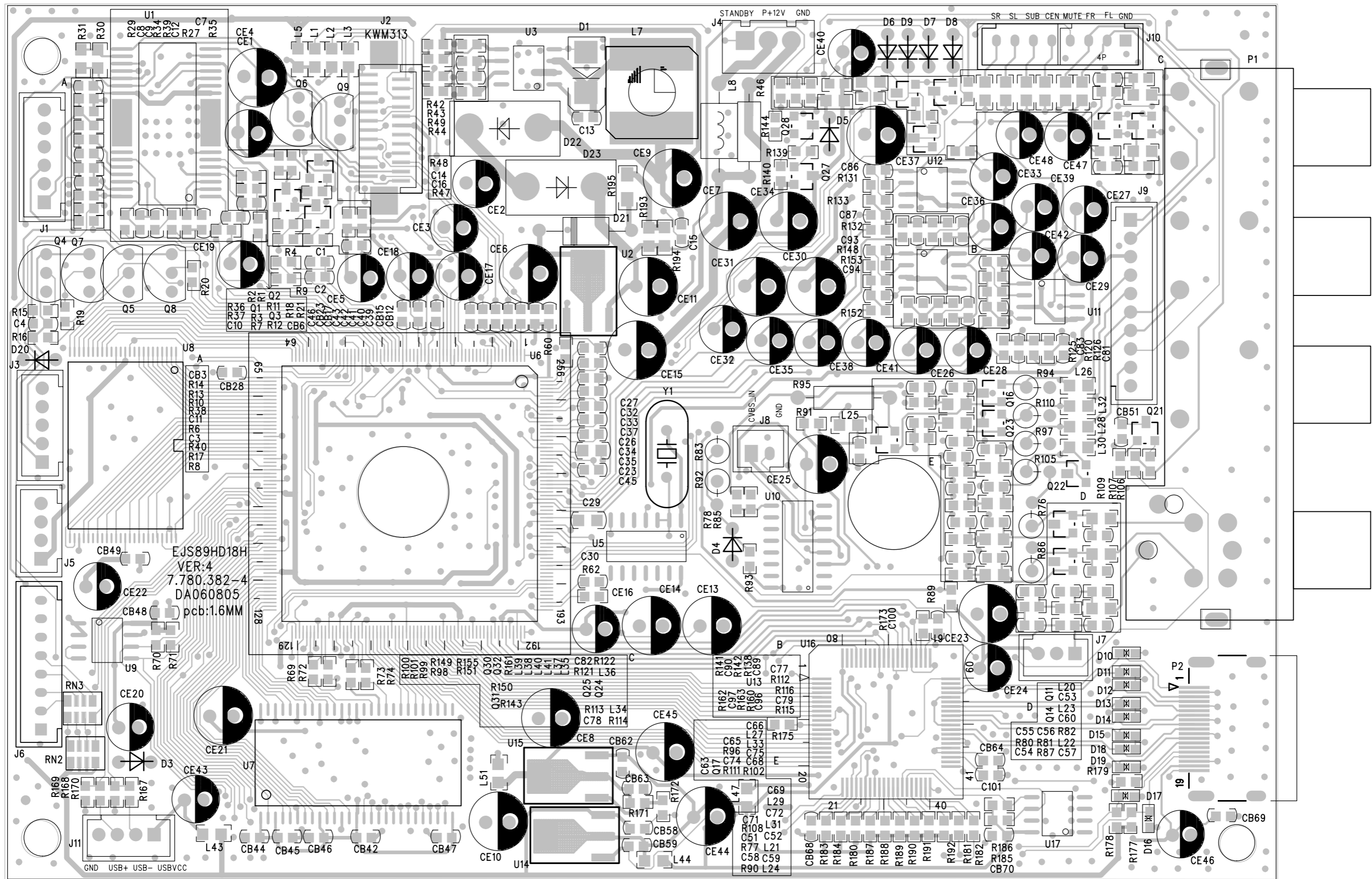
EXPLODED VIEW DIAGRAM

DVD PART

AMP PART

	SCREW LIST
①	M2.5x5
②	M2.5x8
③	M2.5x10
④	M3x8
⑤	M3x10
⑥	TP2.5x4
⑦	TP2.5x10
⑧	T3 x4
⑨	T3 x8
⑩	T3 x10
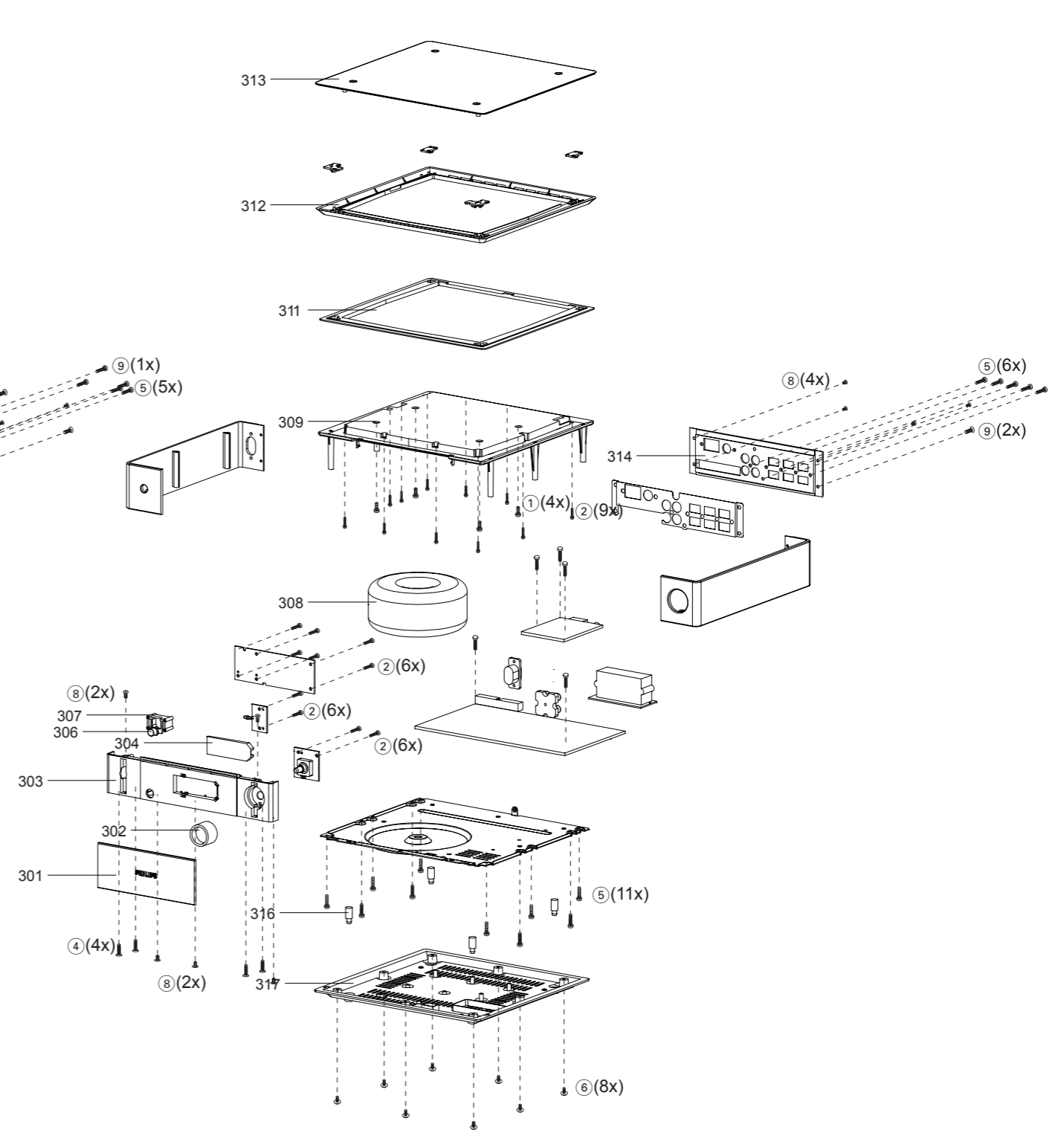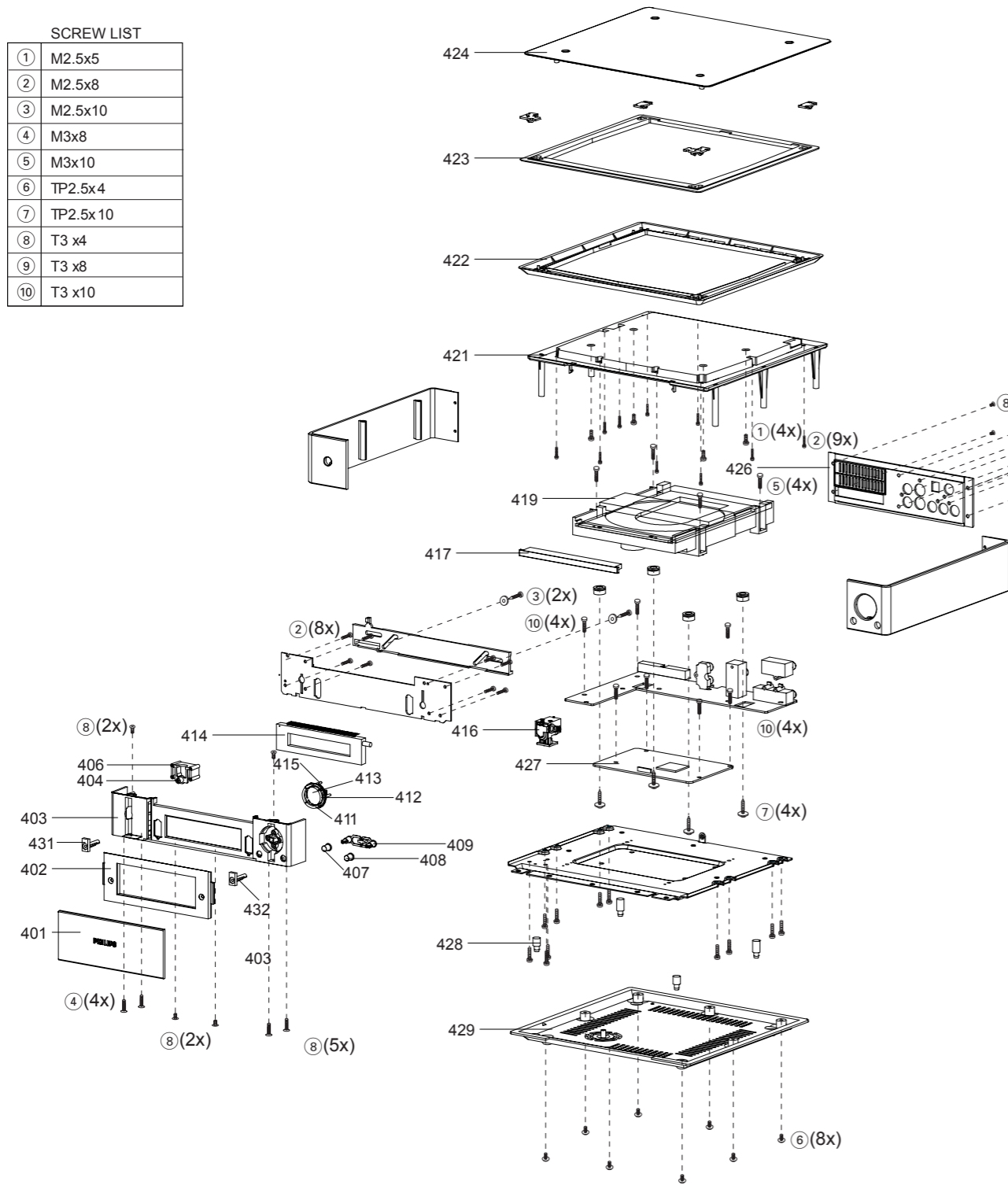
ACCESSORIES

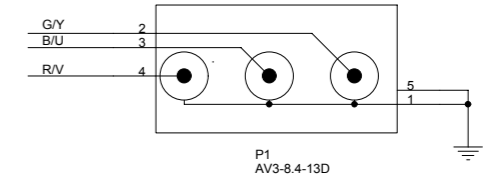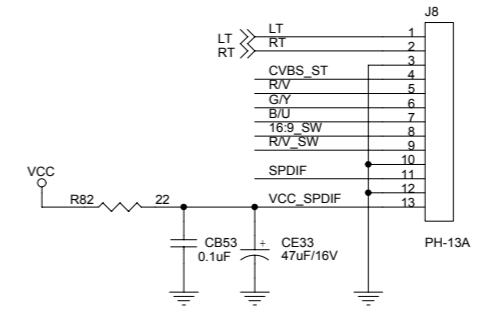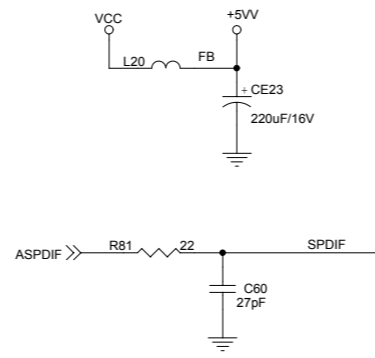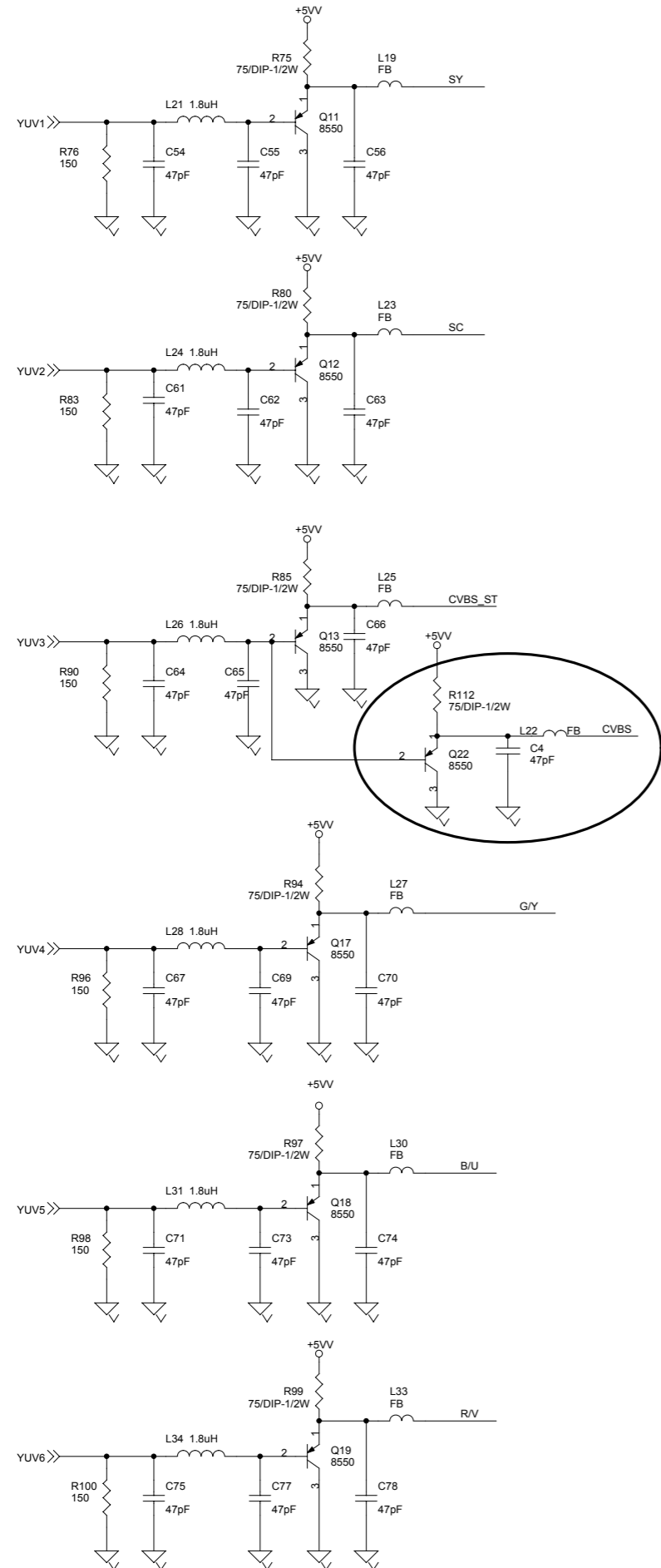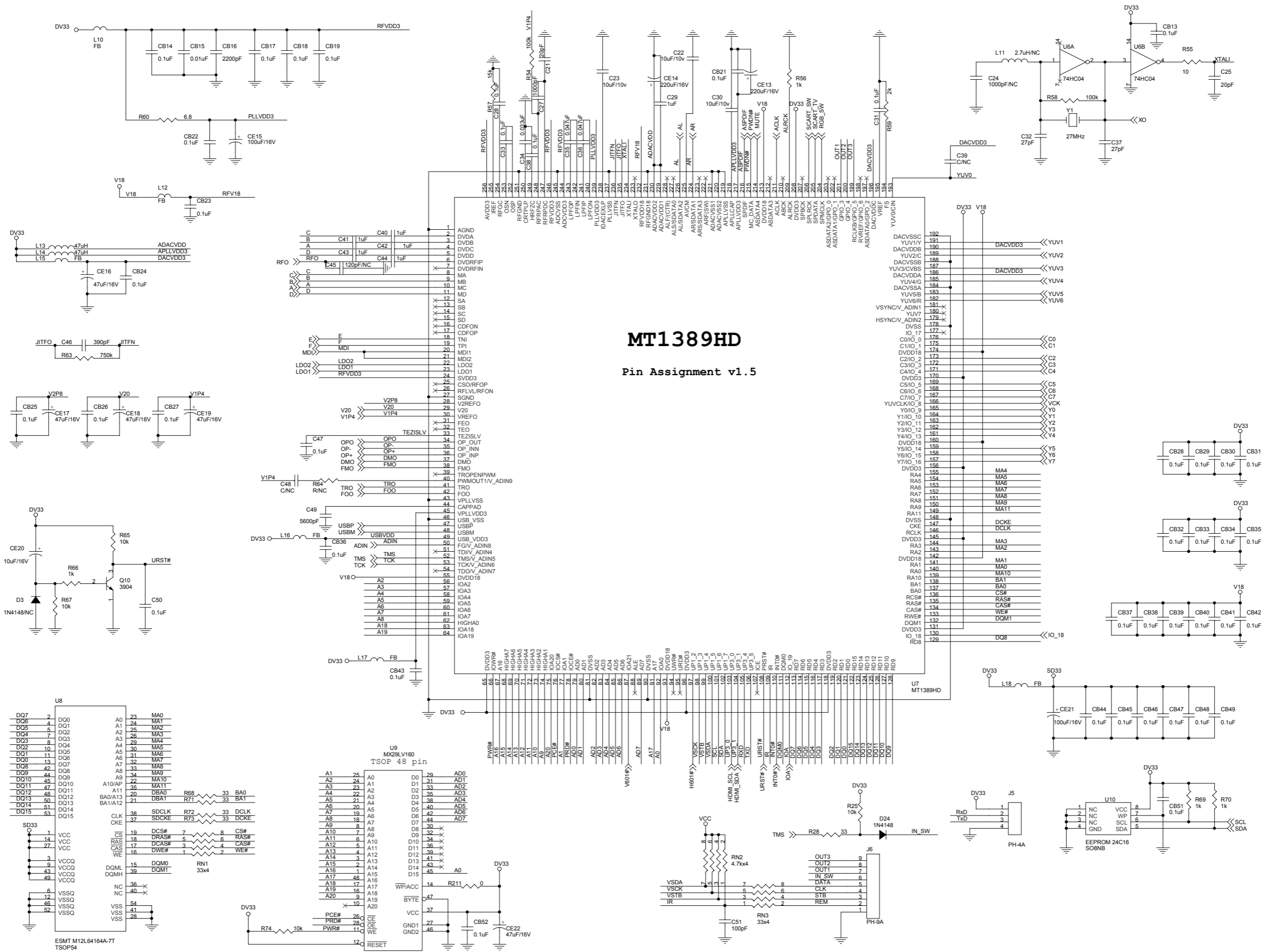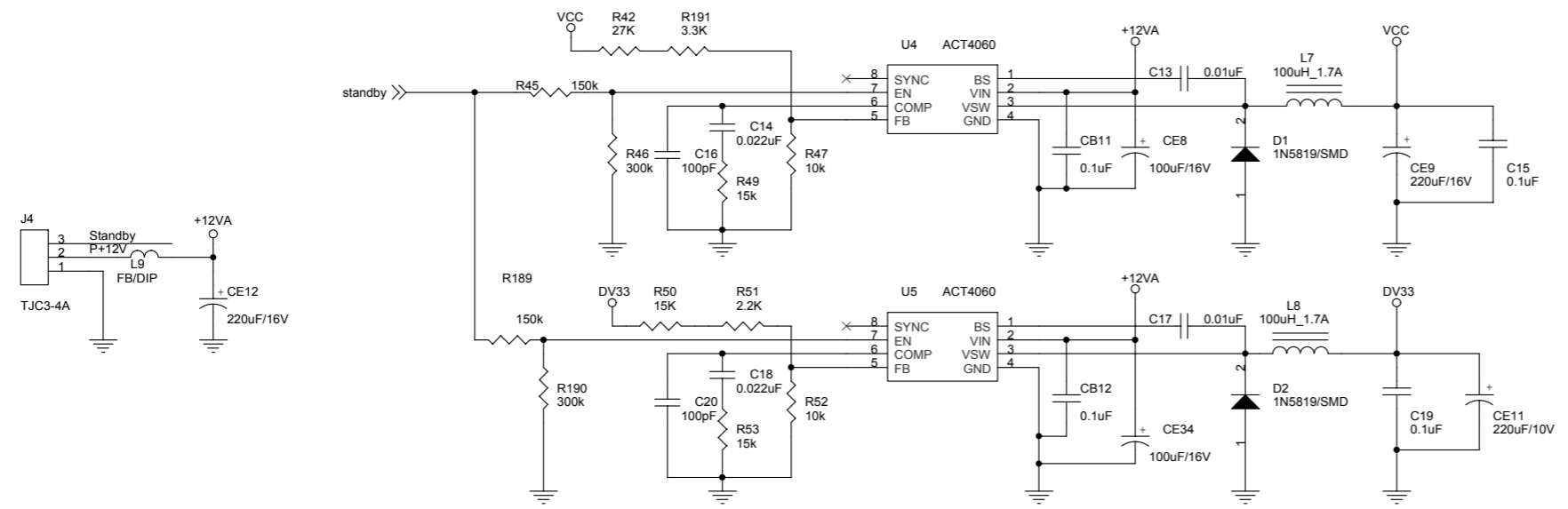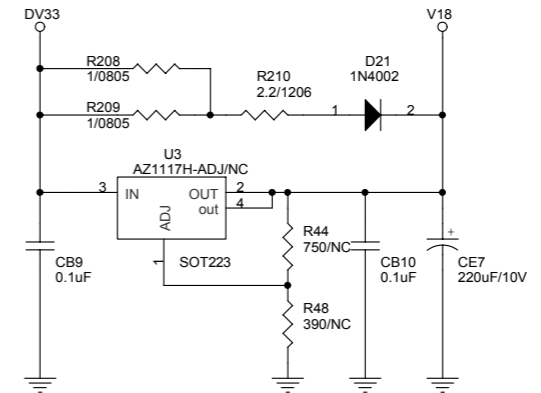|	
996510000489	REMOTE CONTROL ASS'Y -/93
996510000211	REMOTE CONTROL ASSY -/98
996510000212	AM ANTTENNNA 26WIRE 5.5m BLACK
996500041018	FM ANTENNA WIRE 1.5M
996510000213	CONTROL CABLE 350 2.5/34P
994000005166	AC LINE CORD 1.8M
996510000214	SUBWOOFER SPEAKER WIRE 9P 3M
996510000215	SPEAKER CORDS 15M
996510000216	SPEAKER CORDS 8M
996510000217	SPEAKER CORDS 15M
996510000218	VIDEO CABLE 1.5m 3P RD WHI YEL
996510000219	MAIN SPEAKER BOX ASS'Y -/98
996510000220	CENTER SPEAKER BOX ASS'Y -/98
996510000221	ENCIRCLE SPEAKER BOX ASS'Y -/98
996510000222	WOOFER SPEAKER BOX ASS'Y -/98
996510000487	CENTER SPEAKER ONE BOX -/93
996510000488	SPEAKER BOX INCLU.L&R BOX -/93
996510000486	ENCIRCLE SPEAKER BOX INCLU.L&R -/93
996510000479	WOOFER SPEAKER BOX -/93
996500041615	ANTENNA HOLDER ASS'Y AM -/93
996510000490	GIFT BOX PH -/93
996510000491	CARTON BOX PH -/93

MECHANICAL PARTSLIST

AMP PART

301	996510000474	AMP DISPLAY LENS
302	996510000477	AMP VOLUME KNOB
303	996510000469	AMP CABINET FRONT
304	996510000475	LOGO LIGHT GUIDE
306	996510000743	MCD705 AMP SOURCE BUTTON ABS
307	996510000473	AMP SOURCE BUTTON-BRACKET
308	996510000744	TRANSFORMER 429D-98 120/230V -/98
308	996510000482	TRANSFORMER 419D-93 220V/50 -/93
309	996510000240	TOP COVER1 PC
311	996510000239	TOP LIGHT LENS PMMA
312	996510000241	TOP COVER2 ABS
313	996510000470	AMP TOP COVER
314	996510000471	AMP REAR CABINET
316	996510000255	RUBBER FOOT B
317	996510000472	AMP BOTTOM HIPS
	994000004884	AC SOCKET 1A/250V

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

MECHANICAL PARTSLIST

DVD PART

|		
401	996510000253	DVD DISPLAY LENS
402	996500038468	DVD DOOR BRACKET
403	996510000242	DVD CABINET FRONT ABS
404	996510000252	DVD STANDBY BUTTON ABS
406	996510000247	DVD STANDBY BUTTON-BRACKET ABS
407	994000005162	OPEN/CLOSE
408	996510000248	DVD SUR BUTTON ABS
409	996510000246	DVD SKIP BUTTON BRACKET ABS
411	996510000249	DVD CONTROL BUTTON ABS(UP&DOWN)
412	996510000250	DVD CONTROL BUTTON ABS(L&R)
413	996510000251	DVD CONTROL BUTTON CENTRE ABS
414	996500041321	VFD DISPLAY
415	996510000245	DVD CONTROL BUTTON BRACKET ABS
416	996500041634	MOTOR ASS'Y MCD708 -/98
416	996510000454	MOTOR ASS'Y -/93
417	996510000244	DVD DOOR ABS
419	996500042540	DVD DISC ASS'Y -/98
419	996510000453	DVD DISC ASS'Y -/93
421	996510000240	TOP COVER1 PC
422	996510000239	TOP LIGHT LENS PMMA
423	996510000241	TOP COVER2 ABS
424	996510000238	DVD TOP COVER ABS
426	996510000243	MCD759 DVD REAR CABINET
427	996510000460	DECODER CARD ASS'Y -/93
427	996510000257	DECODER CARD ASS'Y -98
428	996510000254	RUBBER FOOT A
428	996510000255	RUBBER FOOT B
429	996500038160	DVD CABINET BOTTOM
431	994000005163	DVD DOOR POST-L
432	994000005164	DVD DOOR POST-R
	996510000256	FLAT FLEX CABLE 24PX120X0.5XA

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

ELECTRICAL PARTSLIST - DVD PART

- MISCELLANEOUS -

R25	⚠	996500038168	FUSE F1A/125V
R90	⚠	996500038168	FUSE F1A/125V
X1		994000004945	CER. FILTER FREQUENCY 4.19MHZ
X2		996510000012	CRYSTAL OSC FREQ.32.768KHz
SW601		994000004963	LIGHT TOUCH SW. TC103 H5
SW602		994000004963	LIGHT TOUCH SW. TC103 H5
SW603		994000004963	LIGHT TOUCH SW. TC103 H5
SW604		994000004963	LIGHT TOUCH SW. TC103 H5
SW605		994000004963	LIGHT TOUCH SW. TC103 H5
SW606		994000004963	LIGHT TOUCH SW. TC103 H5
SW607		994000004963	LIGHT TOUCH SW. TC103 H5
SW608		994000004963	LIGHT TOUCH SW. TC103 H5
VFD701		996500041321	VFD DISPLAY
CJ401		996510000235	OPTICAL DIGITAL JACK TX179AT
J200		996510000228	RCA SOCKET 2p AV2-8.4-13 RD WH
		996510000236	TUNER BOARD PCB ASS'Y EC06-04
		996510000224	CPU PCB ASS'Y MCD759
		996510000229	DISPLAY PCB ASS'Y MCD759

- DIODES -

LED1103	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1104	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1200	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1100	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1101	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1201	994000004947	LED DIODE D3 3B4SCB01 (BLUE)

- IC & TRANSISTORS -

IC1	996510000226	IC PT2323 SOP
IC2	996510000225	IC PT2322 SOP
IC3	996510000227	MCU PARTS ASS'Y /98
IC3	996510000452	MCU PARTS ASS'Y /93
IC4	994000004951	IC 24C01A-SC27
IC6	996510000010	IC LM7805/LM340T5 7805
IC9	996510000010	IC LM7805/LM340T5 7805
IC601	994000004958	IC PT6311/SC16311/CD16311

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

ELECTRICAL PARTSLIST - AMP PART

- MISCELLANEOUS -

F201	⚠	994000004872	FUSE F6.3A L250V (in AMP board)
F201	⚠	994000004867	FUSE F2AL250V
F202	⚠	994000004872	FUSE F6.3A L250V
F203	⚠	996500042106	FUSE F1.5A/125V
SW901		996510000263	LIGHT TOUCH SWITCH 6X6X5

JACK201	994000004943	S-SOCKET DS-106
JACK501	996510000467	POWER SOCKET DC-101A-EP
JACK502	996510000467	POWER SOCKET DC-101A-EP
JACK503	996510000467	POWER SOCKET DC-101A-EP
XT201	996510000266	CERAMIC FILTER CRB 700KHz

XT202	996510000265	CERMIC FILTER CRB 600KHz
	996500041645	ROT ENCODER
	994000004961	IR SENSOR BLACK
	996510000523	SWITCH VSC-22-1-110/220V-m
	996510000264	AMP PCB ASS'Y -2 MCD759

- DIODES -

LED1001	996510000260	WHITE LED DIODE 3R41W71W-EB
LED1103	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1104	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1200	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1100	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1101	994000004947	LED DIODE D3 3B4SCB01 (BLUE)
LED1201	994000004947	LED DIODE D3 3B4SCB01 (BLUE)

- IC & TRANSISTORS -

IC202	994000004937	IC 7812
IC203	996510000464	CHIP IC TDA8920
IC204	996510000464	CHIP IC TDA8920
IC205	996510000463	CHIP IC 74HCU04D
IC206	996510000267	IC HEF4013T CHIP

Q202	994000004938	TRANSISTOR 2SB772A
Q206	996500042558	MOSFET BUK7509-55A
Q207	996500042558	MOSFET BUK7509-55A
Q210	996510000006	MOSFET BUK7535-55A

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

ELECTRICAL PARTSLIST - WOOFER SPEAKER BOX(only for -/93)

- MISCELLANEOUS -

	996510000480	SUPER WOOFER SPEAKER BOX ASS'Y /93
	996510000481	WOOFER SPEAKER 8" 8Ω 150W
	994000004884	AC SOCKET 1A/250V (AC-001)
	996510000482	TRANSFORMER 419D-93 220V/50 /93
	996510000483	SWITCH KCD-1 8A/250V
	996510000484	WOOFER AMP PCB ASS'Y
Q202	994000004938	TRANSISTOR 2SB772A
Q206	996500042558	MOSFET BUK7509-55A
Q207	996500042558	MOSFET BUK7509-55A
F201 ⚠	994000004872	FUSE F6.3AL250V(50F)
F202 ⚠	994000004872	FUSE F6.3AL250V(50F)
F203 ⚠	994000004872	FUSE F1.5A/125V
IC205	996510000463	CHIP IC 74HCU04D
JACK302	996510000467	POWER SOCKET DC-101A-EP
JACK301	996510000467	POWER SOCKET DC-101A-EP
JACK201	994000004943	S-SOCKET DS-106
IC206	996510000267	IC HEF4013T CHIP
IC202	994000002526	IC 7812
IC203	996510000464	CHIP IC TDA8920(PACKING)
IC204	996510000464	CHIP IC TDA8920(PACKING)
IC201	994000004978	IC TL072 (PACKING NE4558)

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

REVISION LIST

Version 1.0 (3141 785 31290)

- Initial Release

Version 1.1 (3141 785 31291)

- New version MCD759/93 is introduced.
- Pages 13-2   : Mechanical parts list adapted.
- Pages 14-1 and 14-3   : Electrical parts list adapted.