

Service
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Service Manual

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3141 785 30824

1.0 TECHNICAL SPECIFICATION

General

Dimensions (WxLxH):	26 x 18 x 3.0 cm 10.2 x 7 x 1.2 inches
Weight:	1.13 kg / 2.48 lb
Power supply:	DC 9V 2.2A
Power consumption:	30W
Operating temp. range:	0 - 50°C (32 ~ 122°F)
Laser wavelength:	650nm
Video system:	NTSC / PAL / AUTO
Frequency response:	20Hz ~ 20KHz ± 1dB
Signal/noise ratio:	≥85dB
Audio distortion + noise:	≤80(1KHz)
Channel separation:	≥85dB
Dynamic range:	≥80dB
Output	
Audio out (analog audio):	Output level: 2V ± 10%
Load impedance:	10KΩ
Video out Output level:	1Vp - p ± 20%
Load impedance:	75Ω
Current consumption	

DC-IN SUPPLY (9.0V)	
Battery Charging Current	1.2A typ.
BATT. SUPPLY (7.2V)	
Power Off	0A
Playback with TFT on	<1.2A typ.
Playback without TFT on	<600mA
Battery playtime	>2.5hrs

Headphone out (headphone output load 2x16ohm)

Maximum output power:	>10mW
Frequency response:	20Hz - 20kHz
SNR (A-wght):	80dB typ.
THD (1kHz):	<1%
Left-Right Channel Separation:	32dB typ.
Left-Right Channel Balance:	1dB

Supported disc type

DVD video discs:



Video CD:



Audio CD:



DivX video discs:



In addition, this unit can play DVD+R & DVD+RW and CD-R & CD-RW that contains audio titles or MP3 or JPEG files.

You cannot play disc other than the above listed. (CVD, CD-ROM, CD-Extra, CD-G and CD-I discs cannot be played on this DVD player)

Software upgrades

For the best performance of your DVD Portable. Check www.philips.com/support for latest software upgrades available.

To check the software version of your DVD Portable.

1. Press the SETUP key to enter the setup menu.
2. Press RETURN and then press 1, 2 and 3 on the remote control.
3. The display will show the software version as the date of which the software was built on the bottom of the screen. E.g. 050303

Procedure on how to upgrade the software of the DVD Portable

1. Download the latest software from the Philips support site.
2. Unzipped the files and then burn it onto a CD ROM then playback the CD ROM on the DVD Portable.

Pixel specification

≤ 3 (max. 0 bright dots and 3 dark dots)

2.0 SAFETY INSTRUCTIONS

GB WARNING

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

F ATTENTION

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

D WARNUNG

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

ESD



NL WAARSCHUWING

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

I AVVERTIMENTO

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

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

NL

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



F

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

GB Warning !

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

D

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

S Varning !

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

I

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

SF Varoitus !

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

DK Advarse !

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

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

2.1 ESD PROTECTION

- レンズには絶対に触れないでください。
- DO NOT TOUCH THE LENS.
- LINSE NICHT BRÜHREN.
- NE PAS TOUCHER LA LENTILLE.

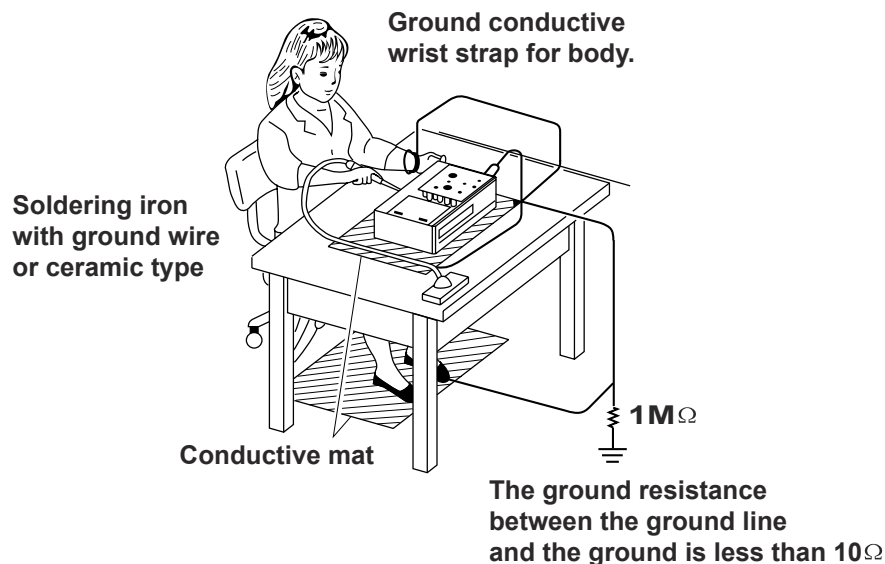
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

PREPARATION OF SERVICING

Pickup Head consists of a laser diode that is very susceptible to external static electricity.

Although it operates properly after replacement, if it was subject to electrostatic discharge during replacement, its life might be shortened. When replacing, use a conductive mat, soldering iron with ground wire, etc. to protect the laser diode from damage by static electricity.

And also, the LSI and IC are same as above.



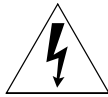
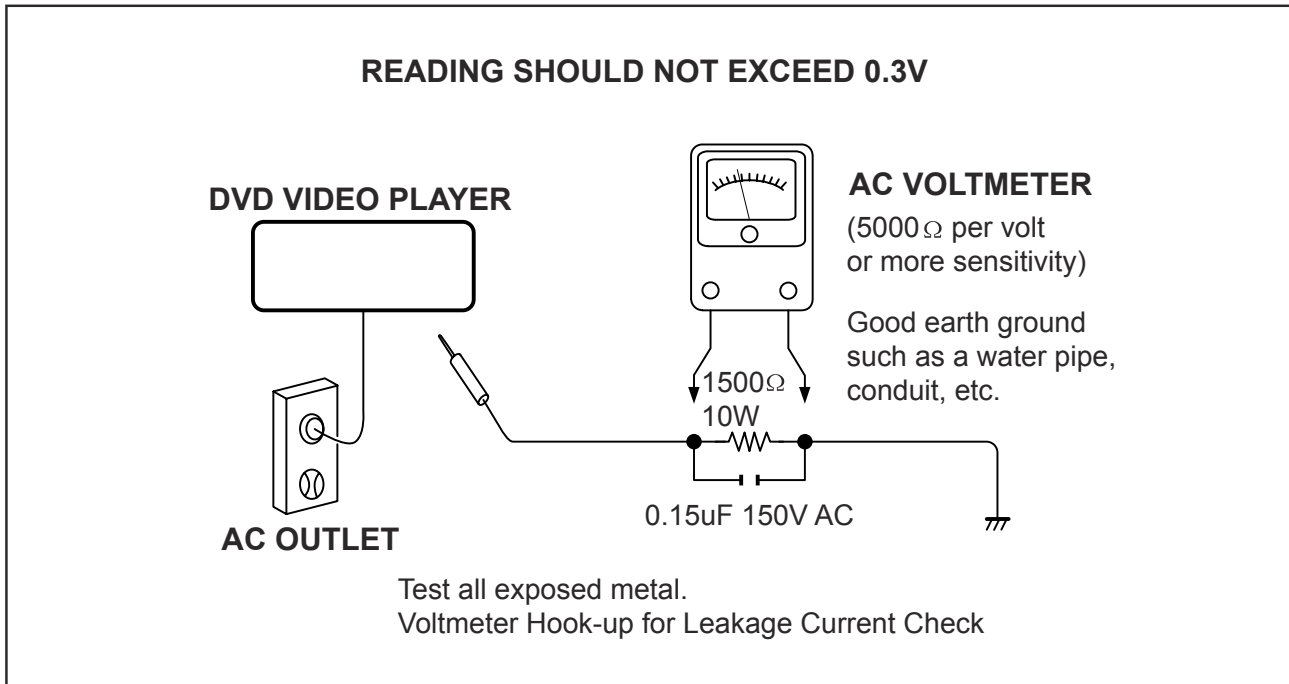
SAFTY NOTICE

SAFTY PRECAUTIONS

LEAKAGE CURRENT CHECK

Plug the AC line cord directly into a 120V AC outlet (do not use an isolation transformer for this check). Use an AC voltmeter, having 5000Ω per volt or more sensitivity. Connect a 1500Ω 10W resistor, paralleled by a $0.15\mu\text{F}$ 150V AC capacitor between a known good earth ground (water pipe, conduit, etc.) and all exposed metal parts of cabinet (antennas, handle bracket, metal cabinet screwheads, metal overlays, control shafts, etc.).

Measure the AC voltage across the 1500Ω resistor. The test must be conducted with the AC switch on and then repeated with the AC switch off. The AC voltage indicated by the meter may not exceed 0.3V. A reading exceeding 0.3V indicates that a dangerous potential exists, the fault must be located and corrected. Repeat the above test with the DVD VIDEO PLAYER power plug reversed. NEVER RETURN A DVD VIDEO PLAYER TO THE CUSTOMER WITHOUT TAKING NECESSARY CORRECTIVE ACTION.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

3.0 INSTRUCTIONS FOR USE

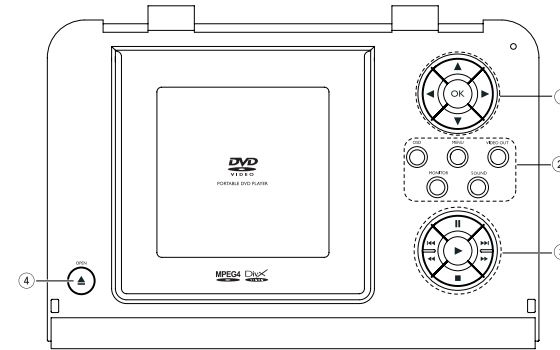
- | | |
|--|--|
| <p>① ▲, ▼, ◀, ▶
Up / down / left / right cursor
OK
Confirms selection</p> <p>② OSD
On Screen Display on / off
MENU
Displays MENU page
VIDEO OUT
Selection video format
- COMPONENT OUT(YPBPR)
- COMPONENT OUT(YCBCR)
- A/V or S-VIDEO OUT
- A/V IN (AUX)
MONITOR
Selection display
☀ To adjust the brightness with
◀ ▶
🎨 To adjust the color with ◀ ▶

☐ To adjust the screen of 16:9
or 4:3 with ◀ ▶
SOUND
Virtual surround sound on / off</p> <p>③ II
Pause playback
▶
Starts / resumes playback
■
Press twice to stop playback
◀◀ / ▶▶
For previous (◀◀) or next (▶▶)
chapters, tracks or titles
◀◀ / ▶▶
Search backward (◀◀) or search
forward (▶▶)</p> | <p>④ ▲ OPEN
Opens disc door to insert or
remove disc</p> <p>⑤ POWER/CHG
Power and charging indicator
IR
Remote sensor</p> <p>⑥ ON · POWER · OFF
Switches the player on / off</p> <p>⑦ 🎧
Headphones jack</p> <p>⑧ VOLUME ▮
Volume control</p> <p>⑨ A/V OUT
Audio/video output jack</p> <p>⑩ A/V IN
Audio/video input jack</p> <p>⑪ DIGITAL AUDIO OUT
Digital Audio output jack</p> <p>⑫ S-VIDEO OUT
S-Video output jack</p> <p>⑬ COMPONENT VIDEO
Component video output jack</p> <p>⑭ DC IN 9V
Power supply socket</p> |
|--|--|

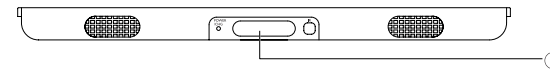
CAUTION

Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

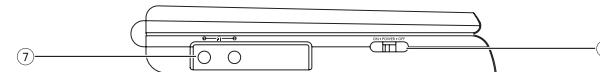
DVD PLAYER LAYOUT



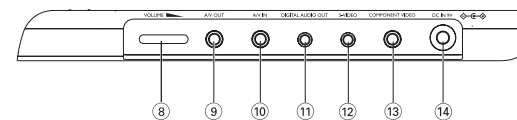
Main unit controls



Front of player



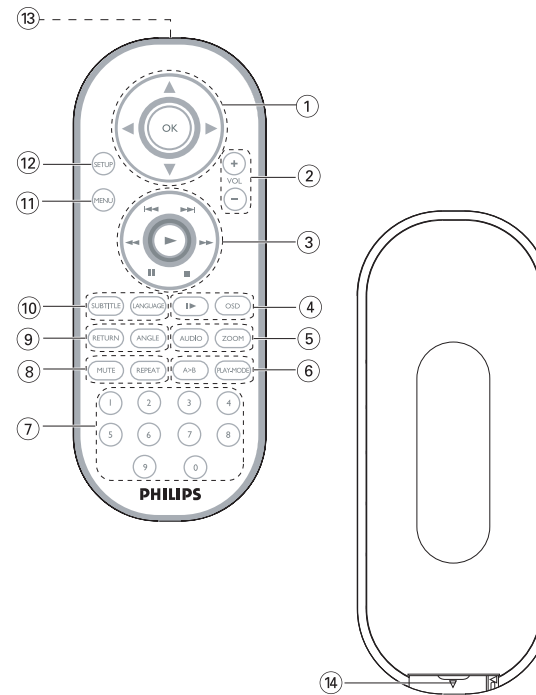
Left of player



Right of player

Remote Control

- | | |
|--|--|
| <p>① ◀, ▶, ◀, ▶
Up / down / left / right cursor
OK
Confirms selection</p> | <p>⑦ 0 - 9
Numeric keypad</p> |
| <p>② VOLUME
Volume control</p> | <p>⑧ MUTE
Muting play volume
REPEAT
Repeats chapter / title / disc</p> |
| <p>③ ◀◀ / ▶▶
For previous (◀◀) or next (▶▶)
chapters, tracks or titles
II
Pause playback
▶
Starts / resumes playback
■
Press twice to stop playback
◀◀ / ▶▶
Search backward (◀◀) or search
forward (▶▶)</p> | <p>⑨ RETURN
For VCD menu page
ANGLE
Selects DVD camera angle</p> |
| <p>④ OSD
On Screen Display on / off
▶
Slow motion</p> | <p>⑩ SUBTITLE
Subtitle language selector
LANGUAGE
Language selector</p> |
| <p>⑤ AUDIO
Audio language selector
ZOOM
Enlarges video image</p> | <p>⑪ MENU
Displays MENU page</p> |
| <p>⑥ A > B
To repeat or loop a sequence
in a title
PLAY-MODE
Selects play order options</p> | <p>⑫ SETUP
Enters SETUP menu</p> <p>⑬ INFRA RED PORT</p> <p>⑭ BATTERY COMPARTMENT</p> |



4.0 MECHANICAL INSTRUCTIONS

1. Back View as Fig.1

Remove 12 screws to remove base



Fig.1

2. Soldered short pattern for laser diode as Fig.2

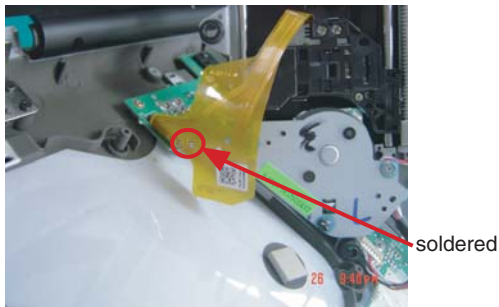


Fig.2

3. Remove DVD driver and main board as Fig.3,4

Broken connection of DVD driver and main board



Fig.3

Remove DVD driver and main board

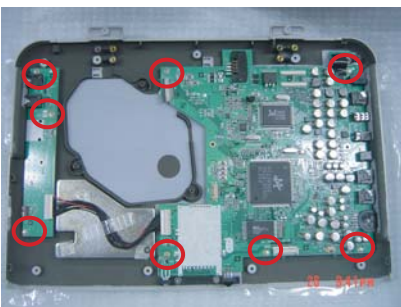


Fig.4

4. Remove key board and other parts as Fig.5

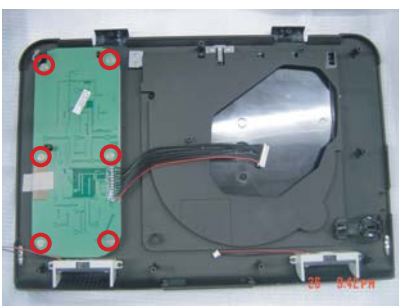


Fig.5

5. Remove top cover as Fig.6



Fig.6

6. Remove IF board and HV board as Fig.7



Fig.7

7. Remove LCD TFT as Fig.8

Remove screw to remove LCD TFT as Fig.8



Fig.8

5.0 TROUBLESHOOTING & SERVICE TIPS

Procedure to change regioncode

1. Power on player and open DVD Door.
2. Press <Set Up> at Remote Control. In <Set Up Menu> select <Preferences> then press <OK>.
3. For PET1002 - Press successively 2 1 2 2 2 5.◀.▼.
4. Display will show <Region Code 2> for Europe:
5. Press key to input preference region code (see below table).
6. Switch off and re-switch on the product.
7. Verify Region code change done.

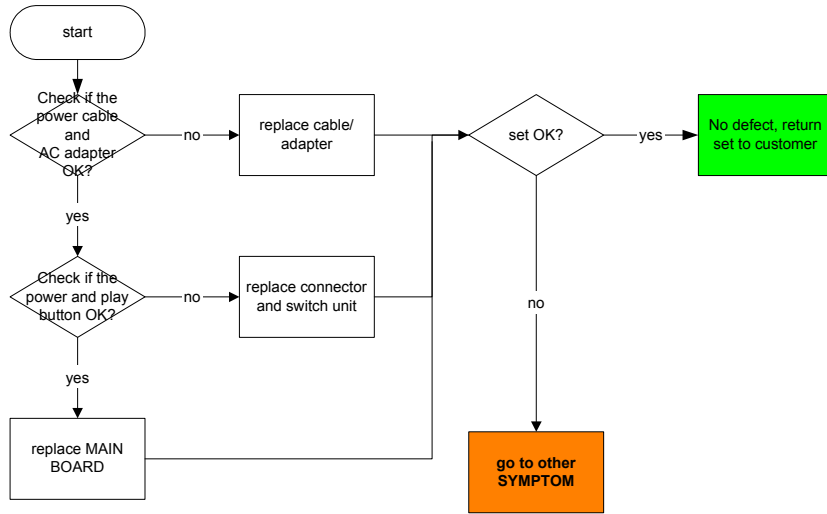
Region Code	Region
1	USA
2	EUROPE
3	ASIA PACIFIC
4	AUSTRALIA, NEW ZEALAND, LATAM
5	RUSSIA, INDIA
6	CHINA

REMARKS:

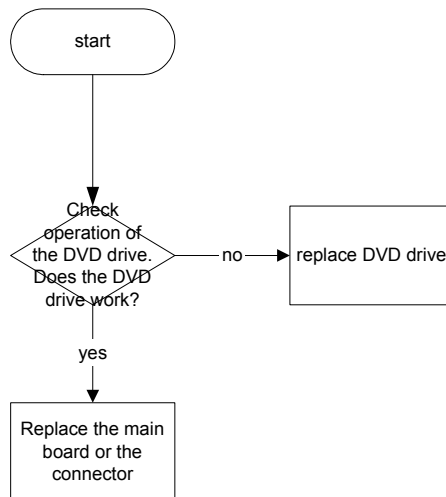
1. Password is **CONFIDENTIAL**.
2. Region code is printed on product type plate. Due to DVD legislation region codes different to assigned region may not be released.

5.0 TROUBLESHOOTING & SERVICE TIPS

SYMPTOM: NO POWER, NO GREEN LED

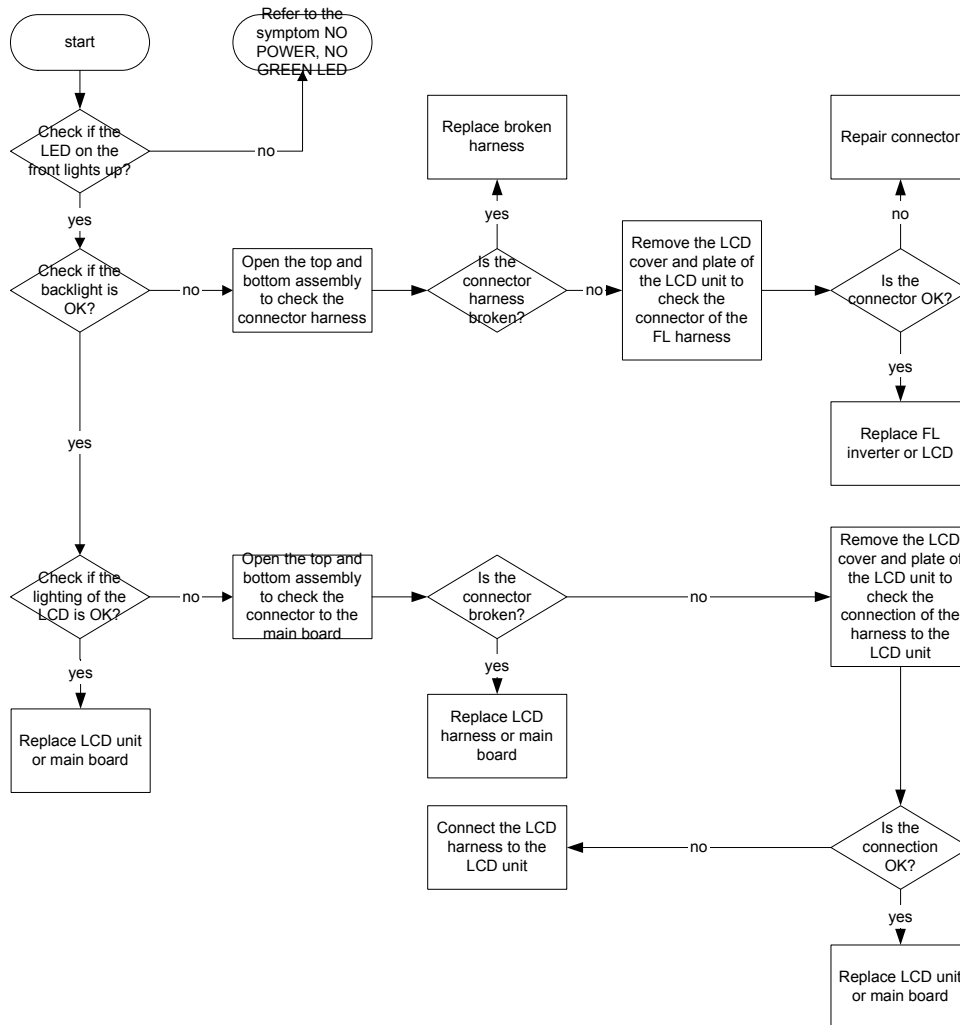


SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL OUTPUT

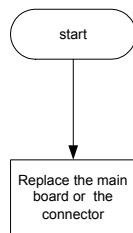


5.0 TROUBLESHOOTING & SERVICE TIPS

SYMPTOM: THE INITIAL SCREEN IS NOT DISPLAYED ON THE LCD

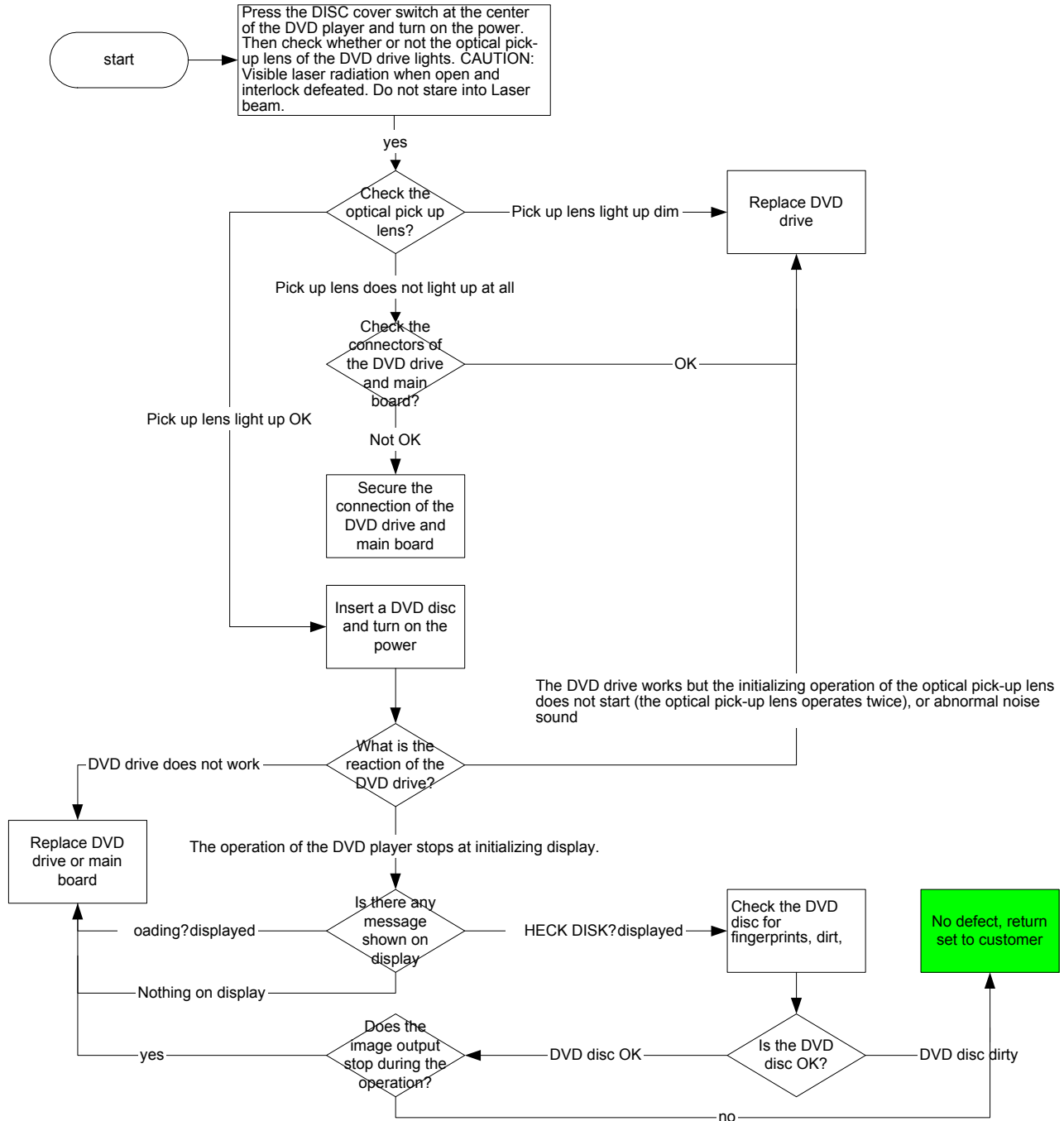


SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL INPUT



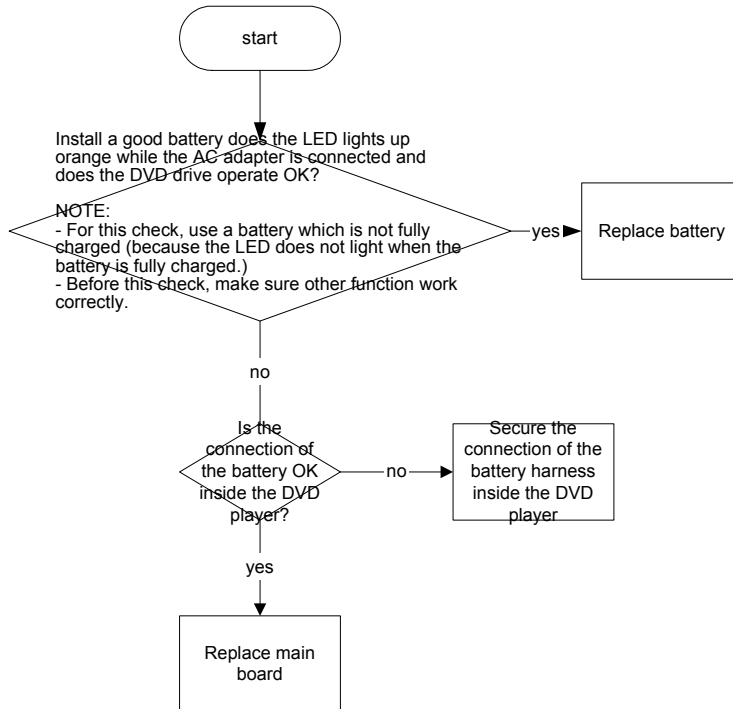
5.0 TROUBLESHOOTING & SERVICE TIPS

SYMPTOM: THE DVD DRIVE DOES NOT WORK

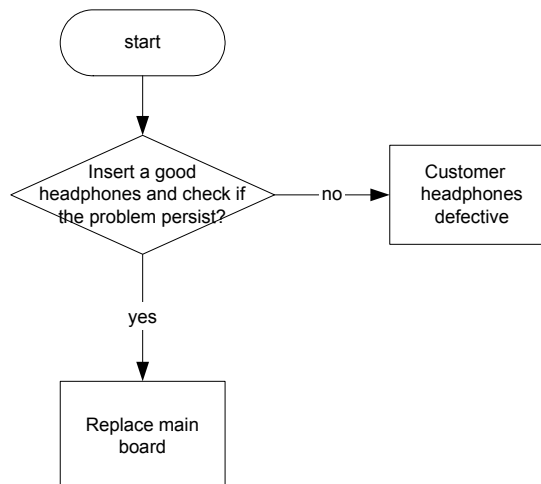


5.0 TROUBLESHOOTING & SERVICE TIPS

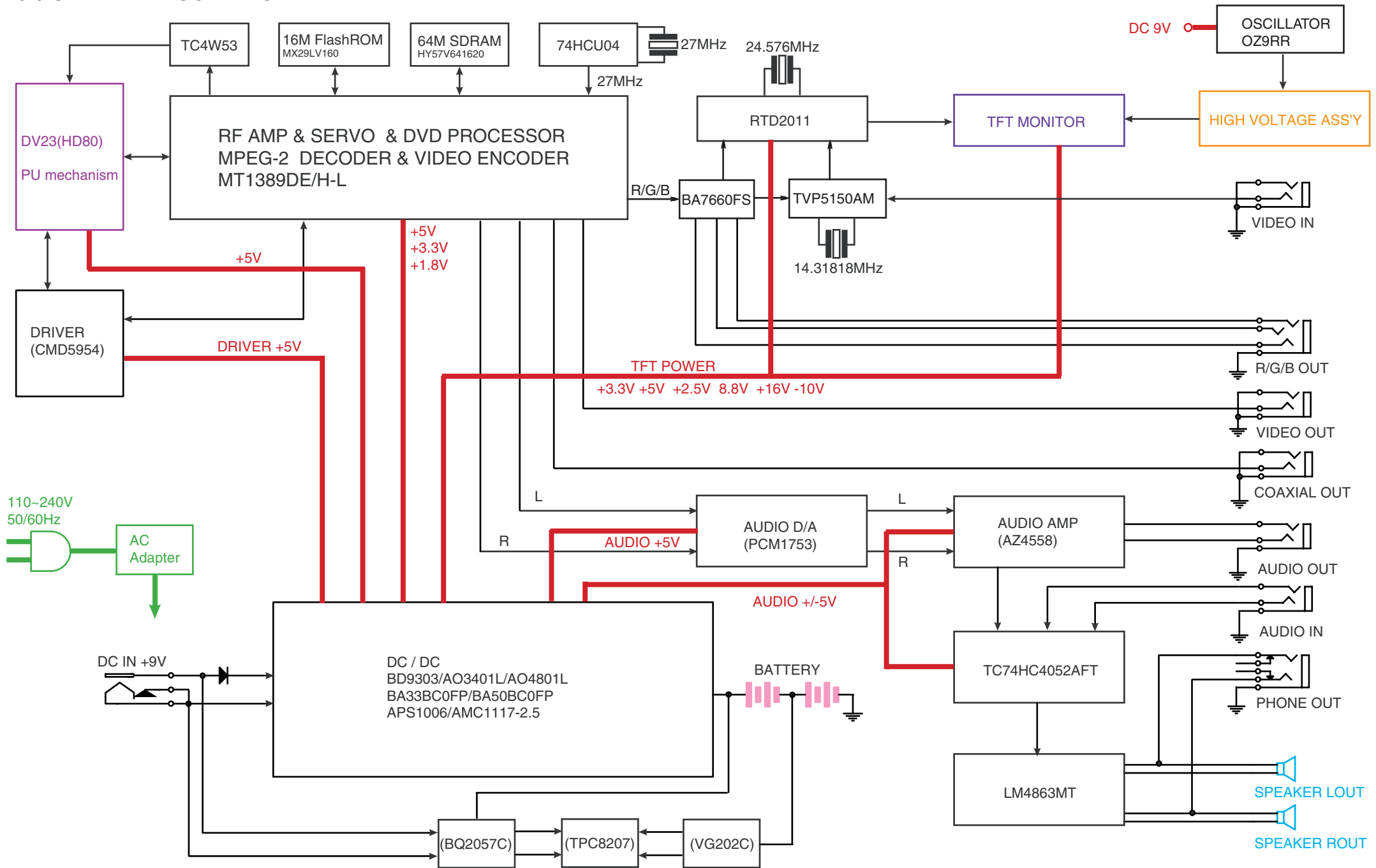
SYMPTOM: THE DVD DRIVE DOES NOT OPERATE WITH BATTERY



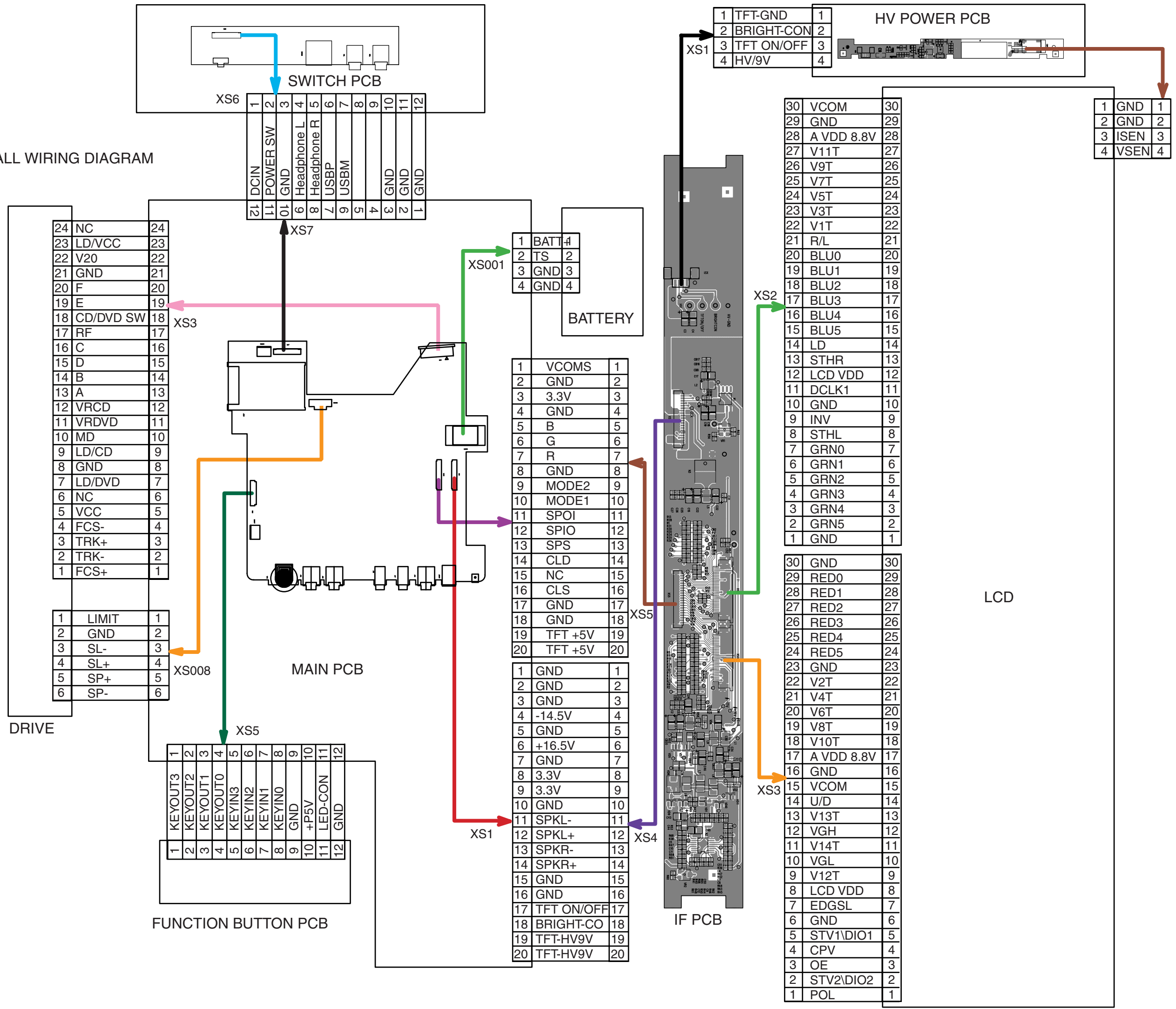
SYMPTOM: NO SOUND COMES FROM THE HEADPHONES



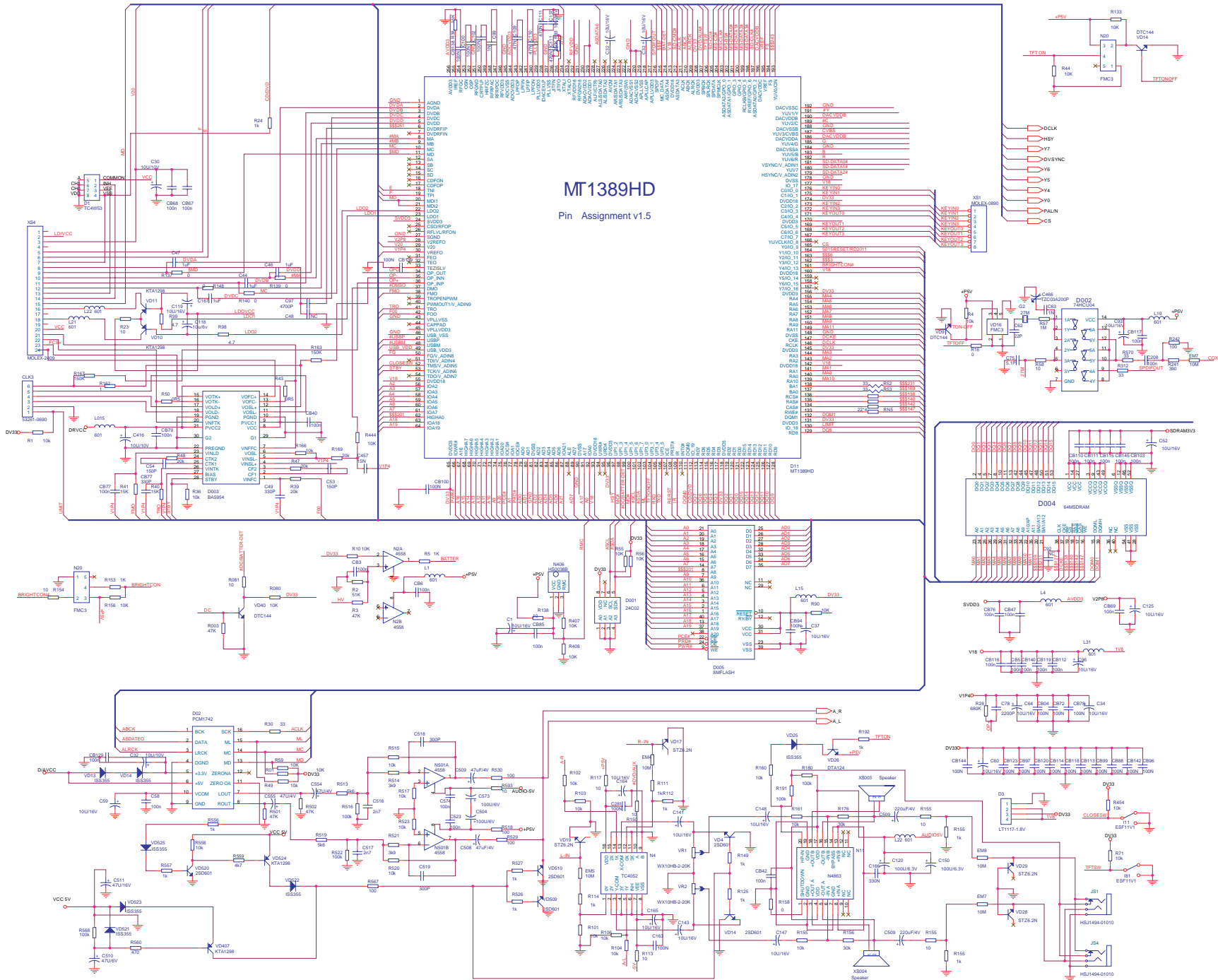
6.0 OVERALL BLOCK DIAGRAM



7.0 OVERALL WIRING DIAGRAM



8.0 ELECTRICAL DIAGRAM MAIN BOARD CIRCUIT DIAGRAM (MPEG & SERVO & AV OUT)

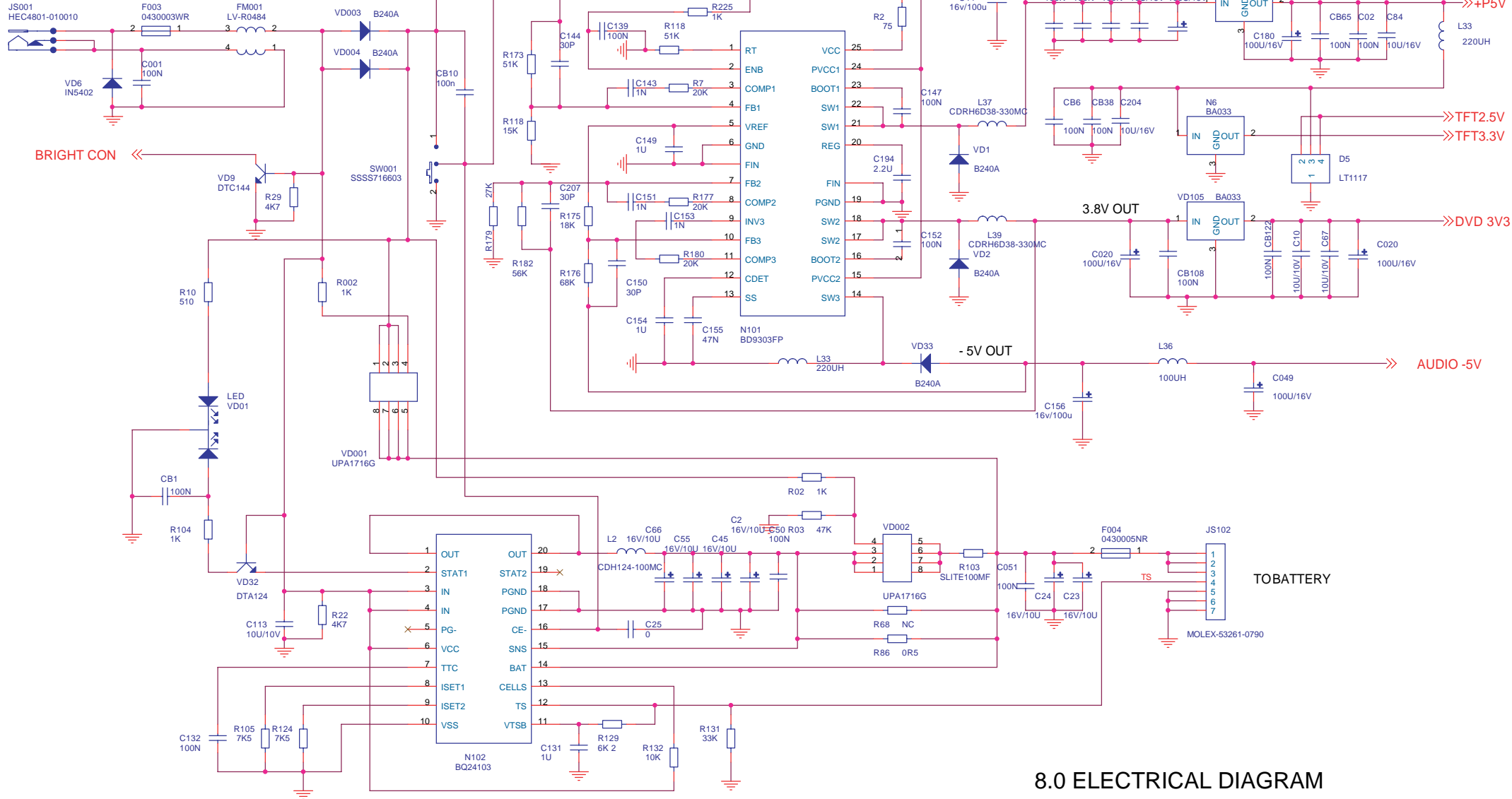


8.0 ELECTRICAL DIAGRAM MAIN BOARD CIRCUIT DIAGRAM (DC POWER)



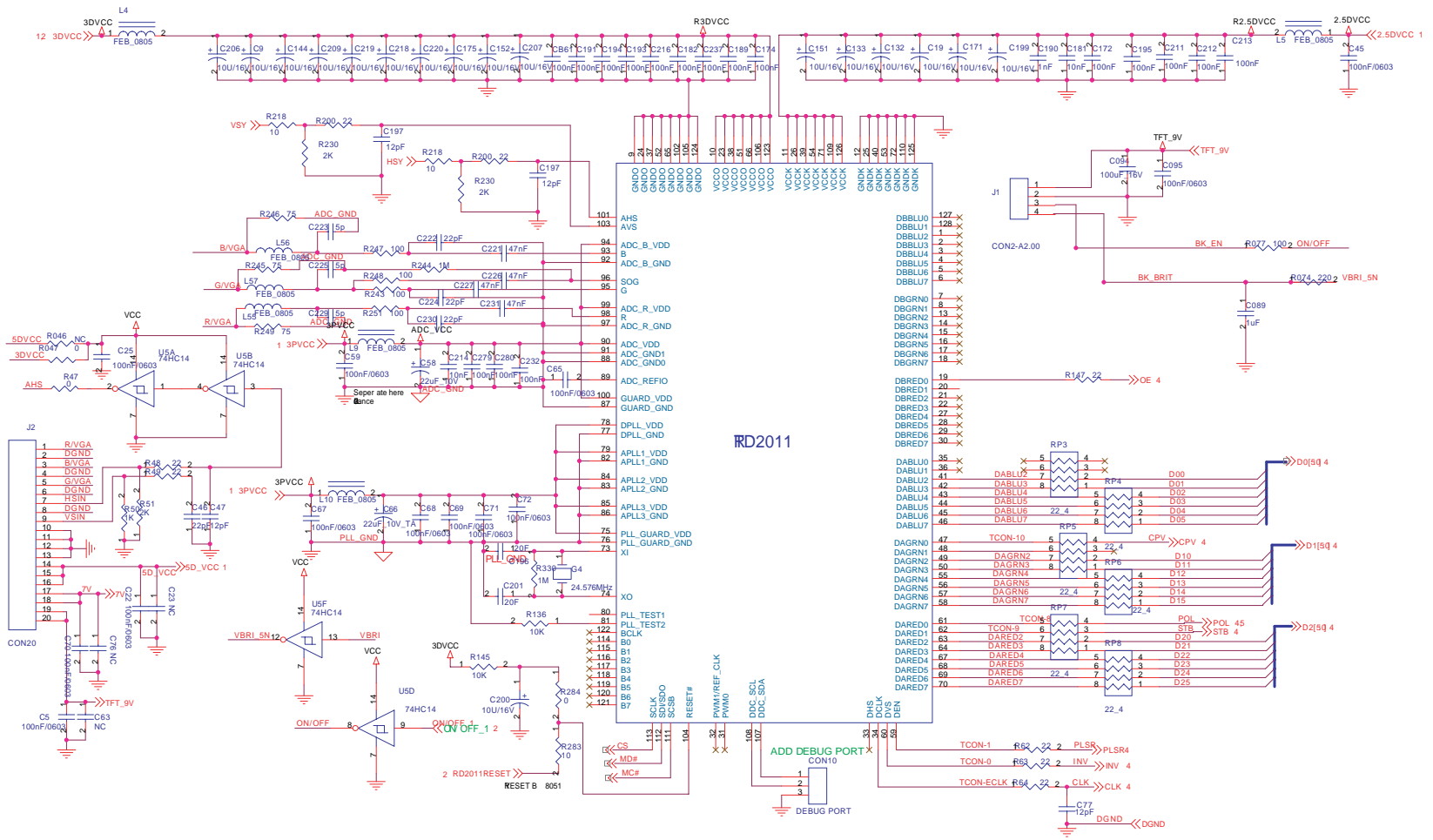
CAUTION: REPLACE FUSE WITH SAME TYPE AND RATING

Nkvvgnhwug
T3A/125V



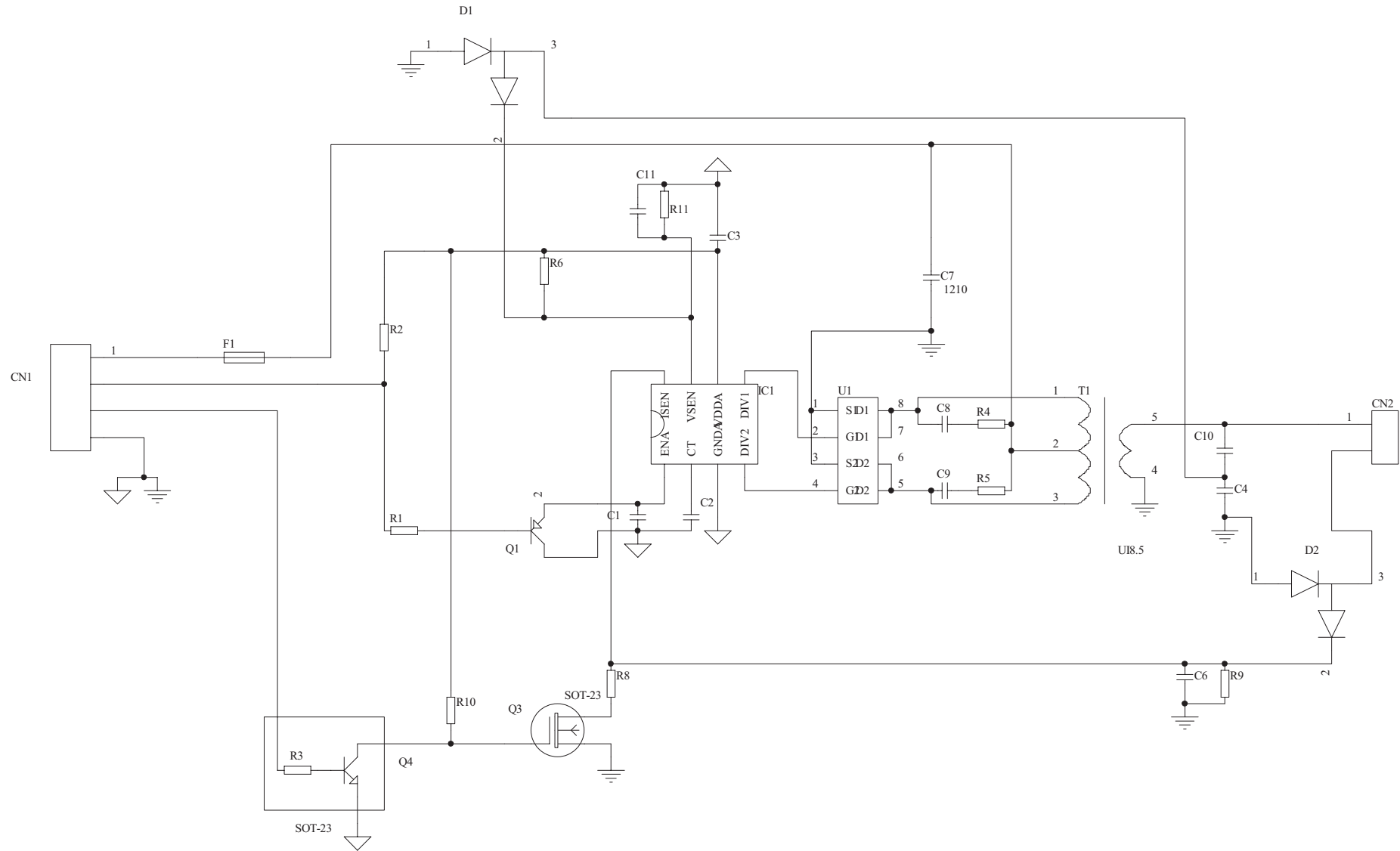
8.0 ELECTRICAL DIAGRAM

8.0 ELECTRICAL DIAGRAM MAIN BOARD CIRCUIT DIAGRAM (TFT)

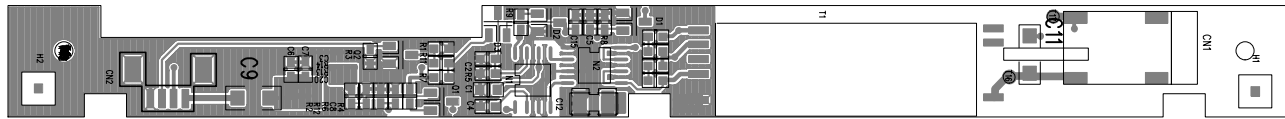
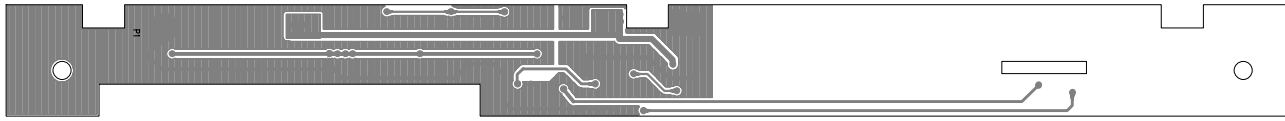


8.0 ELECTRICAL DIAGRAM

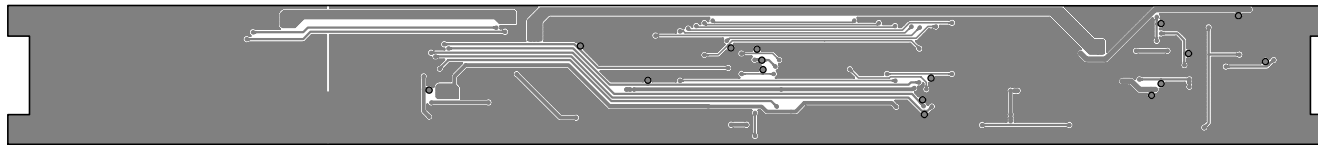
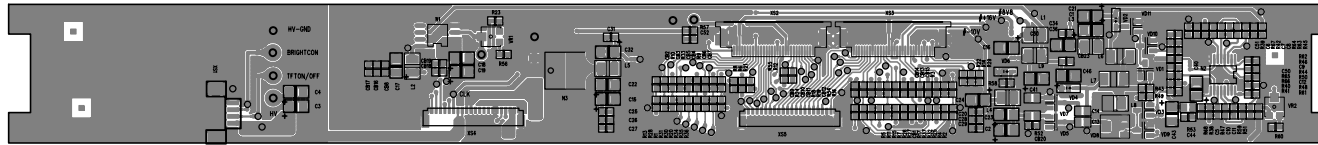
8.0 ELECTRICAL DIAGRAM - HIGH VOLTAGE BOARD CIRCUIT DIAGRAM



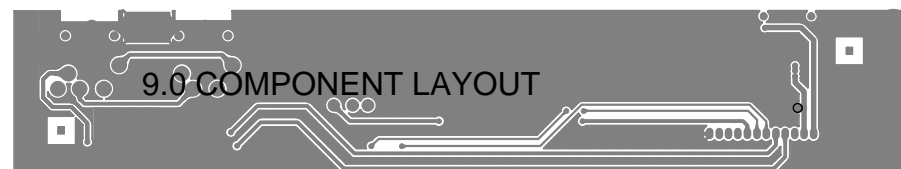
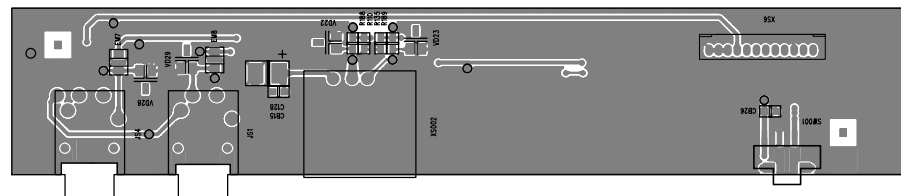
9.0 COMPONENT LAYOUT



PET1000 HV POWER BOARD DIAGRAM

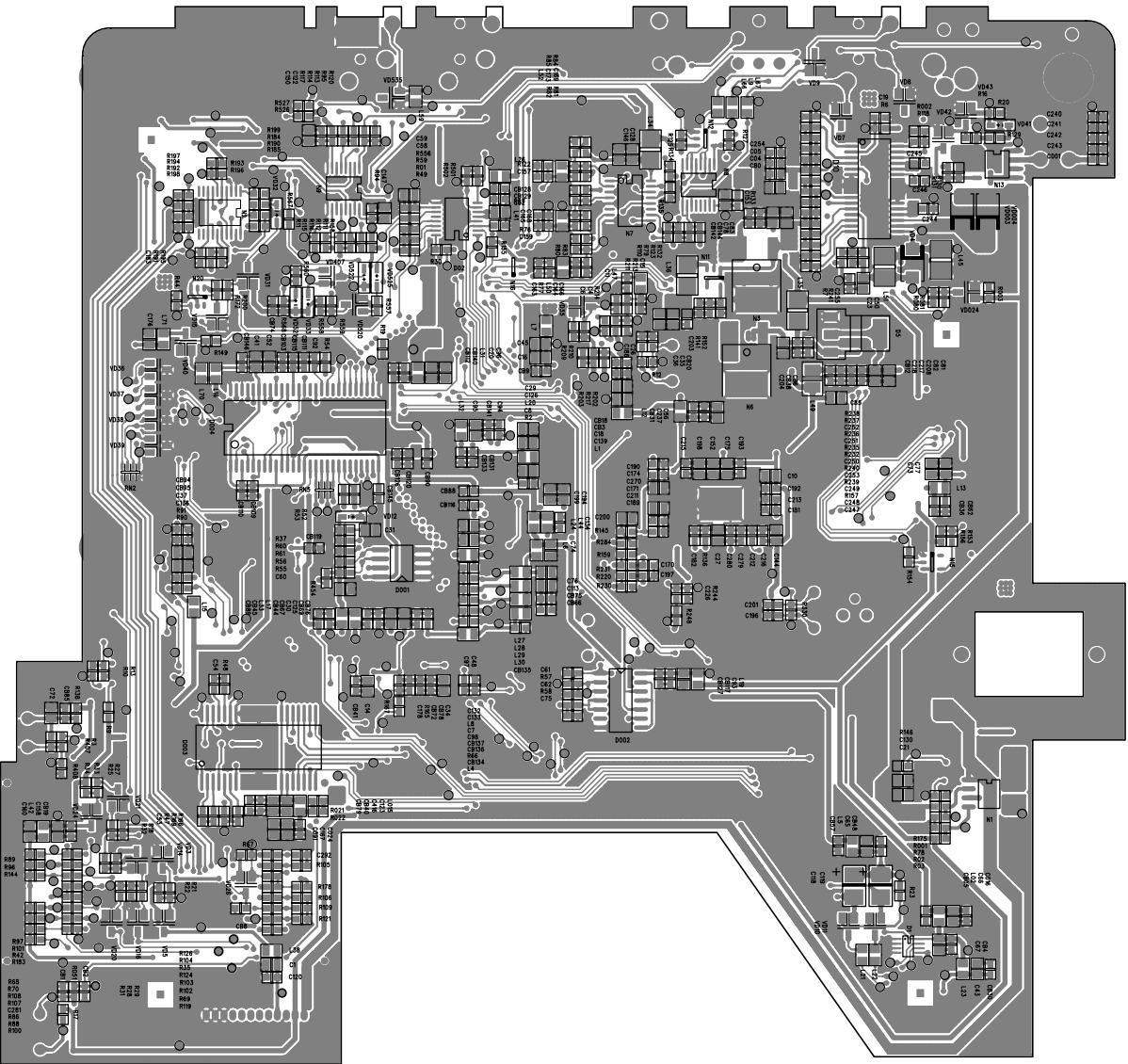
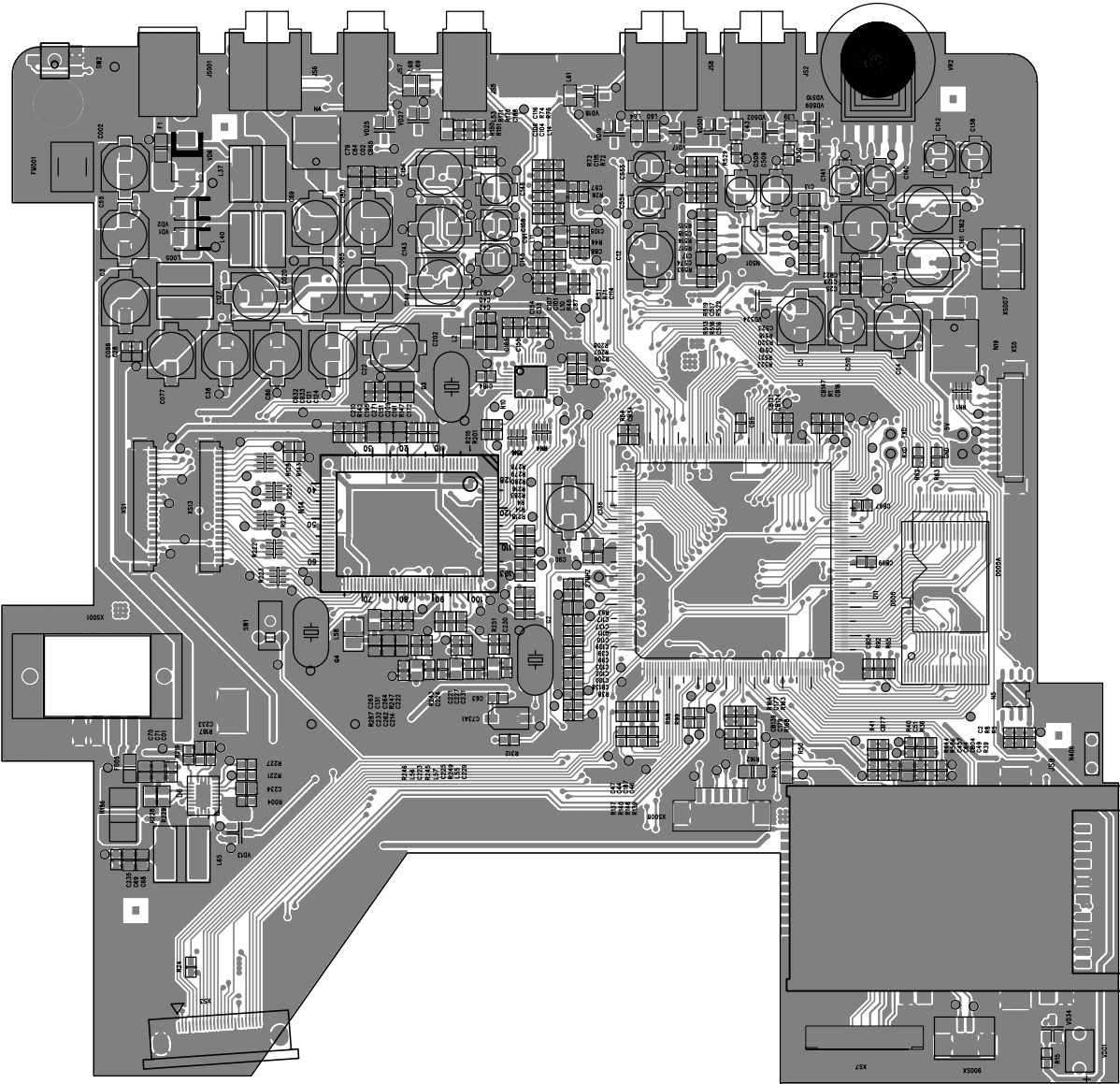


PET1000 IF BOARD DIAGRAM



PET1002 SWITCH BOARD DIAGRAM

9.0 COMPONENT LAYOUT









PET102 MAIN BOARD DIAGRAM

10.0 SERVICE PARTS LIST

Model#	Part No.	Description	Photos	Location Code
PET1002 PET1008	994000003941	RB-LI65 LITHIUM BATTERY		BATTERY
PET1002 PET1008	994000003945	RC810 REMOTE		RC
PET1002 PET1008	994000001912	AV CABLE		AVCABLE
PET1002 PET1008	994000002585	CHROMATISM CABLE		CCABLE
PET1002 PET1008	994000002586	S-VIDEO CABLE		SVCABLE
PET1002/05	994000003524	ADPV18A AC POWER ADAPTOR/05		ACADAPTOR
PET1002/00 PET1008/00	994000003946	AC POWER ADAPTOR/00		ACADAPTOR
PET1002/37	994000003947	ADPV26A AC POWER ADAPTOR/37		ACADAPTOR
PET1002/93	996500042048	ADPV25A AC POWER ADAPTOR/93		ACADAPTOR
PET1002 PET1008	994000003948	CAR CIGARETTE ADAPTER /00/05/37		CARADAPTOR

10.0 SERVICE PARTS LIST

PET1002 PET1008	994000001914	TRAVEL BAG		BAG
PET1002 PET1008	994000003942	PET1002M MAIN PCB ASS'Y		100
PET1002 PET1008	994000002583	PET1000 IF PCB ASS'Y		110
PET1002 PET1008	994000002159	PET1000 HV PCB ASS'Y		120
PET1002 PET1008	994000003944	PET1002 FUNCTION PCB ASS'Y		130
PET1002 PET1008	994000002241	20 PIN HARNESS (LE105)		142
PET1002 PET1008	994000002584	20 PIN HARNESS (LE165)		146
PET1002 PET1008	994000003943	PET1002 SWITCH PCB ASS'Y		150
PET1002 PET1008	994000002163	PET1000 TFT LCD		200
PET1002 PET1008	994000002228	DV23 LOADING ASS'Y		210

10.0 SERVICE PARTS LIST

PET1002 PET1008	994000002165	SPEAKER		220
PET1002 PET1008	994000003561	SPEAKER GRILL		230
PET1002 PET1008	994000003949	TOP COVER DISCRETNESS		300
PET1002 PET1008	994000002591	DISPLAY FRAME		310
PET1002 PET1008	994000002589	MIDDLE CABINET		320
PET1002 PET1008	994000003951	BASE COVER		330
PET1002 PET1008	994000002992	KEY DISCRETNESS		350
PET1002 PET1008	994000002166	DOOR DISCRETNESS		360
PET1002 PET1008	994000002593	DOOR SPRING		410

10.0 SERVICE PARTS LIST

The following service BOMs are applied for all version unless specified.

Model#	Service 12NC	Description	Photos	Location Code
PET1002 PET1008	996510002088	ON / OFF KNOB		420
PET1008/00	314017910141	DTM150 TECHNICAL SET		500
PET1008/00	314107941051	ADAPTOR AC TO DC 9V 1.11A		ACADAPTOR
PET1008/00	314107941041	ANTENNA CABLE		ANTENNA
PET1008/00	313923810891	RC19137008/01 REMOTE		RC
PET1008/00	31410791061	SCART CABLE AY3929		SCABLE

11.0 REVISION LIST

Version 1.0 (3141 785 30820)

- Initial release PET1002/00/05/37

Version 1.1 (3141 785 30821)

Chapter 10

- Add new spare part 996500039077 ADPV25A ADAPTOR/93

Version 1.2 (3141 785 30822)

Chapter 10

- Revised 12NC of ADPV25A ADAPTOR/93 to 996500042048
- Added the location code of all spare parts

Version 1.3 (3141 785 30823)

Chapter 10

- Added new spare part for PET1008

Version 1.4 (3141 785 30824)

Chapter 10

- Added new spare part 996510002088 ON/OFF POWER KNOB