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Service  
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# Service Manual

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3141 785 30472

# 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 2x16 ohm)

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:



DivX Video Disc



Audio CD :

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](http://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

≤ 4 (max. 1 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.

### **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.

### **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.

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



### **GB** Warning !

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

### **S** Varning !

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

### **SF** Varoitus !

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

### **DK** Advarsel !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

## 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.

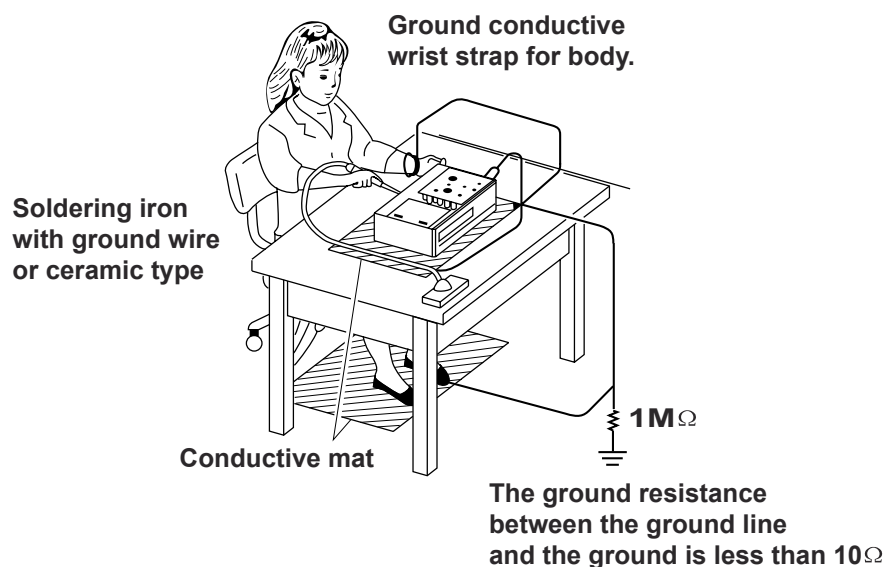
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

### 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.



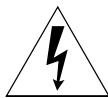
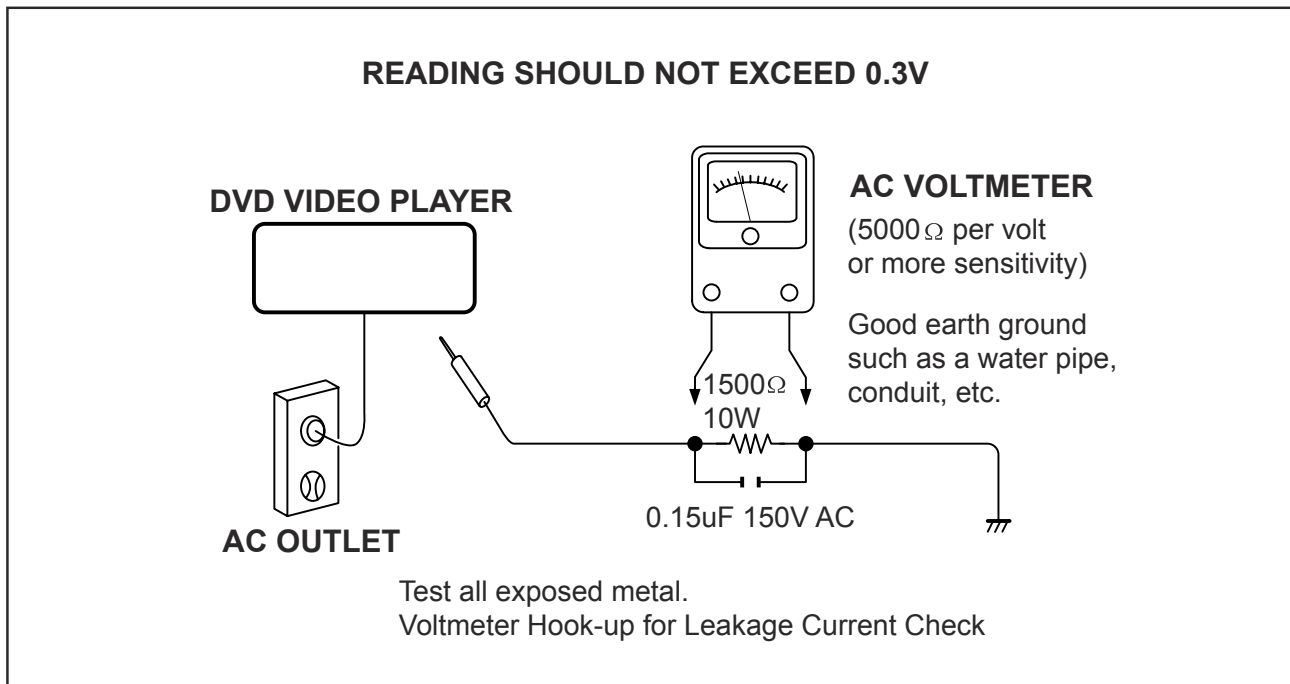
## SAFTY NOTICE

### 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  $5000\Omega$  per volt or more sensitivity. Connect a  $1500\Omega$  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  $1500\Omega$  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.

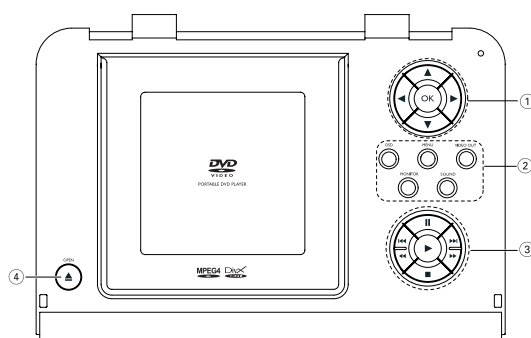
### 3.0 INSTRUCTIONS FOR USE

- ①  Up / down / left / right cursor  
**OK**  
 Confirms selection
- 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 
- 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 ()
- ④ **△ OPEN**  
 Opens disc door to insert or  
 remove disc
- ⑤ **POWER/CHG**  
 Power and charging indicator  
**IR**  
 Remote sensor
- ⑥ **ON · POWER · OFF**  
 Switches the player on / off
- ⑦   
 Headphones jack
- ⑧ **VOLUME**   
 Volume control
- ⑨ **A/V OUT**  
 Audio/video output jack
- ⑩ **A/V IN**  
 Audio/video input jack
- ⑪ **DIGITAL AUDIO OUT**  
 Digital Audio output jack
- ⑫ **S-VIDEO OUT**  
 S-Video output jack
- ⑬ **COMPONENT VIDEO**  
 Component video output jack
- ⑭ **DC IN 9V**  
 Power supply socket

#### **CAUTION**

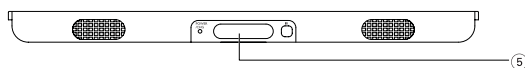
***Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.***

## DVD PLAYER LAYOUT

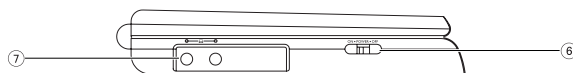


English

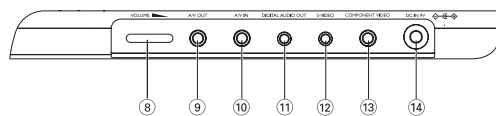
Main unit controls



Front of player



Left of player

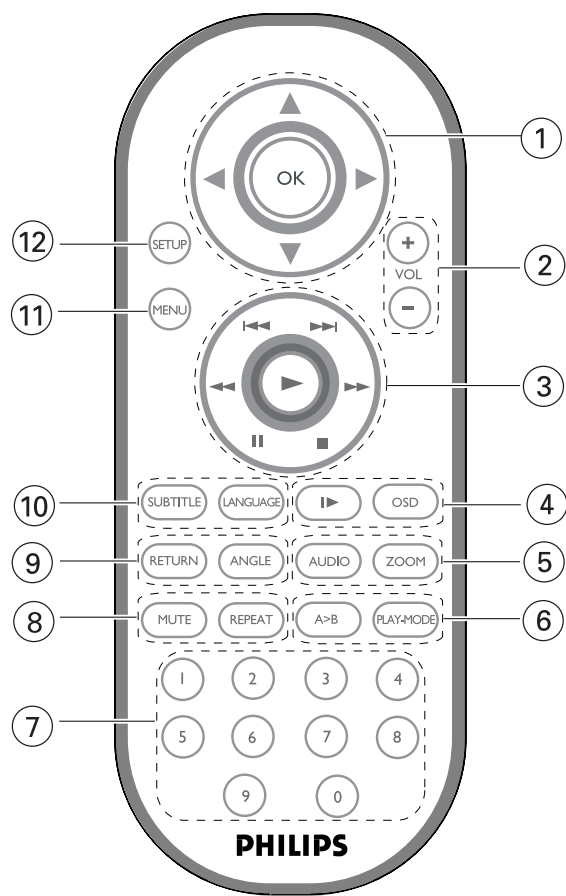


Right of player



## Remote Control

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



# 4.0 MECHANICAL INSTRUCTIONS

1. Back View as Fig.1

Remove 12 screws to disassemble base



Fig.1

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

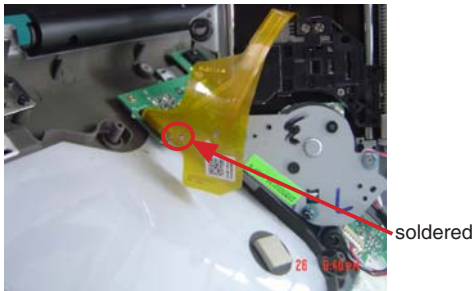


Fig.2

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

Disconnect DVD driver and main board



Fig.3

Remove DVD driver and main board

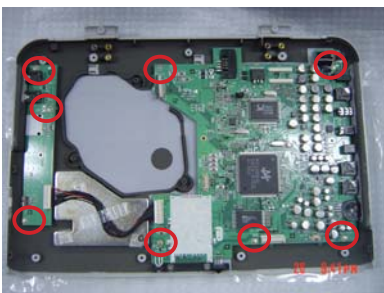


Fig.4

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

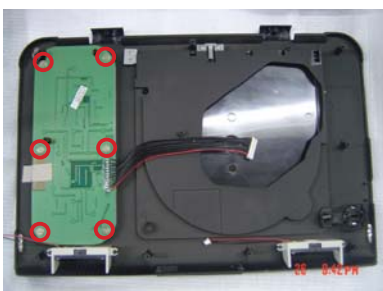


Fig.5

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 disassemble LCD TFT as Fig.8



Fig.8

## 5.0 TROUBLESHOOTING & SERVICE TIPS

### 5.1 Procedure to change region code

1. Power on player and open DVD Door.
2. Press <Set Up> at Remote Control. In <Set Up Menu> select <Preferences>.
3. For PET710 – 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

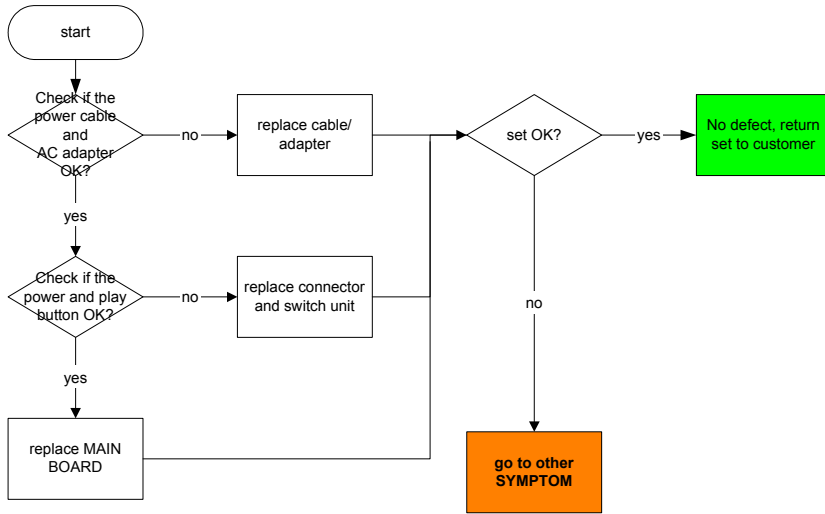
#### **REMARKS:**

**1. Password is CONFIDENTIAL.**

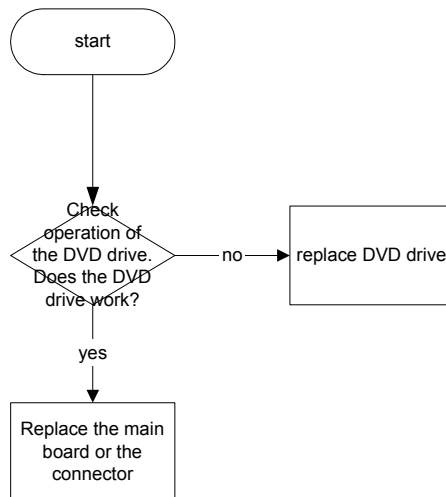
**2. Region code is printed on product type plate. Due to DVD legislation region codes different to assigned region may not be released.**

## 5.0 TROUBLESHOOTING & SERVICE TIPS

### SYMPTOM: NO POWER, NO GREEN LED

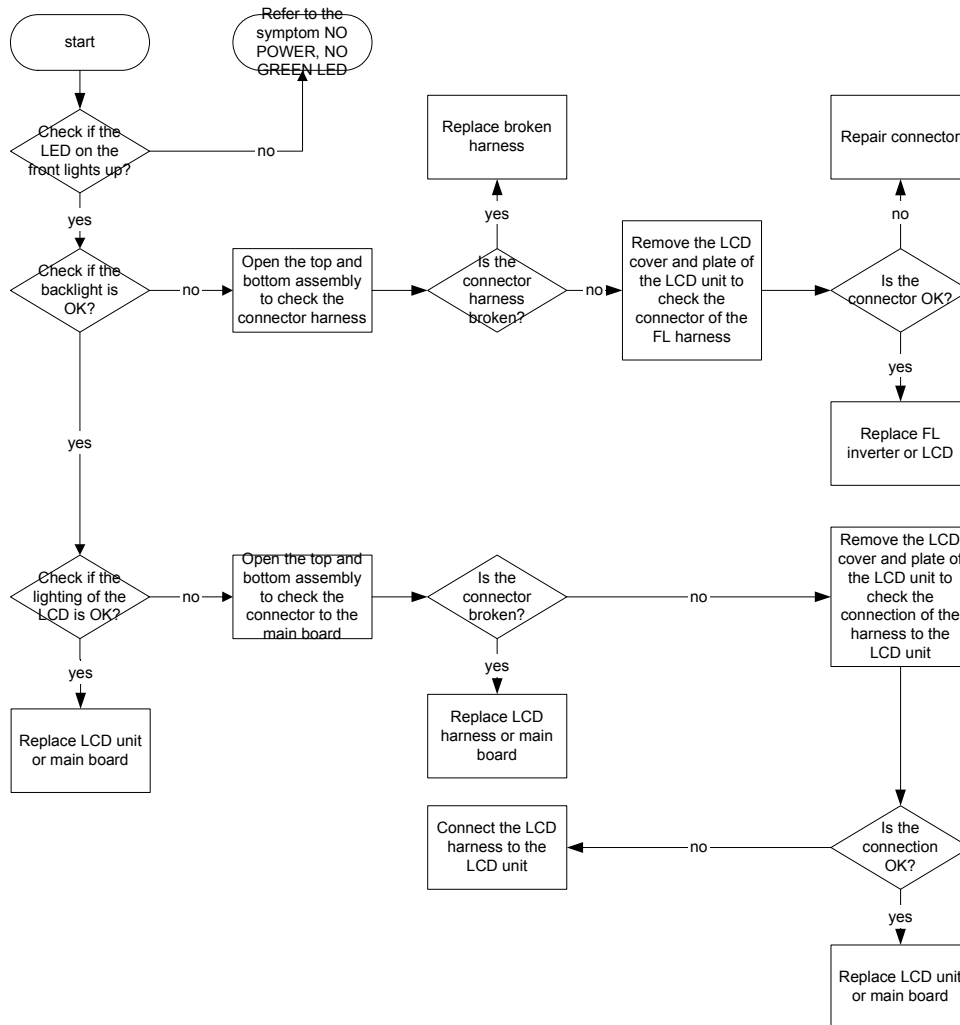


### SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL OUTPUT

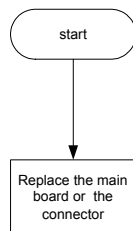


## 5.0 TROUBLESHOOTING & SERVICE TIPS

### SYMPTOM: THE INITIAL SCREEN IS NOT DISPLAYED ON THE LCD

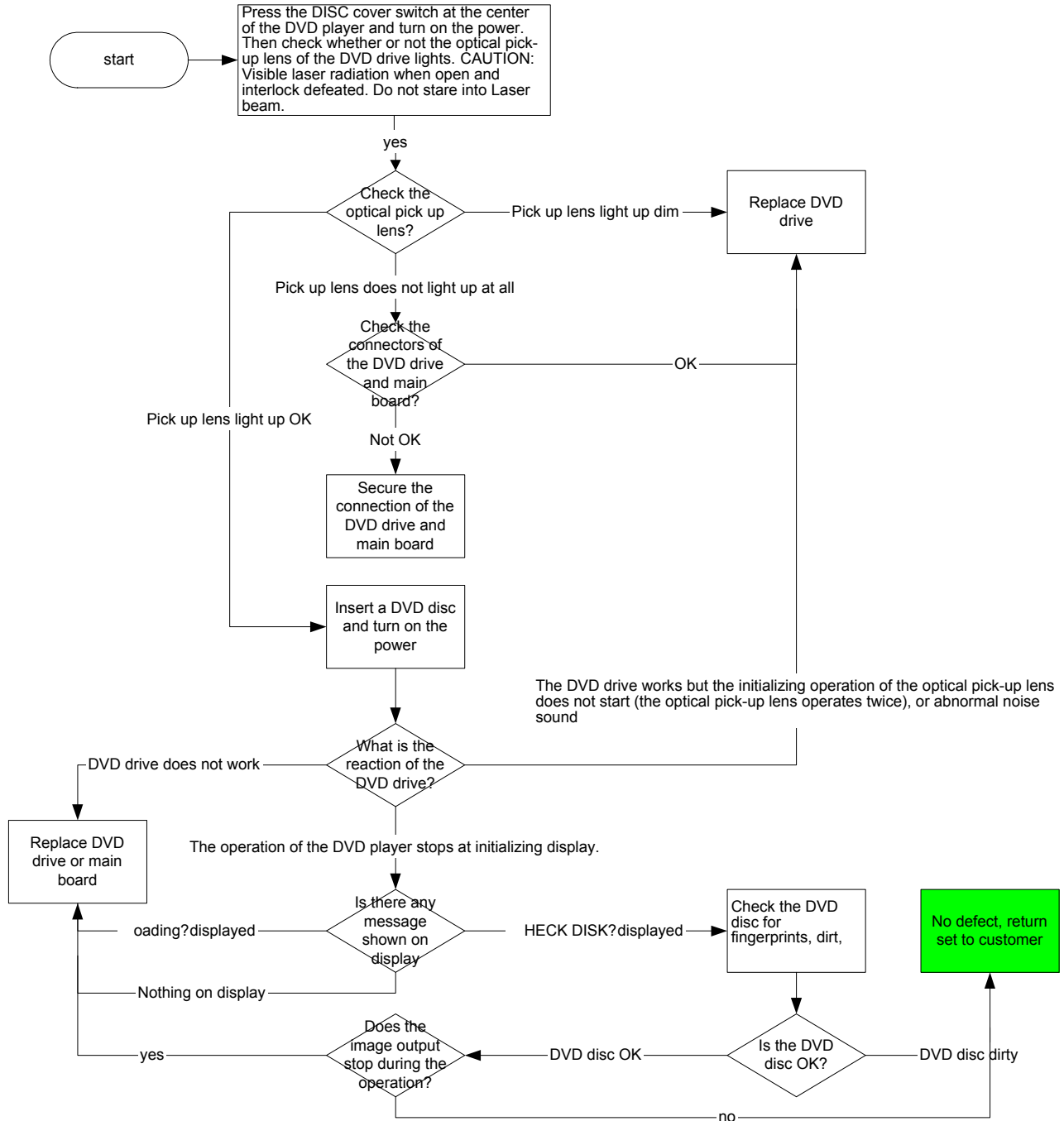


### SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL INPUT



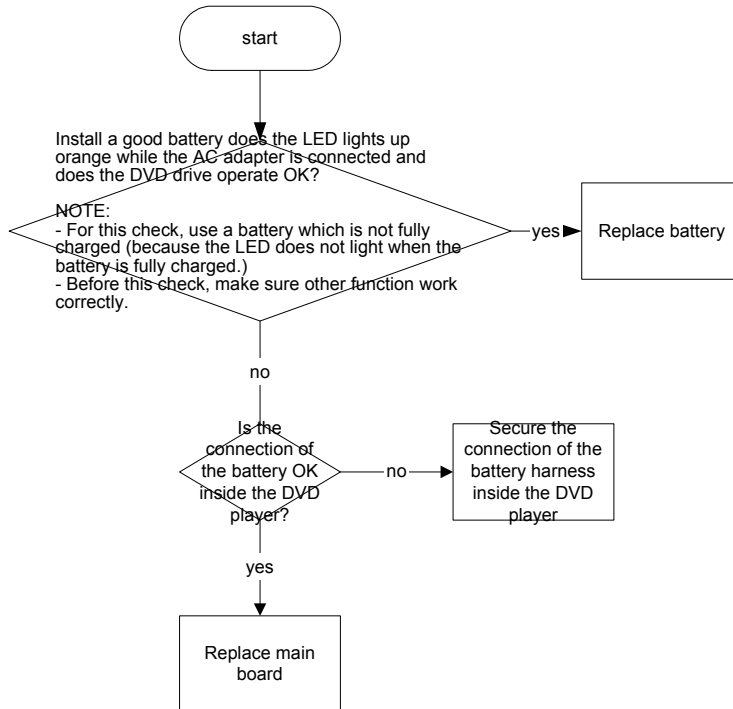
## 5.0 TROUBLESHOOTING & SERVICE TIPS

### SYMPTOM: THE DVD DRIVE DOES NOT WORK

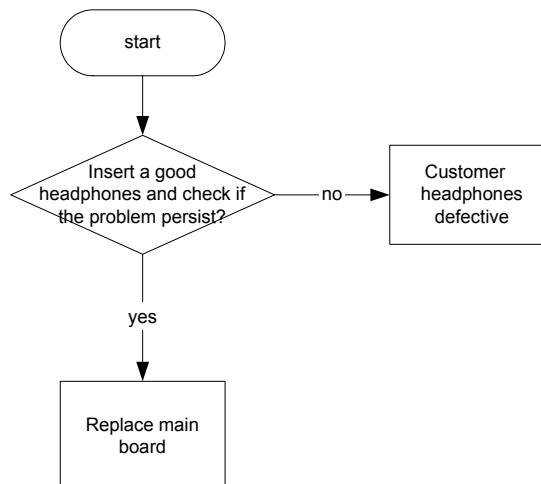


## 5.0 TROUBLESHOOTING & SERVICE TIPS

### SYMPTOM: THE DVD DRIVE DOES NOT OPERATE WITH BATTERY



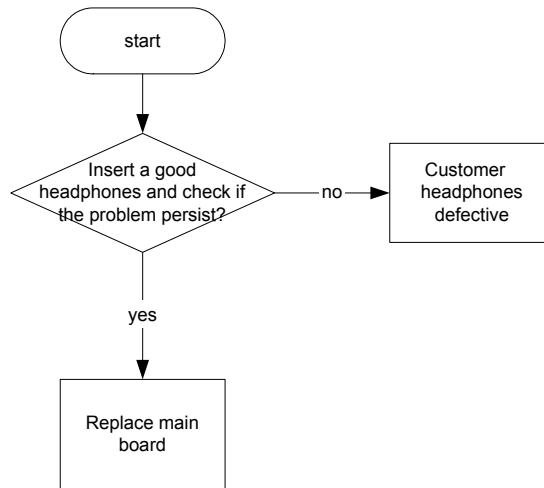
### SYMPTOM: NO SOUND COMES FROM THE HEADPHONES



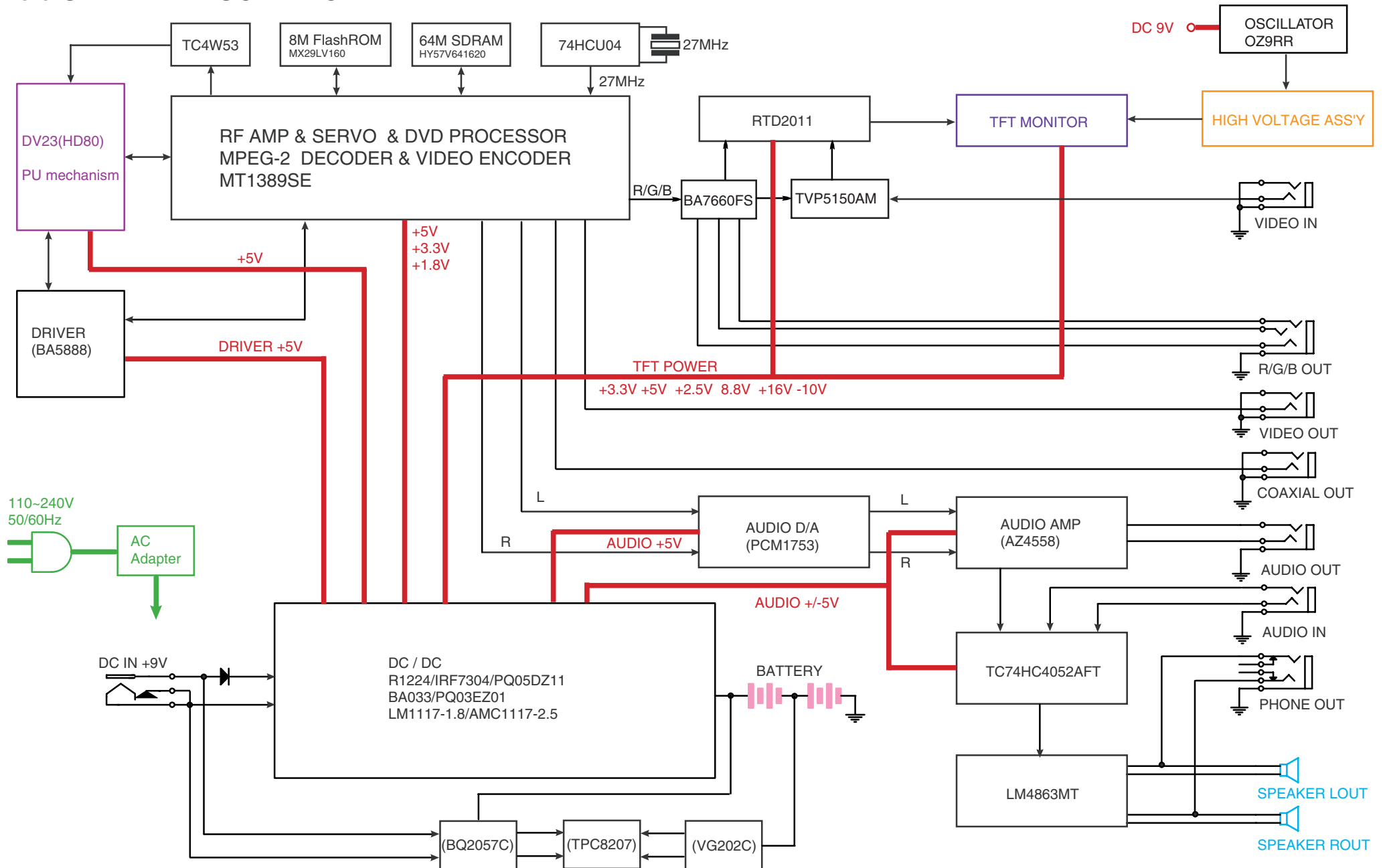


## 5.0 TROUBLESHOOTING & SERVICE TIPS

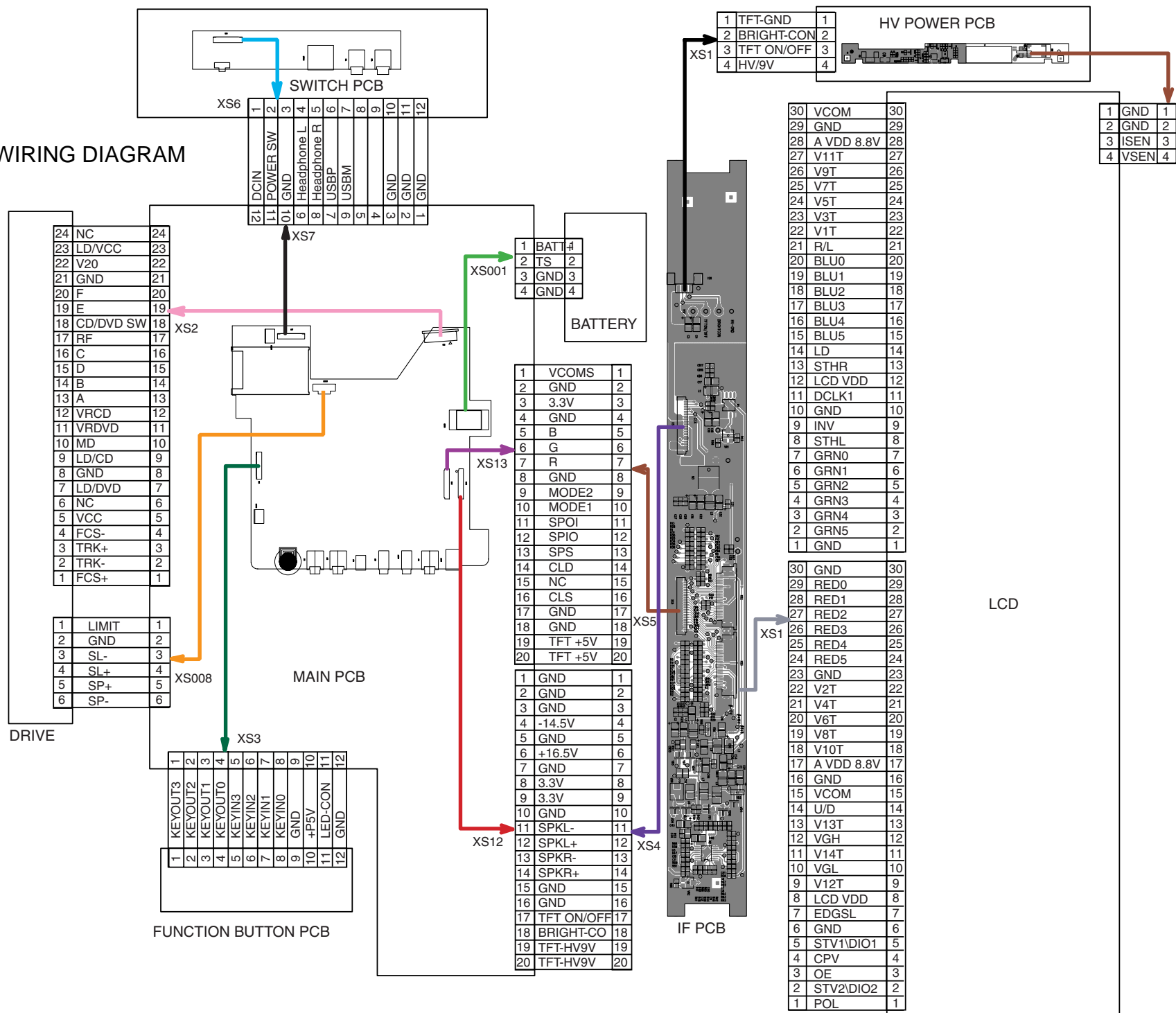
### SYMPTOM: NO SOUND COMES FROM THE HEADPHONES



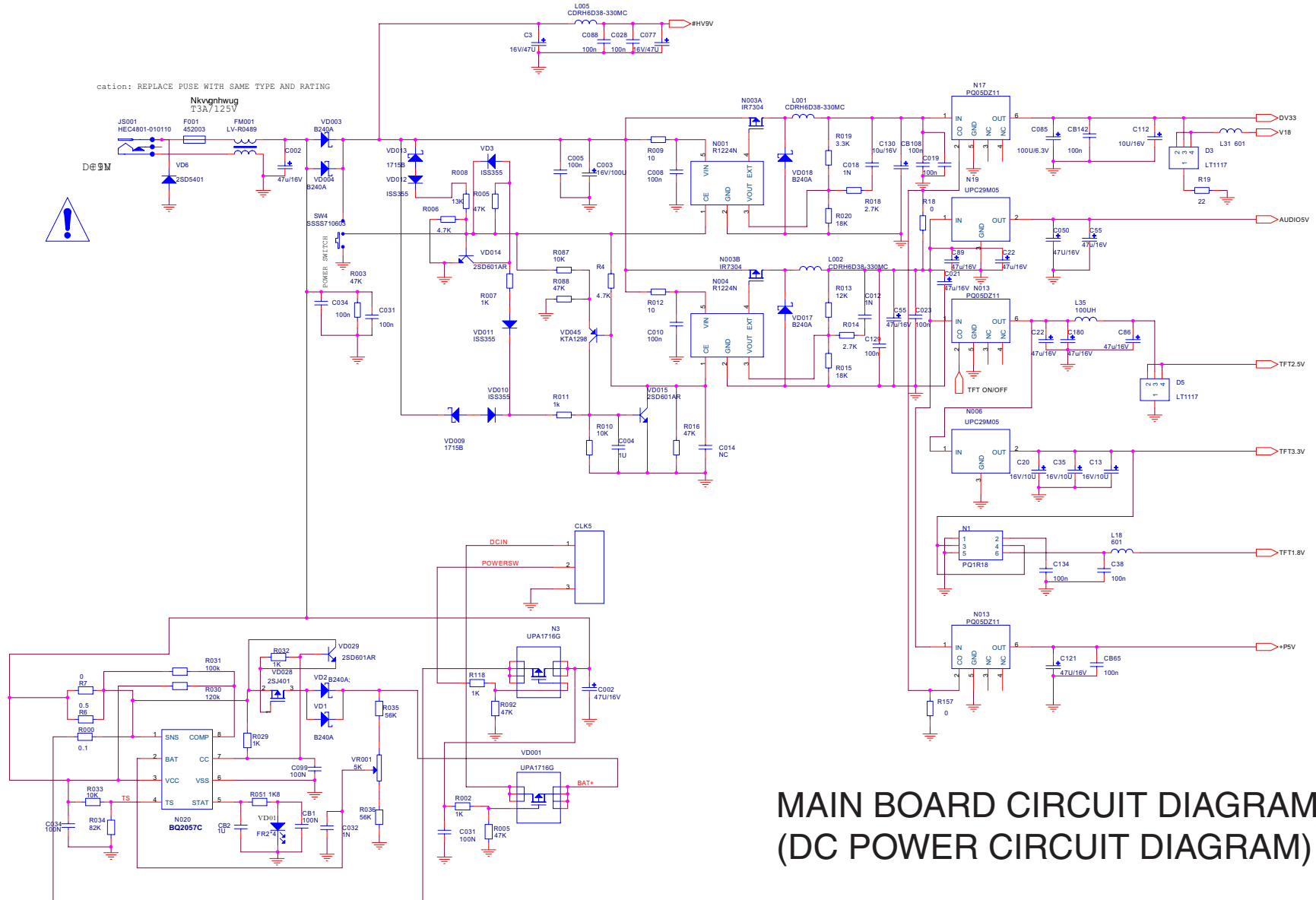
# 6.0 OVERALL BLOCK DIAGRAM



# 7.0 OVERALL WIRING DIAGRAM

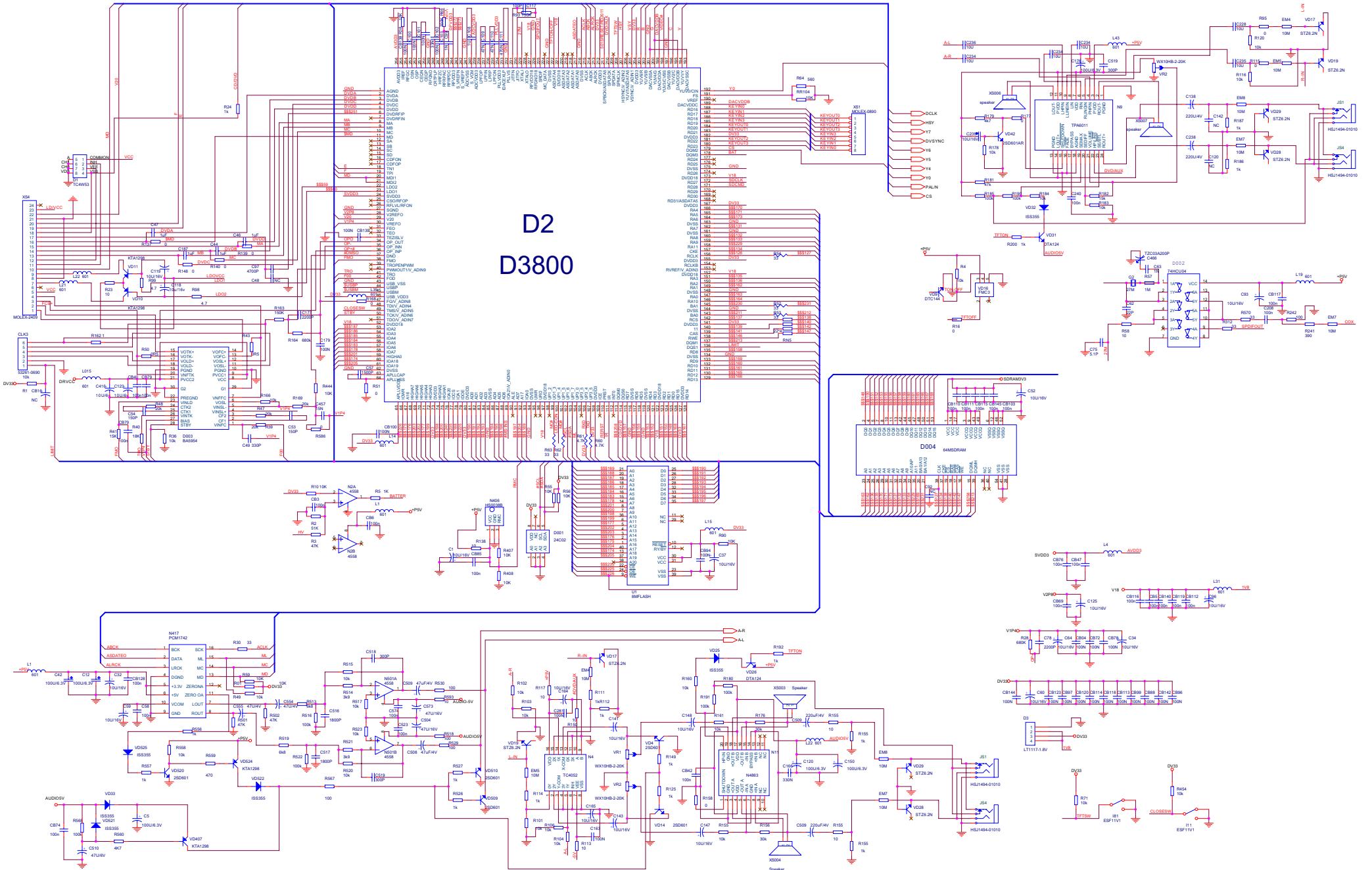


# 8.0 ELECTRICAL DIAGRAM

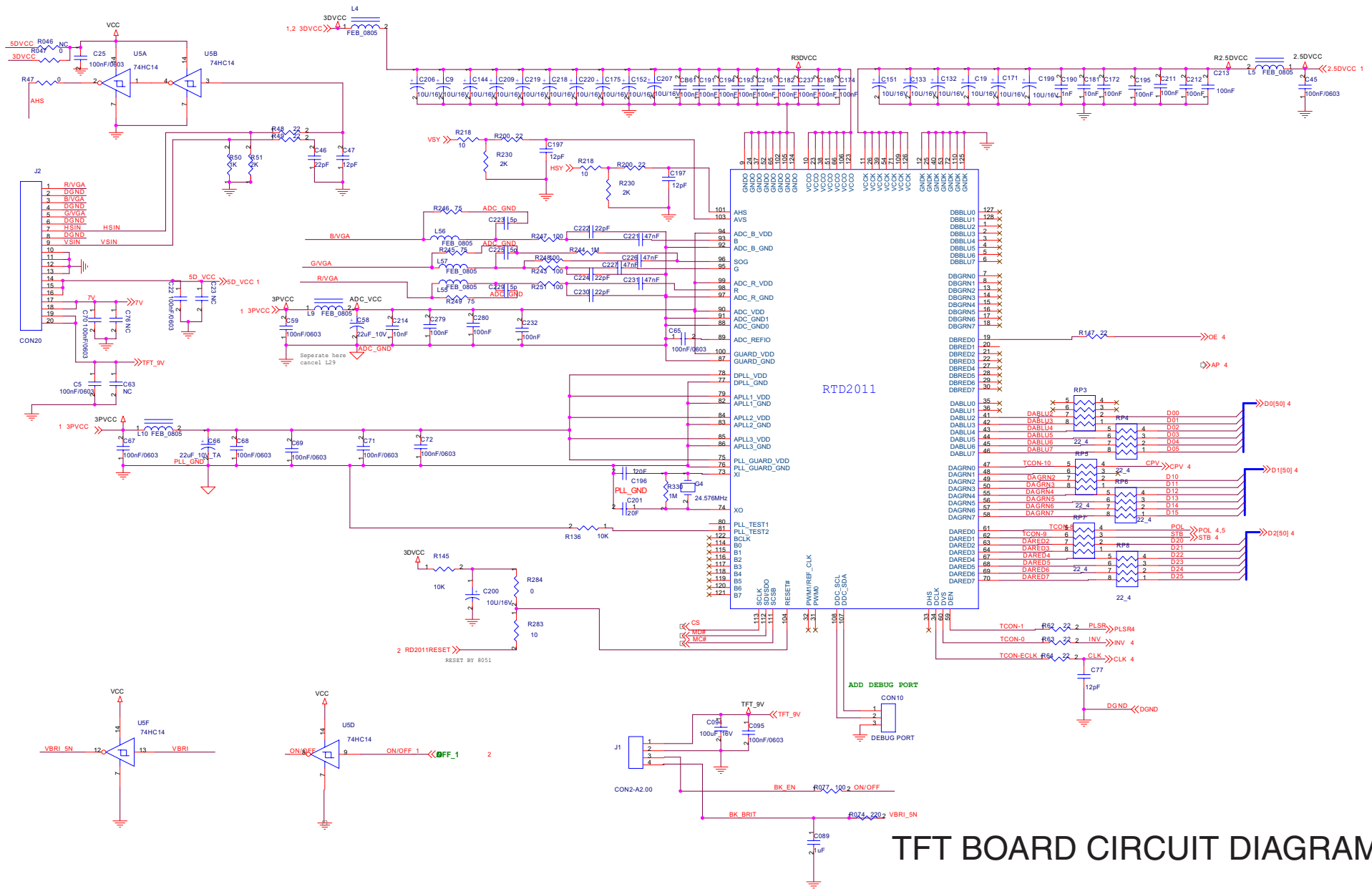


MAIN BOARD CIRCUIT DIAGRAM (DC POWER CIRCUIT DIAGRAM)

# MAIN BOARD CIRCUIT DIAGRAM (MPEG & SERVO & AV OUTPUT CIRCUIT DIAGRAM)

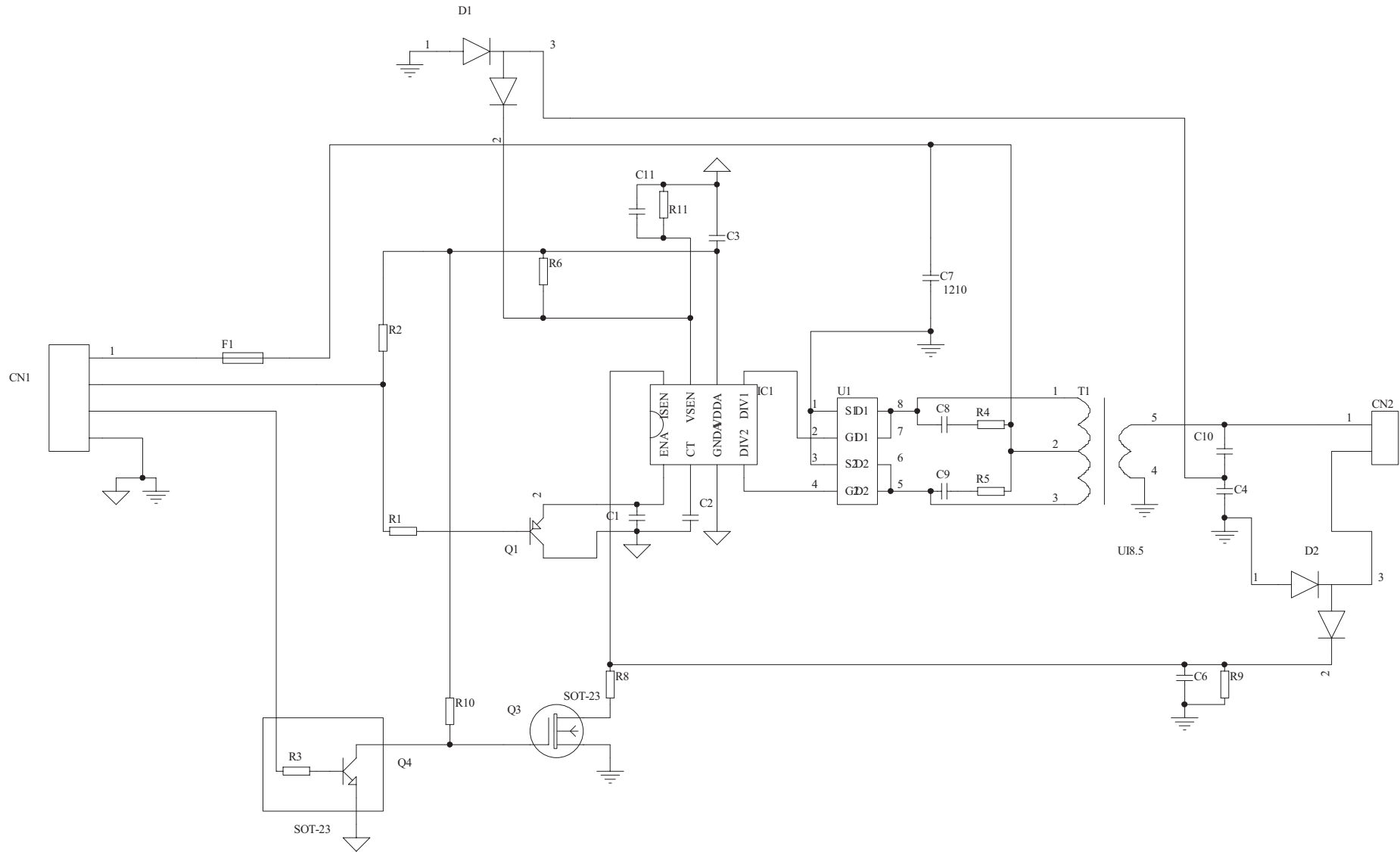


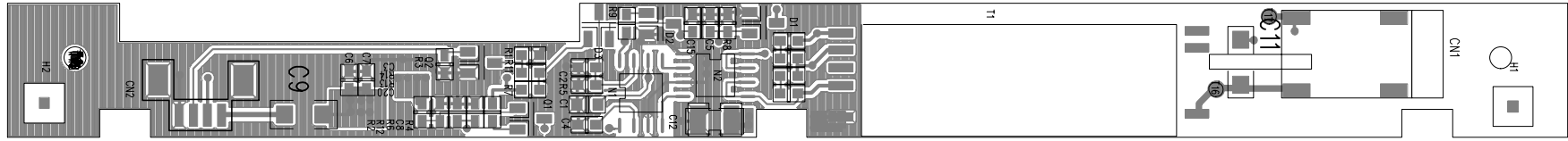
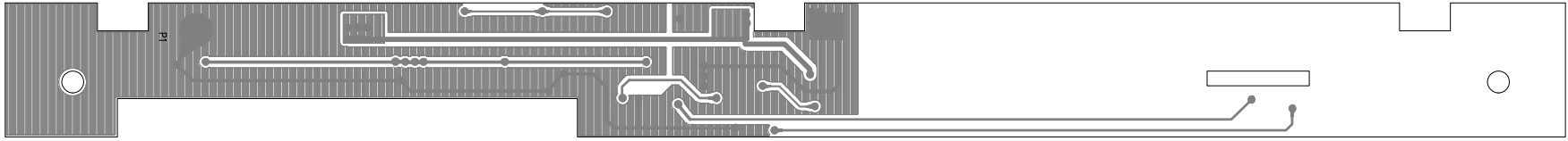
8.0 ELECTRICAL DIAGRAM



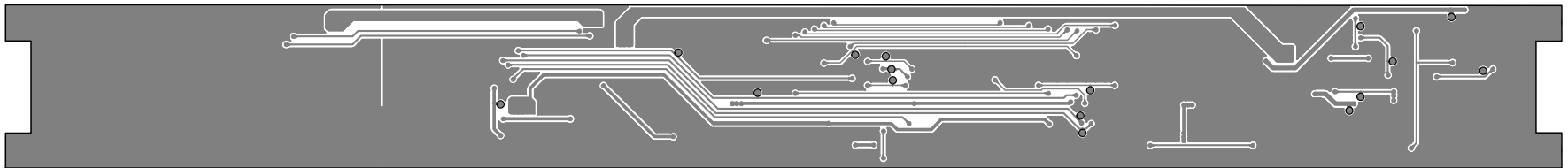
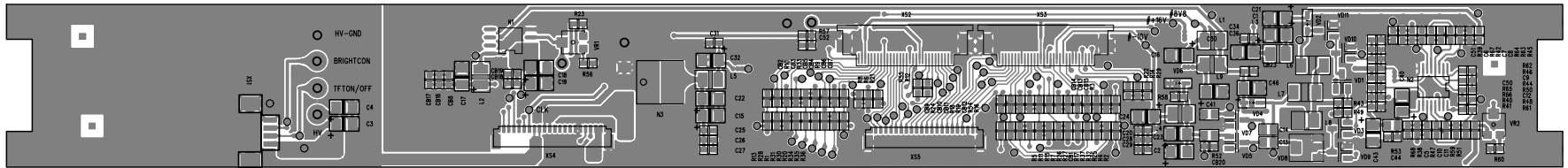
TFT BOARD CIRCUIT DIAGRAM  
8.0 ELECTRICAL DIAGRAM

## 8.0 ELECTRICAL DIAGRAM - HIGH VOLTAGE BOARD CIRCUIT DIAGRAM



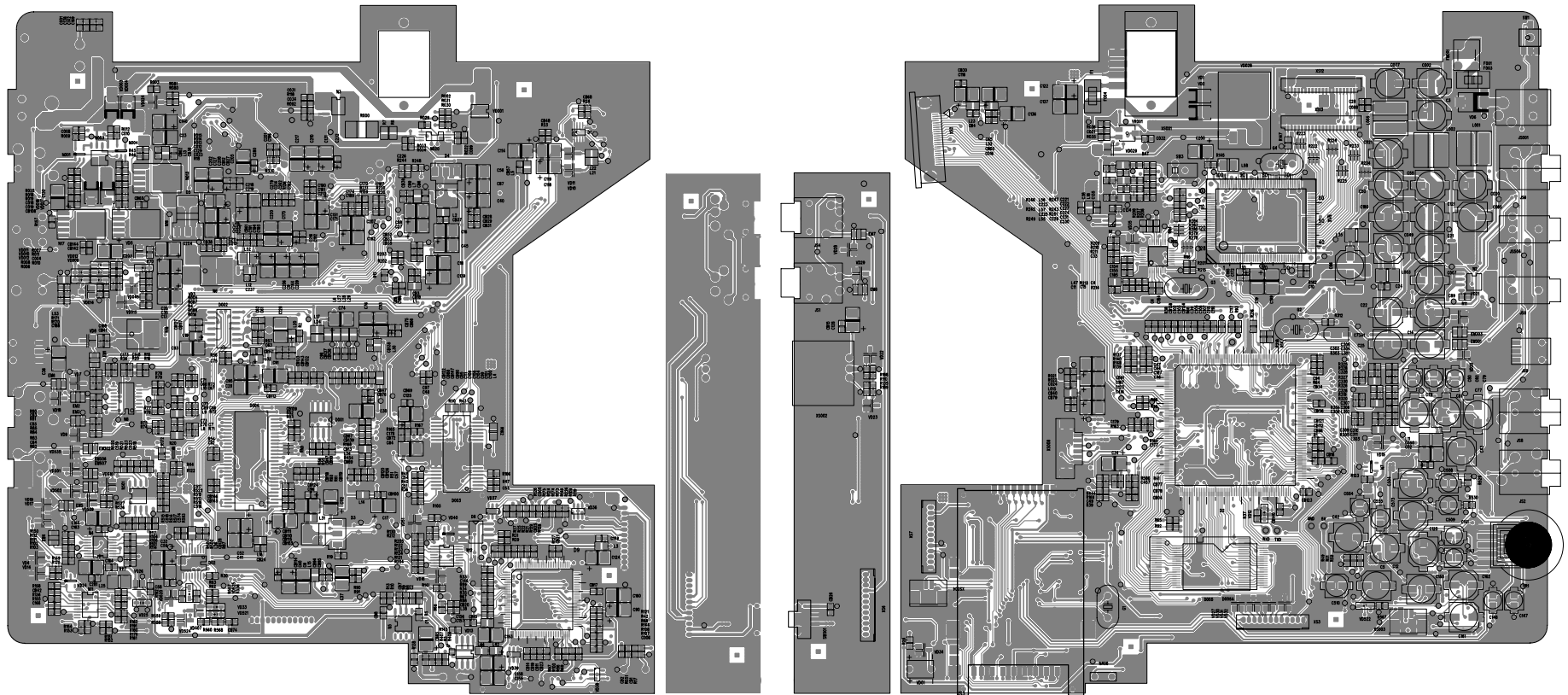


PET1000 HV POWER BOARD DIAGRAM



PET1000 IF BOARD DIAGRAM












PET1000 MAIN BOARD DIAGRAM

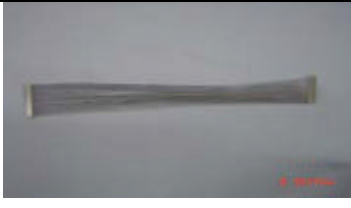

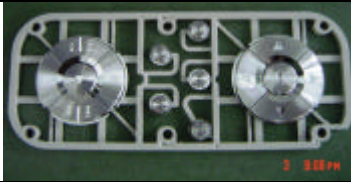


## 10.0 SERVICE PARTS LIST

Service 12NC	Model #	Accessory description	Photos
994000001909	PET1000	RB-LI54 LITHIUM BATTERY	
994000002161	PET1000	PET1000M MAIN PCB ASS'Y	
994000002583	PET1000	PET1000 IF PCB ASS'Y	
994000002159	PET1000	PET1000 HV PCB ASS'Y	
994000002162	PET1000	PET1000 FUNCTION PCB ASS'Y	
994000002163	PET1000	A102VW01 TFT LCD	
994000002228	PET1000	DV23 LOADING ASS'Y	
994000001901	PET1000	RC810 REMOTE	
994000001912	PET1000	AV CABLE	
994000002585	PET1000	CHROMATISM CABLE	

## 10.0 SERVICE PARTS LIST

994000002586	PET1000	S-VIDEO CABLE	
994000002146	PET1000	ADPV18A AC POWER ADAPTER /00	
994000003524	PET1000	ADPV18A AC POWER ADAPTER /05	
994000001911	PET1000	ADPV18A AC POWER ADAPTER /37	
994000001902	PET1000	CAR CIGARETTE ADAPTER	
994000001914	PET1000	TRAVEL BAG	
994000002587	PET1000	TOP COVER	
994000002588	PET1000	BASE COVER	
994000002589	PET1000	MIDDLE CABINET	
994000002591	PET1000	DISPLAY FRAME	
994000002241	PET1000	20 PIN HARNESS (LE105)	

## 10.0 SERVICE PARTS LIST

994000002584	PET1000	20 PIN HARNESS (LE165)	
994000002165	PET1000	SPEAKER	
994000002593	PET1000	DOOR SPRING	
994000002992	PET1000	CONTROL KEY PAD	
994000002166	PET1000	DOOR	
994000003561	PET1000	SPEAKER GRILL	

## 11.0 REVISION LIST

Version 1.0 (3141 785 30470)  
Initial release PET1000/00/05/37

Version 1.1 (3141 785 30471)

Chapter 10:

Service parts list adapted with revised service 12NC as listed below

- Added photo on speaker (994000002165)
- Added the new part control key pad (994000002992)
- Delete Door adorn (994000002592)

Version 1.2 (3141 785 30472)

Chapter 10:

Service parts list revised service 12NC as listed below

- Changed adaptor/05 from 9940 000 01898 to 9940 000 03524
- Added the new part speaker grill (994000003561)