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Service
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Service Manual

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3141 785 30453

1.0 TECHNICAL SPECIFICATION

General

Dimensions (WxLxH) :	19.3 x 16.1 x 3.0 cm 7.72 x 6.44 x 1.2 inches
Weight :	0.824 kg / 1.81 lb
Power supply :	DC 9V 2.2A
Power consumption :	≤ 20W
Operating temp. range :	0 - 50°C (32 ~ 122°F)
Laser wavelength:	650nm
Video system :	/17 versions: NTSC non /17 versions: 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:



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 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.

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 hetzelfde potentiaal.

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 enfiler 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).
Unvorsichtige 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.

I AVVERTIMENTO

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

GB

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 alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

DK Advarse !

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

"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.

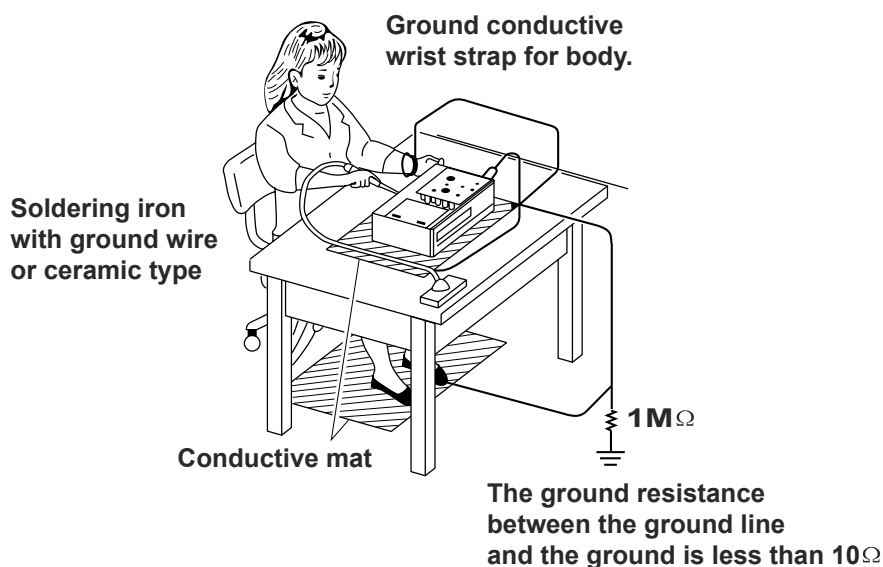
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

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.

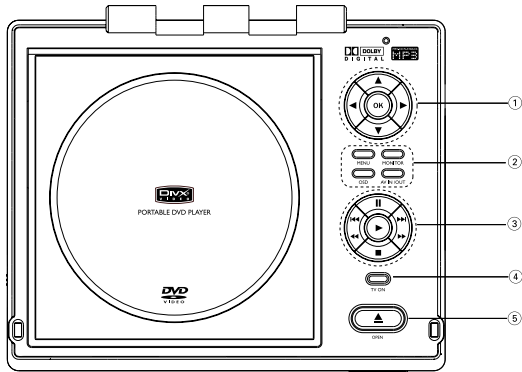


3.0 Instructions for use

- | | |
|--|---|
| <p>① ▲, ▼, ◀, ▶
Up / down / left / right cursor
OK
Confirms selection</p> | <p>⑤ ▲ OPEN
Opens disc door to insert or
remove disc</p> |
| <p>② MENU
Displays MENU page
MONITOR
Selects display mode
OSD
On Screen Display on / off
AV IN/ OUT
Selection video format
- AV OUT
- AV IN (AUX)</p> | <p>⑥ POWER/CHG
Power and charging indicator</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>⑦ ON · POWER · OFF
Switches the player on / off</p> |
| <p>④ TV ON
TV on indicator</p> | <p>⑧ VOLUME 
Volume control</p> |
| | <p>⑨ PHONES 1 & 2
Headphones jack</p> |
| | <p>⑩ AV OUT
Audio/Video output jack</p> |
| | <p>⑪ AV IN
Audio/Video input jack</p> |
| | <p>⑫ COAXIAL
Digital audio output jack (coaxial)</p> |
| | <p>⑬ DC IN 9V
Power supply socket</p> |

CAUTION

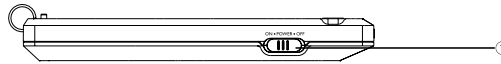
Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.



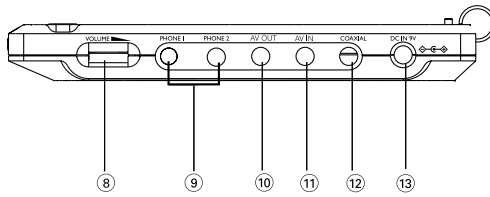
Main unit controls



Front of player



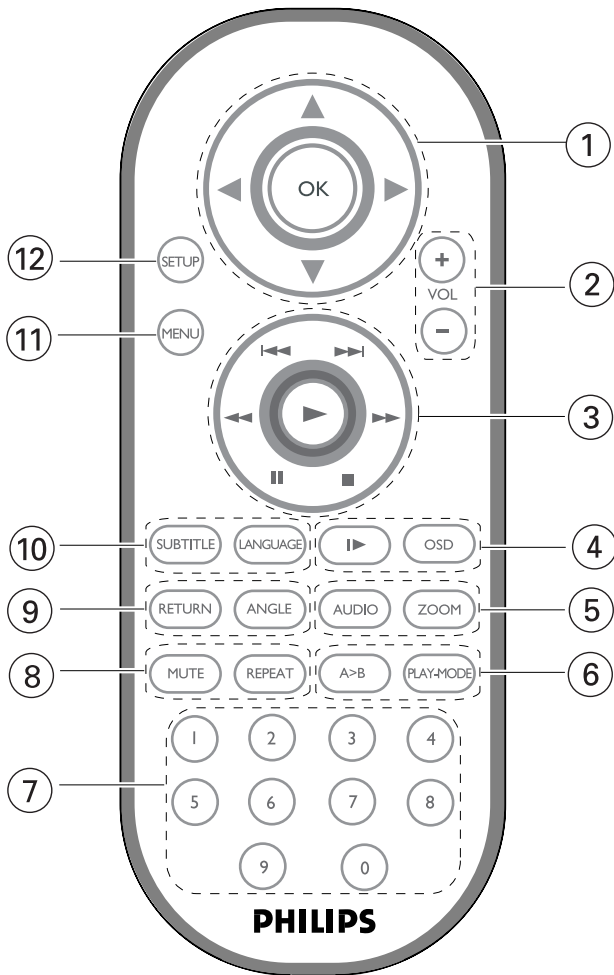
Left of player



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
||
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 13 screws to disassemble the base as Fig.2



Fig.1



Fig.2

13 screws

2. Soldered short pattern for laser diode as Fig.3



Fig.3

soldered

3. Remove DVD driver and main board as Fig.4,5

Disconnect DVD driver and main board

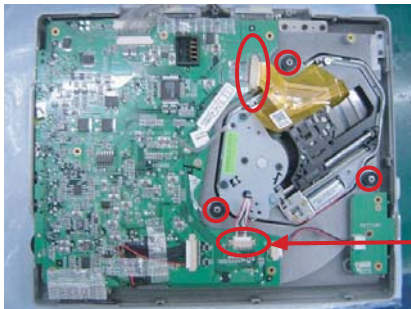


Fig.4

Disconnect

Remove DVD driver and main board

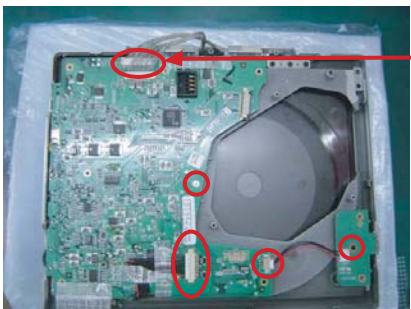


Fig.5

Disconnect

4. Remove key board and other parts as Fig.6

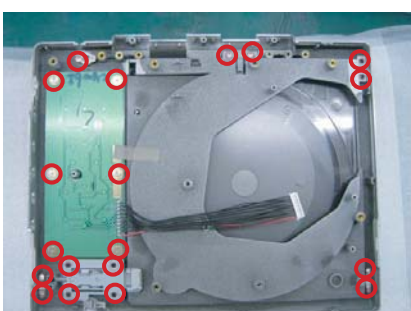


Fig.6

5. Remove top cover as Fig.7,8

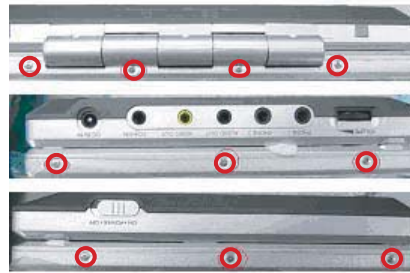


Fig.7

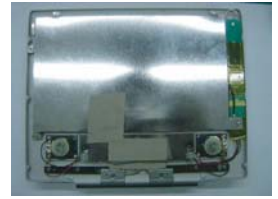


Fig.8

6. Remove IF board shield as Fig.9

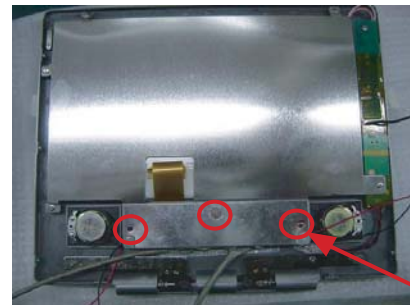


Fig.9

3 screws

7. Remove IF board as Fig.10

Disconnect IF board as Fig.10

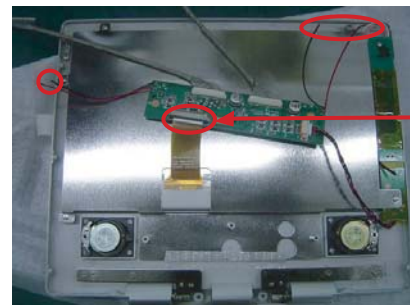


Fig.10

disconnect

8. Remove 5 screws to disassemble LCD shield as Fig.11

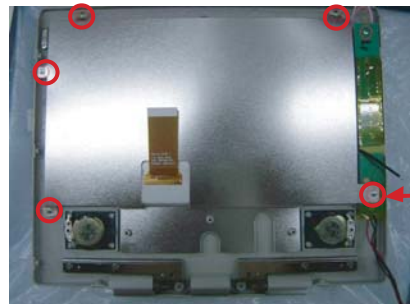


Fig.11

5 screws

9. Remove LCD and HV board as Fig.12



Fig.12

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> and press <OK>.
3. For PET715 – Press successively 2 1 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:

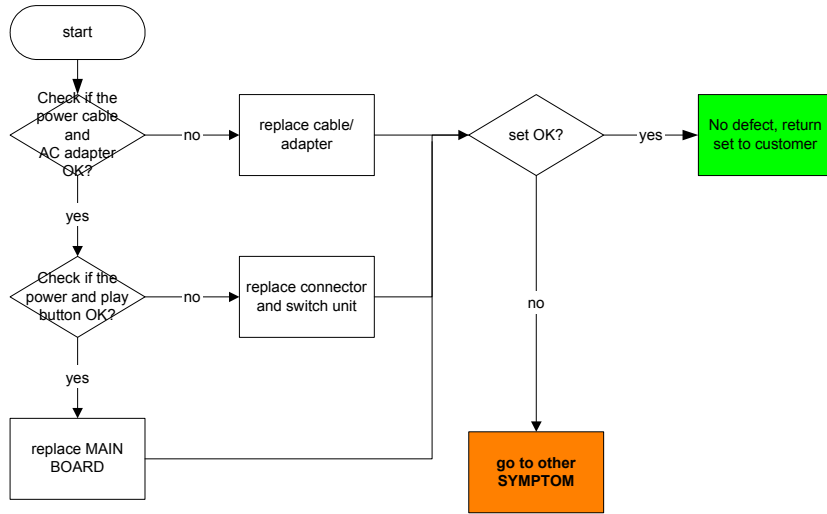
1. Password is CONFIDENTIAL.

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

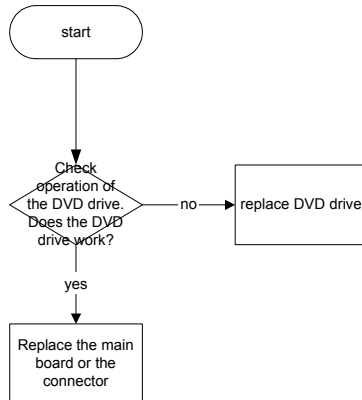
TROUBLESHOOTING PET715

SYMPTOM: NO POWER, NO GREEN LED



TROUBLESHOOTING PET715

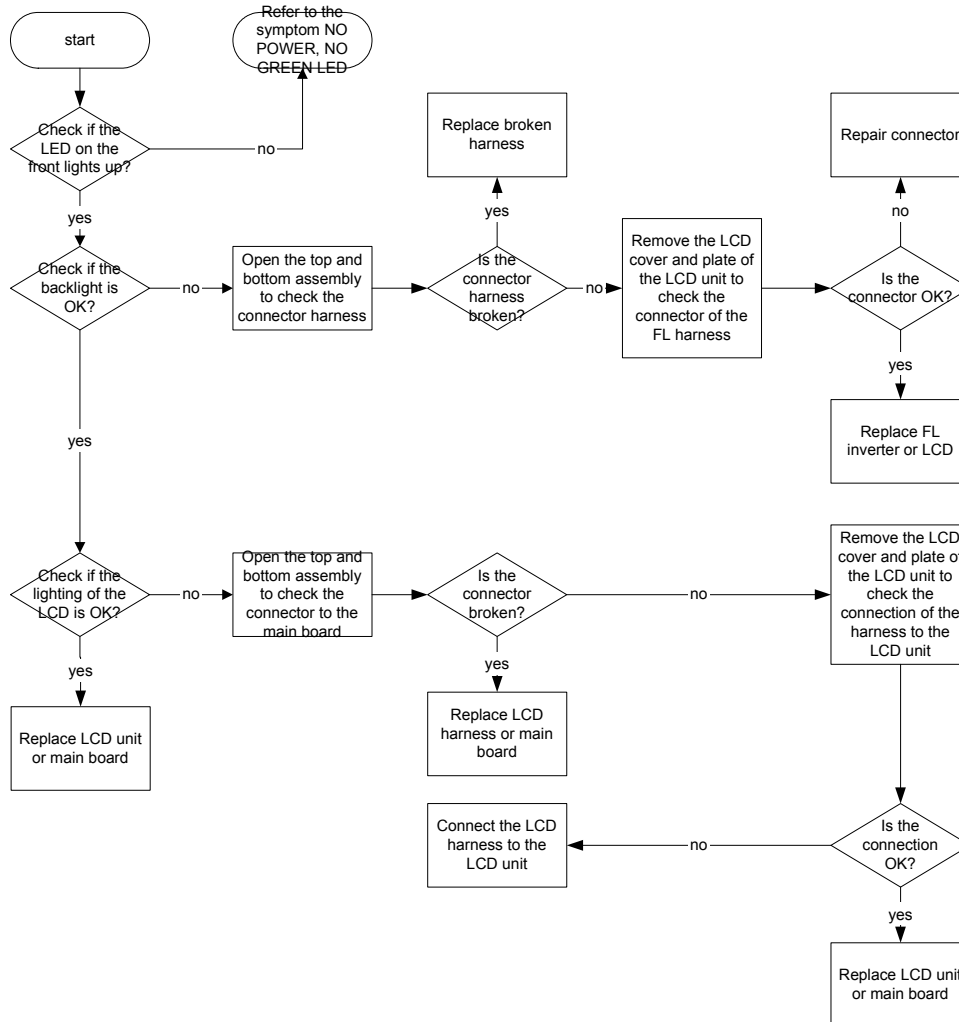
SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL OUTPUT



5.0 TROUBLESHOOTING & SERVICE TIPS

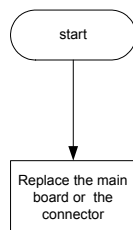
TROUBLESHOOTING PET715

SYMPTOM: THE INITIAL SCREEN IS NOT DISPLAYED ON THE LCD



TROUBLESHOOTING PET715

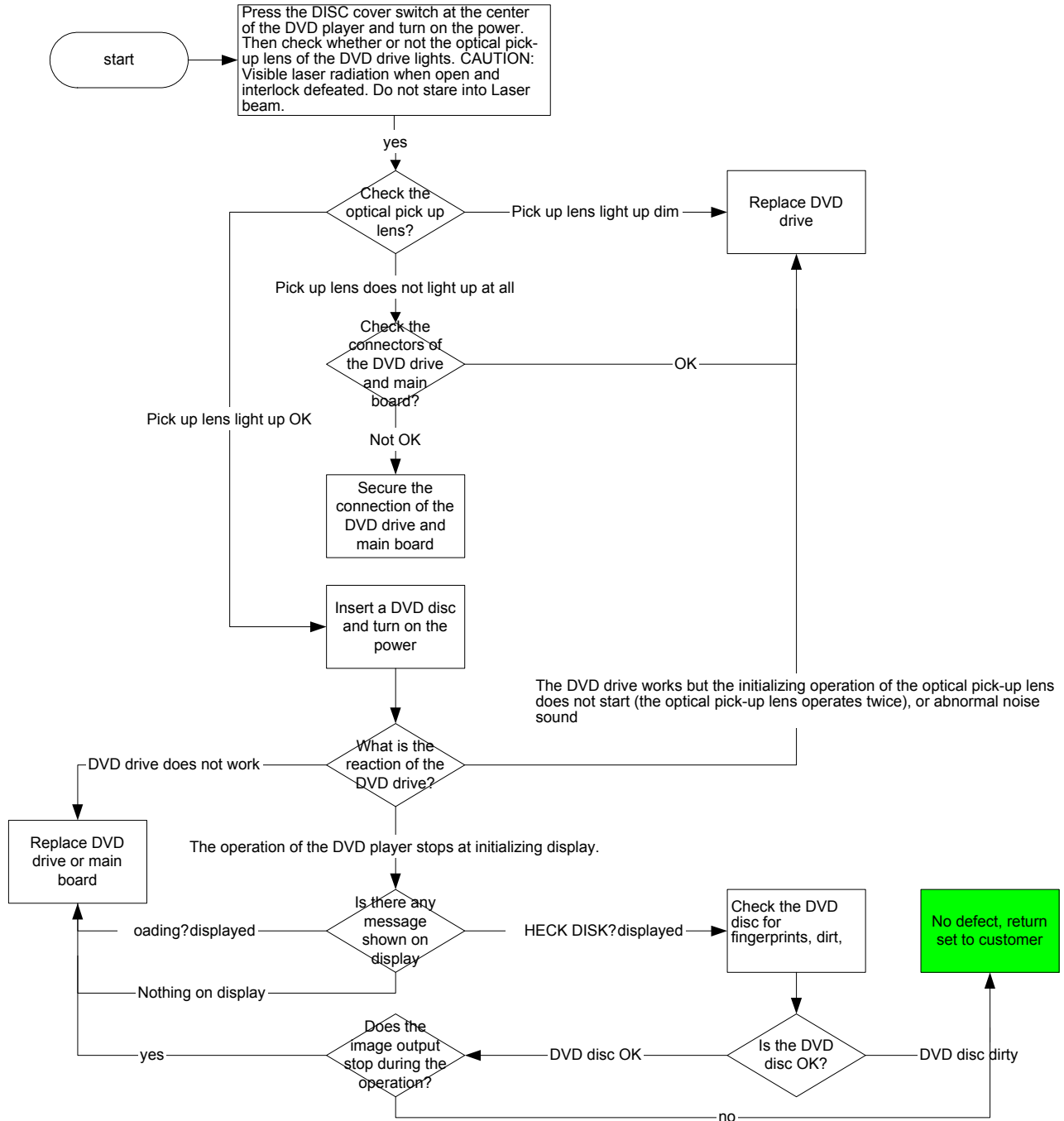
SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL INPUT



5.0 TROUBLESHOOTING & SERVICE TIPS

TROUBLESHOOTING PET715

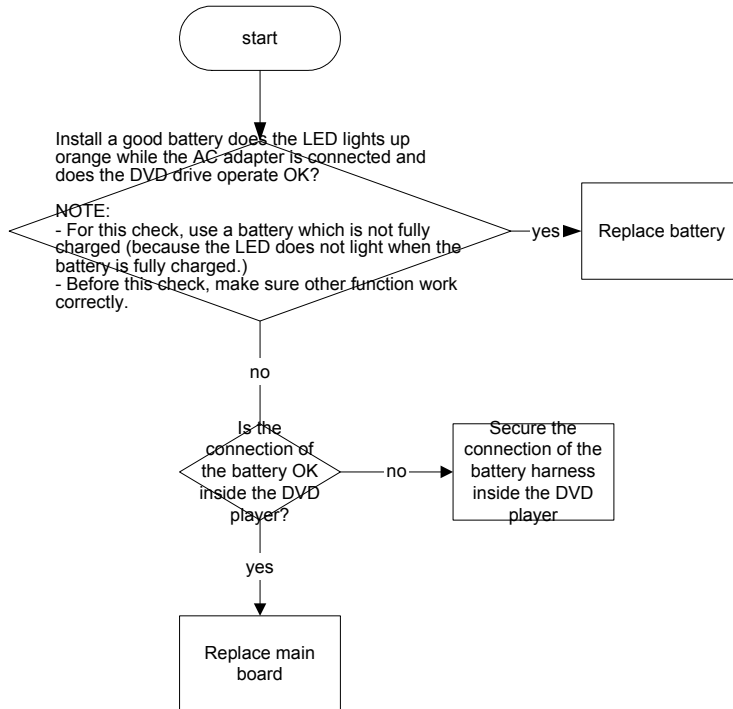
SYMPTOM: THE DVD DRIVE DOES NOT WORK



5.0 TROUBLESHOOTING & SERVICE TIPS

TROUBLESHOOTING PET715

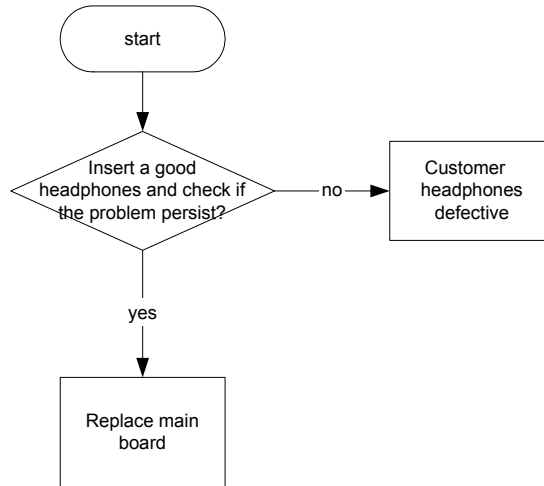
SYMPTOM: THE DVD DRIVE DOES NOT OPERATE WITH BATTERY



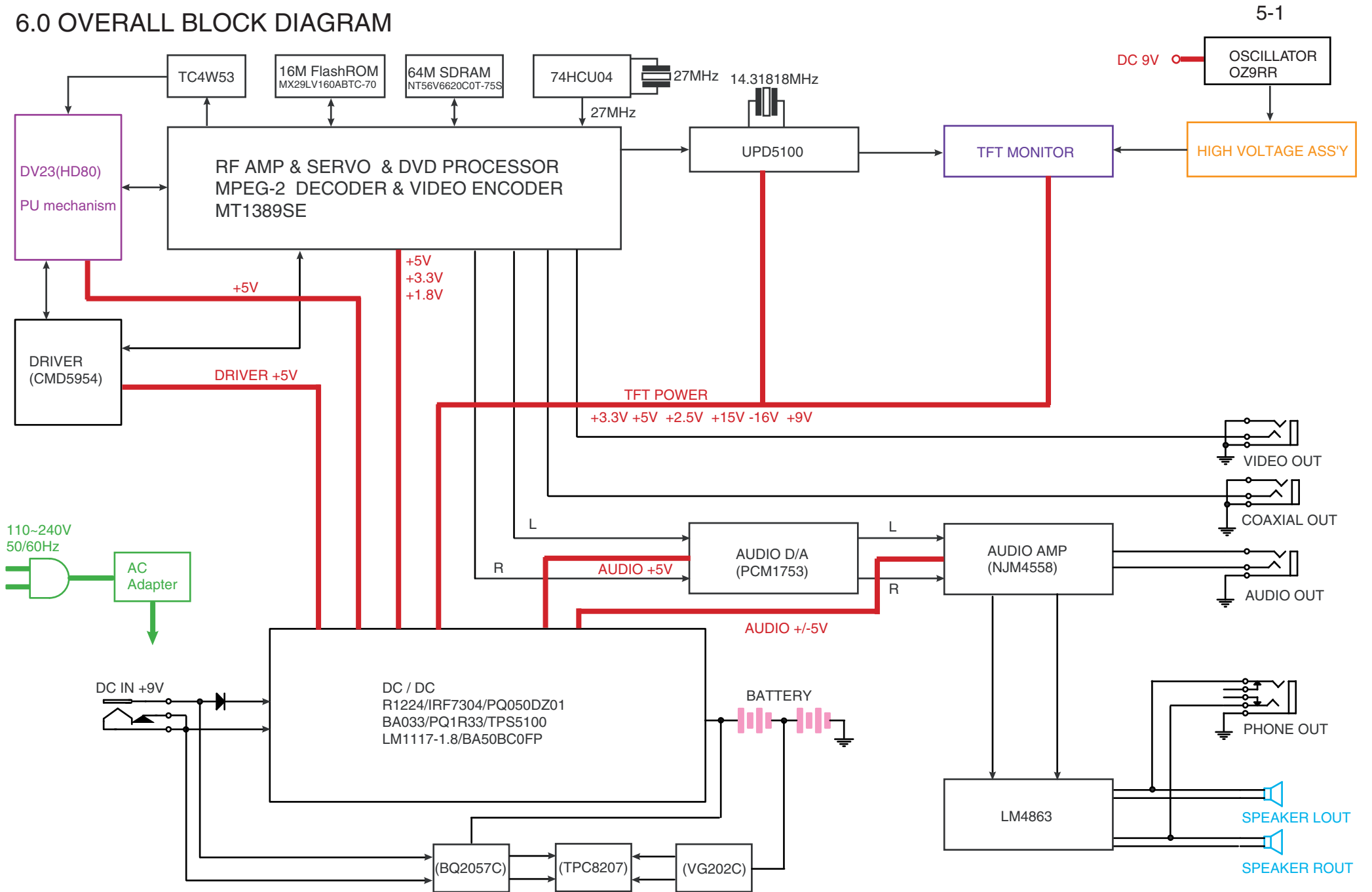
5.0 TROUBLESHOOTING & SERVICE TIPS

TROUBLESHOOTING PET715

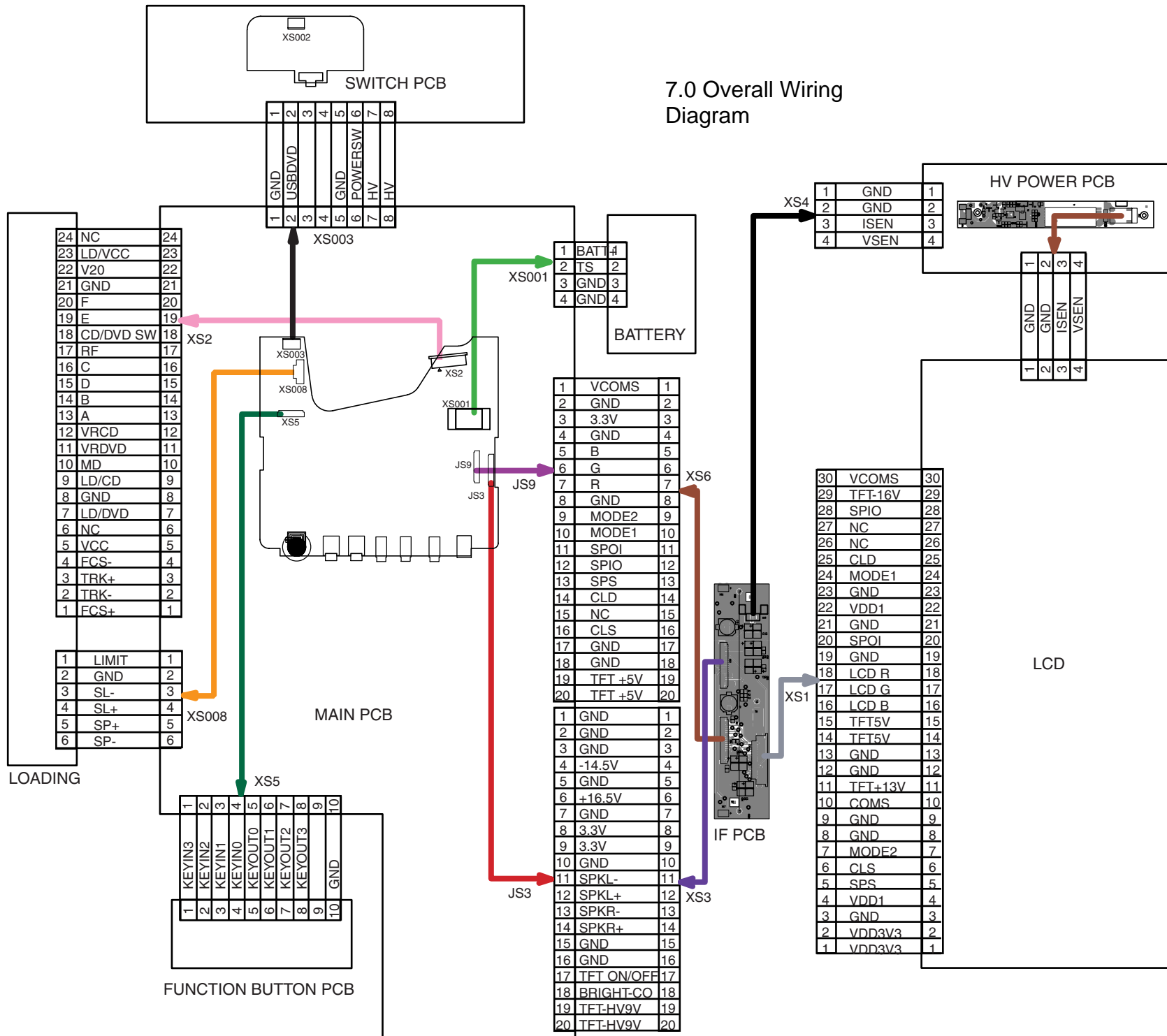
SYMPTOM: NO SOUND COMES FROM THE HEADPHONES



6.0 OVERALL BLOCK DIAGRAM



7.0 Overall Wiring Diagram



1

2

3

4

5

6

7

8

9

10

8.0 MAIN BOARD CIRCUIT DIAGRAM (TFT CIRCUIT DIAGRAM)

7-2

A

B

C

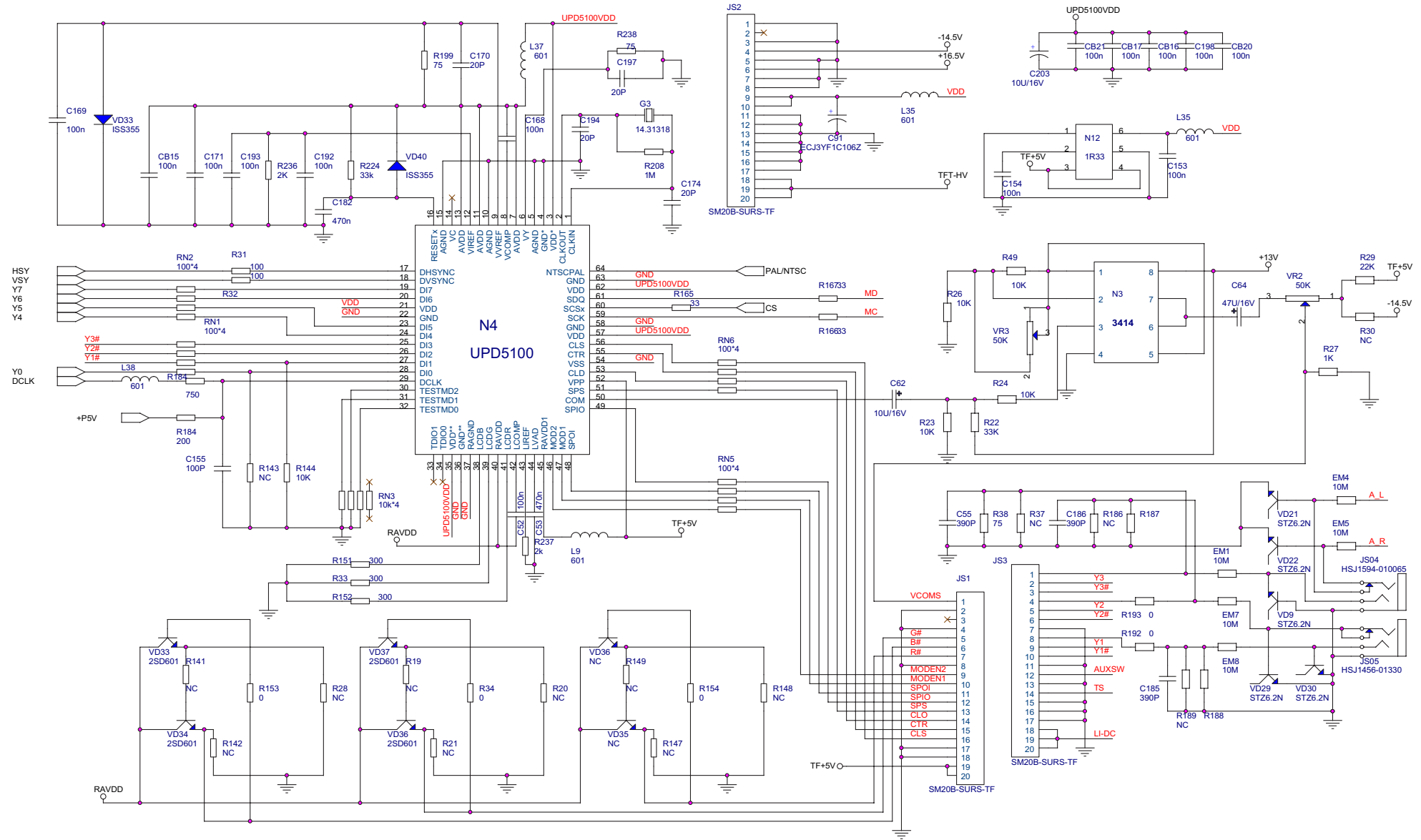
D

E

F

G

H



1

2

3

4

5

6

7

8

9

10

7-3

A

B

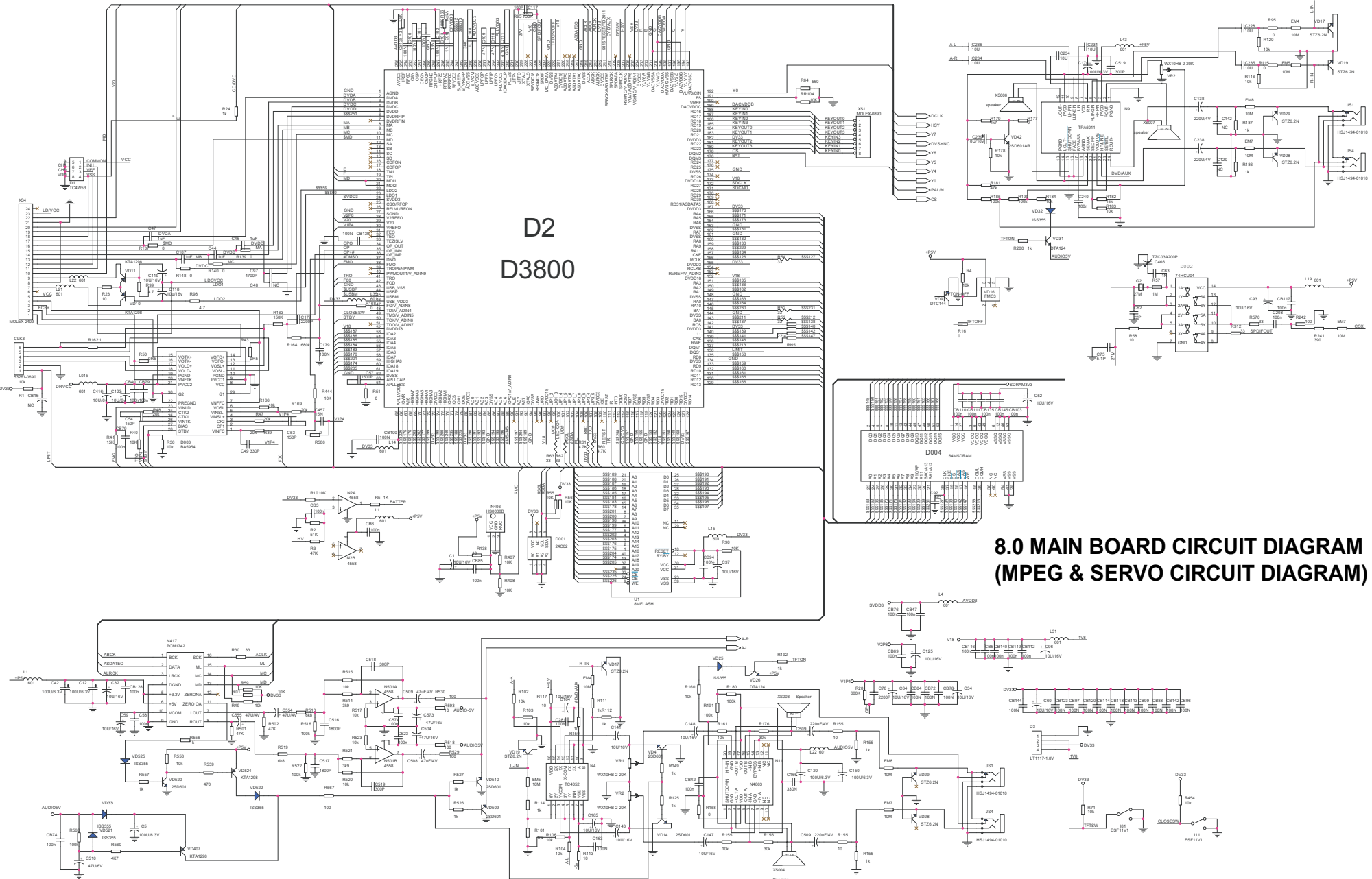
C

D

E

F

G



**8.0 MAIN BOARD CIRCUIT DIAGRAM
(MPEG & SERVO CIRCUIT DIAGRAM)**

1

2

3

4

5

6

7

8

9

10

A

B

C

D

E

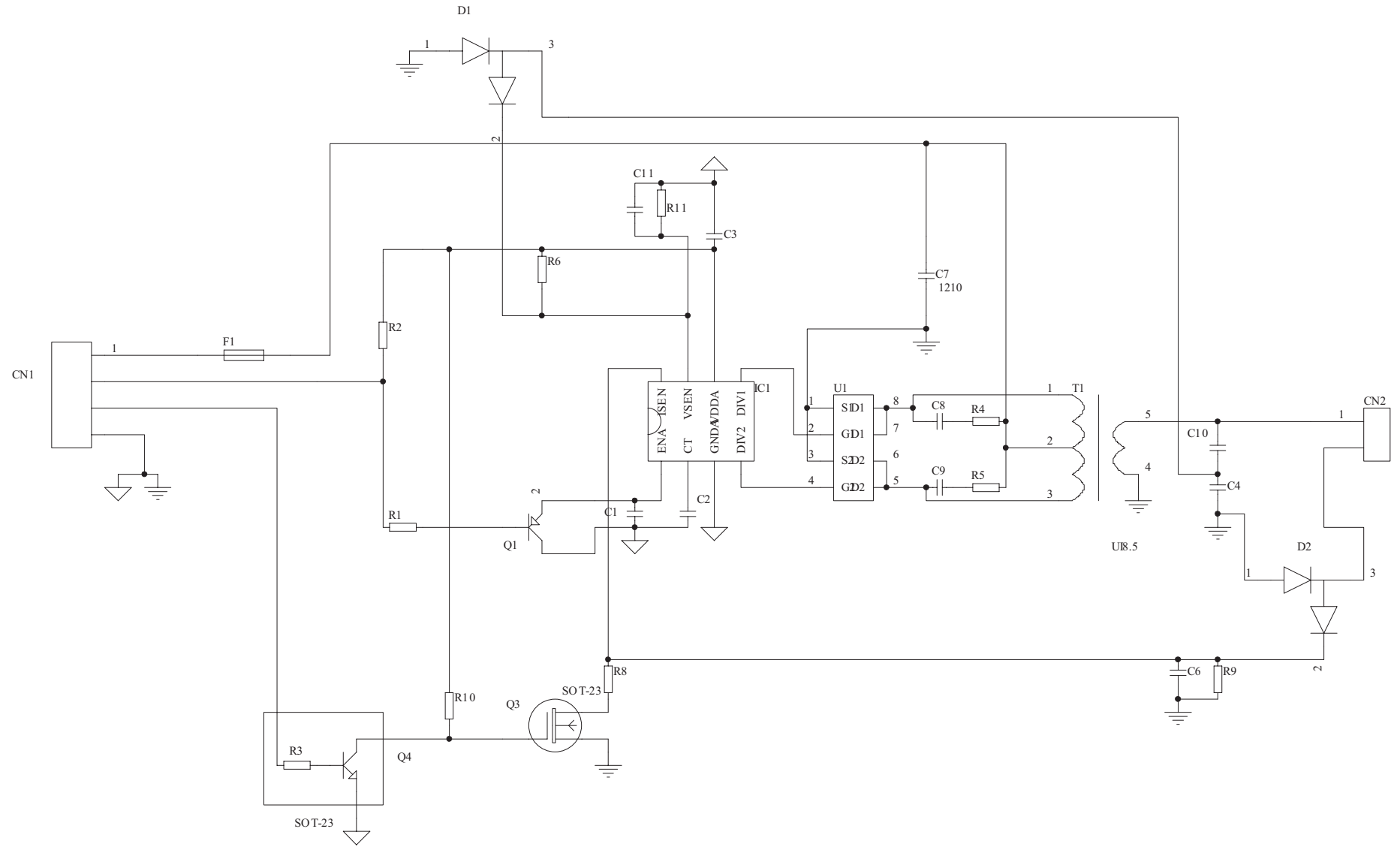
F

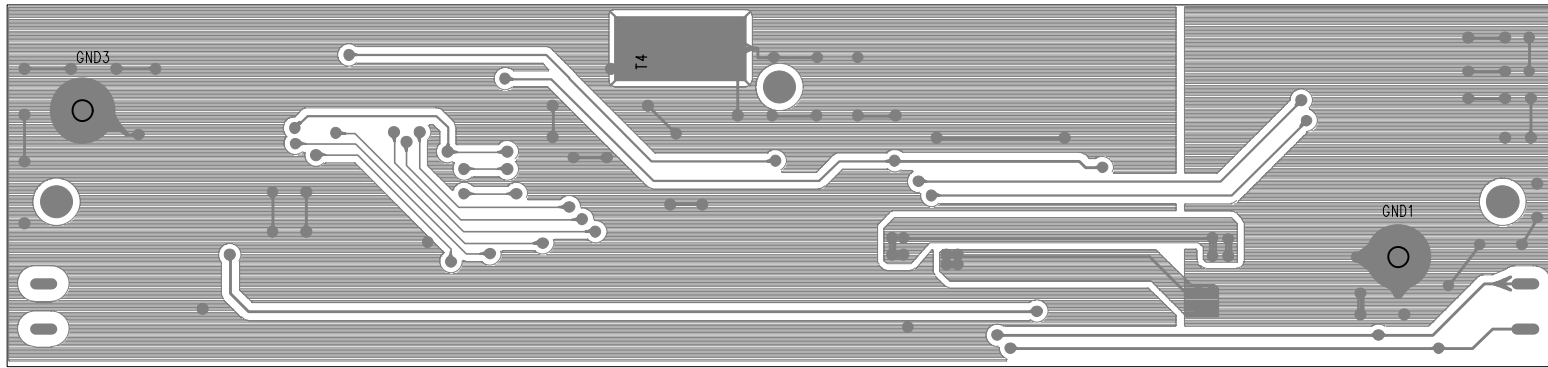
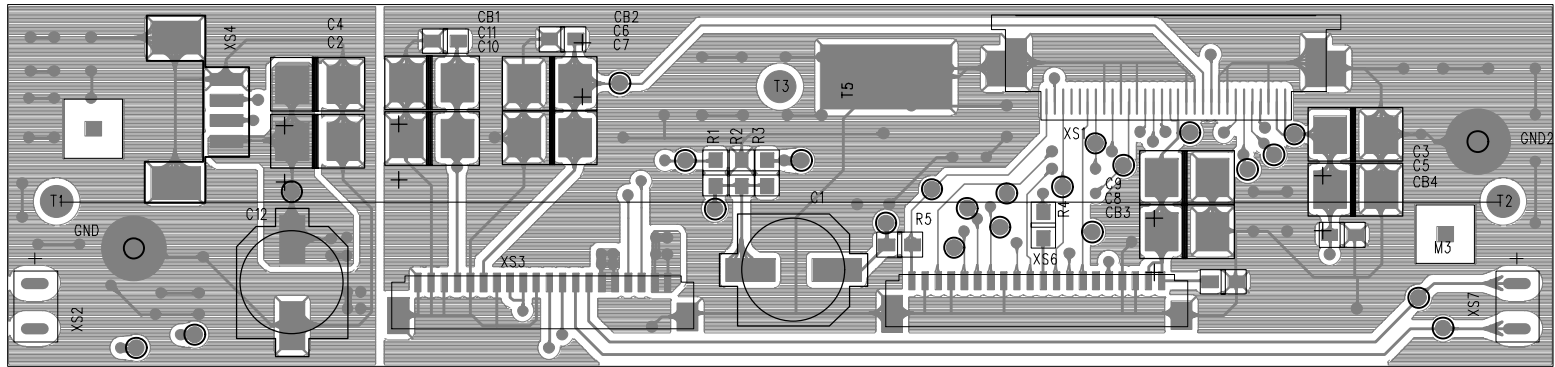
G

H

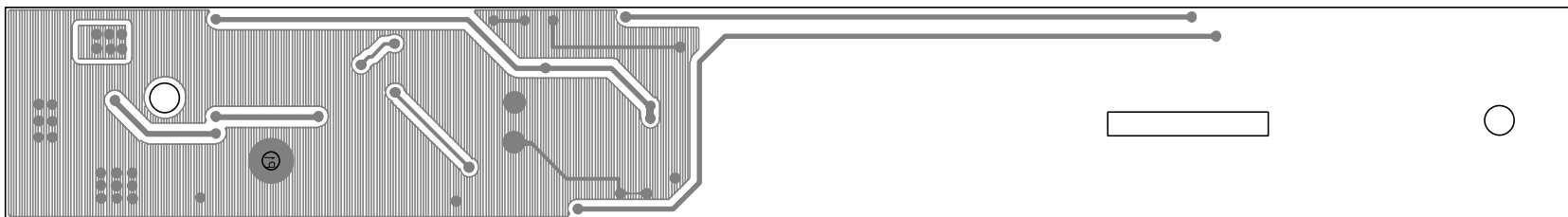
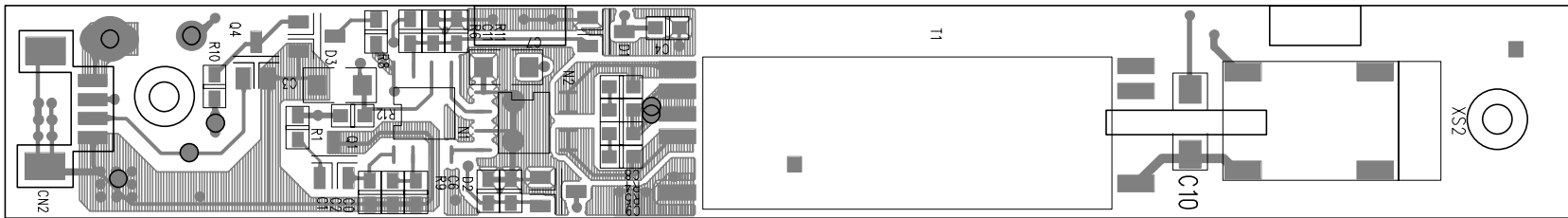
HIGH VOLTAGE BOARD CIRCUIT DIAGRAM

7-4

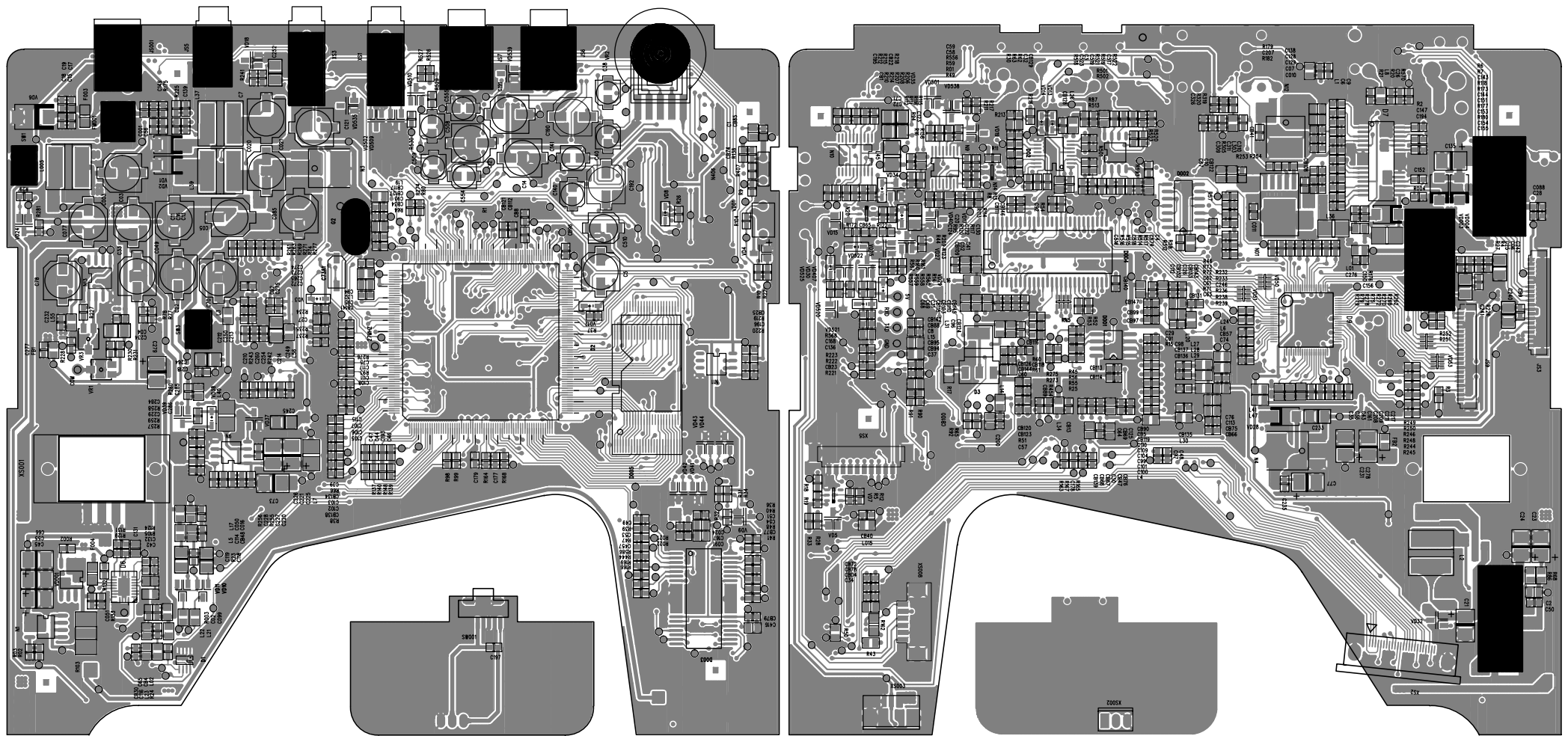




PET710 IF PCB BOARD DIAGRAM



9.0 COMPONENT LAYOUT PET710H HV POWER PCB BOARD DIAGRAM



9.0 COMPONENT LAYOUT PET715 MAIN BOARD DIAGRAM

10.0 SERVICE PART LIST

Service 12NC	Model #	Accessory description	Location Code	Photos
994000003401	PET715	RB-LI52 LITHIUM BATTERY	BATTERY	
994000001901	PET715	RC810 REMOTE	RC	
994000003403	PET715	AV CABLE	AVCABLE	
994000001898	PET715/00	ADPV18A AC POWER ADAPTER	ACADAPTOR	
994000001902	PET715	CAR CIGARETTE ADAPTER	CARADAPTOR	
994000001906	PET715	TRAVEL BAG (AY4233)	BAG	
994000003402	PET715	PET715M MAIN PCB ASS'Y	100	
994000002151	PET715	PET710T IF PCB ASS'Y	110	
994000002152	PET715	PET710H HV PCB ASS'Y	120	
994000002153	PET715	PET710 FUNCTION PCB ASS'Y	130	

10.0 SERVICE PART LIST

994000002241	PET715	20 PIN HARNESS (LE105)	142	
994000002242	PET715	20 PIN HARNESS (LE140)	144	
994000002879	PET715	LB070W02-S TFT LCD	200	
994000002228	PET715	DV23 LOADING ASS'Y	210	
994000002157	PET715	SPEAKER	220	
994000003405	PET715	TOP COVER	300	
994000002238	PET715	DISPLAY FRAME	310	
994000002236	PET715	MIDDLE CABINET	320	

10.0 SERVICE PART LIST

994000002237	PET715	BOTTOM CABINET	330	
994000002235	PET715	BASE COVER	331	
994000002991	PET715	CONTROL KEY PAD	350	
994000003406	PET715	DOOR ASSY	360	
994000002338	PET715	DOOR SPRING	410	

11.0 REVISION LIST

Version 1.0 (3141 785 30440)
Initial release PET715/00

Version 1.1 (3141 785 30441)

Chapter 10:

Service parts list revised 12NC as listed below

- Changed TFT LCD from 9940 000 02154 to 9940 000 02879
- Changed adaptor/00 from 9940 000 03404 to 9940 000 01898

Version 1.2 (3141 785 30442)

Chapter 5:

- Corrected the procedure to change region code on PET715

Version 1.3 (3141 785 30443)

Chapter 10:

- Added location code of spare parts