

Service
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Service Manual

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3141 785 31663

1.0 TECHNICAL SPECIFICATION

General

Dimensions (WxLxH):	20.2 x 14.9 x 4.0 cm 7.9 x 5.8 x 1.5 inches
Weight:	0.86 kg / 1.89 lb
Power supply:	DC 12V 2A
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:



MP3-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

≤ 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.

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 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 spårren 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) Advarsel !

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.

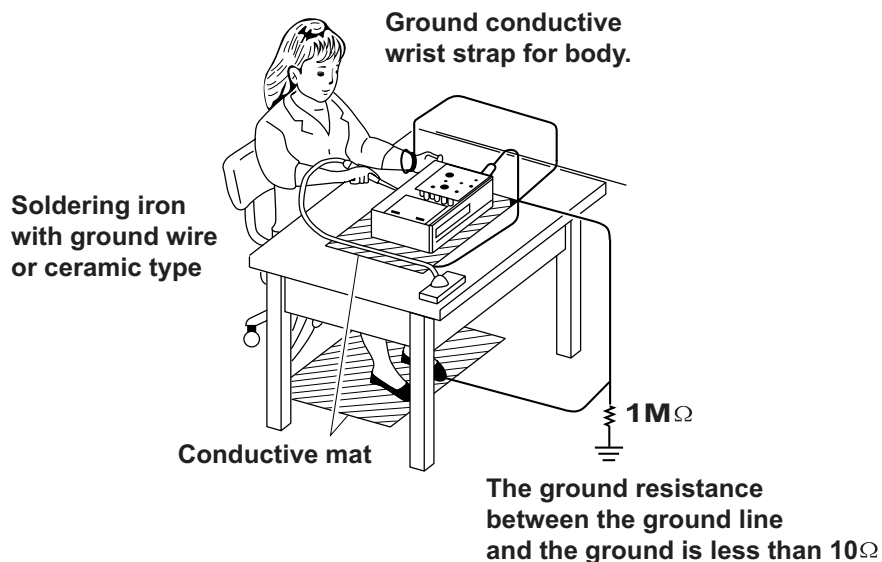
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

PREPARATION OF SERVICING

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

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 form damage by static electricity.

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



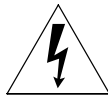
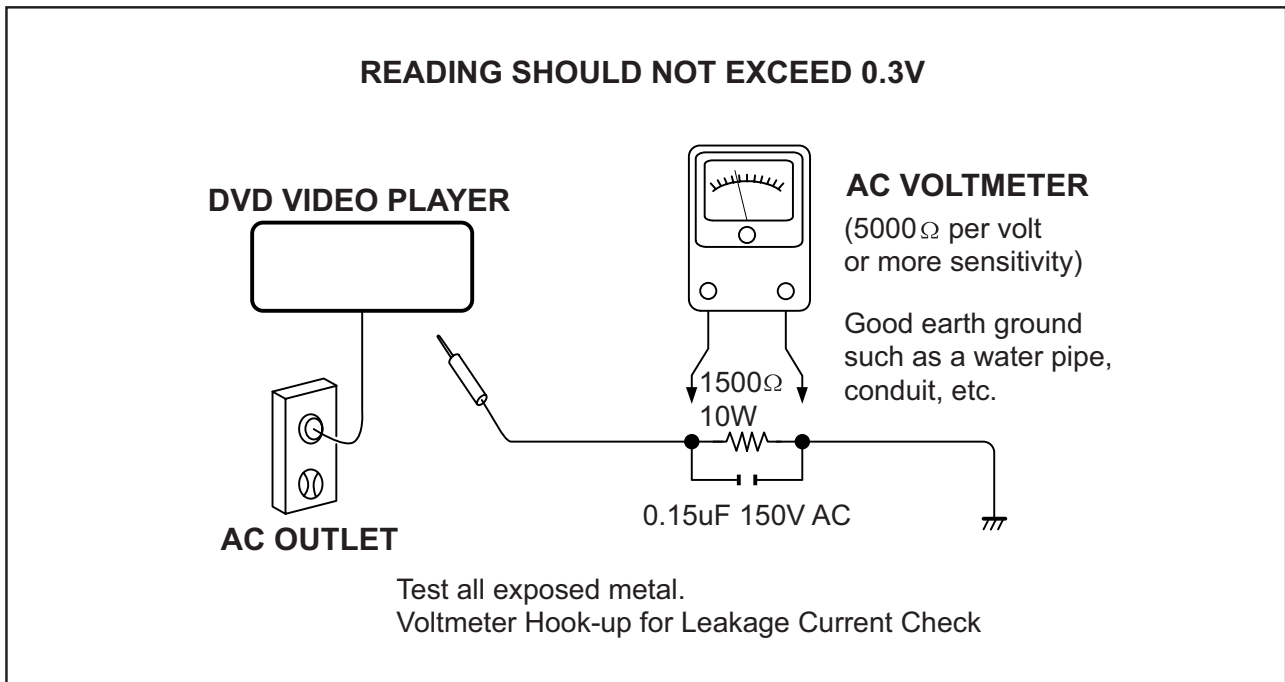
SAFTY NOTICE

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.

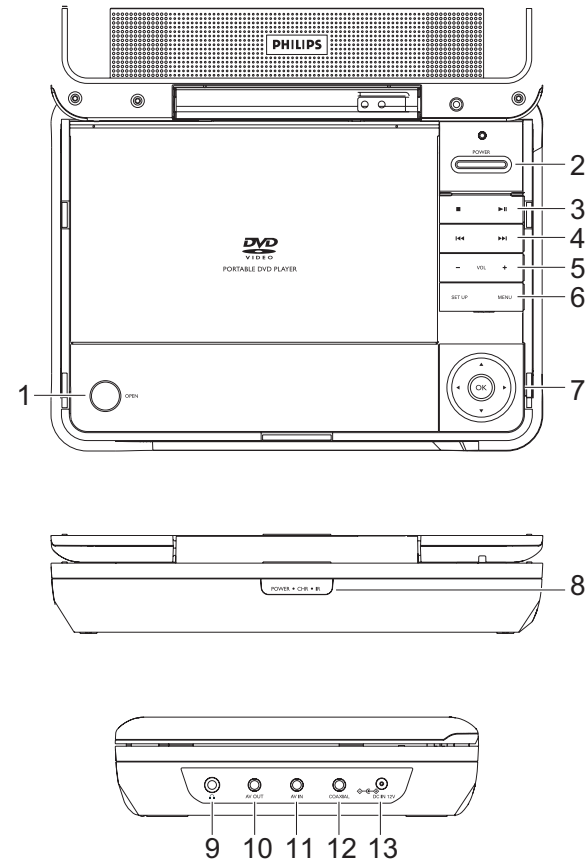
3.0 INSTRUCTIONS FOR USE

- | | |
|--|--|
| <p>① OPEN
Opens disc door to insert or remove disc</p> <p>② POWER
Switches the player on / off</p> <p>③ <
Press once to stop playback and store the stop position.
Press twice to stop playback completely.
▶
Starts / pause / resumes playback</p> <p>④ 9 / :
Search backward (9) or search forward (:)</p> <p>⑤ -VOL+
Volume control</p> <p>⑥ SETUP
Enters SETUP menu
MENU
Displays MENU page</p> <p>⑦ 5, 6, 3, 4
Up / down / left / right cursor
OK
Confirms selection</p> | <p>⑧ POWER/CHR/IR
Power and charging indicator / remote sensor</p> <p>⑨ PHONES
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</p> <p>⑬ DC IN 12V
Power supply socket</p> |
|--|--|

CAUTION

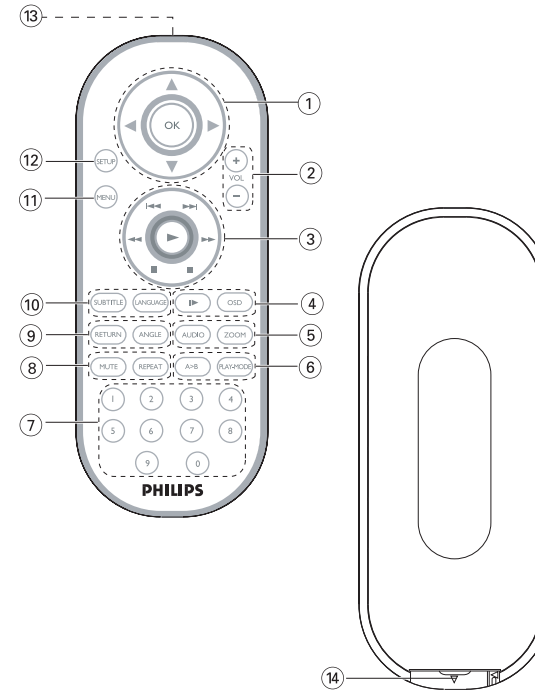
Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

DVD PLAYER LAYOUT



Remote Control

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



4.0 MECHANICAL INSTRUCTIONS

PET708

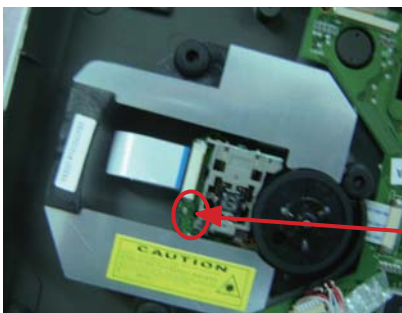
1. Back View as Fig.1

Remove screws to remove base



Fig.1

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



soldered

Fig.2

3. Remove DVD driver and every PCB board as Fig.3
Broken connection of DVD driver and every PCB board
Remove DVD driver and main PCB and function PCB.

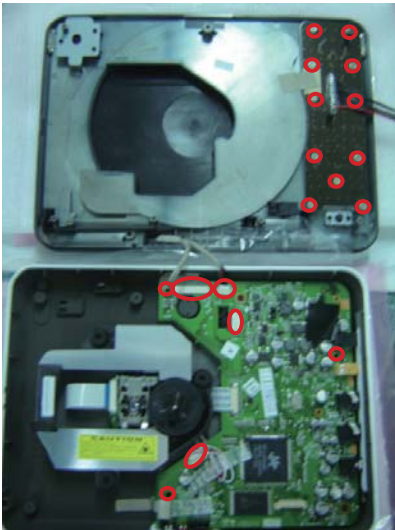


Fig.3

4. Remove top cover as Fig.5



Fig.4

5. Broken connection of speaker and IF board and power board.
Remove screws to remove TFT board shield and IF board and power board and LCD TFT as Fig.5.

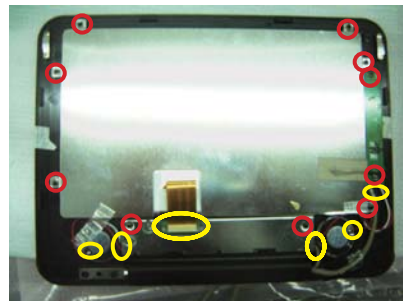


Fig.5

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 PET708 - 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.

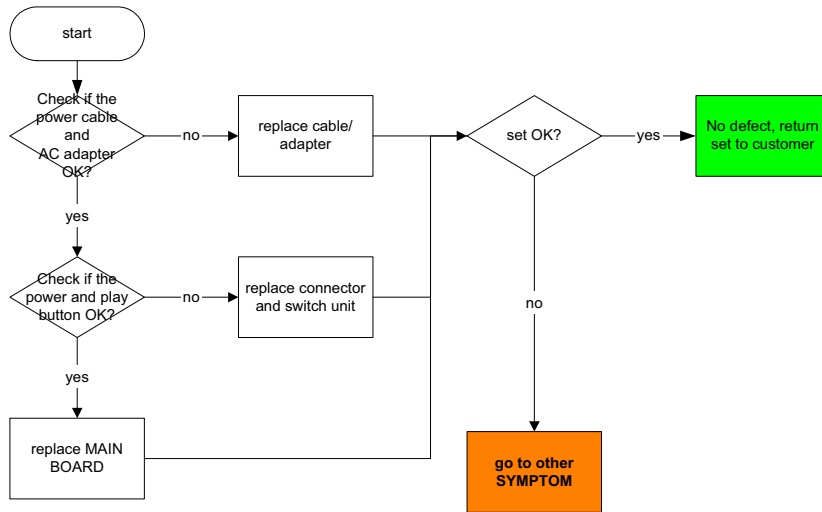
Region Code	Region
1	USA
2	EUROPE
3	ASIA PACIFIC
4	AUSTRALIA, NEW ZEALAND, LATAM
5	RUSSIA, INDIA
6	CHINA

REMARKS:

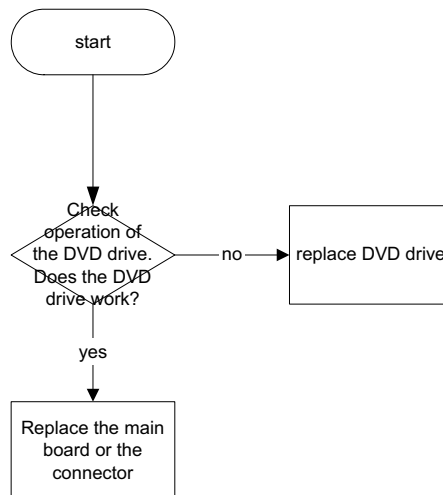
1. Password is CONFIDENTIAL.
2. Region code is printed on product type plate. Due to DVD legislation region codes different to assigned region may not be released.

5.0 TROUBLESHOOTING & SERVICE TIPS

SYMPTOM: NO POWER, NO GREEN LED

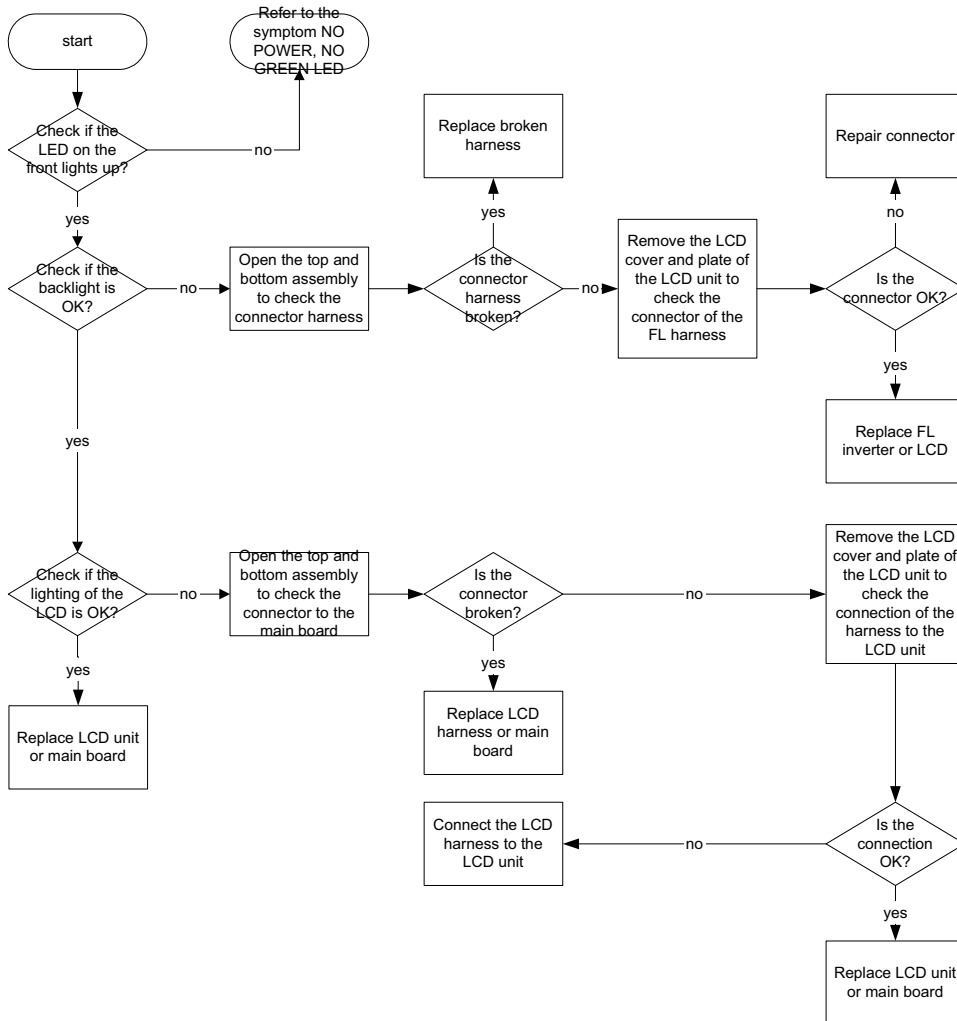


SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL OUTPUT

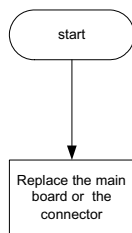


5.0 TROUBLESHOOTING & SERVICE TIPS

SYMPTOM: THE INITIAL SCREEN IS NOT DISPLAYED ON THE LCD

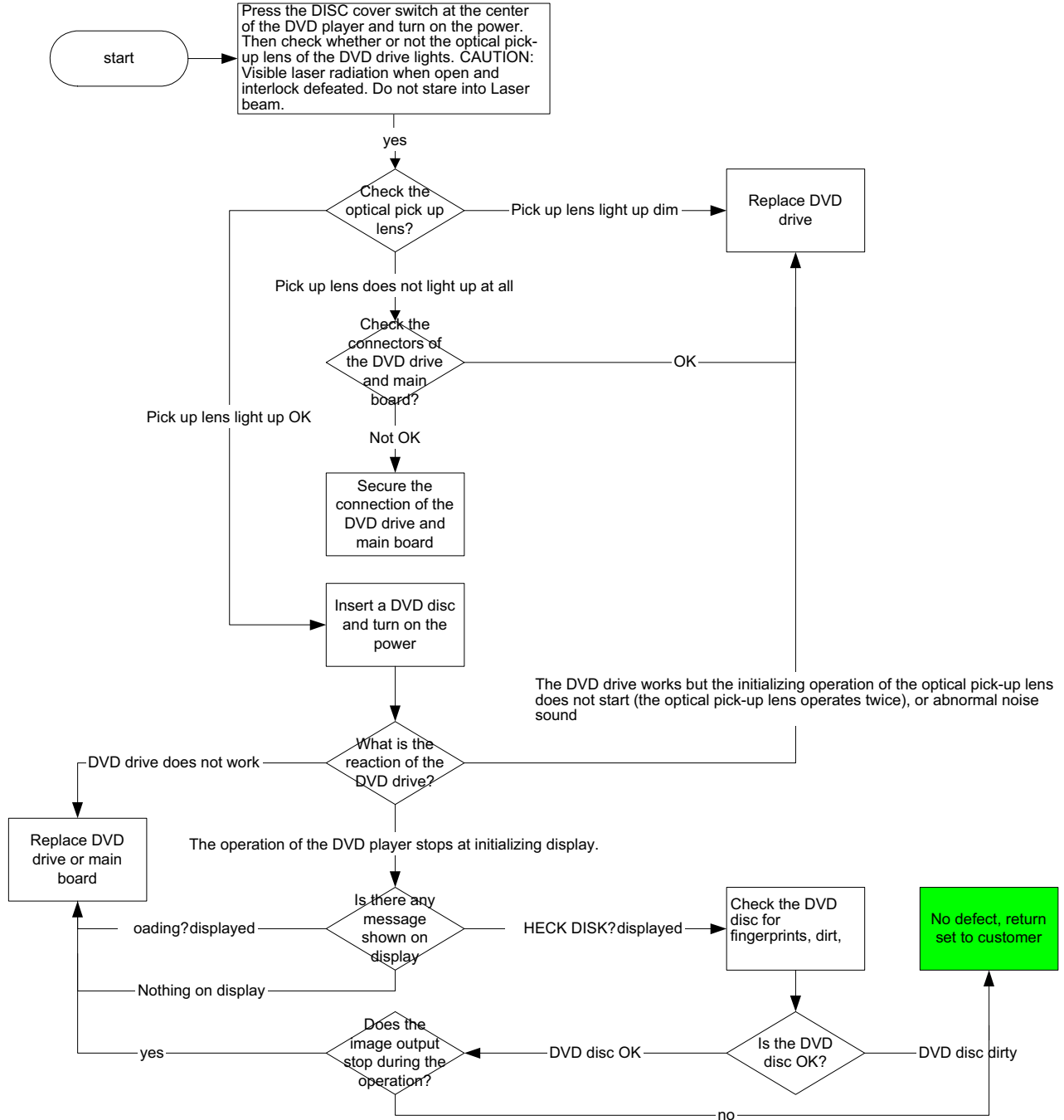


SYMPTOM: NO IMAGE OR SOUND COMES OUT FROM THE EXTERNAL INPUT



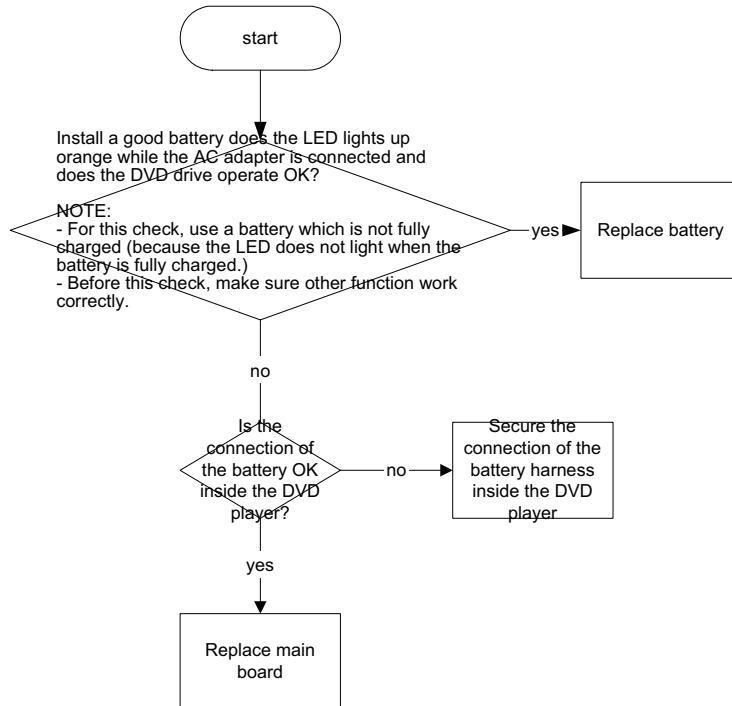
5.0 TROUBLESHOOTING & SERVICE TIPS

SYMPTOM: THE DVD DRIVE DOES NOT WORK

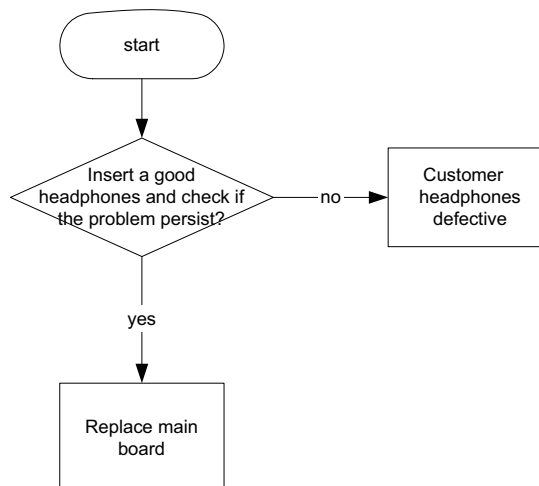


5.0 TROUBLESHOOTING & SERVICE TIPS

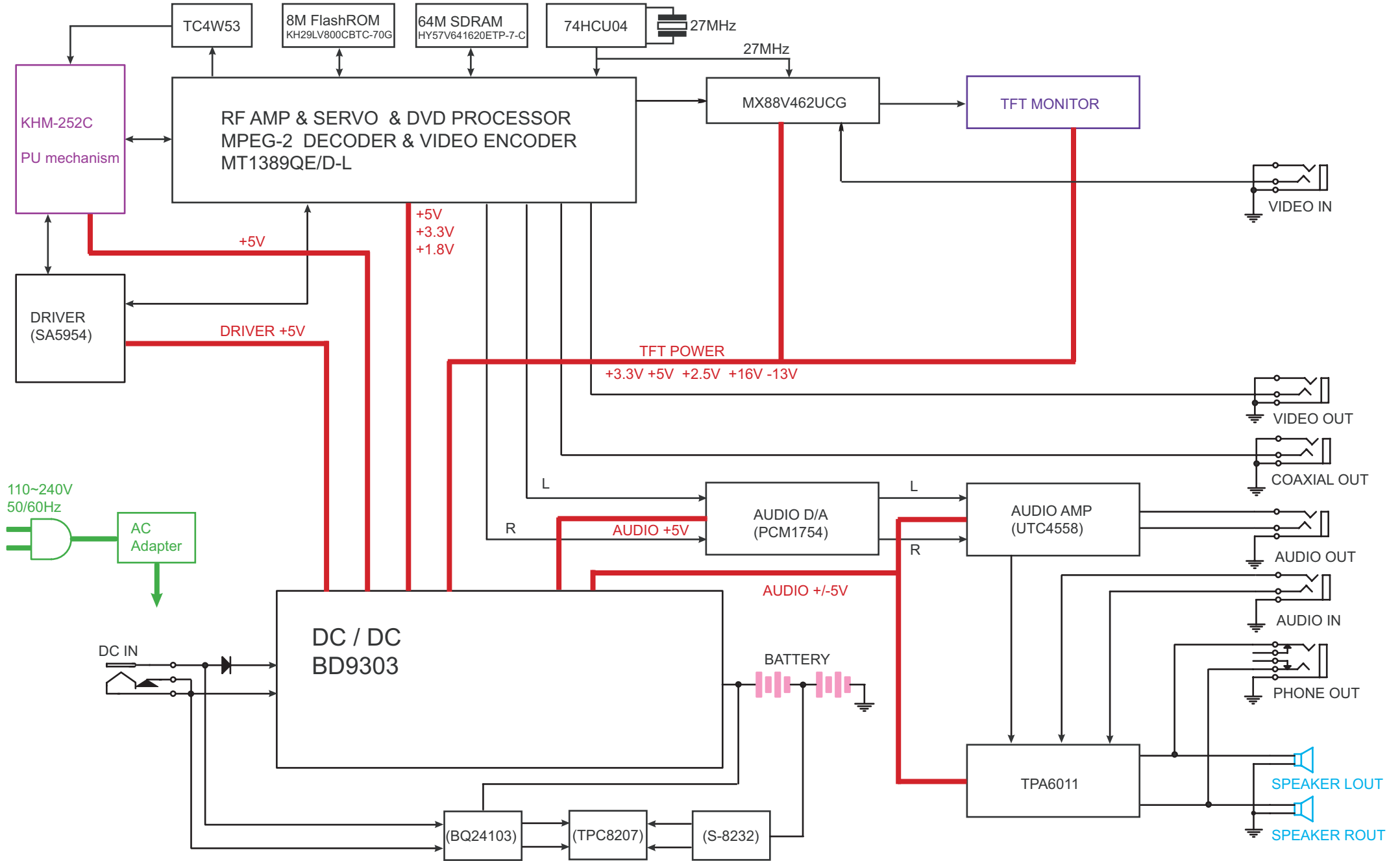
SYMPTOM: THE DVD DRIVE DOES NOT OPERATE WITH BATTERY



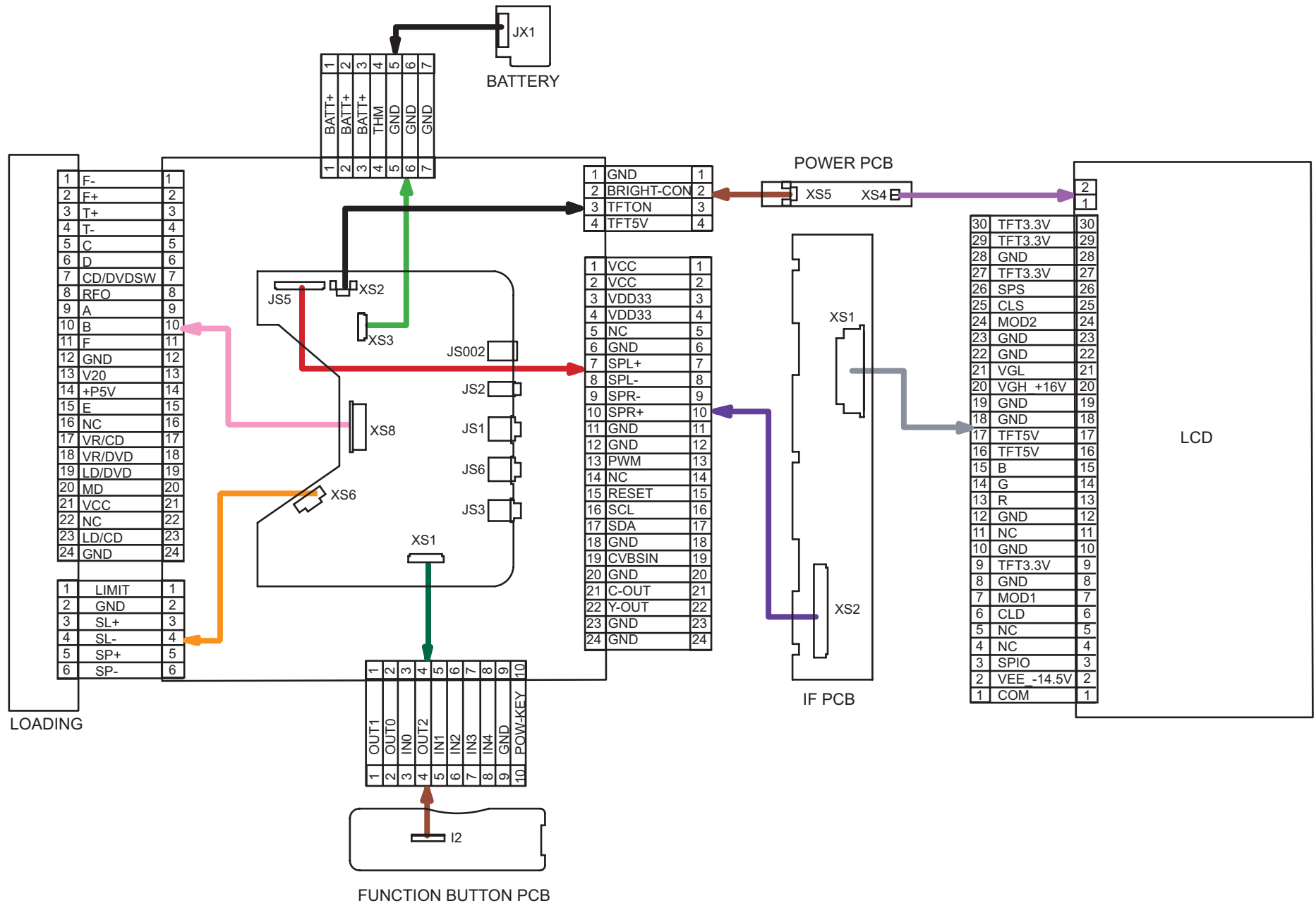
SYMPTOM: NO SOUND COMES FROM THE HEADPHONES



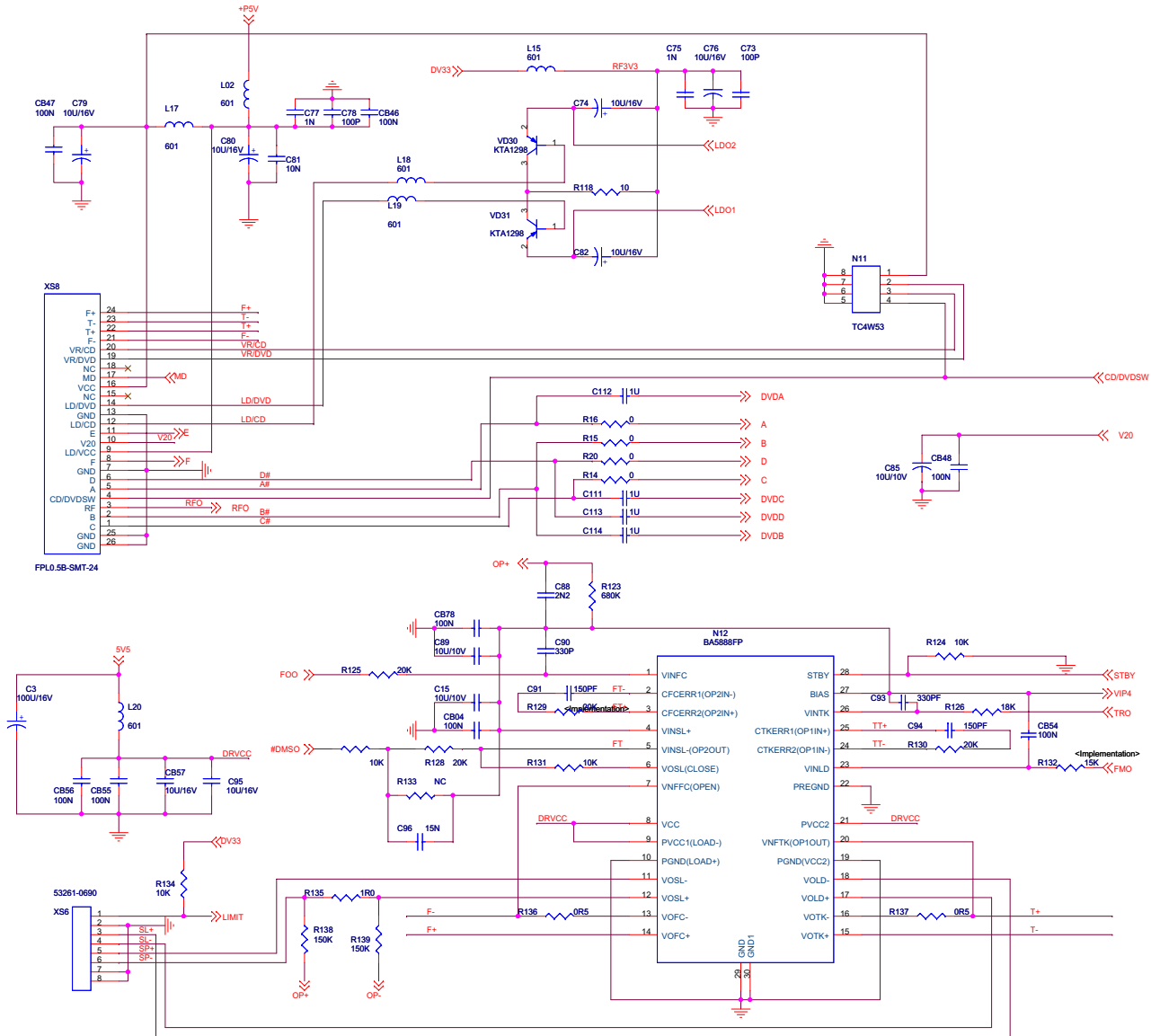
6.0 OVERALL BLOCK DIAGRAM



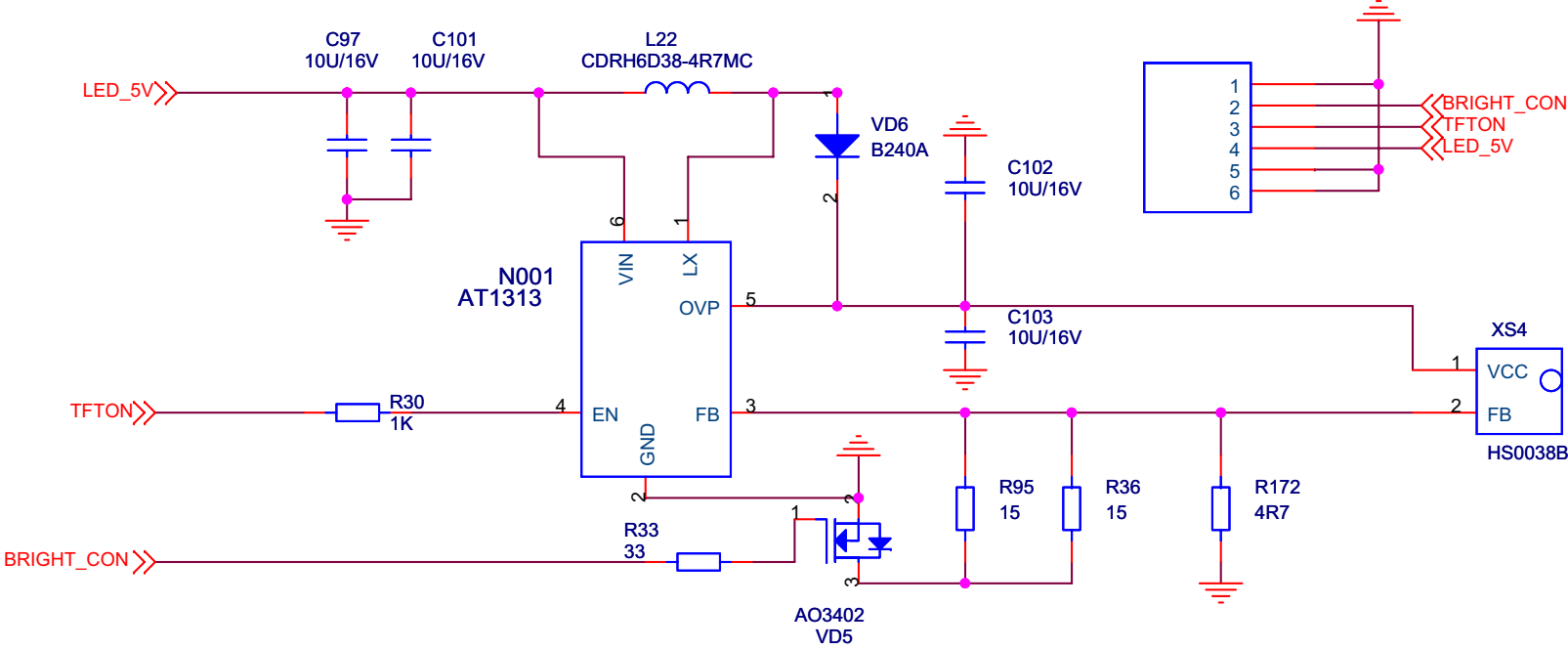
7.0 OVERALL WIRING DIAGRAM



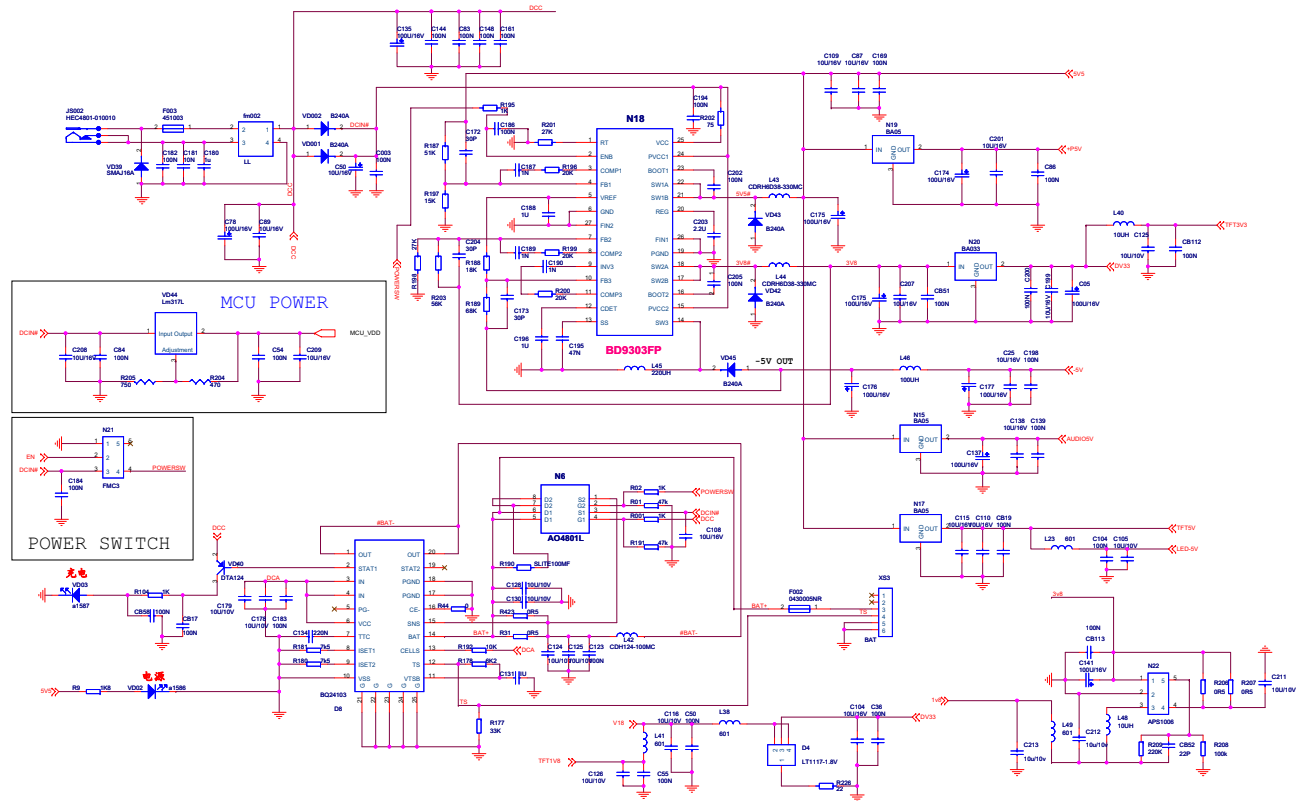
8.0 ELECTRICAL DIAGRAM MAIN BOARD CIRCUIT DIAGRAM (DRIVER)



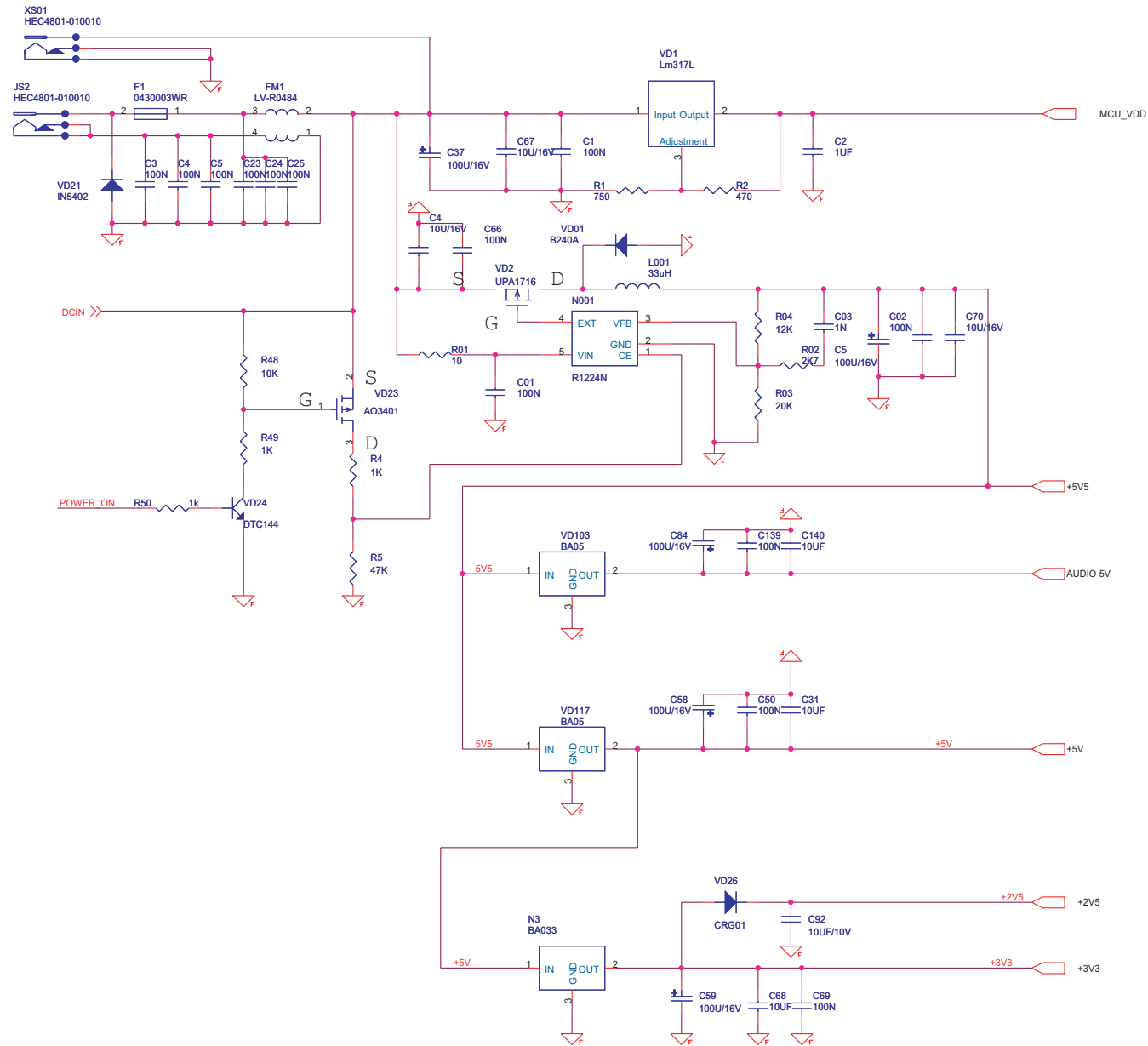
8.0 ELECTRICAL DIAGRAM
MAIN BOARD CIRCUIT DIAGRAM (LED-BRIGHT)



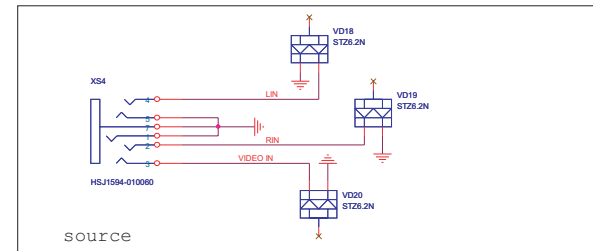
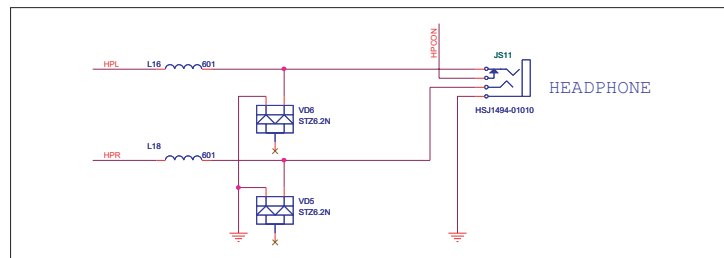
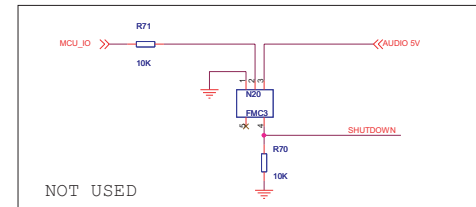
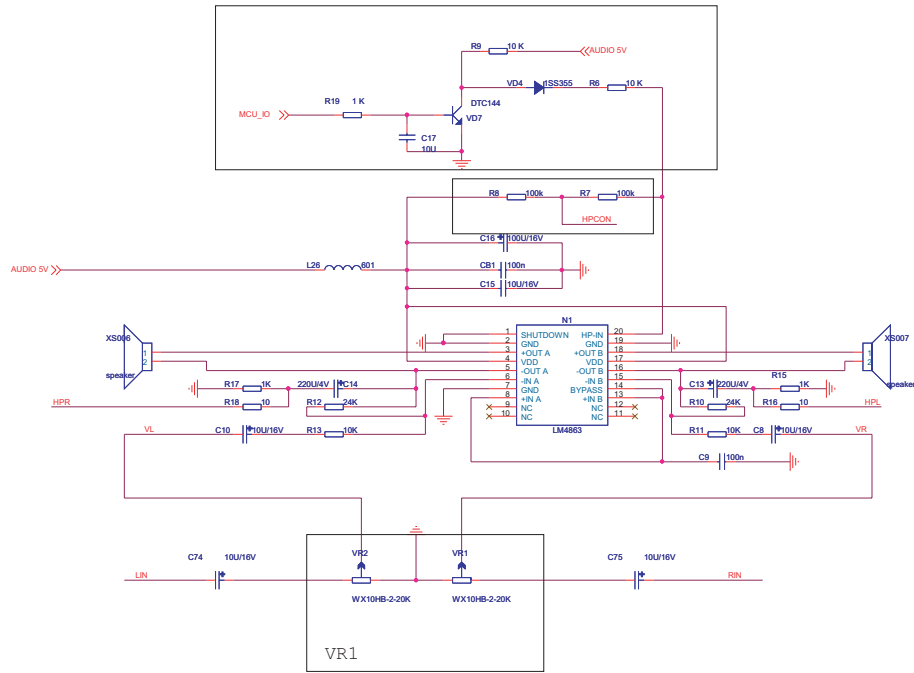
8.0 ELECTRICAL DIAGRAM MAIN BOARD CIRCUIT DIAGRAM (POWER)



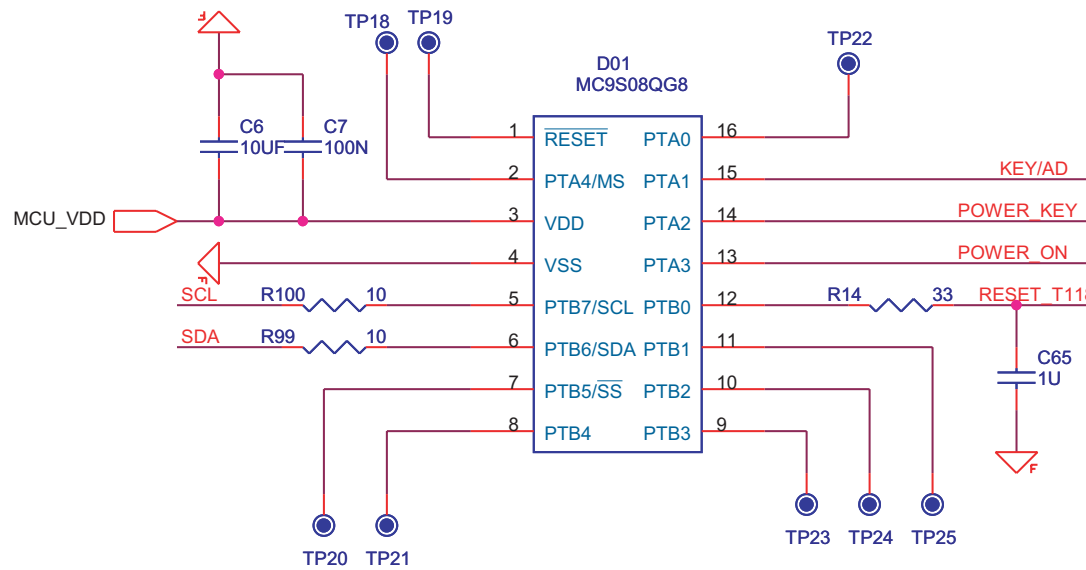
8.0 ELECTRICAL DIAGRAM PAC130 MAIN BOARD CIRCUIT DIAGRAM(POWER)



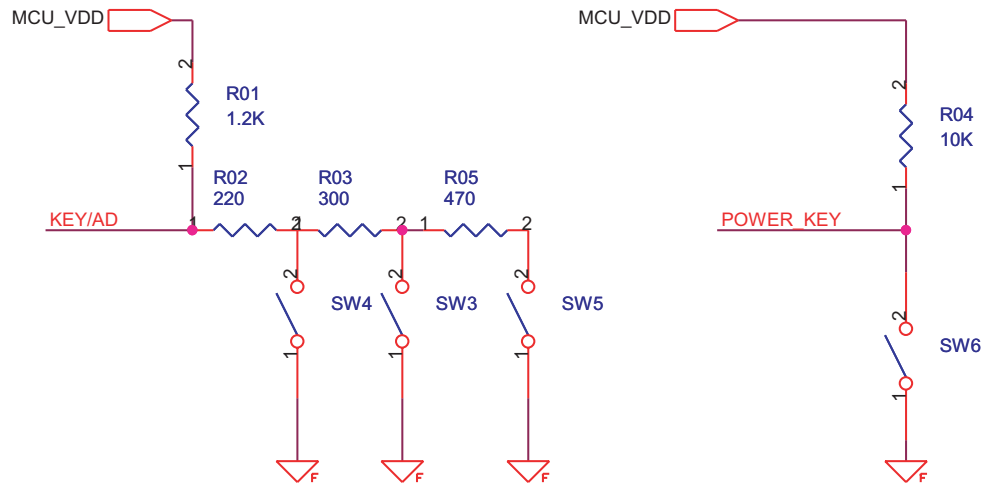
8.0 ELECTRICAL DIAGRAM PAC130 MAIN BOARD CIRCUIT DIAGRAM(AUDIO)



8.0 ELECTRICAL DIAGRAM PAC130 MAIN BOARD CIRCUIT DIAGRAM(MCU)

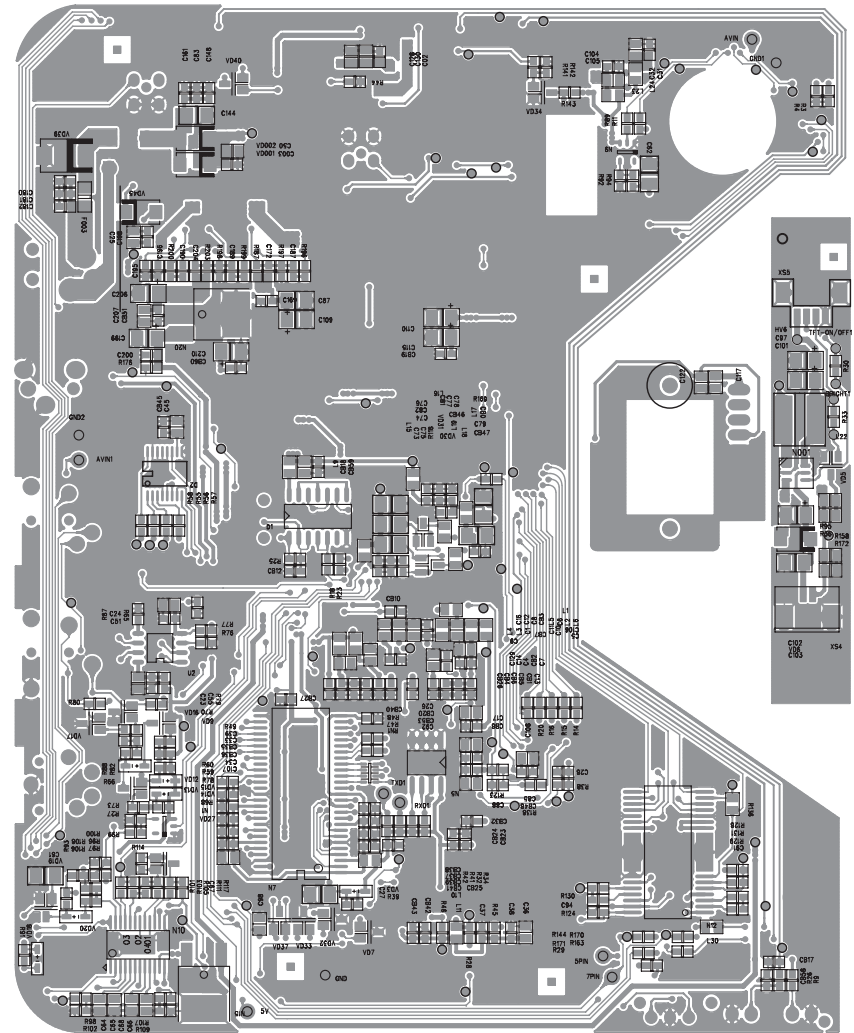
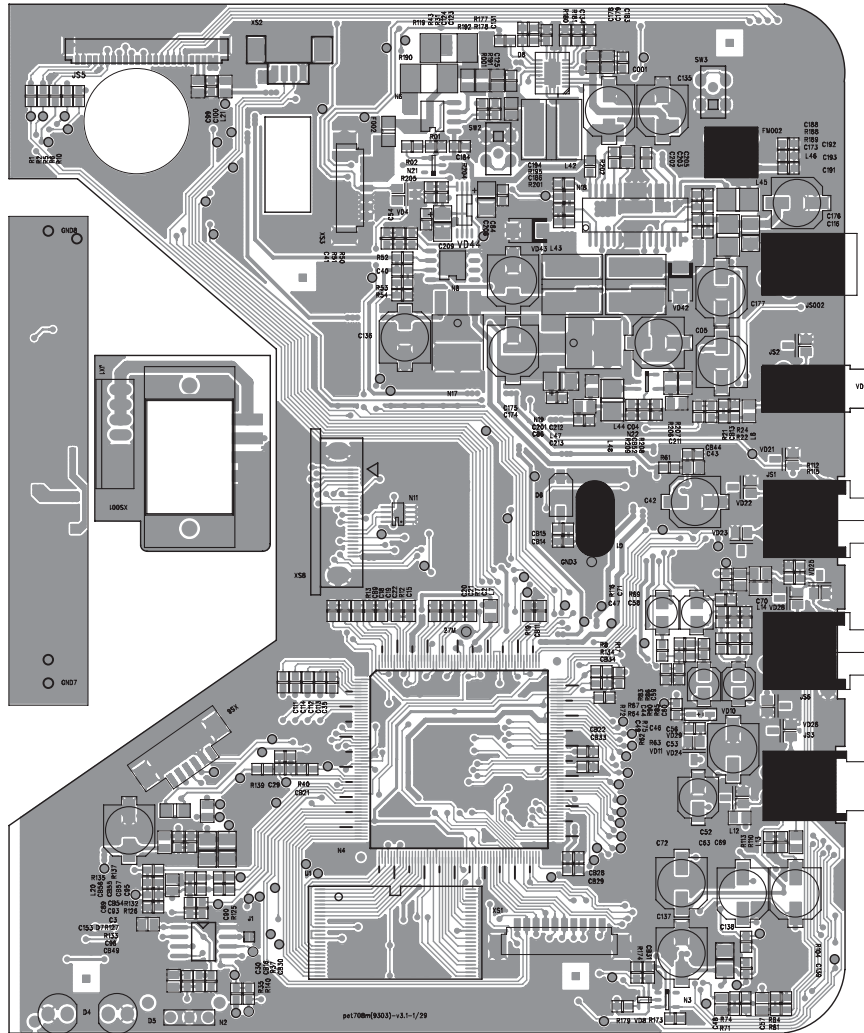


PAC130 FUNCTION BOARD CIRCUIT DIAGRAM



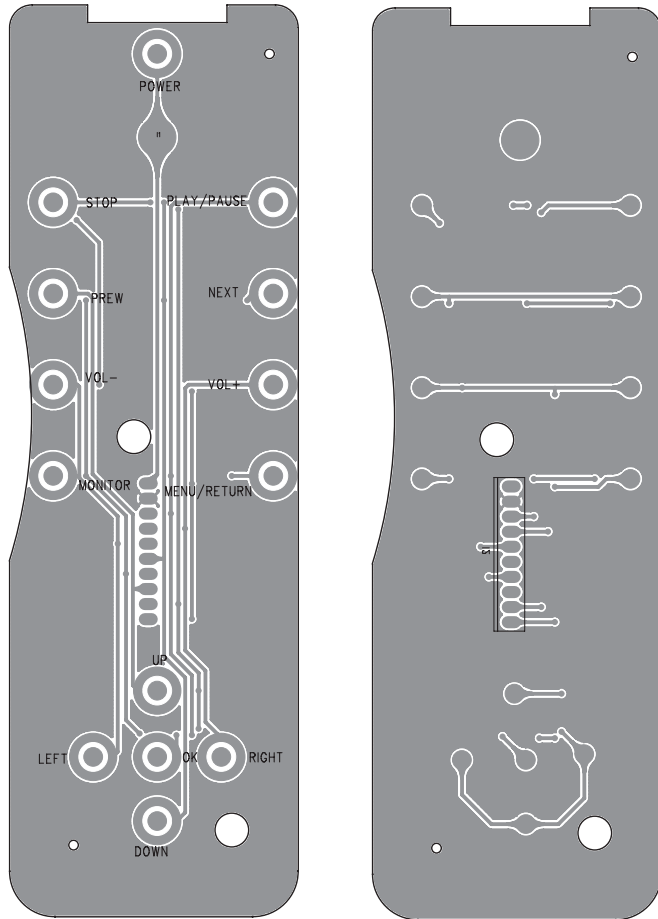
9.0 COMPONENT LAYOUT

PET708 MAIN BOARD DIAGRAM

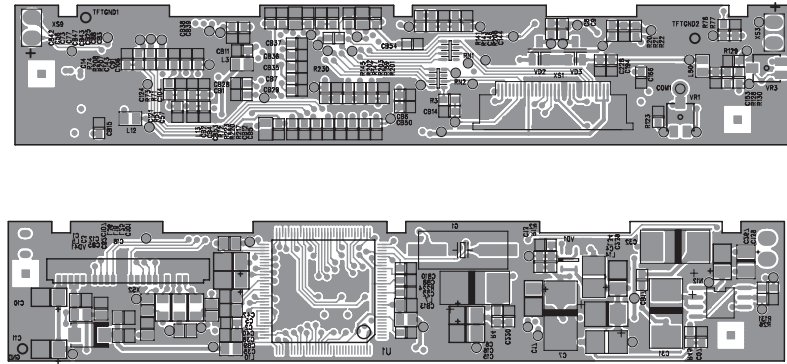


9.0 COMPONENT LAYOUT

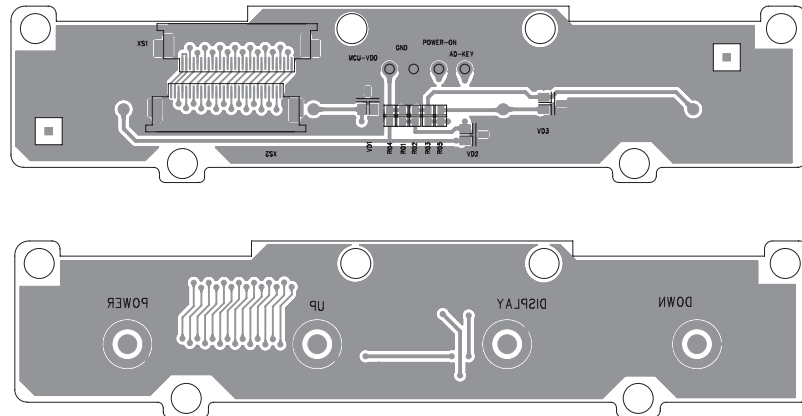
PET708 FUNCTION BOARD DIAGRAM



PET708 IF BOARD DIAGRAM

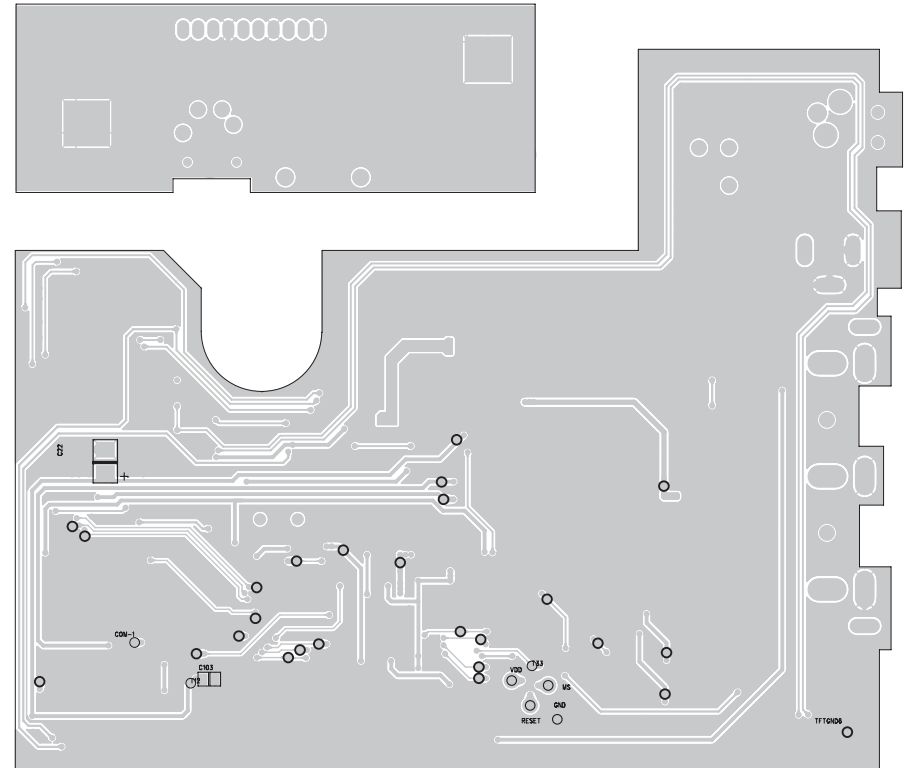
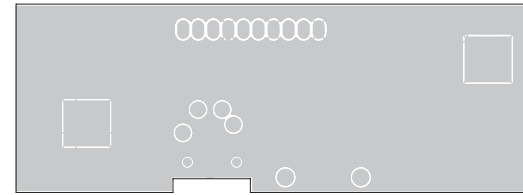
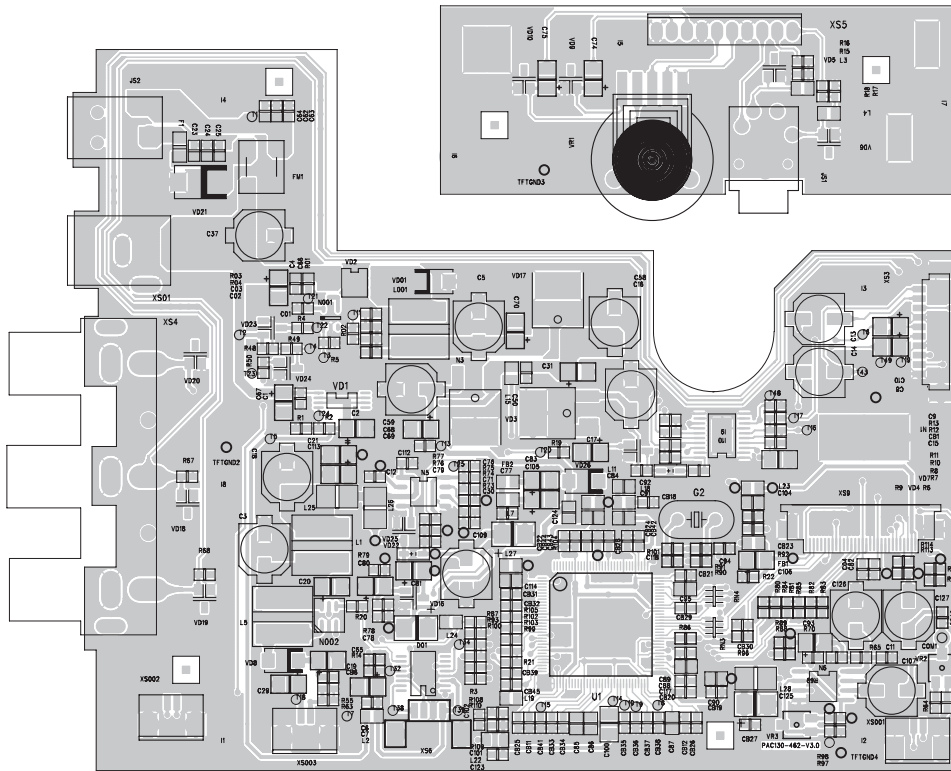


PAC130 FUNCTION BOARD DIAGRAM



9.0 COMPONENT LAYOUT

PAC130 MAIN BOARD DIAGRAM



10.0 SERVICE PART LIST

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

Model No.	12NC	Description	Photo	Pos. No
PET708	996510001404	RB-LI90 LITHIUM BATTERY		BATTERY
PET708/75	996510002949	AY4130 AC POWER ADAPTOR/75		ACADAPTOR
PET708/00 PET708/58 PET708/98	996510001129	AY4130 AC POWER ADAPTOR/00		
PET708/05	996510001119	AY4130 AC POWER ADAPTOR/05		
PET708	996510001125	AV OUT CABLE		AVCABLE
PET708	996510001124	CAR CIGARETTE ADAPTER		CARADAPTOR
PET708	996510001130	CAR MOUNT AY4246		CARMOUNT
PET708	996510001405	PAC131 SECOND SCREEN		PAC131
PET708	996510001128	PAC130 POWER CABLE		PCABLE
PET708	994000003945	RC-810 REMOTE		RC

10.0 SERVICE PART LIST

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

Model No.	12NC	Description	Photo	Pos. No
PET708/75	996510002944	PET708M MAIN PCB ASS'Y/75		100
PET708/00 PET708/05	996510004538	PET708M MAIN PCB ASS'Y/00/05		
PET708/58	996510004684	PET708M MAIN PCB ASS'Y/58		
PET708/98	996510005902	PET708M MAIN PCB ASS'Y/98		
PET708	996510002945	PET708T IF PCB ASS'Y		110
PET708	996510002946	PET708K FUNCTION PCB ASS'Y		120
PET708	996500038677	FFC 24 PIN (LE130)		147
PET708	996510002947	24 PIN HARNESS-150-PF		149
PET708	996510001275	LB070W02-TME1-SC TFT LCD		200
PET708	994000004424	KHM-252C LOADING ASS'Y		210
PET708	996510002948	YD23-2 SPEAKER		220

10.0 SERVICE PART LIST

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

Model No.	12NC	Description	Photo	Pos. No
PET708	996510002950	TOP COVER PET708		300
PET708	996510002951	DISPLAY FRAME PET708		310
PET708	996510002952	MIDDLE CAB & KEY ASS'Y PET708		320
PET708	996510002953	BASE COVER PET708		330
PET708	996510002954	ADJUST HINGE PET708		340
PET708	996510002956	DOOR DISCRETENESS PET708		350
PET708	996510002957	DOOR TONGUE PET708		360
PET708	996510002955	DOOR SPRING		410

11.0 REVISION LIST

Version 1.0 (3141 785 31660)

- Initial release PET708/75

Version 1.1 (3141 785 31661)

- Add new model and part list for PET708/00/05/58

Version 1.2 (3141 785 31662)

- Update Region Code Change Procedure on section 5

Version 1.3 (3141 785 31663)

- Add partlist for PET708/98