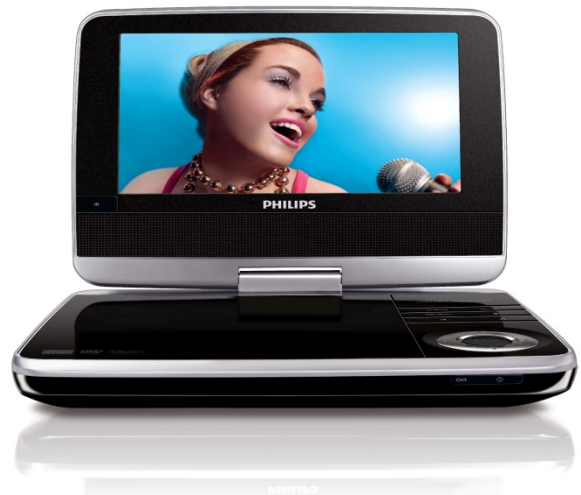


Service
Service
Service



Service Manual

TABLE OF CONTENTS

	Chapter
Technical Specification & Service Tips.....	1
Safety Instructions.....	2
Instruction for Use.....	3
Mechanical Instructions.....	4
Troubleshooting	5
Overall Block Diagram.....	6
Electrical Diagram.....	7
Service Part List.....	8
Revision List.....	9

©Copyright 2005 Philips Consumer Electronics B.V. Eindhoven, The Netherlands
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise without the prior permission of Philips

1.0 TECHNICAL SPECIFICATION

General

Dimensions (W x H x D):	200 x 160 x 42 mm
Bear Unit Weight:	770g
Power supply:	
Supply voltage	AC 100~240V (adapter) DC 9V-15.0V
Supply Power	9W
Operating Temp & RH	0~ 50degC / 40°C-90% ---4H
Output voltage 1kHz:	2V +/-0.2V
THD 20-20kHz (%):	≤1%
Dynamic range 1kHz	>=80dB
Signal/Noise ratio:	>=80dB
Frequency response (20-125kHz):	+/-1dB
Channel Separation 1kHz	>=80dB
Channel Balance 1kHz	< 1dB

Playback disc type:	CD, +/- R/RW, DVD, DVD +/-R/RW
Video Playback Format:	DVD / VCD /MP3, JPEG Image, Divx, AVI
Audio Playback Format:	CD/MP3, DVD,
Disc Diameter	8cm/12cm

Pixel specification

Max. 0 bright-dot & max. 3 dark-dots

Current consumption

DC Supply	DC9V-15.0V
Standby Power off	<0.45W
Battery	
Voltage	≤4.2V
Capacity	≥2250mAH
Battery playtime	
Charging time	4h
Standby Power off	±0.5H

Headphone out (headphone output load 2x16 ohm)

Maximum output power:	≥1.5mW
Frequency response:	+/-1dB
SNR (A-wght):	≥80dB
THD (w/16 ohm loading):	≤1%
Left-Right Channel Separation:	≥80dB
Left-Right Channel Balance:	< 1dB

Supported disc type

Video Playback Formats:



Audio Playback Formats:



1.0 TECHNICAL SPECIFICATION

Factory Service Mode (FSM)

Procedure to change region code of your DVD Portable

1. Power ON the DVD player and do not insert DISC inside player
2. Setup→Prefer
Press IR in the sequence as
9→6→5→3
The LCD display showed the existing region Code.
3. Press ▲ (navigation up) or ▼ (navigation down) repeatedly to select the number from 0 to 6.
4. Then press OK to confirm your region code.
5. Refer below table for your region code setting

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

Select "0" setting = Region Free (confidential)

Procedure for SW upgrade

1. Download the "PHILIPS.BIN" file from the Philips support site
2. Power on PET742 with AC/DC adapter
3. The set will detect the upgraded SW
4. Press "OK" to confirm and proceed
5. The set will reset once finished upgrade

Warning: Do not unplug the AC adapter during firmware upgrade to prevent flash corrupt of the set!!

Procedure to check SW version of your DVD Portable

1. Setup→General
Press IR in the sequence as
3→3→0→8
Then a menu will be show XX-YY-MM-DD

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.

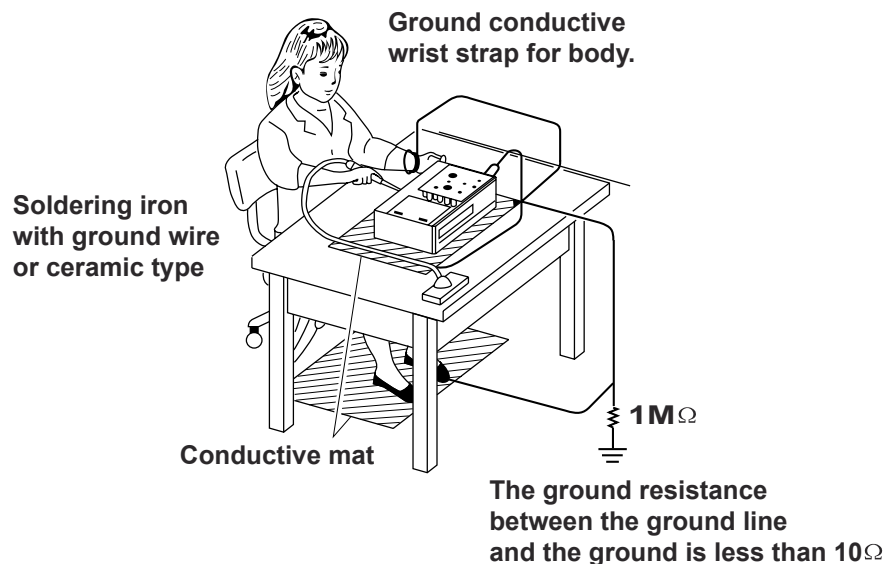
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

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.



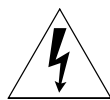
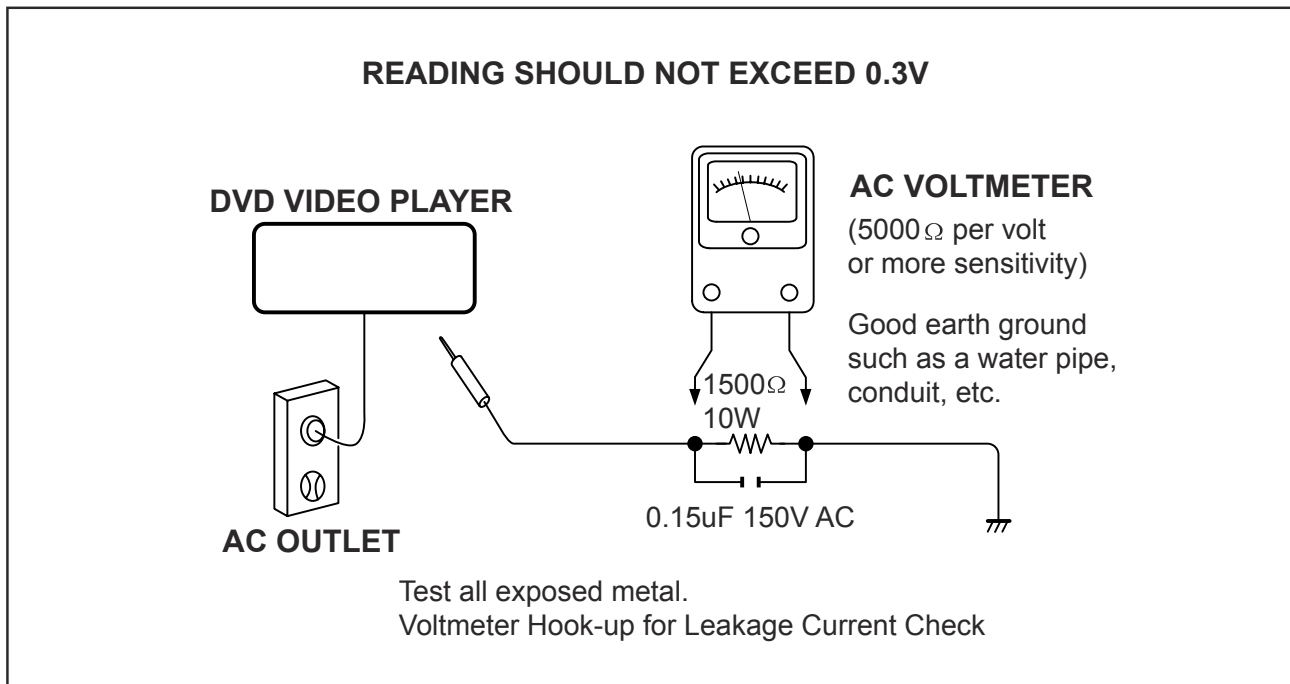
SAFTY NOTICE

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 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.



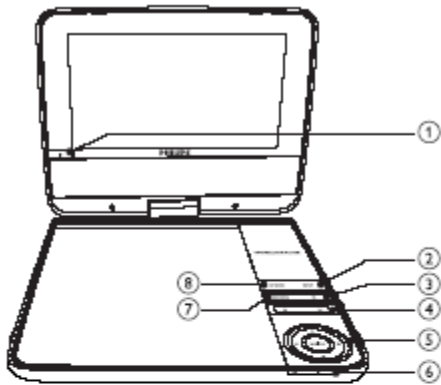
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



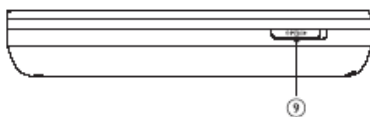
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

3.0 INSTRUCTION FOR USE

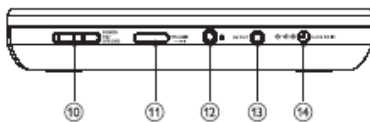
Overview of the main unit



- ① IR
 - Remote control sensor.
- ② SETUP
 - Accesses or exits the setup menu.
- ③ ■
 - Stops disc play.
- ④ ⏮⏭
 - Skips to the previous or next title, chapter, or track.
- ⑤ ▲, ▼, ◀, ▶
 - Navigates through the menus.
 - Searches backward/forward at different speeds.
 - ▶⏸OK
 - Confirms an entry or selection.
 - Starts, pauses or resumes disc play.
- ⑥ CHR/⏻
 - Charging indicator/Power indicator.
- ⑦ DISC MENU
 - For DVD, accesses or exits disc menu.
 - For VCD, turns on or off PBC (Playback Control) mode.
 - For VCD version 2.0 or SVCD with PBC turned on, returns to the menu.
- ⑧ AV MODE
 - Turns off the front panel display when the player is connected to TV.

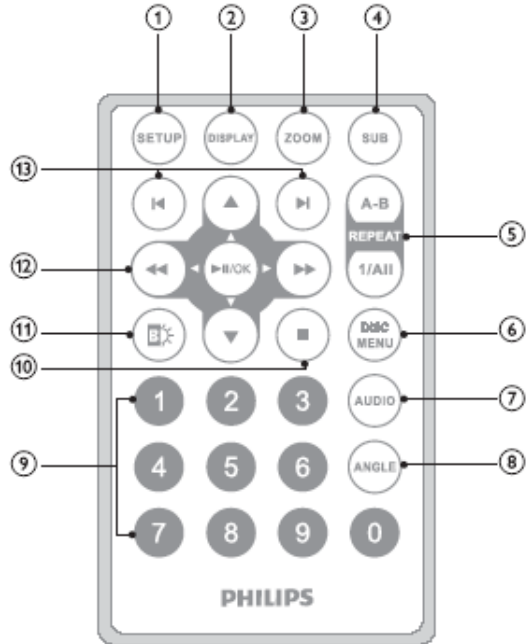


- ⑨ OPEN▶
 - Opens the disc compartment.



- ⑩ POWER ON/OFF
 - Turns on/off DVD player.
- ⑪ VOLUME—
 - Increases or decreases volume.
- ⑫ Ⓜ
 - Headphone jack.
- ⑬ AV OUT
 - Audio/video output jack.
- ⑭ DC IN
 - Power supply socket.



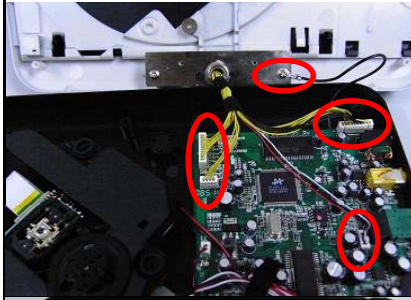

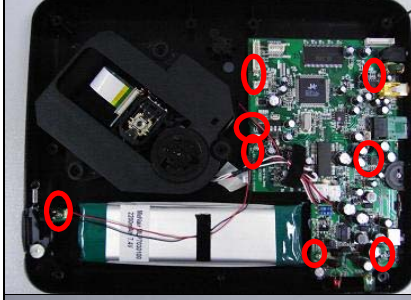
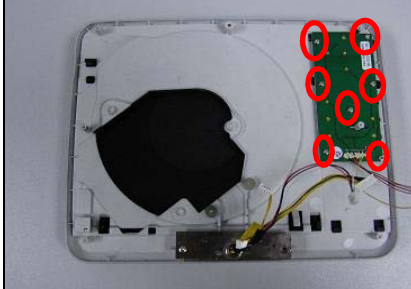
Overview of the remote control






- ① SETUP
 - Accesses or exits the setup menu.
- ② DISPLAY
 - Displays play information.
- ③ ZOOM
 - Zooms in or out of the picture.
- ④ SUB
 - Selects DVD subtitle language.
- ⑤ A-B REPEAT
 - Marks the section for repeat play.
- REPEAT 1/ALL
 - Repeats a chapter/track/title.
- ⑥ DISC MENU
 - For DVD, accesses or exits disc menu.
 - For VCD, turns on or off PBC (Playback Control) mode.
 - For VCD version 2.0 or SVCD with PBC turned on, returns to the menu.
- ⑦ AUDIO
 - For DVD, selects an audio language.
 - For VCD, selects an audio mode.
- ⑧ ANGLE
 - Selects a different viewing angle of a DVD.
- ⑨ 0 - 9
 - Inputs numbers.
- ⑩ ■
 - Stops disc play.
- ⑪ ☒
 - Adjusts brightness of the screen backlight.
- ⑫ ▶, ▼, ◀, ▶
 - Navigates through the menus.
 - ◀◀▶▶
 - Searches backward/forward at different speeds.
 - ▶⏸OK
 - Confirms an entry or selection.
 - Starts, pauses or resumes disc play.
- ⑬ ⏮⏭
 - Skips to the previous or next title, chapter, or track.

4.0 MECHANICAL INSTRUCTION

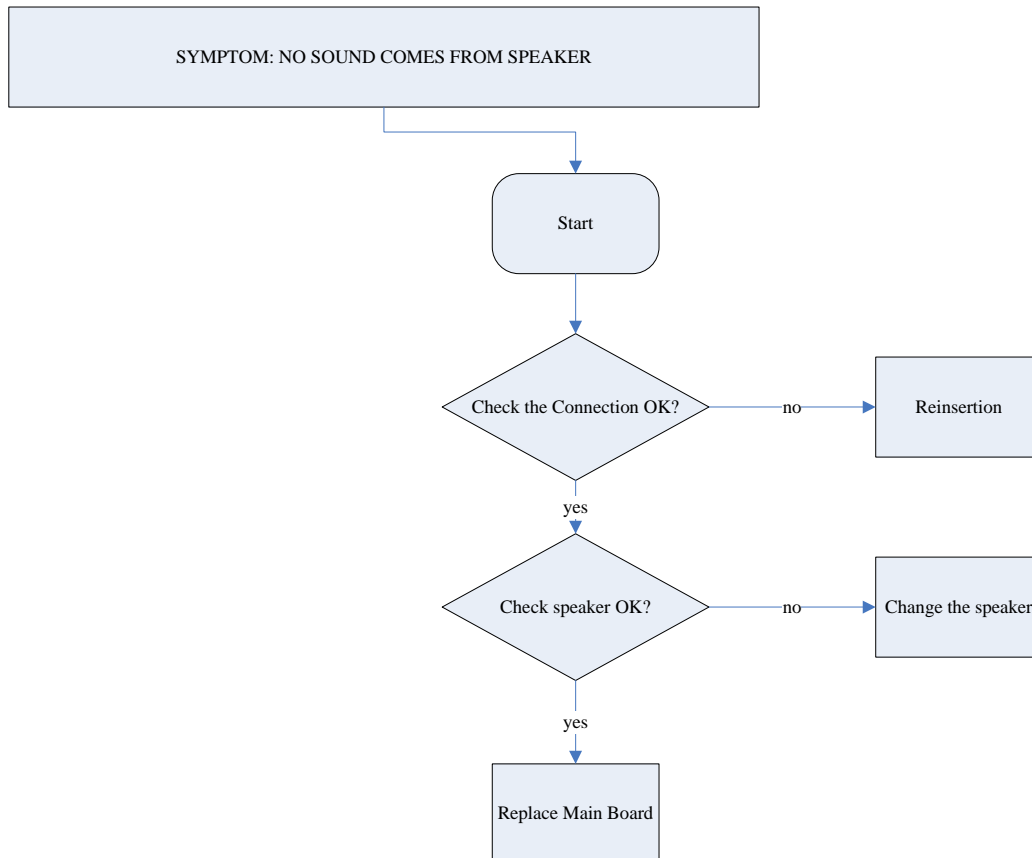
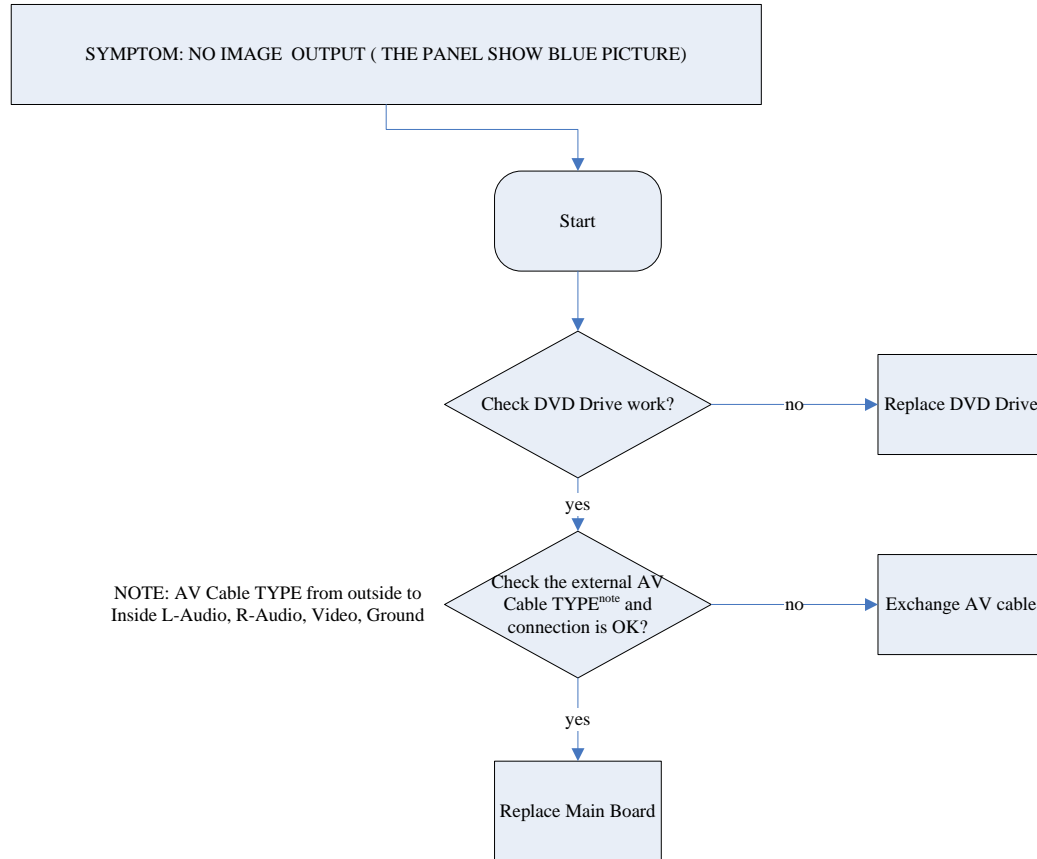
Disassembly Procedure on PET742

	<p>Remove eight screws on back cabinet to separate top cabinet and back cabinet.</p>	<p>screws 8pcs</p>
	<p>Generally open the front cabinet.</p>	
	<p>Disassemble hous and connecter.</p>	
	<p>Disassemble hous and connecter, and take out the DVD LOADER.</p>	
	<p>Disassemble hous and screws, and take out the main board、sw board.</p>	<p>screws 7pcs</p>
	<p>Remove seven screws on KEY board.</p>	<p>screws 7pcs</p>

	<p>Remove one screws fabrics and connector hous on IR board.</p>	<p>screws 1pcs and connector hous 1pcs</p>
	<p>Remove fabrics and hous.</p>	
	<p>Remove the screws on the TFT board.</p>	<p>screws 1pcs</p>

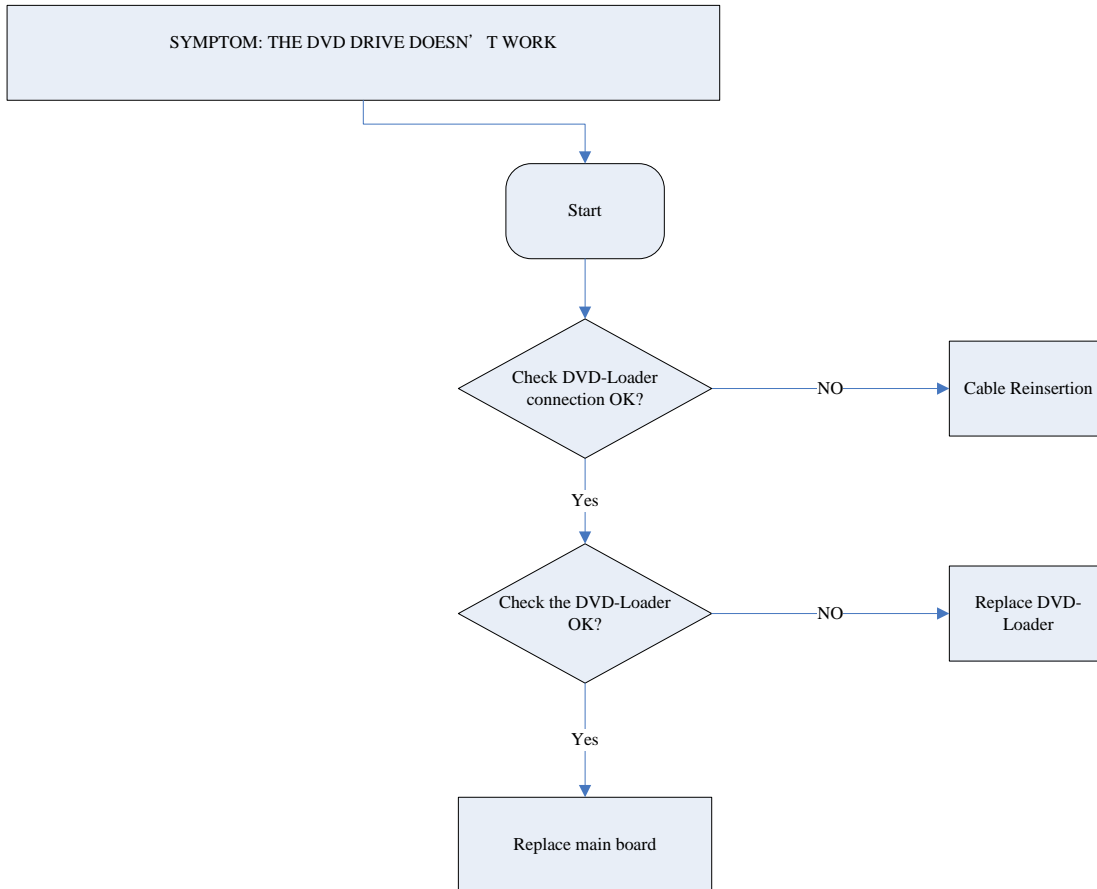
5.0 TROUBLESHOOTING

SYMPTOM: NO IMAGE / NO SOUND



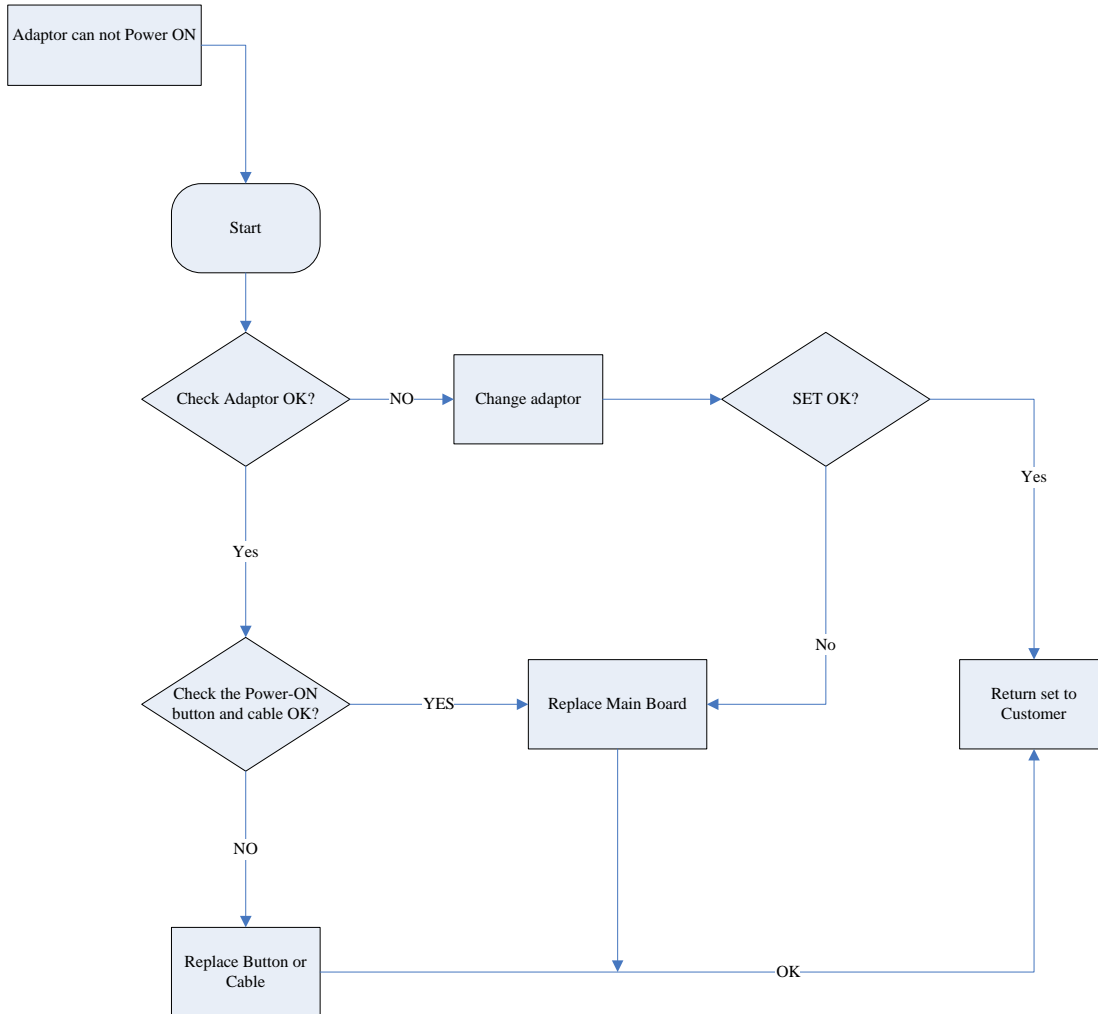
5.0 TROUBLESHOOTING

SYMPTOM: THE DVD DRIVE DOES NOT WORK



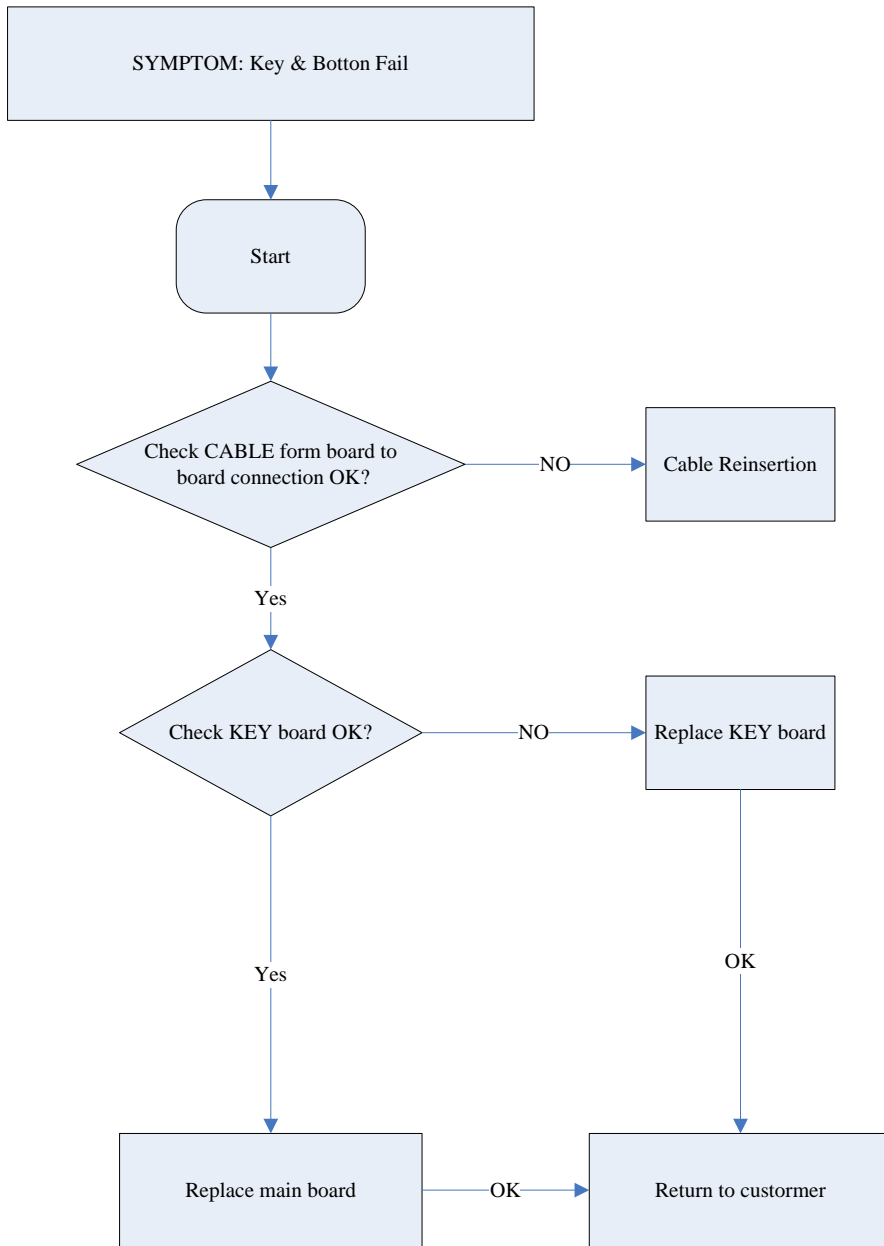
5.0 TROUBLESHOOTING

SYMPTOM: ADAPTOR CANNOT POWER ON

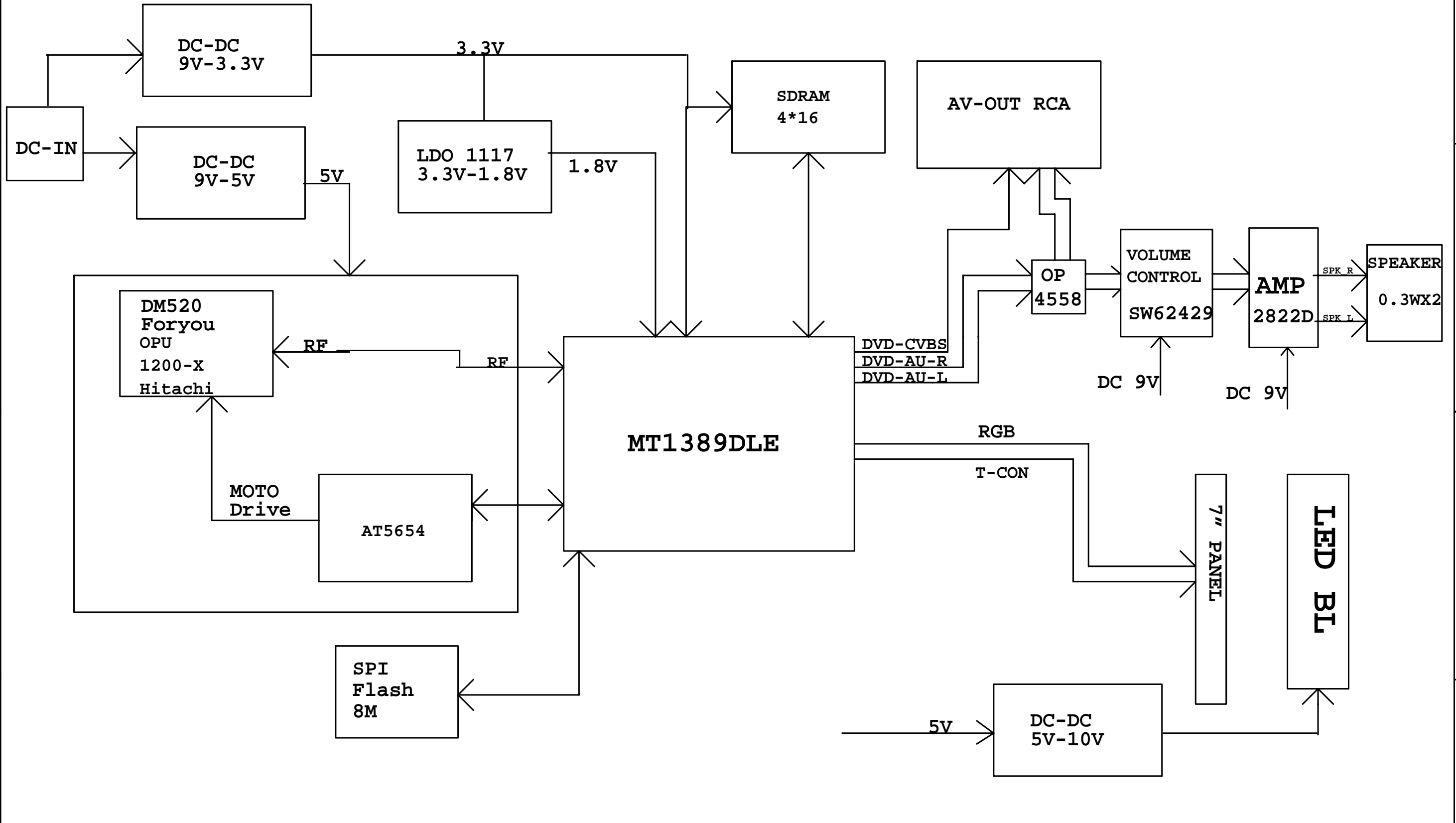


5.0 TROUBLESHOOTING

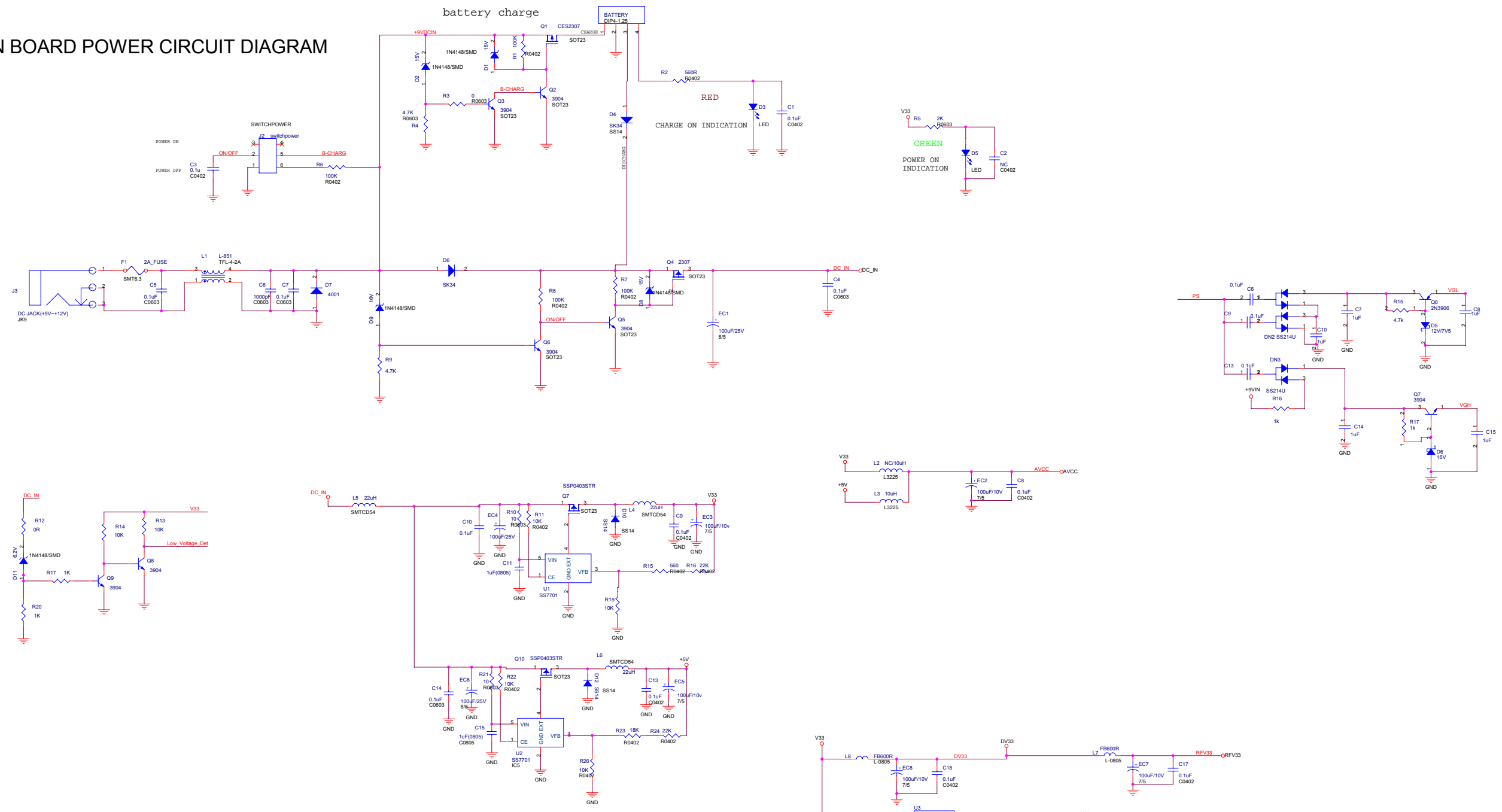
SYMPTOM: KEY & BOTTON FAILURE



PET742 CIRCUIT BLOCK



MAIN BOARD POWER CIRCUIT DIAGRAM



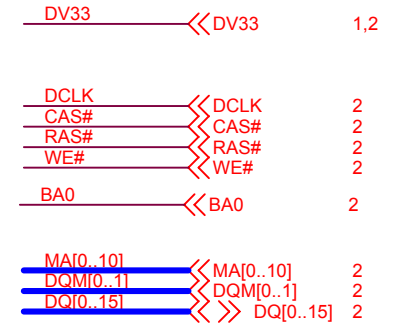
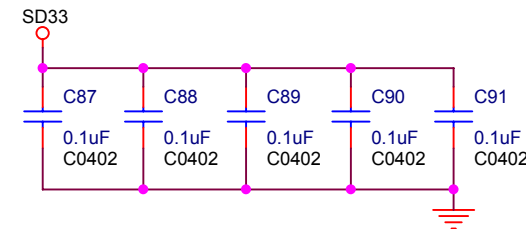
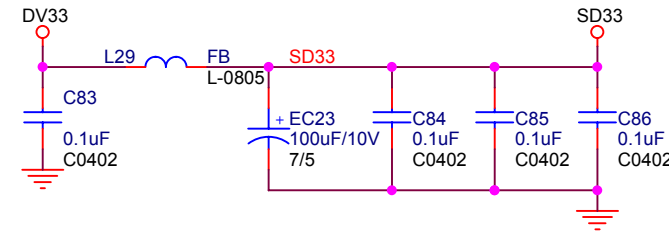
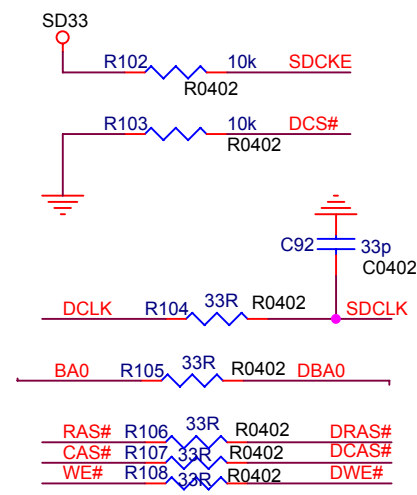
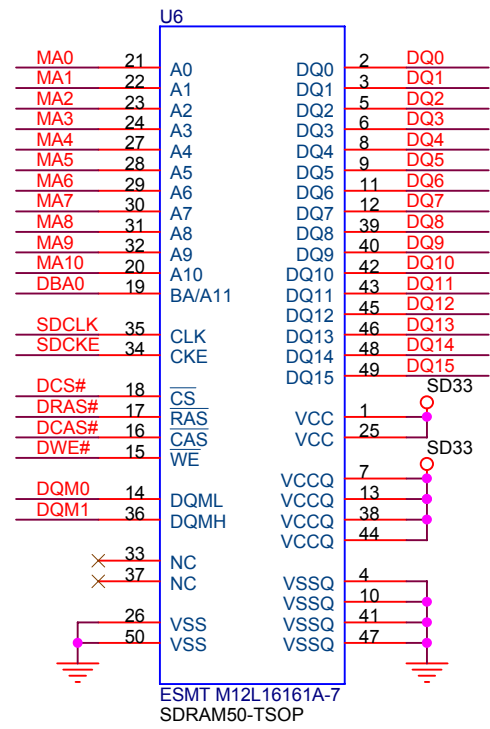
POWER

DC_IN	DC_IN	4
V33	DV33	2.3
RFV33	RFV33	2
V18	V18	2.4
+5V	+5V	2.4
+9V	+9V	2
AVCC	AVCC	2

Low_Voltage_Det << Low_Voltage_Det_2

MAIN BOARD MEMORY CIRCUIT DIAGRAM

SDRAM (Dual Layout)

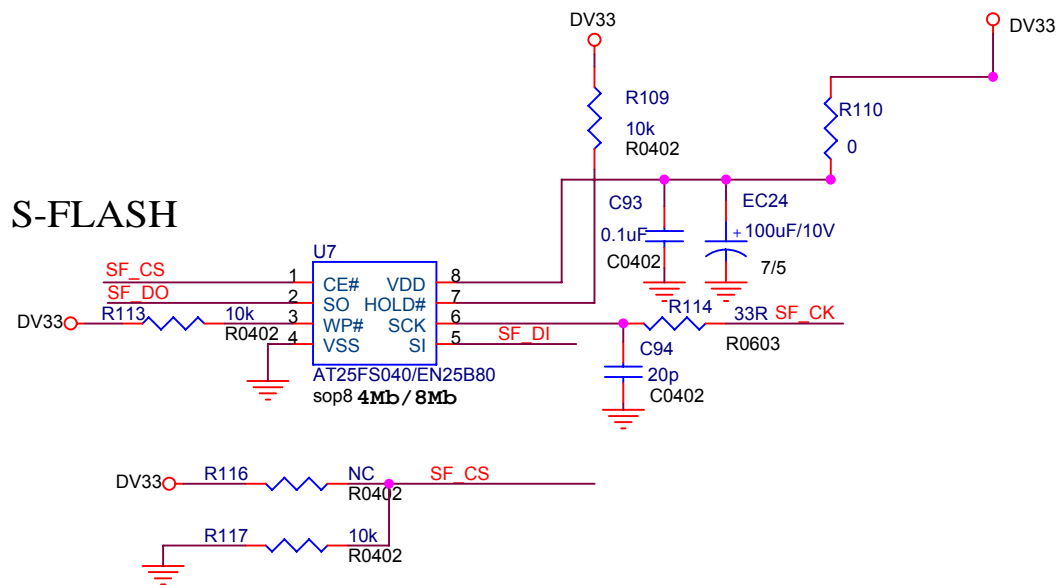


DRAM

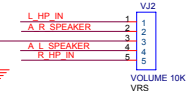
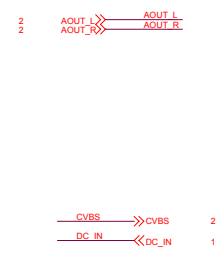
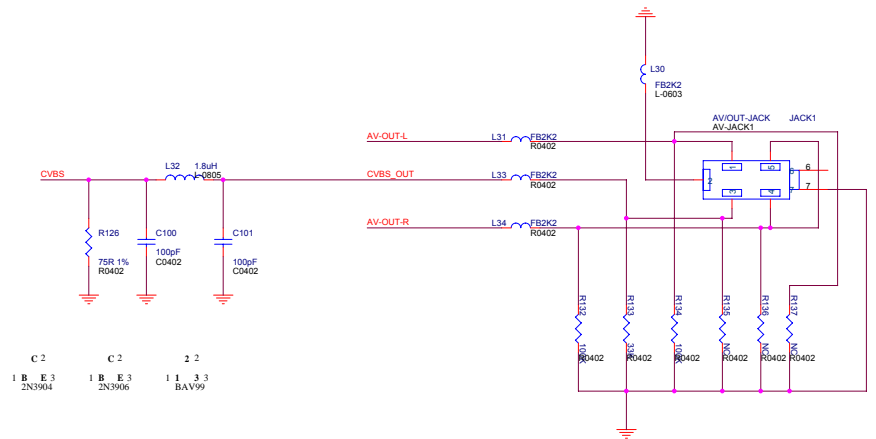
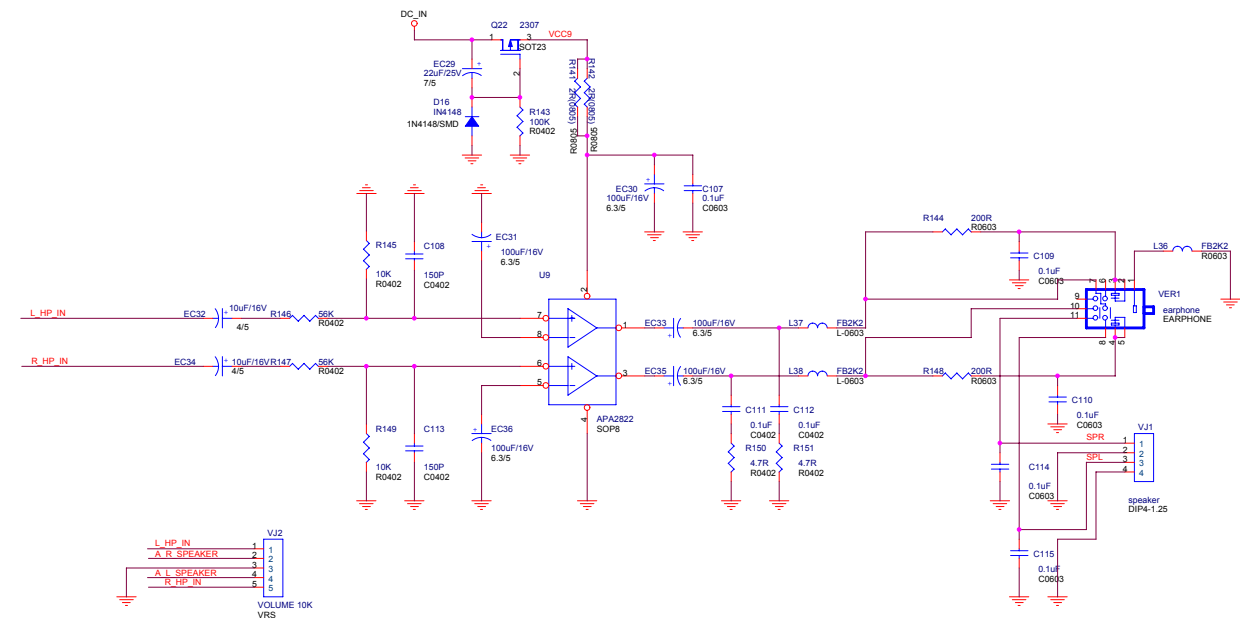
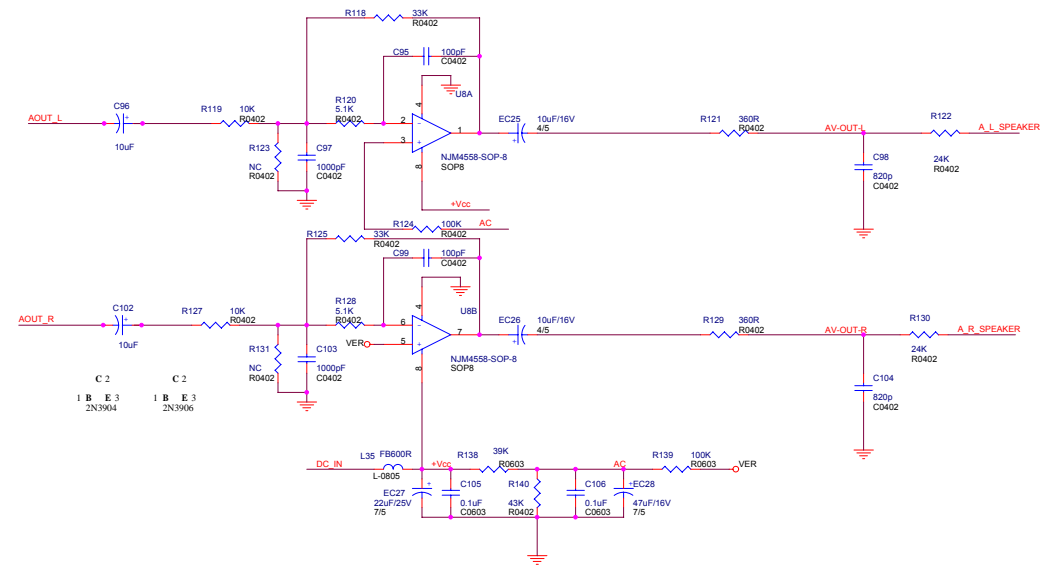


S-FLASH

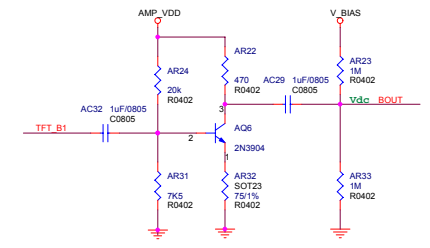
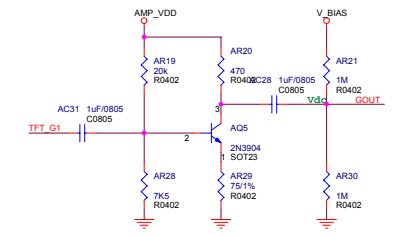
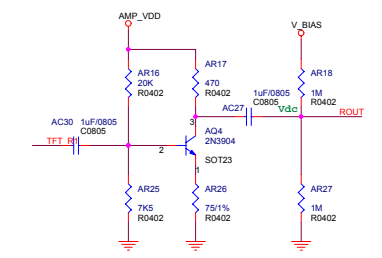
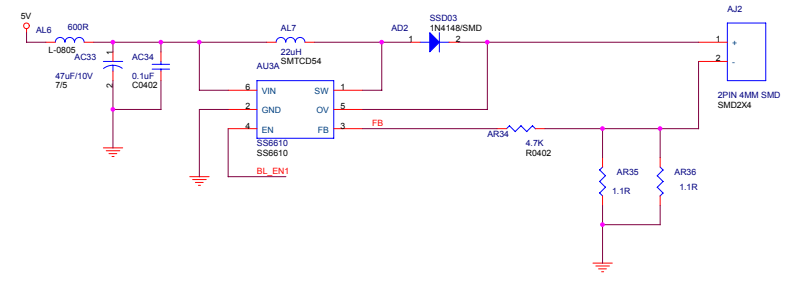
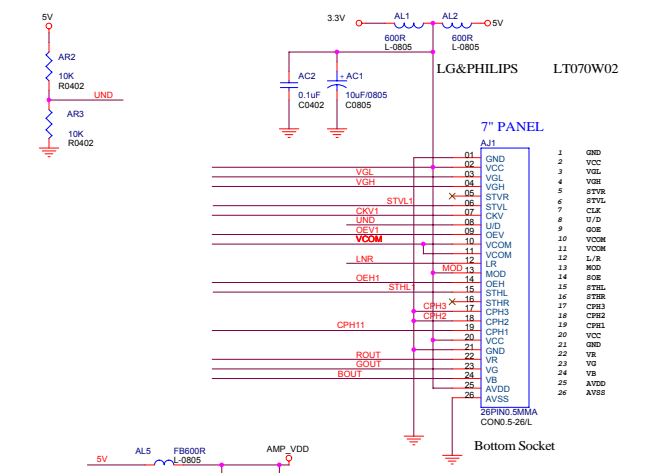
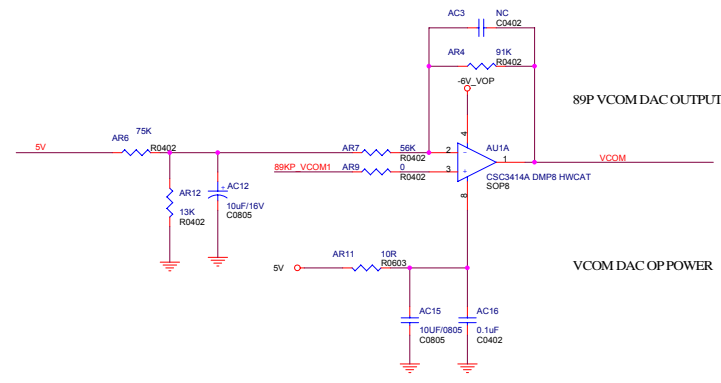
S-FLASH



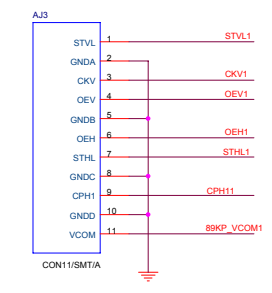
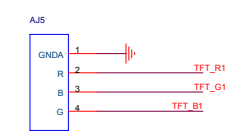
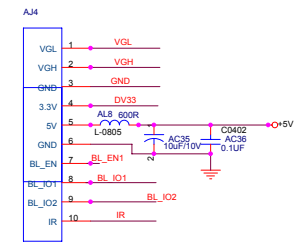
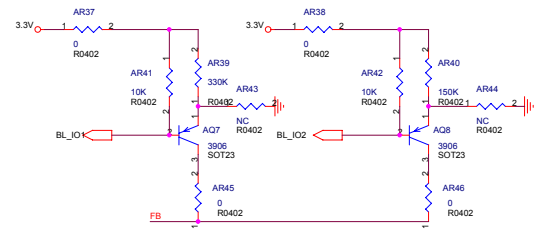
MAIN BOARD AUDIO&VIDEO CIRCUIT DIAGRAM



TFT BOARD LED&RGB CIRCUIT DIAGRAM

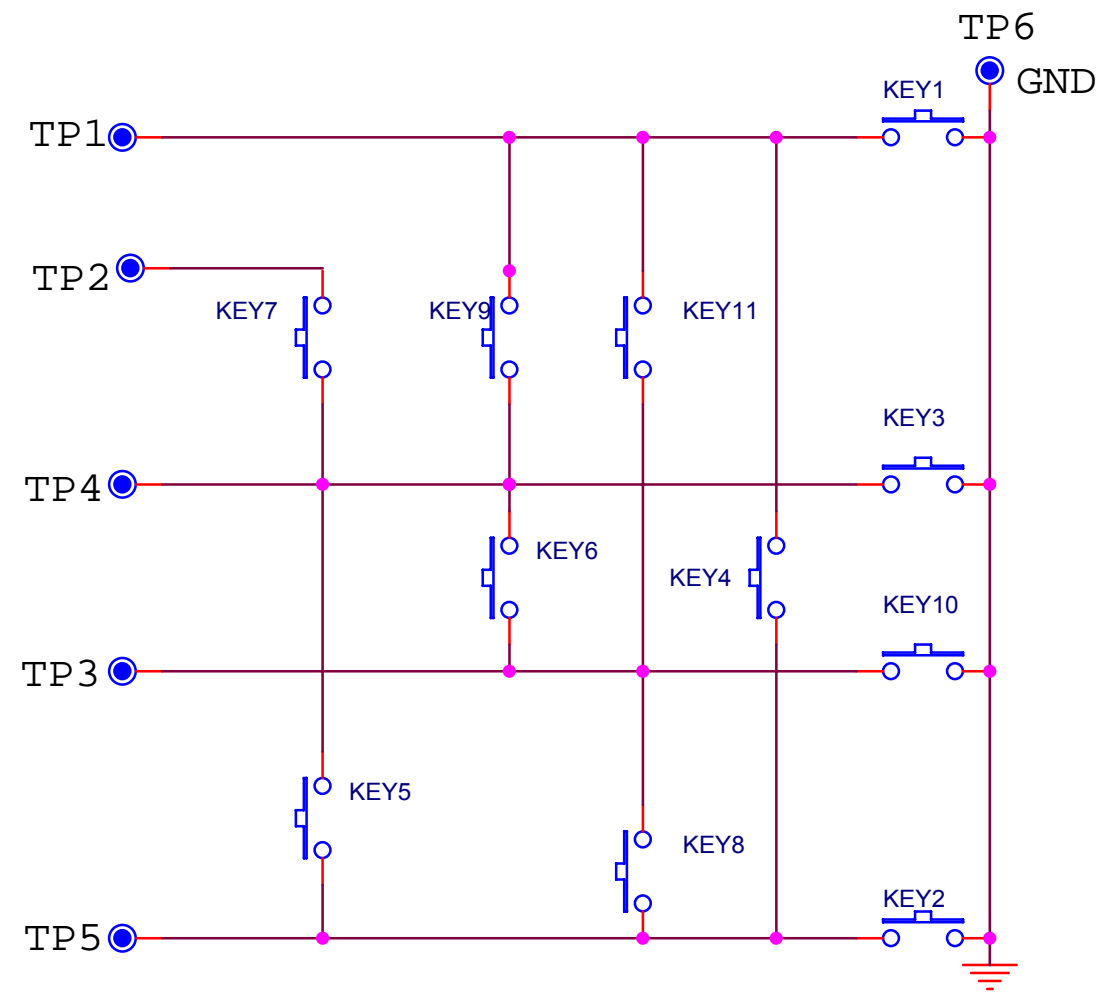


BIT Amplifier for T-CON I/F

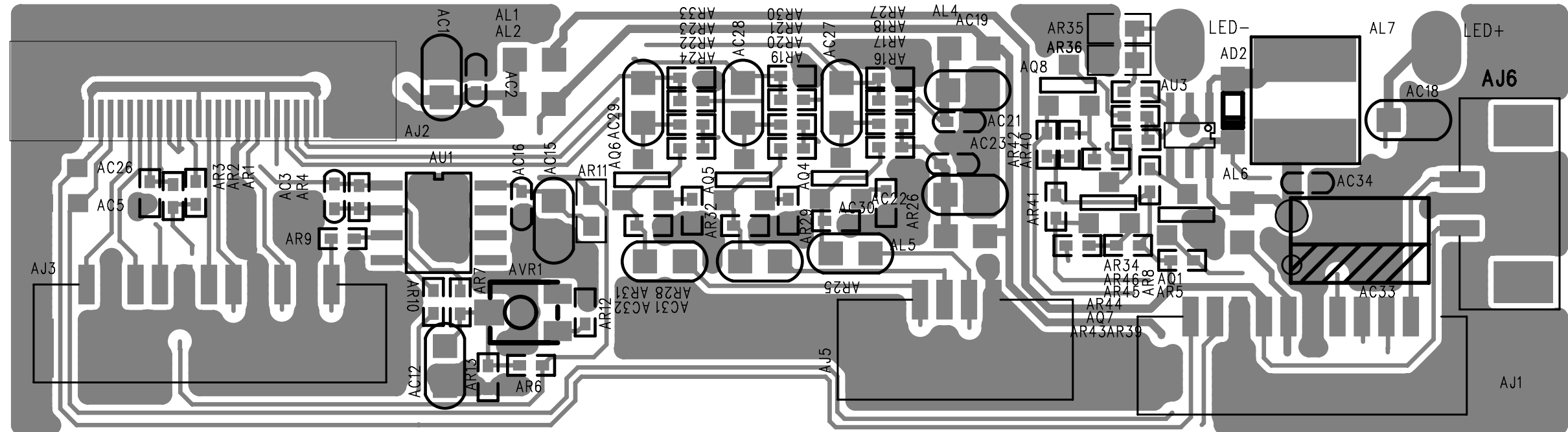


1	GND
2	VCC
3	VGL
4	VGH
5	STVL
6	STVR
7	CKV
8	STV
9	CKV
10	STV
11	VCOM
12	VCC
13	MOD
14	OEH
15	STHL
16	STHR
17	CPH1
18	CPH2
19	GND
20	VCC
21	GND
22	VCC
23	V0
24	V1
25	AVDD
26	AVSS

KEY BOARD CIRCUIT DIAGRAM



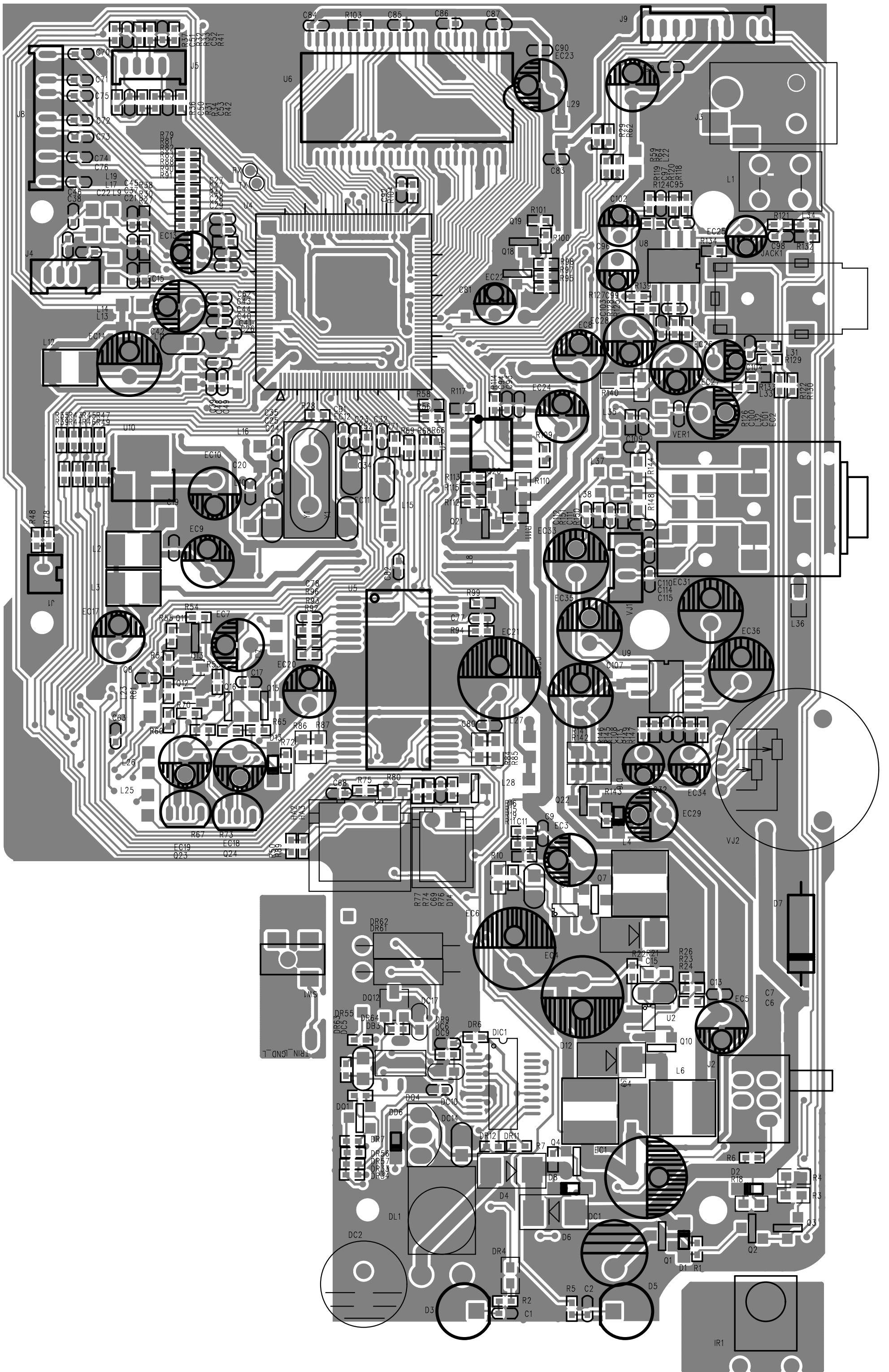
TFT BOARD TOP



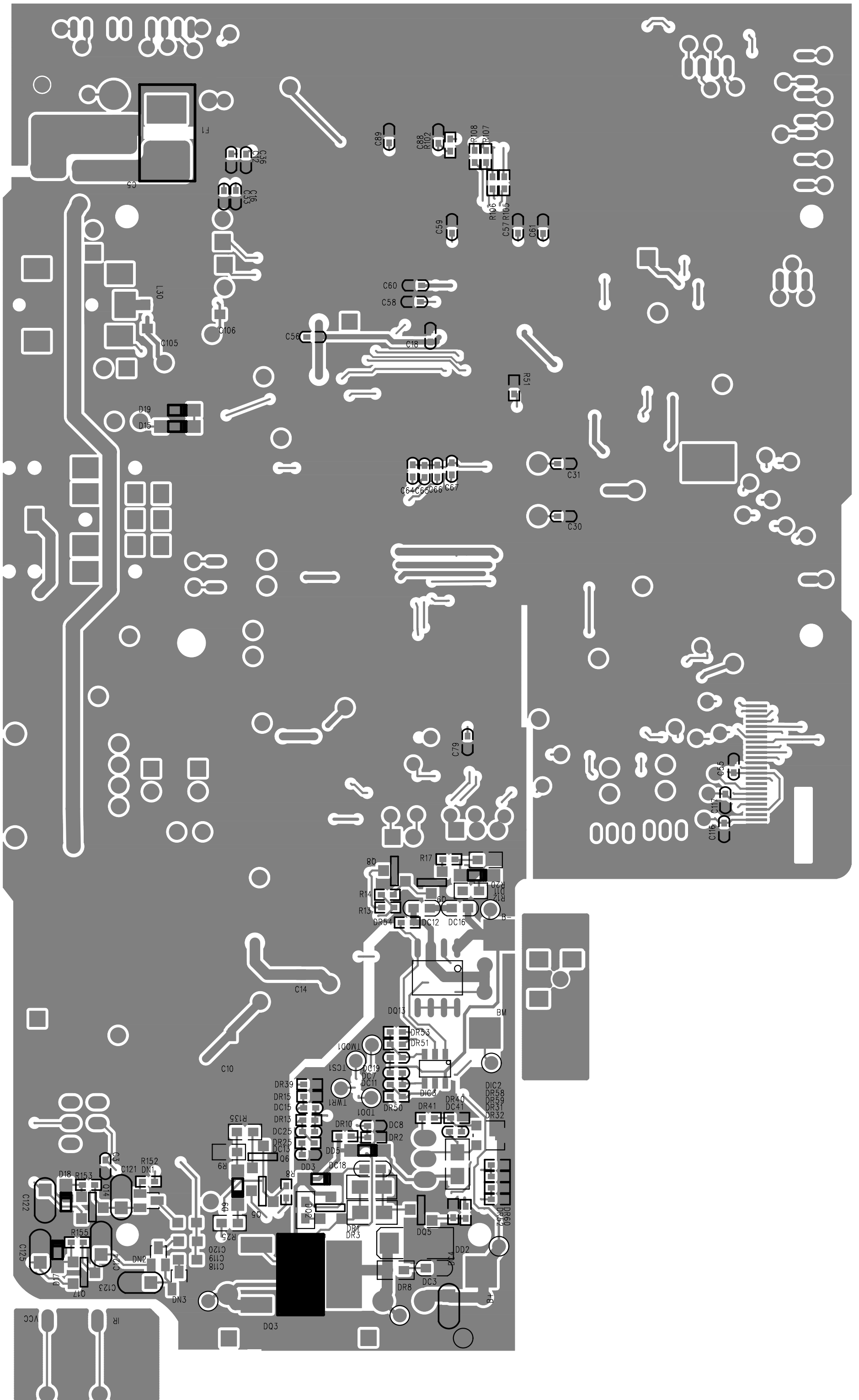
TFT BOARD BOTTOM



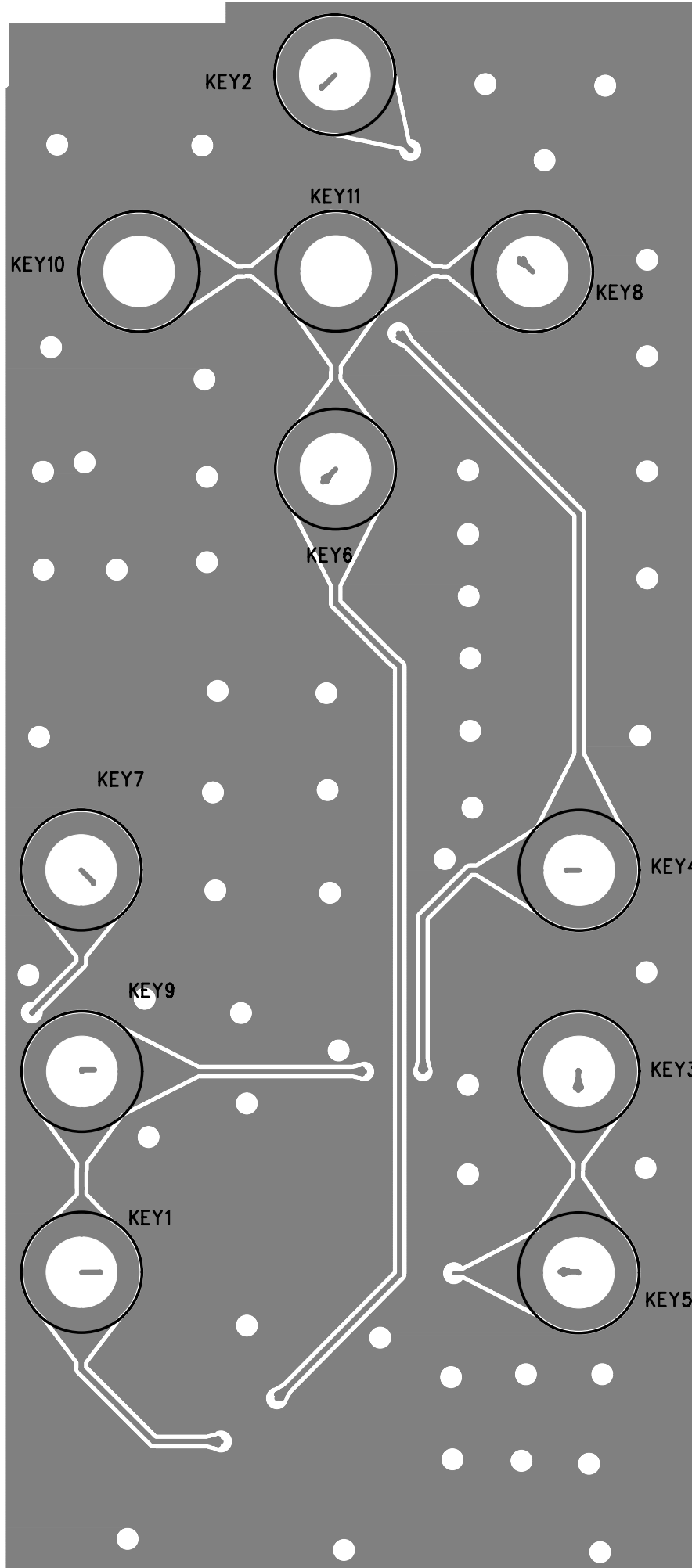
MAIN BOARD TOP



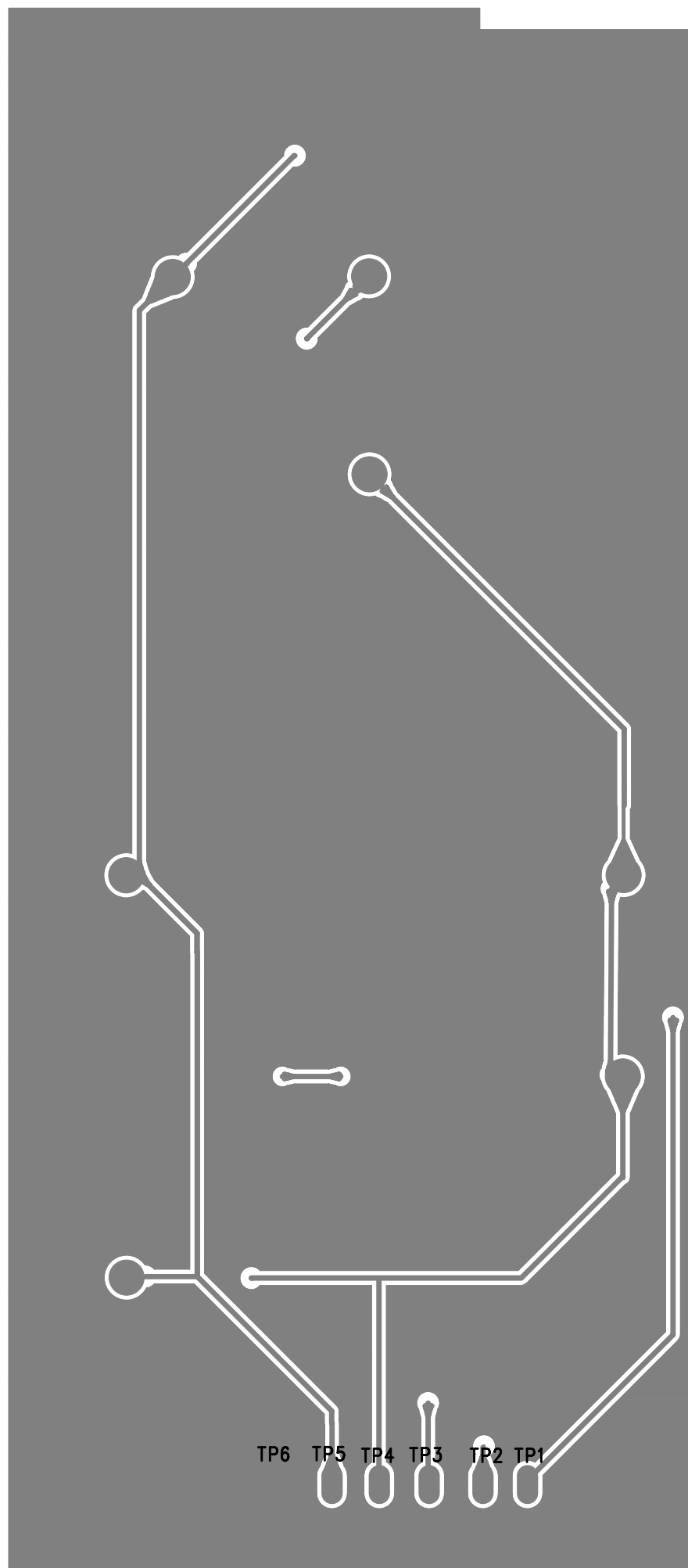
MAIN BOARD BOTTOM



KEY BOARD TOP



KEY DOARD BOTTOM



8.0 SERVICE PARTLIST

Electrical Part List:



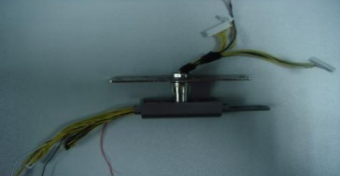
CTN	Service 12NC	Service Description	Photo	Pos. No.
PET742/05 PET742/12 PET742/58 PET742/98	996510022096	IR PCBA ASS'Y LG E2 PET742		100
PET742/05 PET742/12 PET742/58 PET742/98	996510022104	KEY PCBA ASS'Y PET742		110
PET742/05 PET742/12 PET742/58 PET742/98	996510022109	SW PCBA ASS'Y LG E2/E4 PET742		120
PET742/05 PET742/12 PET742/58 PET742/98	996510022121	TFT PCBA ASS'Y LG E2/E4 PET742		130
PET742/05 PET742/12 PET742/58 PET742/98	996510022496	MAIN PCBA ASSY LG E2/E4 PET742		140
PET742/05 PET742/12 PET742/58 PET742/98	996510022495	BATTERY FOR PET742		150
PET742/05 PET742/12 PET742/98	996510022122	7" PANEL ASS'Y FOR PET742		200
PET742/58	996510025922	7" PANEL ASS'Y (2 nd generation)		200
PET742/05 PET742/12 PET742/58 PET742/98	996510007686	DVD DECK DM520 HOP1200X		210

8.0 SERVICE PARTLIST

Mechanical Part List:

No.	Service 12NC	Service Description	Photo	Pos. No.
PET742/05 PET742/12 PET742/58 PET742/98	996510022105	MONITOR TOPFRAME ABS PET742		300
PET742/05 PET742/12 PET742/58 PET742/98	996510022098	DVD DOOR PC PET742		320
PET742/05 PET742/12 PET742/58 PET742/98	996510022094	DVD MIDDLEFRAME ABS PET742		330
PET742/05 PET742/12 PET742/58 PET742/98	996510022093	DVD BOTTOMHOUSING PET742		340
PET742/05 PET742/12 PET742/58 PET742/98	996510022099	MENU KEY1 ABS PET742		350
PET742/05 PET742/12 PET742/58 PET742/98	996510022101	MENU KEY2 ABS PET742		360
PET742/05 PET742/12 PET742/58 PET742/98	996510022106	MENU KEY3 ABS PET742		370
PET742/05 PET742/12 PET742/58 PET742/98	996510022108	KEYOK ABS PET742		380
PET742/05 PET742/12 PET742/58 PET742/98	996510022095	OPEN KEY ABS PET742		381

8.0 SERVICE PARTLIST

PET742/05 PET742/12 PET742/58 PET742/98	996510022268	DISPLAY FRAME & SPK PET742		382
PET742/05 PET742/12 PET742/58 PET742/98	996510022102	FFC 24P/0.5mm 150mm		400
PET742/05 PET742/12 PET742/58 PET742/98	996510031693	HINGE PET742&HOUS		410

8.0 SERVICE PARTLIST

Accessories Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET742/05	996510004261	SW ADAPTOR 9V/1A UK		ADAPT
PET742/12	996510002353	SW ADAPTOR 9V/1A EU		ADAPT
PET742/58 PET742/98	996510022078	SW ADAPTOR 9V/1A /98		ADAPT
PET742/05 PET742/12 PET742/58 PET742/98	996510004975	AV CABLE		AV CABLE
PET742/05 PET742/12 PET742/58 PET742/98	996510021031	CAR ADAPTER		CARAPT
PET742/05 PET742/12 PET742/58 PET742/98	996510022963	REMOTE CONTROL 28KEY		RC








8.0 SERVICE PARTLIST

Electrical Part List (PET742/93):



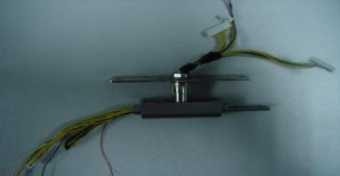
CTN	Service 12NC	Service Description	Photo	Pos. No.
PET742/93	996510022965	IR PCBA ASS'Y LG E2 PET742		100
PET742/93	996510022958	KEY PCBA ASS'Y PET742		110
PET742/93	996510022962	SW PCBA ASS'Y LG E2/E4 PET742		120
PET742/93	996510022986	TFT PCBA ASS'Y LG E2/E4 PET742		130
PET742/93	996510022957	MAIN PCBA ASSY LG E2/E4 PET742		140
PET742/93	996510022964	BATTERY FOR PET742		150
PET742/93	996510022122	7" PANEL ASS'Y FOR PET742		200
PET742/93	996510007686	DVD DECK DM520 HOP1200X		210

8.0 SERVICE PARTLIST

Mechanical Part List (PET742/93):




No.	Service 12NC	Service Description	Photo	Pos. No.
PET742/93	996510022105	MONITOR TOPFRAME ABS PET742		300
PET742/93	996510022098	DVD DOOR PC PET742		320
PET742/93	996510022094	DVD MIDDLEFRAME ABS PET742		330
PET742/93	996510022093	DVD BOTTOMHOUSING PET742		340
PET742/93	996510022099	MENU KEY1 ABS PET742		350
PET742/93	996510022101	MENU KEY2 ABS PET742		360
PET742/93	996510022106	MENU KEY3 ABS PET742		370
PET742/93	996510022108	KEYOK ABS PET742		380
PET742/93	996510022095	OPEN KEY ABS PET742		381

8.0 SERVICE PARTLIST

PET742/93	996510022961	DISPLAY FRAME & SPK PET742		382
PET742/93	996510022102	FFC 24P/0.5mm 150mm		400
PET742/93	996510022097	HINGE PET742&HOUS		410

8.0 SERVICE PARTLIST

Accessories Part List (PET742/93):

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET742/93	996510022966	SW ADAPTOR 9V/1A /93		ADAPT
PET742/93	996510004975	AV CABLE		AV CABLE
PET742/93	996510021031	CAR ADAPTER		CARAPT
PET742/93	996510022963	REMOTE CONTROL 28KEY		RC

9.0 REVISION LIST

Version 1.0 (3141 785 33600)

- Initial release PET742/05/12/98

Version 1.1 (3141 785 33601)

- Initial release PET742/93/58