

Service Service Service



Service Manual

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3141 785 31674

1.0 TECHNICAL SPECIFICATION

General

Dimensions (W x H x D):	210 x 178 x 39mm
Weight:	1.9kg
Power supply:	Input: 100-240V AC, 50/60Hz 0.3A Output: DC 9V 1.0A
Power consumption:	9W
Operating temp. & RH:	0-45degC / 40-90%
Video System	NTSC / PAL / AUTO
Audio System	
Output voltage 1kHz:	2+/-0.2V
THD 20-20kHz (%):	</=3%
Dynamic range:	>/=80dB
Signal/Noise ratio:	>/=85dB
Frequency response (20-20kHz):	+/-1dB
Channel Separation 1kHz	>=85dB
Channel Balance 1kHz	<2dB ?

Current consumption

DC-IN SUPPLY (9V)	
Battery Charging Current	450 +/- 50mA
BATT. SUPPLY	
Power Off	
Playback with TFT on	
Playback without TFT on	
Playback time	

Headphone out (headphone output load 2x16 ohm)

Maximum output power:	1.5mW
Frequency response:	+/-1dB
SNR (A-wght):	>70dB
THD (0.2-20kHz):	1%
Left-Right Channel Separation:	>/=50dB
Left-Right Channel Balance:	</=1dB

Supported disc type

Video Playback Formats:



Audio Playback Formats:



Playback disc type:

DVD, Picture-CD,
SVCD, Video CD, MP3-
CD, CD-R/CD-RW,
WMA-CD, DVD-R, DVD-
RW, DVD+R, DVD+RW

Video Playback Format:

DVD / VCD / JPEG

Audio Playback Format:

CD/MP3, MP3-DVD,
WMA

Disc Diameter

12cm

Pixel specification

Max. 1 bright-dot & max. 3 dark-dots

Factory Service Mode (FSM)

To check the software version and change region code of your DVD Portable

1. Power ON the DVD player and open the DVD door
2. Press the "SETUP" button on remote control, then select the "Preference MENU"
3. Press the remote button in the sequence as
9 -> 6 -> 5 -> 3
4. The LCD display showed the existing region code. Press ▲ (navigation up) or ▼ (navigation down) repeatedly to select the number from 0 to 6.
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)

1.0 TECHNICAL SPECIFICATION

Procedure on how to upgrade the software of the DVD Portable

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

A) By CD-ROM

1. Download the "PHILIPS.BIN" file from the Philips support site
2. Unzip the file and then burn it into a CD-ROM to make a disc for upgrade
3. CD-ROM disc name must be "PHILIPS" (otherwise it will not be recognized as a disc for upgrade)
4. Power on the Portable DVD Player with AC/DC adaptor
5. Play CD-ROM for firmware upgrade

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

6. Once upgrade is completed, the player will restart automatically and observed PHILIPS LOGO on the screen.
7. Open the DVD door to remove the disc

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 ditzelfde 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). 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.

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 utilisées les pièces de rechange identiques à celles spécifiées.

GB Warning !

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

S Varning !

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

SF Varoitus !

Avatussa laitteessa ja suojalukituksen ohittaaessa olet alittina näkymättömälle laserisäteilylle. Älä katso sääteenseen!

DK Advarse !

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

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."

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.

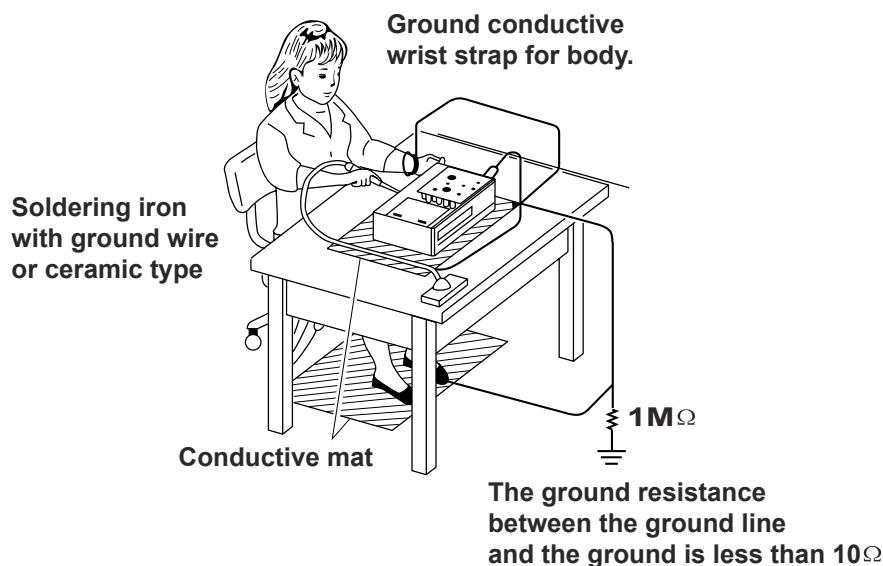
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

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

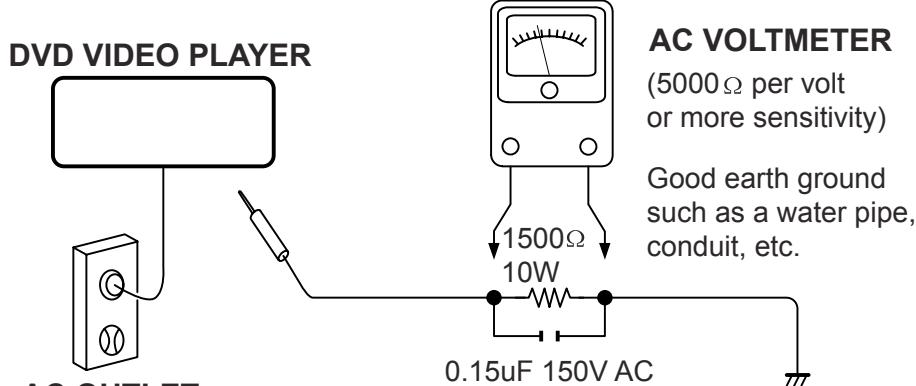
SAFTY PRECAUTIONS

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 $0.15\mu F$ 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.

READING SHOULD NOT EXCEED 0.3V



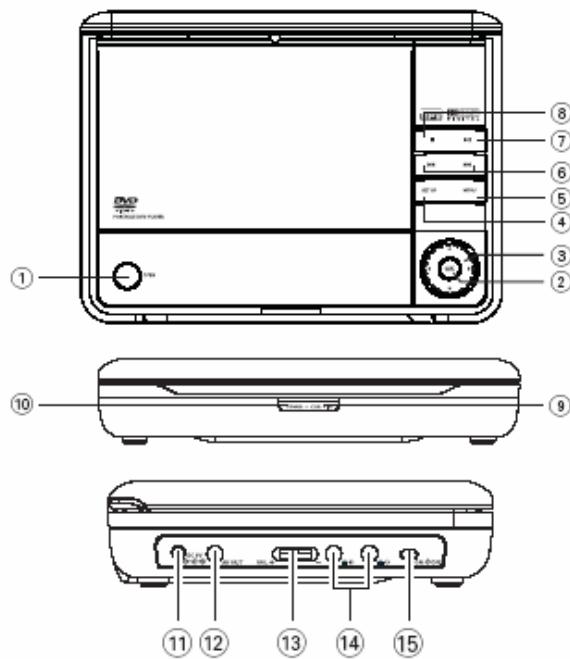
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



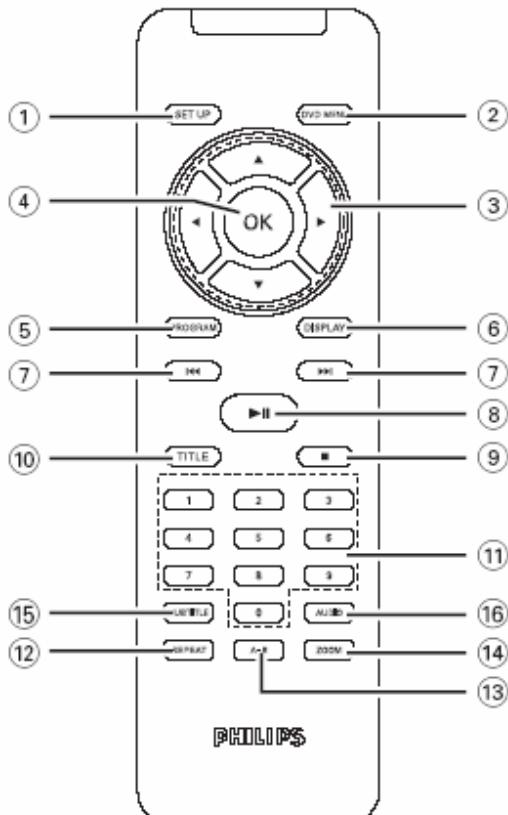
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

3.0 INSTRUCTION FOR USE

1



2



Main unit controls (see figure 1)

- ① **OPEN**Open the disc door to insert or remove disc.
- ② **OK**Confirm a selection.
- ③ **▲, ▼, ◀, ▶**Navigate in a menu.
.....(◀ / ▶) search backward/forward in a disc at different speeds.
- ④ **SETUP**Enter or exit the system menu.
- ⑤ **MENU**Enter or exit the disc contents menu.
- ⑥ **◀ / ▶**Skip to the previous/next chapter, track or title.
- ⑦ **▶ II**Start or interrupt playback.
- ⑧ **■**Stop playback or erase a program.
- ⑨ **IR**Remote sensor.
- ⑩ **POWER and CHG**Power and charge indicator.

Left of player (see figure 1)

- ⑪ **DC IN 9V**Power supply socket.
- ⑫ **AV OUT**Audio/Video output jack.
- ⑬ **VOLUME**Volume control.
- ⑭ **1 2**Headphone jacks.
- ⑮ **ON/OFF**Switch the power on/off.

Remote controls (see figure 2)

- ① **SETUP**Enter or exit the system menu.
- ② **DVD MENU**Enter or exit the disc contents menu.
- ③ **▲, ▼, ◀, ▶**Navigate in a menu.
.....(◀ / ▶) search backward/forward in a disc at different speeds.
- ④ **OK**Confirm a selection.
- ⑤ **PROGRAM**Enter the program menu.
- ⑥ **DISPLAY**Display information on TFT during playback.
- ⑦ **PREV/NEXT ◀ / ▶**Skip to the previous/next chapter, track or title.
- ⑧ **PLAY/PAUSE ▶ II**Start or interrupt playback.
- ⑨ **STOP ■**Stop playback or erase a program.
- ⑩ **TITLE**Display the disc title.
- ⑪ **Numeric Keypad (0-9)**Input numbers.
- ⑫ **REPEAT**Repeat a chapter/track/title.
- ⑬ **A-B**Repeat playback of a specific section on a disc.
- ⑭ **ZOOM**Enlarge or reduce a picture or active image on the TFT.
- ⑮ **SUBTITLE**Select a subtitle language.
- ⑯ **AUDIO**Select an audio language when playing a DVD disc or select an audio mode (Stereo, Mono-Left or Mono-Right) when playing a VCD/CD disc.

4.0 MECHANICAL INSTRUCTION

Disassembly Procedure	
	1 Remove 7pcs of screws on the bottom cabinet and remove 1pc of screw in middle cabinet (we can find it after open CD door)
	2 Open the bottom cabinet carefully and unplug the wire connector of key board from the main board. (left bottom side)
	3 Unplug all the wire connector from main board. (The wire connectors are for: DVD loader, battery board and TFT driver board, and speaker.) Remove all the screws on the main board and then take the main board from bottom cabinet.
	4 Remove the flex cable on the bottom side.

4.0 MECHANICAL INSTRUCTION

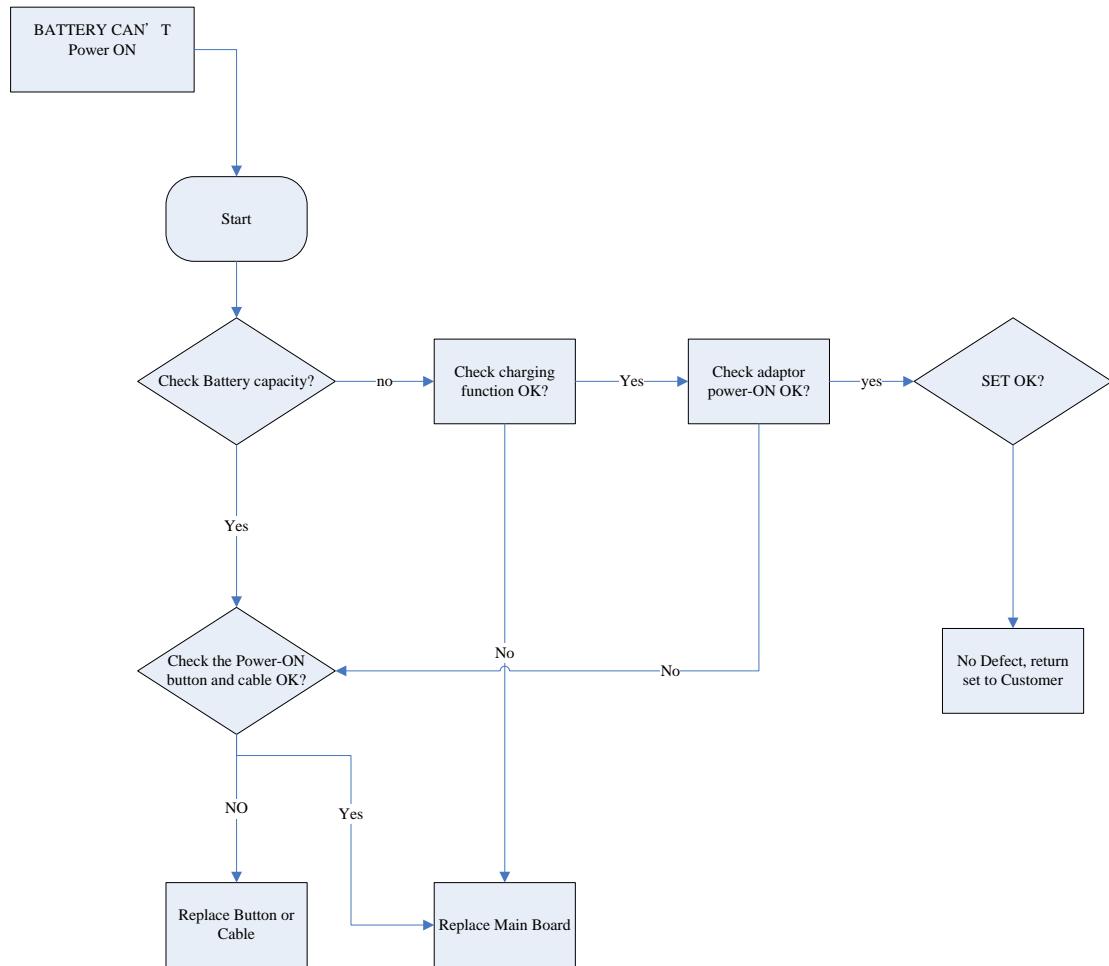
	<p>5 Remove all the screws on the battery board and then take out the battery with battery board.</p> 
	<p>6 Remove 11pcs screws from key board.</p>
	<p>7 Remove 6pcs of screws on the display frame. Carefully open the display frame with the catches by screwdriver. (There are six catches as shown in the picture)</p>
 	<p>8 To remove the TFT, de-soldering the wire connected between TFT and TFT board first. (Please note the wire location as shown in picture during re-assembly) And unplug wire connector from TFT board and TFT driver. Take out the TFT board from cabinet using eradicator.</p>  

4.0 MECHANICAL INSTRUCTION

 	9	To remove the hinge, remove the screws on the hinge.
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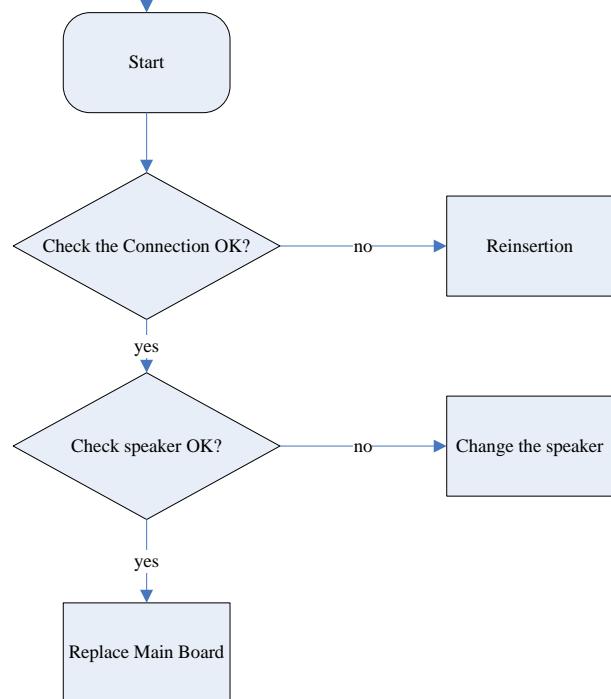
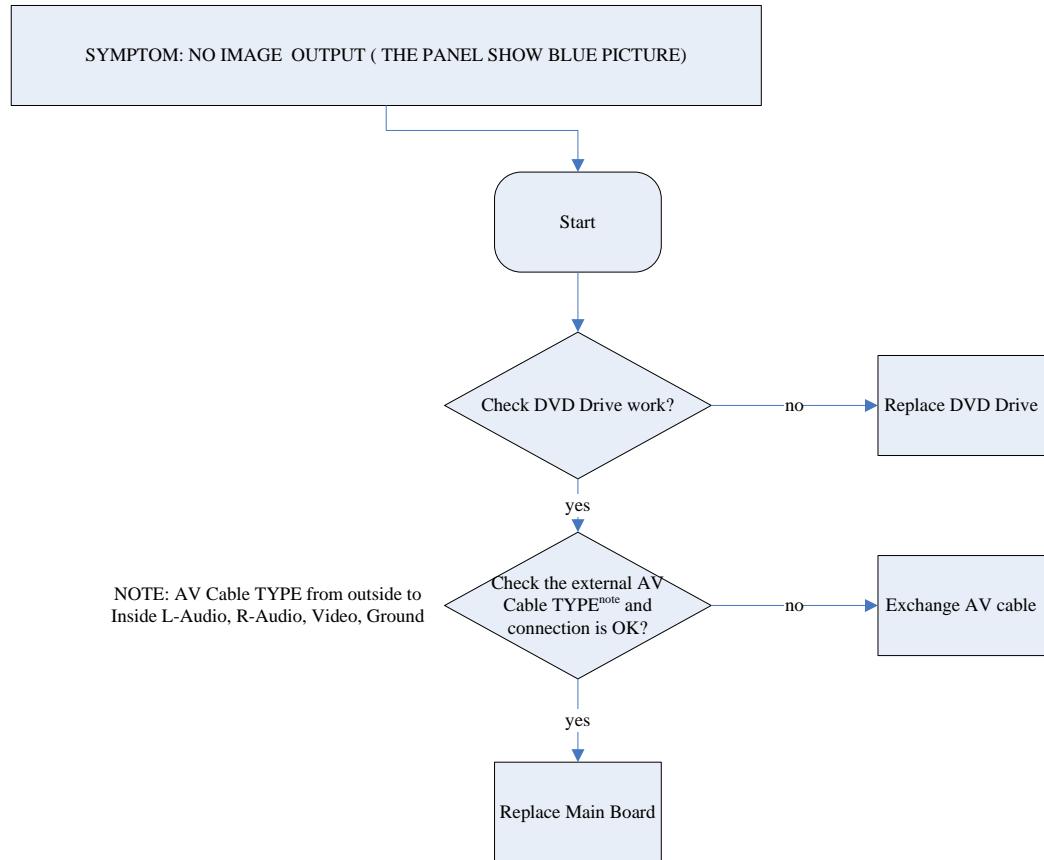
5.0 TROUBLESHOOTING

SYMPTOM: BATTERY NO POWER



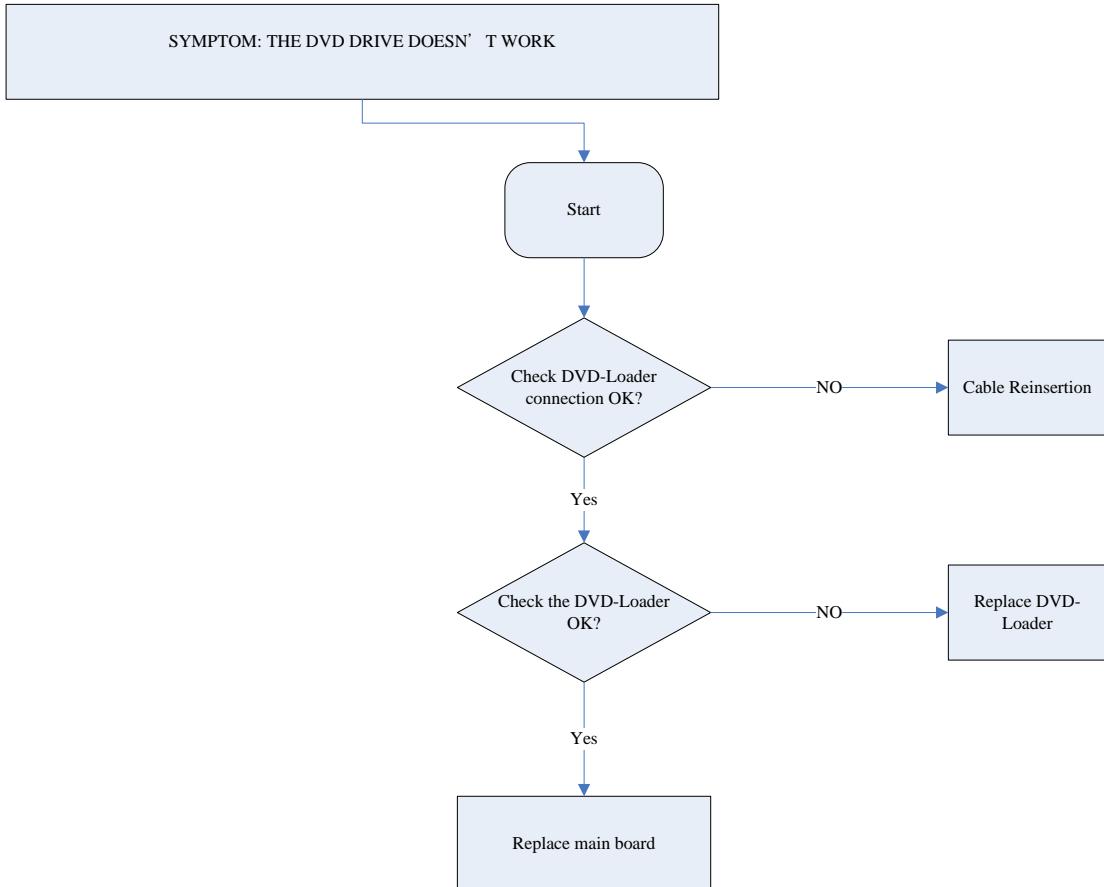
5.0 TROUBLESHOOTING

SYMPTOM: NO IMAGE / NO SOUND



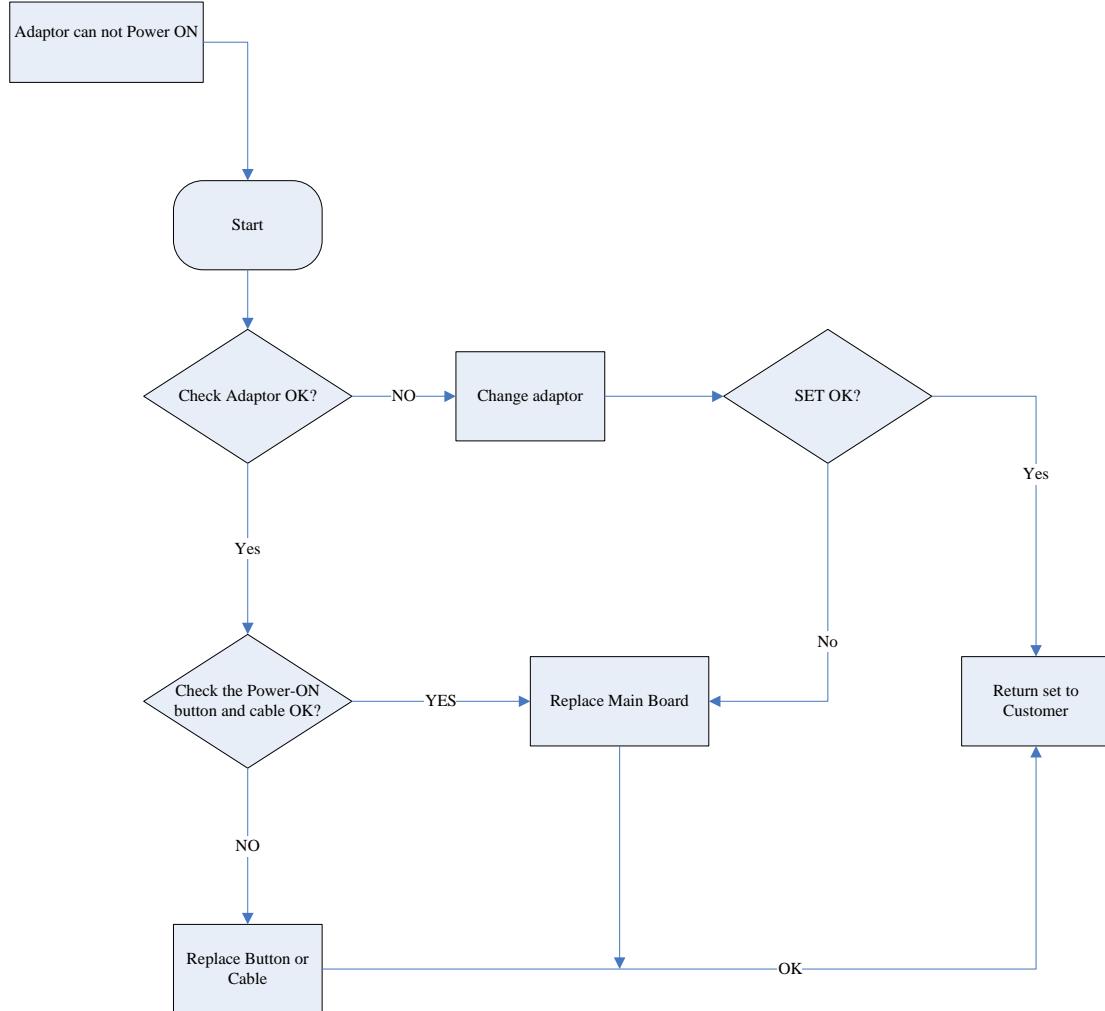
5.0 TROUBLESHOOTING

SYMPTOM: THE DVD DRIVE DOES NOT WORK



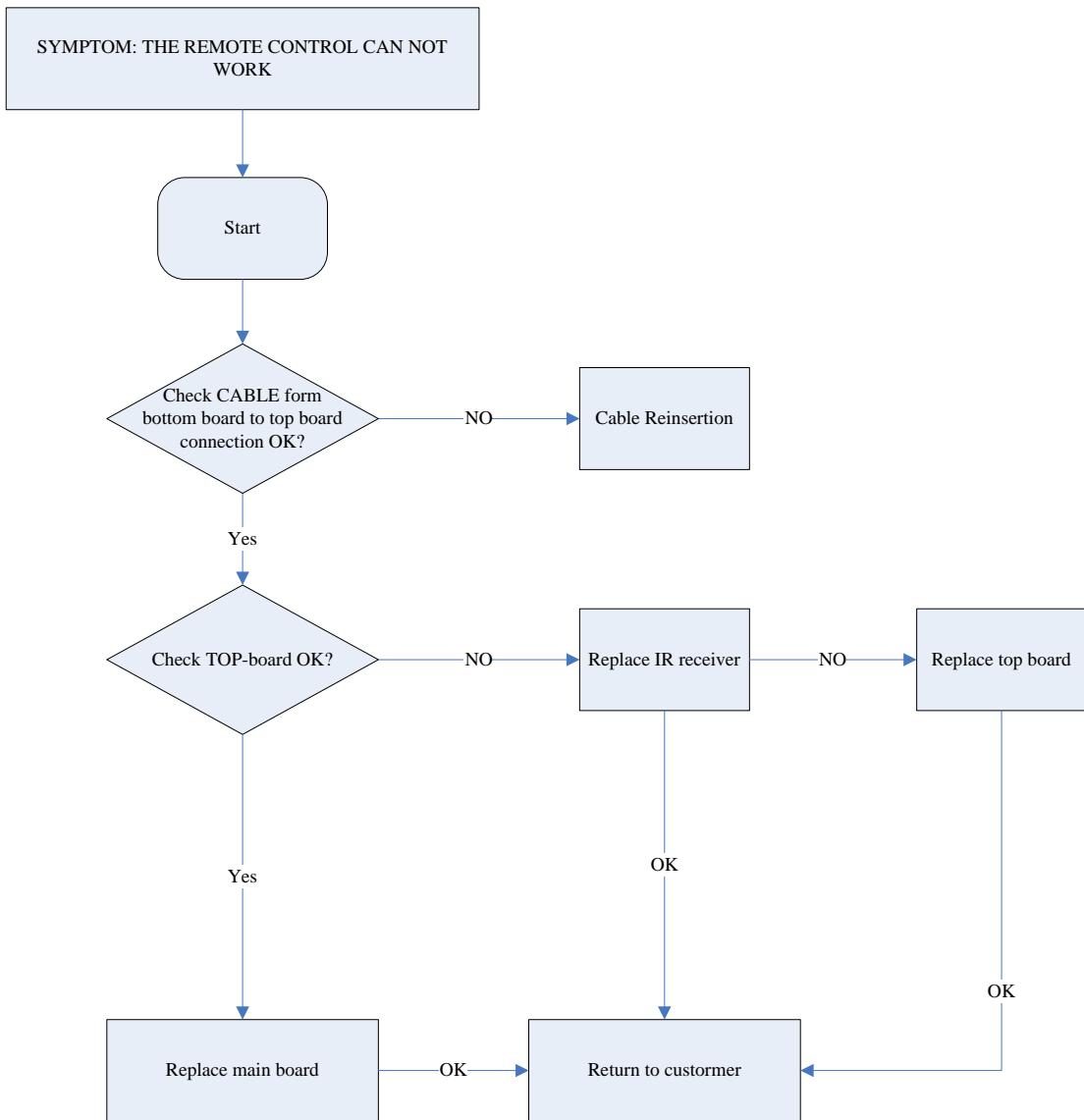
5.0 TROUBLESHOOTING

SYMPTOM: ADAPTOR CANNOT POWER ON



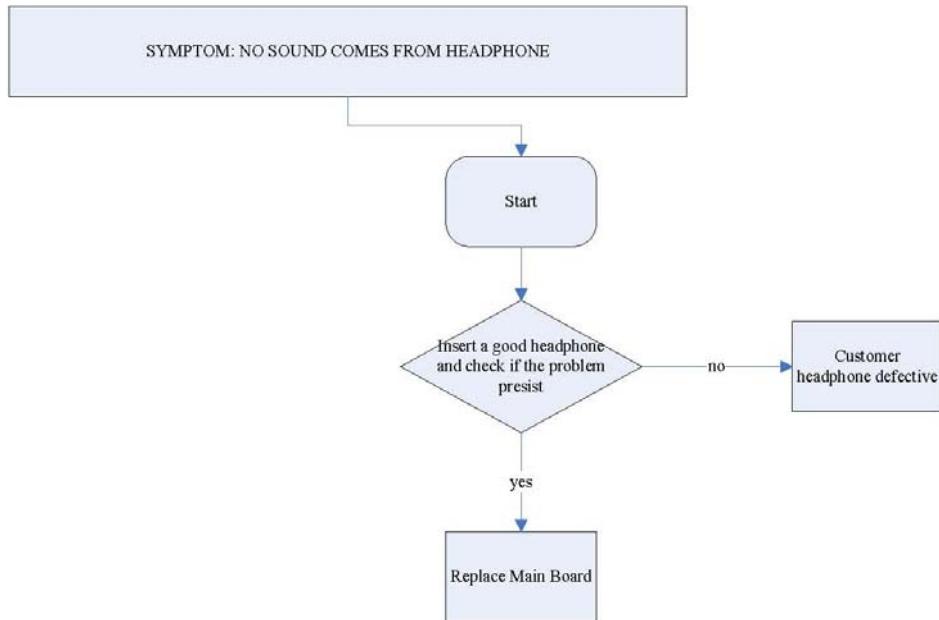
5.0 TROUBLESHOOTING

SYMPTOM: REMOTE CONTROL CANNOT WORK



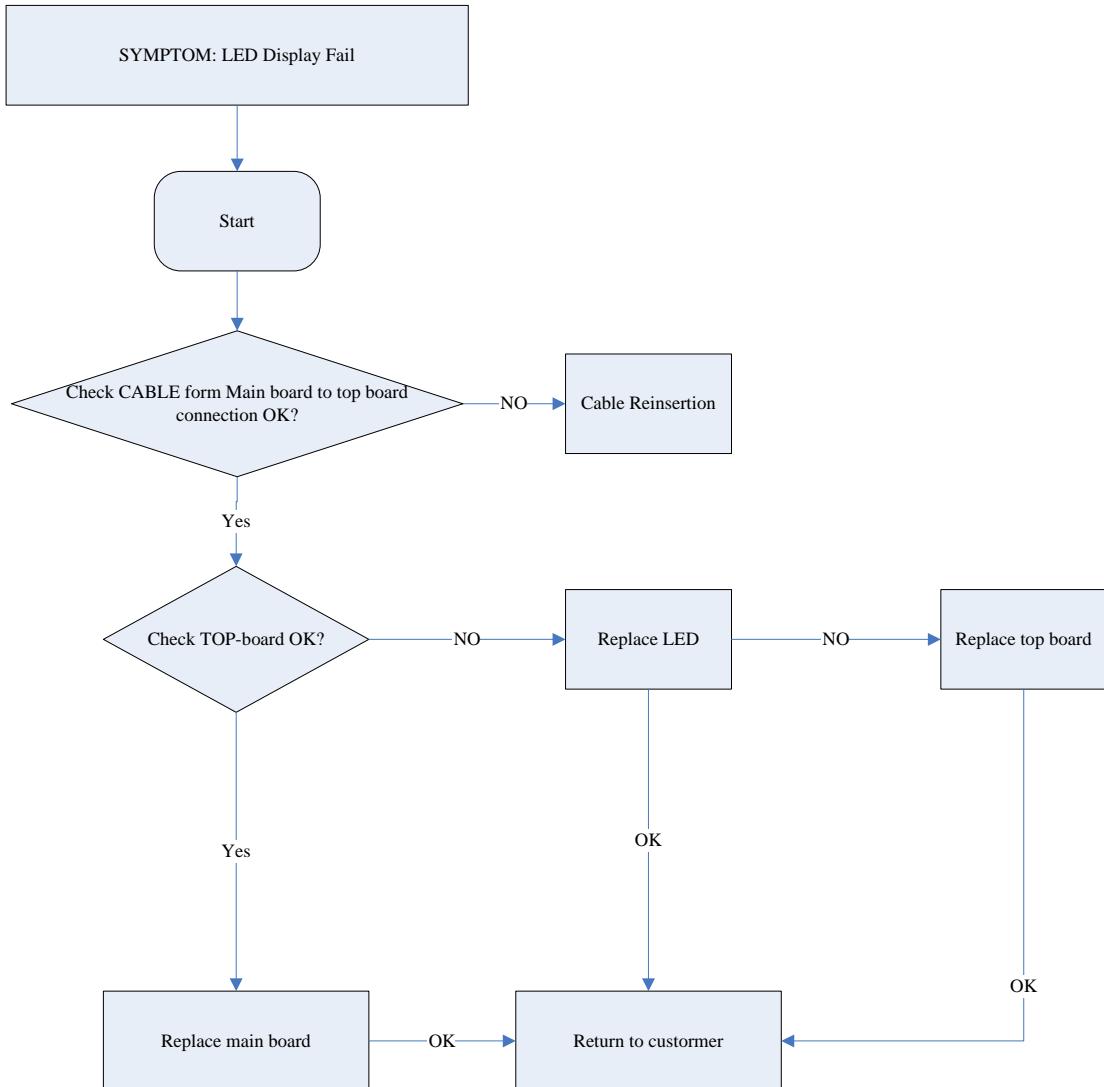
5.0 TROUBLESHOOTING

SYMPTOM: NO SOUND FROM HEADPHONE



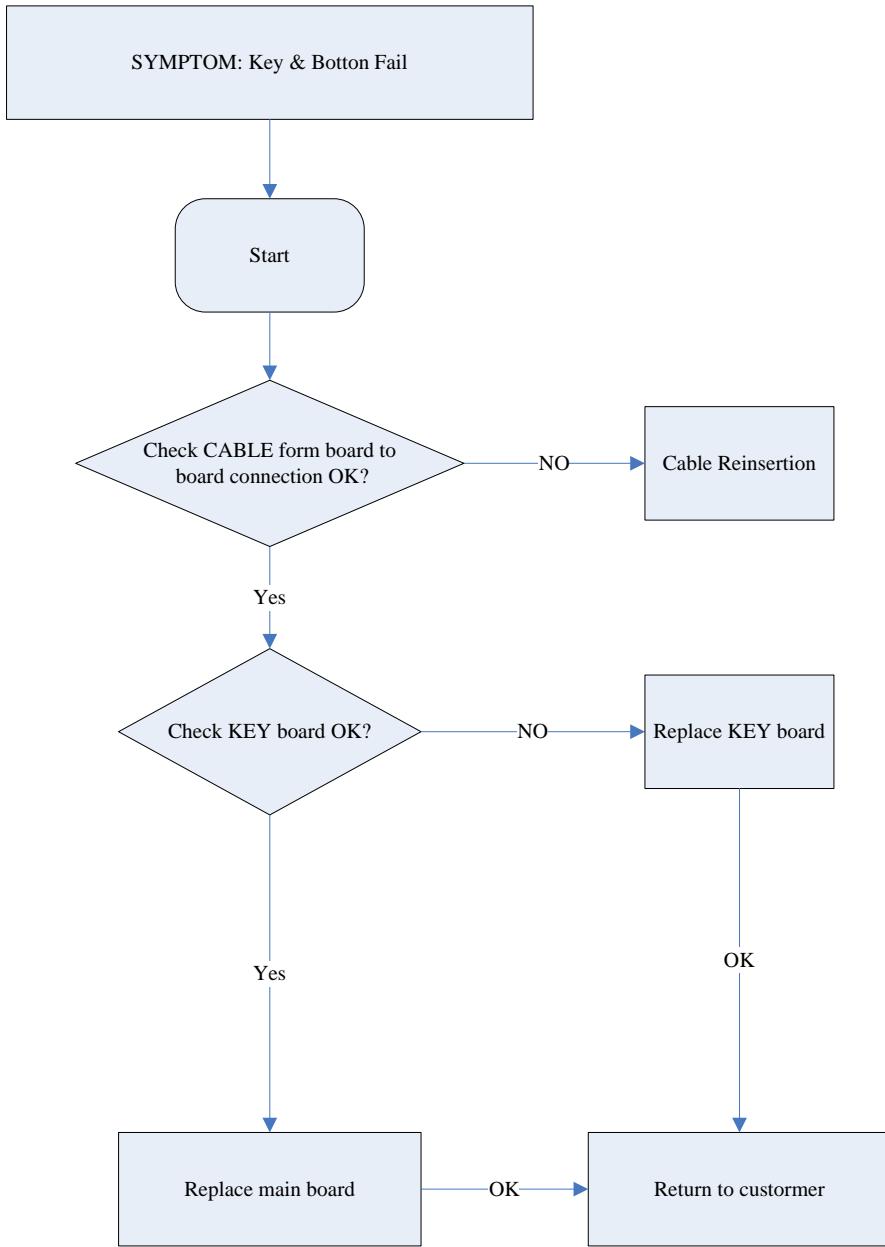
5.0 TROUBLESHOOTING

SYMPTOM: LED DISPLAY FAILURE

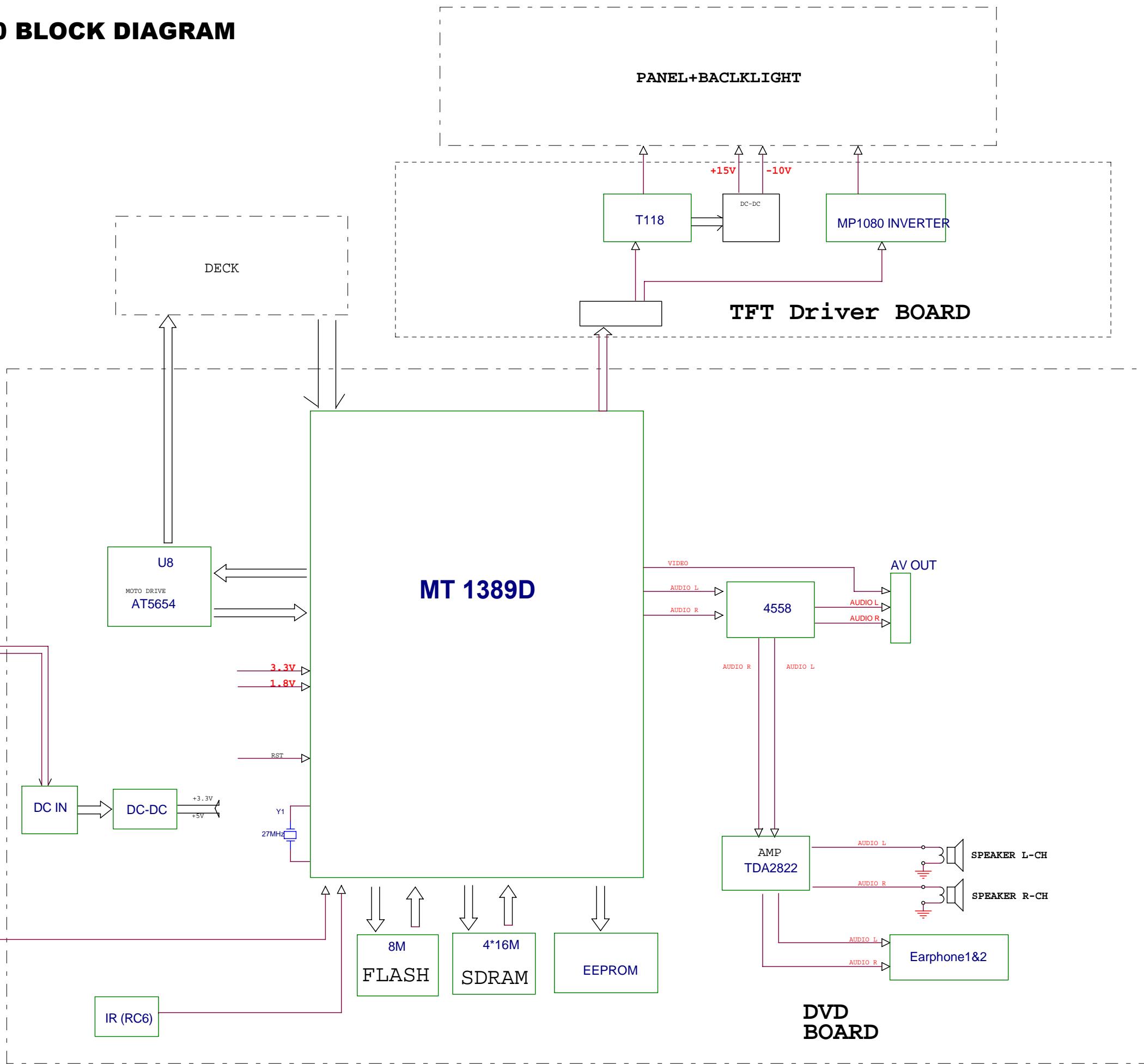


5.0 TROUBLESHOOTING

SYMPTOM: KEY & BOTTON FAILURE



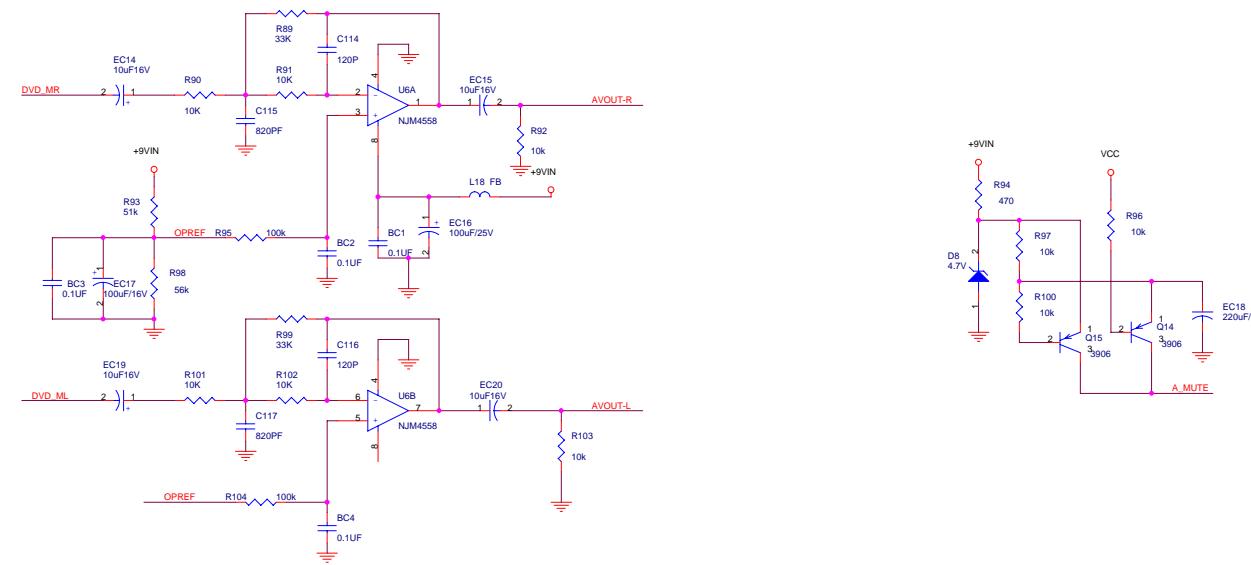
6.0 BLOCK DIAGRAM



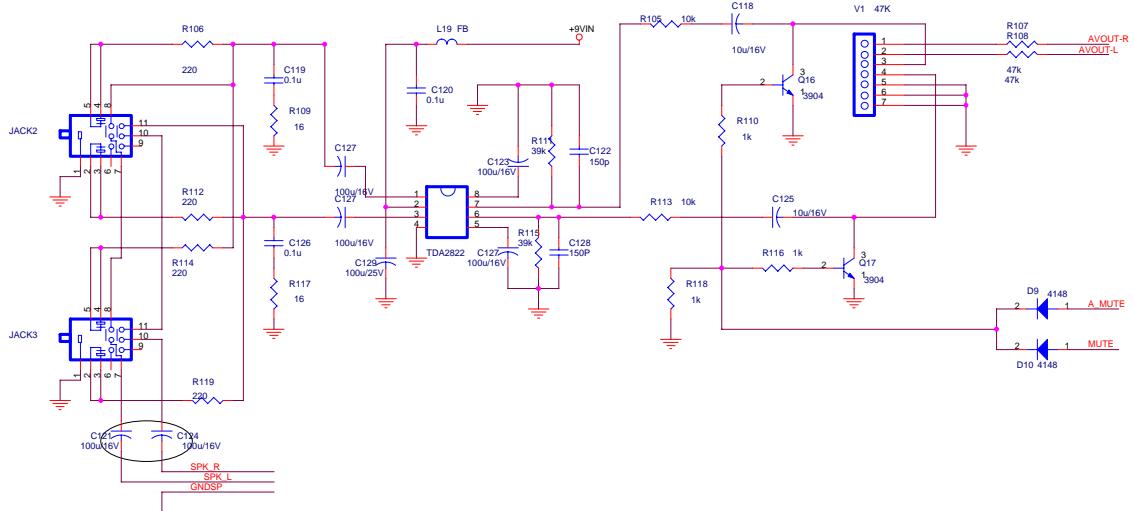
Title		
PET714 block diagram		
Size	Document Number	Rev
C	<Doc>	1.0
Date:	Friday, January 05, 2007	Sheet 1 of 1

7.0 ELECTRICAL DIAGRAM

7.1 MAIN PCBA



SOT23
[2][3]



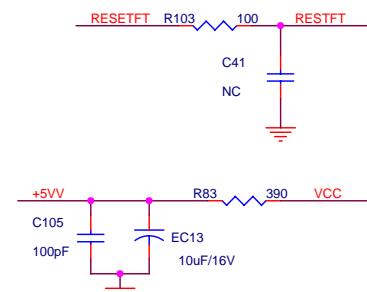
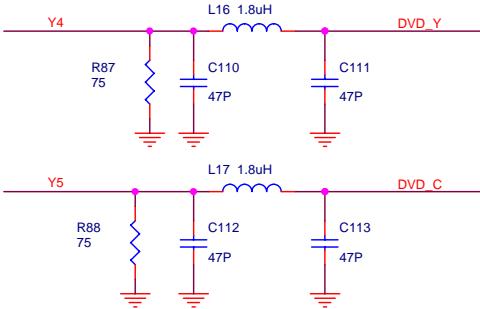
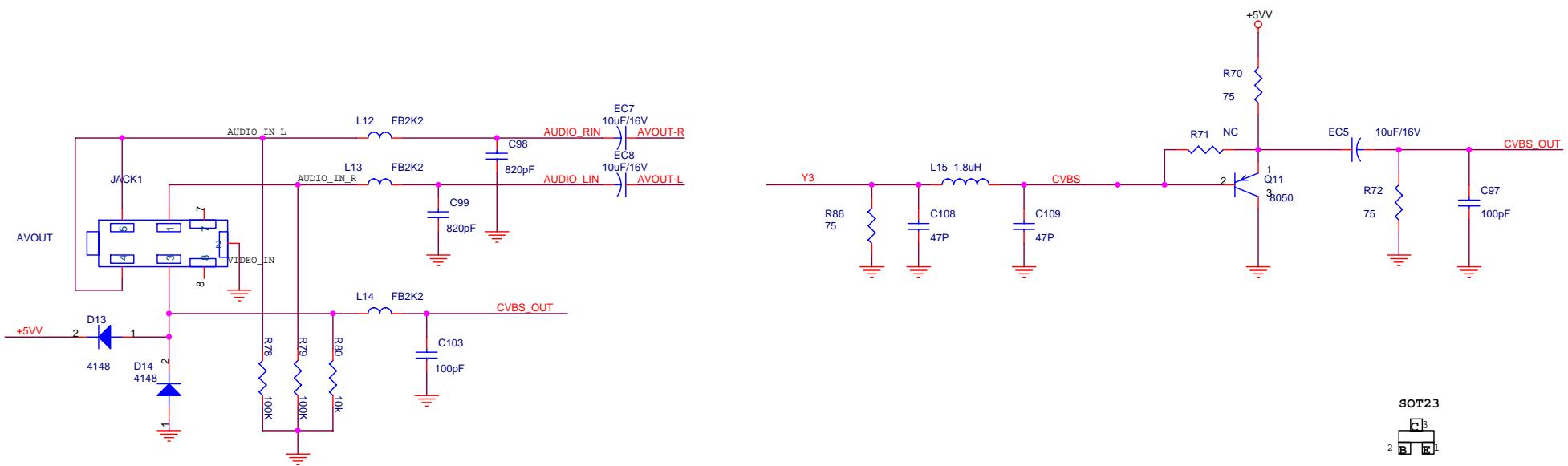
+9VIN →+9VIN [4,5]
MUTE ← MUTE_DAP
DVD_DL ← DVD_DL [2]
DVD_MR ← DVD_MR [2]
VCC → VCC [2]
+9VIN →+9VIN [1]
AVOUT-R → AVOUT-R [4]
AVOUT-L → AVOUT-L [4]
SPK_R → SPK_R [4,5]
SPK_L → SPK_L [4,5]

[1,2,3,5] GND → GND

Title		PET714 1389D_HOP1200
Size	Document Number	AUDIO OUT
C		Rev 1.0
Date:	Monday, April 02, 2007	Sheet 1 of 5

7.0 ELECTRICAL DIAGRAM

7.1 MAIN PCBA



J5	
SPK_R	16 SPKR
GND	15 GND
SPK_L	14 SPKL
GND	13 GND
C_TFT	12 C
Y_TFT	11 Y
GND	10 GND
SCK	9 SCK
SDA	8 SDA
RESTFT	7 GND
GND	6 +33
+5V_TFT	5 +5V
+3V_TFT	4 +3V
GND	3 GND
BL_EN	2 BL_EN
+9V_TFT	1 +9V

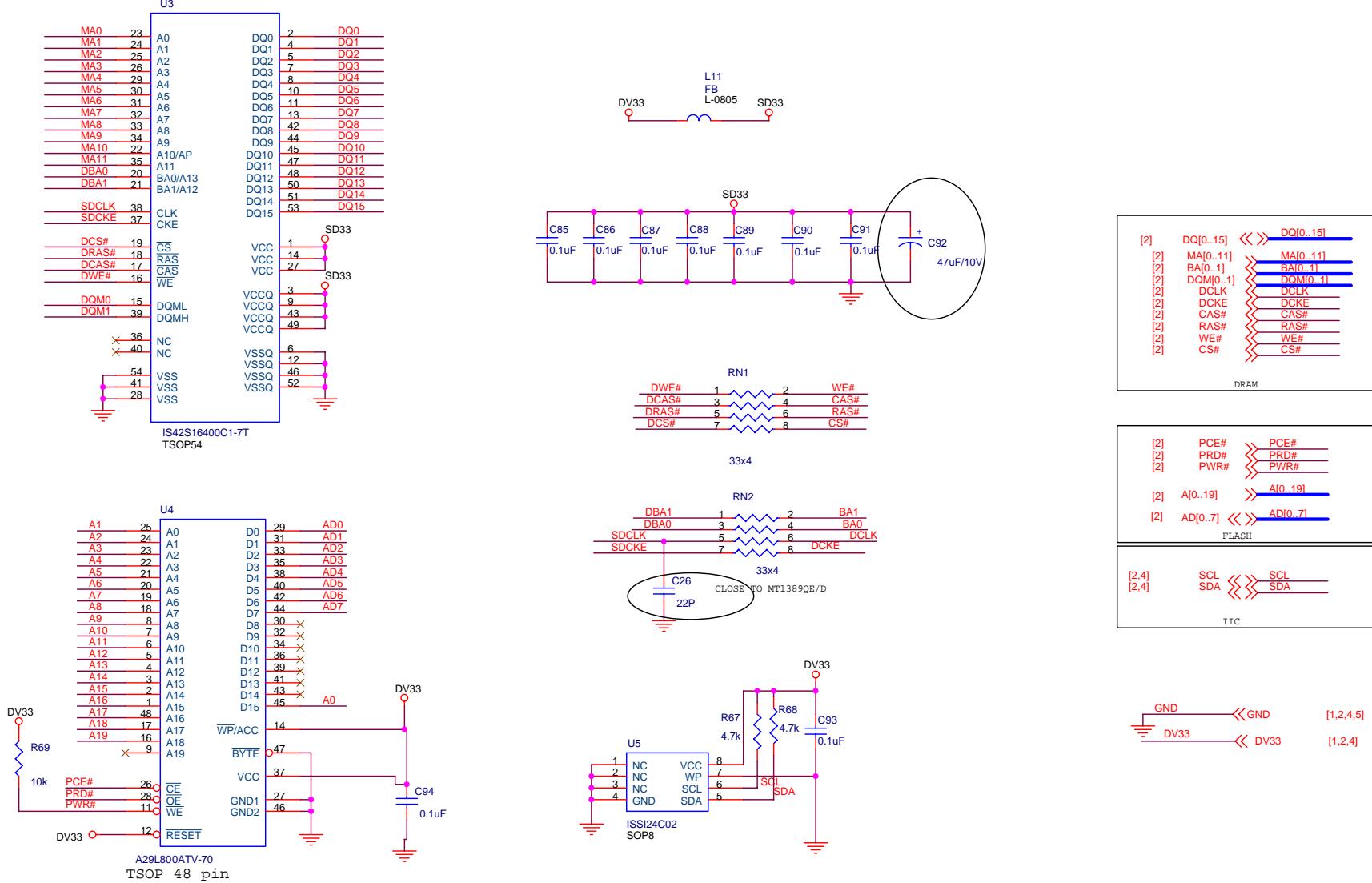
POWDET1 → POWDET1 [1]
 POWDET2 → POWDET2 [1]
 BL_EN → BL_EN [4]

AVOUT-R → AVOUT-R [2]
 AVOUT-L → AVOUT-L [2]
 IRIN → IRIN [2]
 SPK_R → SPK_R [2]
 SPK_L → SPK_L [2]
 SCK → SCL [2]
 SDA → SDA [2]
 +5V_TFT → +5V_TFT [1]
 +9V_TFT → +9V_TFT [1]
 +3V_TFT → +3V_TFT [1]
 Y3 → Y3 [5]
 Y4 → Y4 [5]
 Y5 → Y5 [2]
 VCC → VCC [2]
 RESETFT → RESETFT [4]

Title		
B	PET714 1389D_HOP1200	1.0
Size	Document Number	Rev
B	VIDEO OUT	1.0
Date:	Monday, April 02, 2007	Sheet 1 of 4

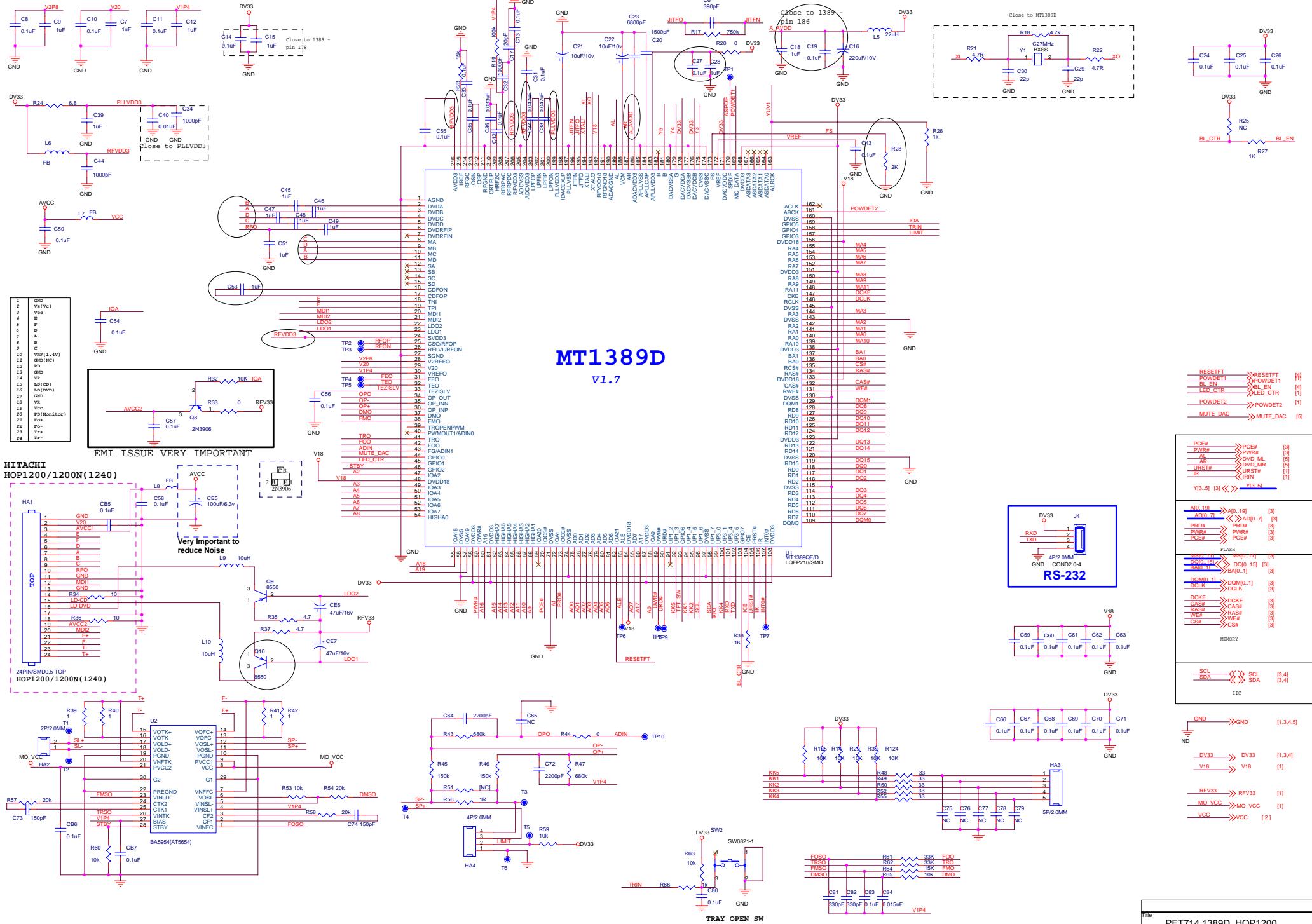
7.0 ELECTRICAL DIAGRAM

7.1 MAIN PCBA



Title		PET714 1389D_HOP1200
Size	Document Number	Rev
B	SDRAM & FLASH	1.0

Date: Monday, April 02, 2007 Sheet 1 of 3

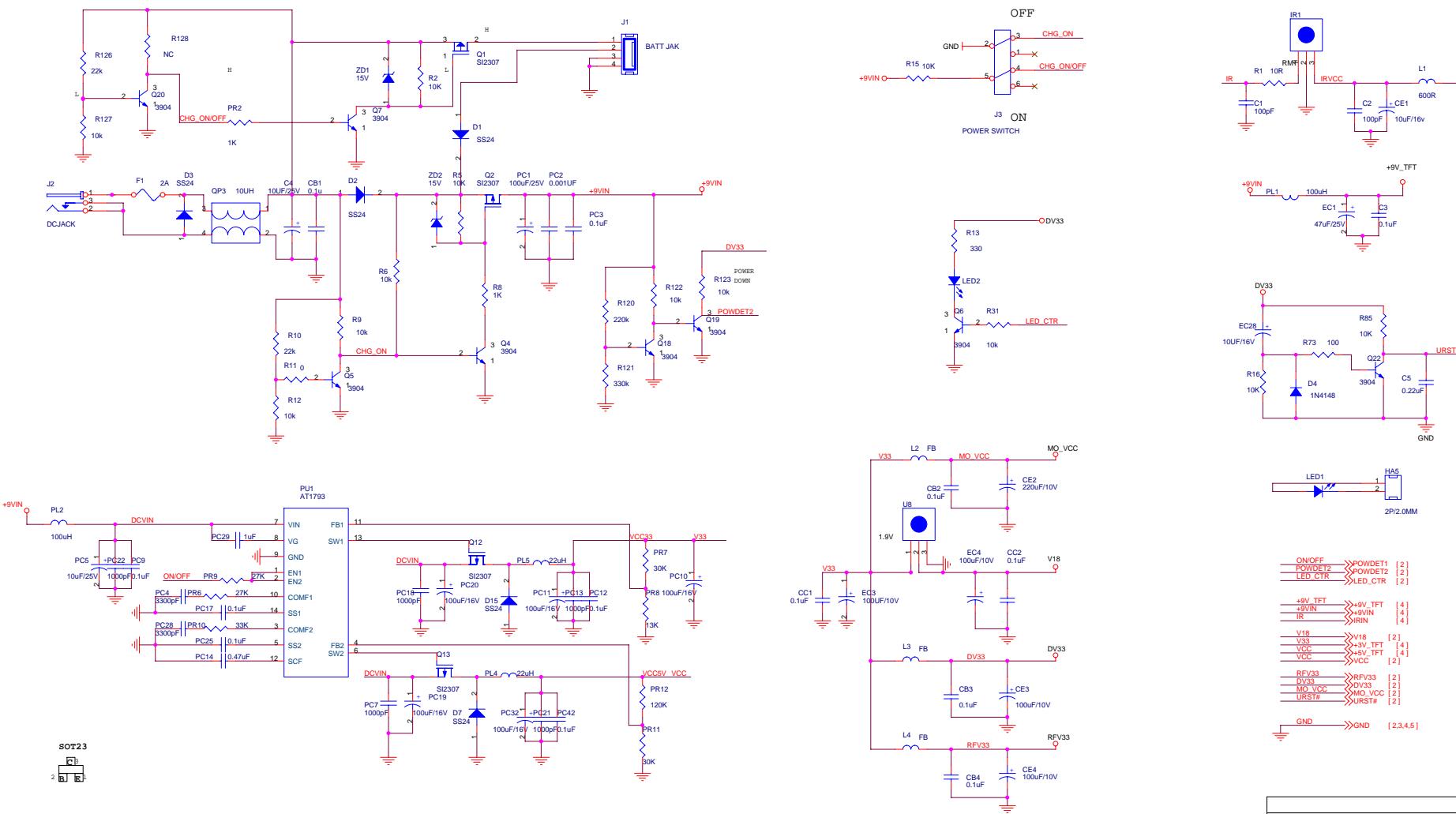


file	PET714 1389D_HOP1200		
size	Document Number	Rev.	
A2	MPEG	1.0	
date:	Monday, April 02, 2007	Sheet	1 of 2

MT1389D (LQFP216) DVD Board for HOP1200

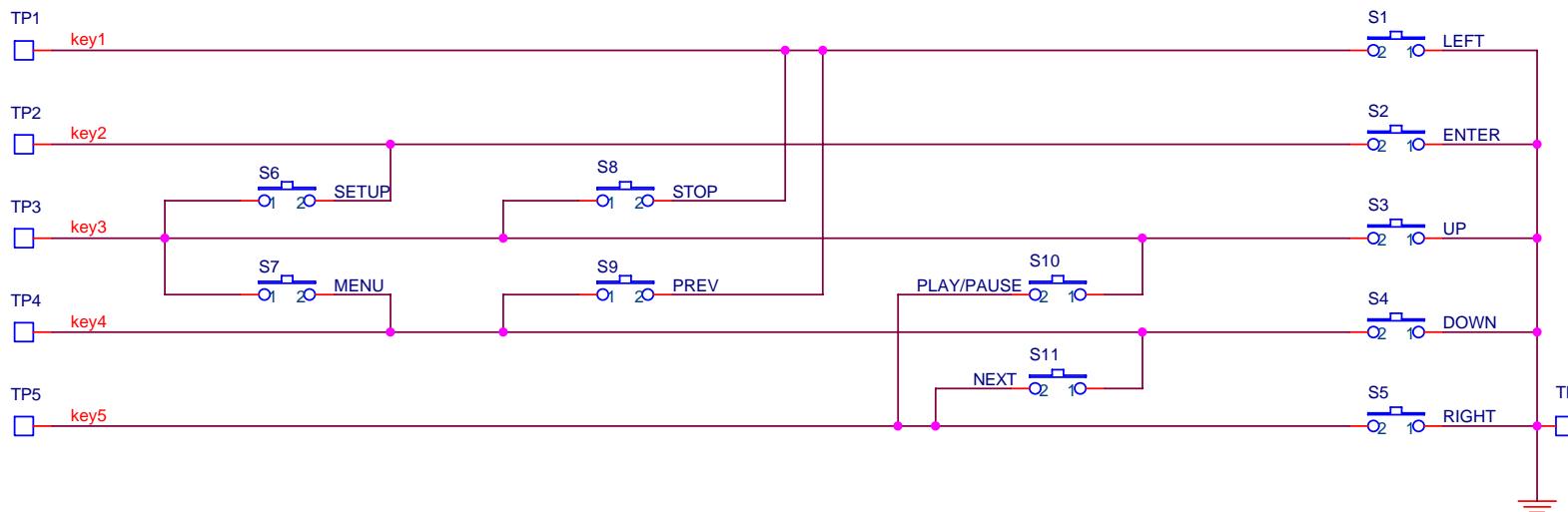
- 1 INDEX & POWER
- 2 RF, SERVO & MPEG , RESET
- 3 MEMORY - SDRAM, FLASH/EEPROM
- 4 VIDEO OUT
- 5 AUDIO OUT
- 6 MCU LCP936

Rev	History	P#	Date
V1	The original released.		2004/04/29
V2	Change net Limit and trclose order	2	2004/05/08
V3	Modify power 3.3V net	2	2004/05/14
V4	Add VGA connect Adjust servo IO	4	2004/05/28
V5	Modify OPU connector pin19 circuit	2	2004/06/09
V6	add protection circuit for OPU	2	2005/05/23



7.0 ELECTRICAL DIAGRAM

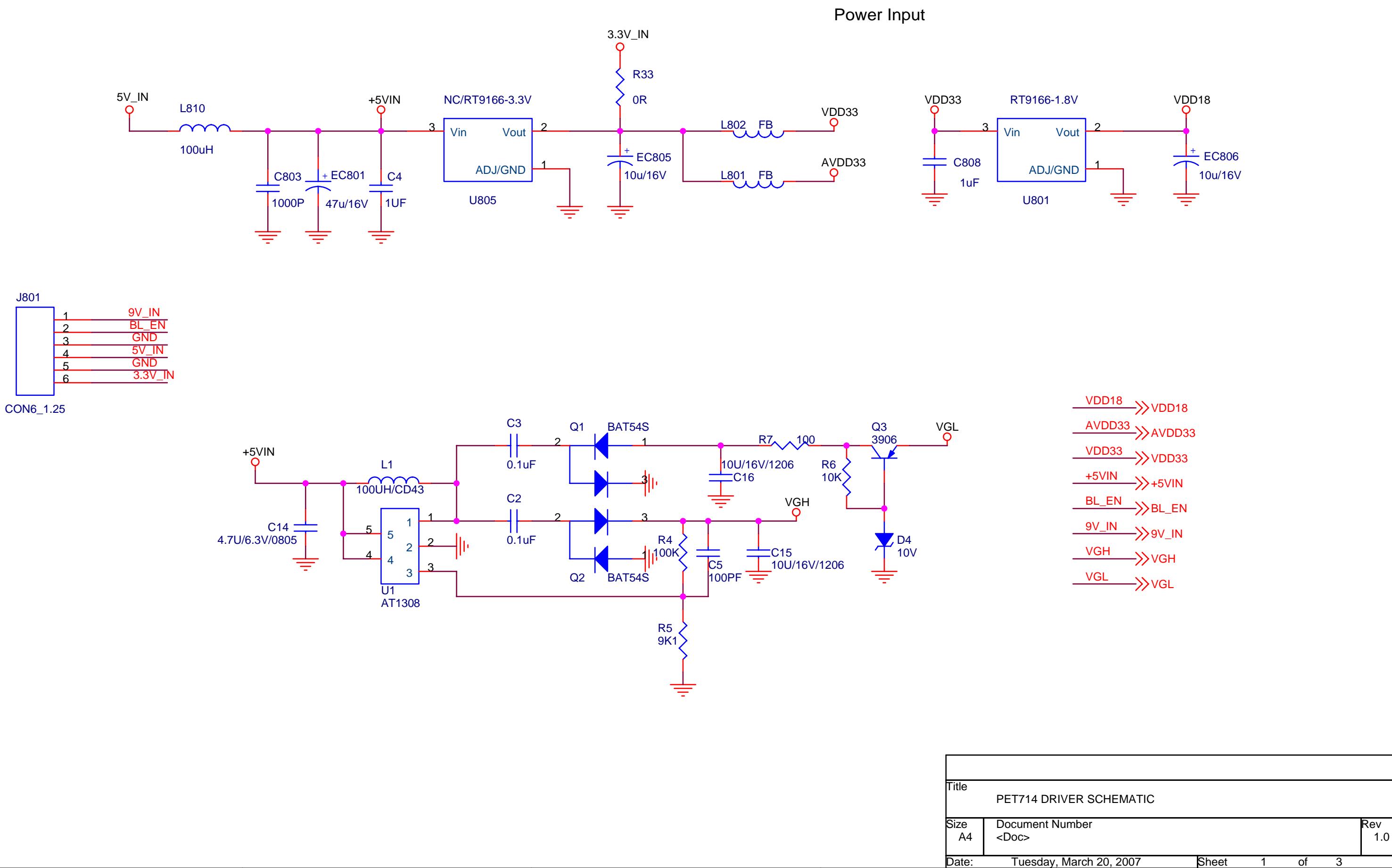
7.2 KEY PCBA ASSY



Title <Title>		
Size A4	Document Number <Doc>	Rev 1.0
Date: Tuesday, March 20, 2007	Sheet 1 of 1	

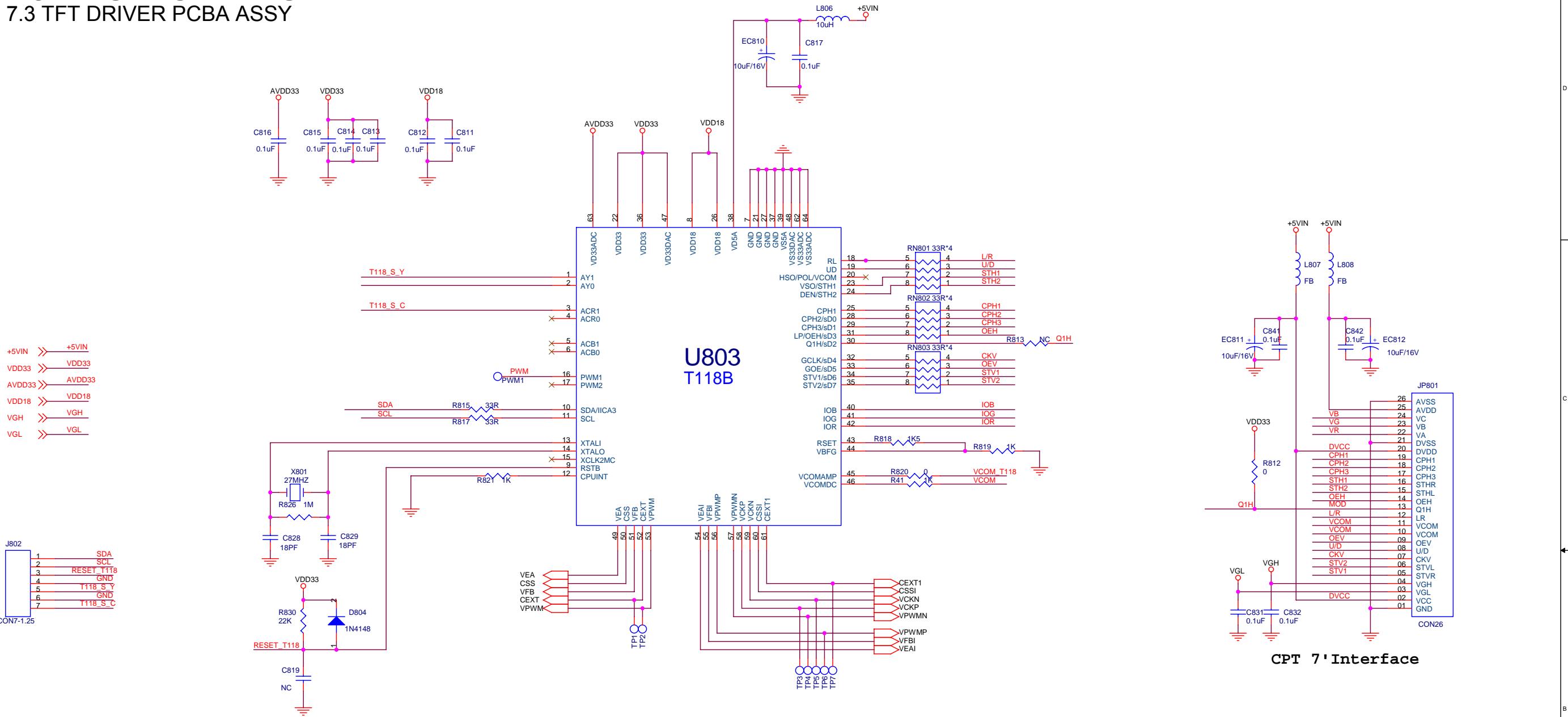
7.0 ELECTRICAL DIAGRAM

7.3 TFT DRIVER PCBA ASSY

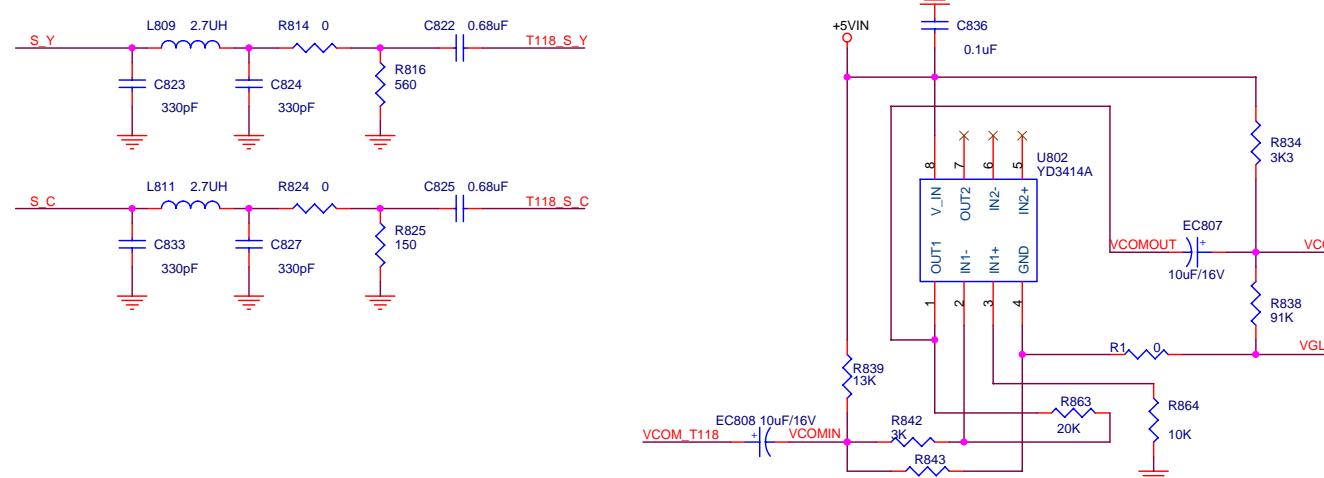


7.0 ELECTRICAL DIAGRAM

7.3 TFT DRIVER PCBA ASSY



Input Signal



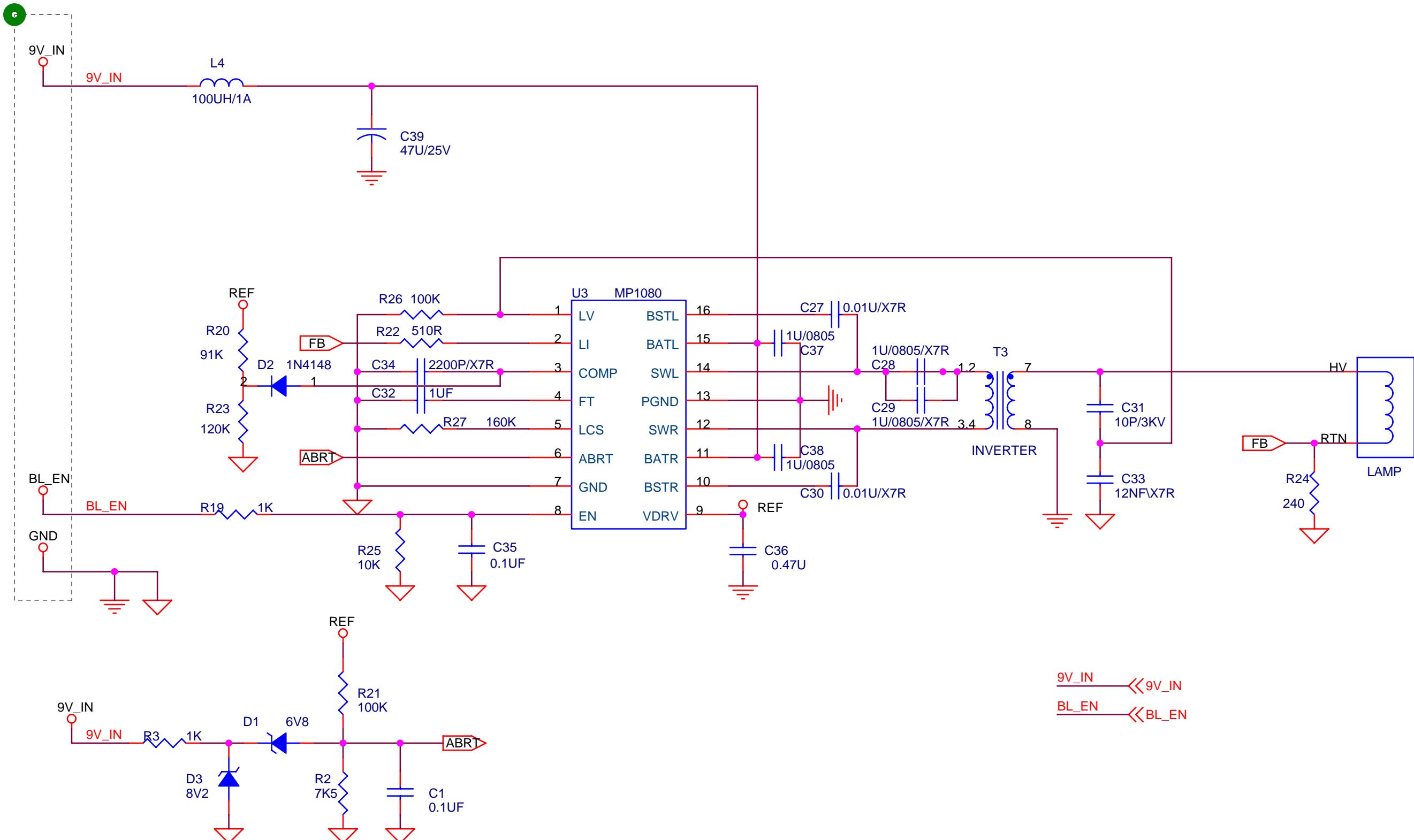
VCOM Circuit

R.G.B Circuit

Title		PET714 DRIVER SCHEMATIC
Size	Document Number	<Doc>
C	Rev	1.0
Date:	Tuesday, March 20, 2007	Sheet 1 of 3

7.0 ELECTRICAL DIAGRAM

7.3 TFT DRIVER PCBA ASSY



9V_IN

BL_EN

Title
PET714 DRIVER SCHEMATIC

Size
A4 Document Number
<Doc>

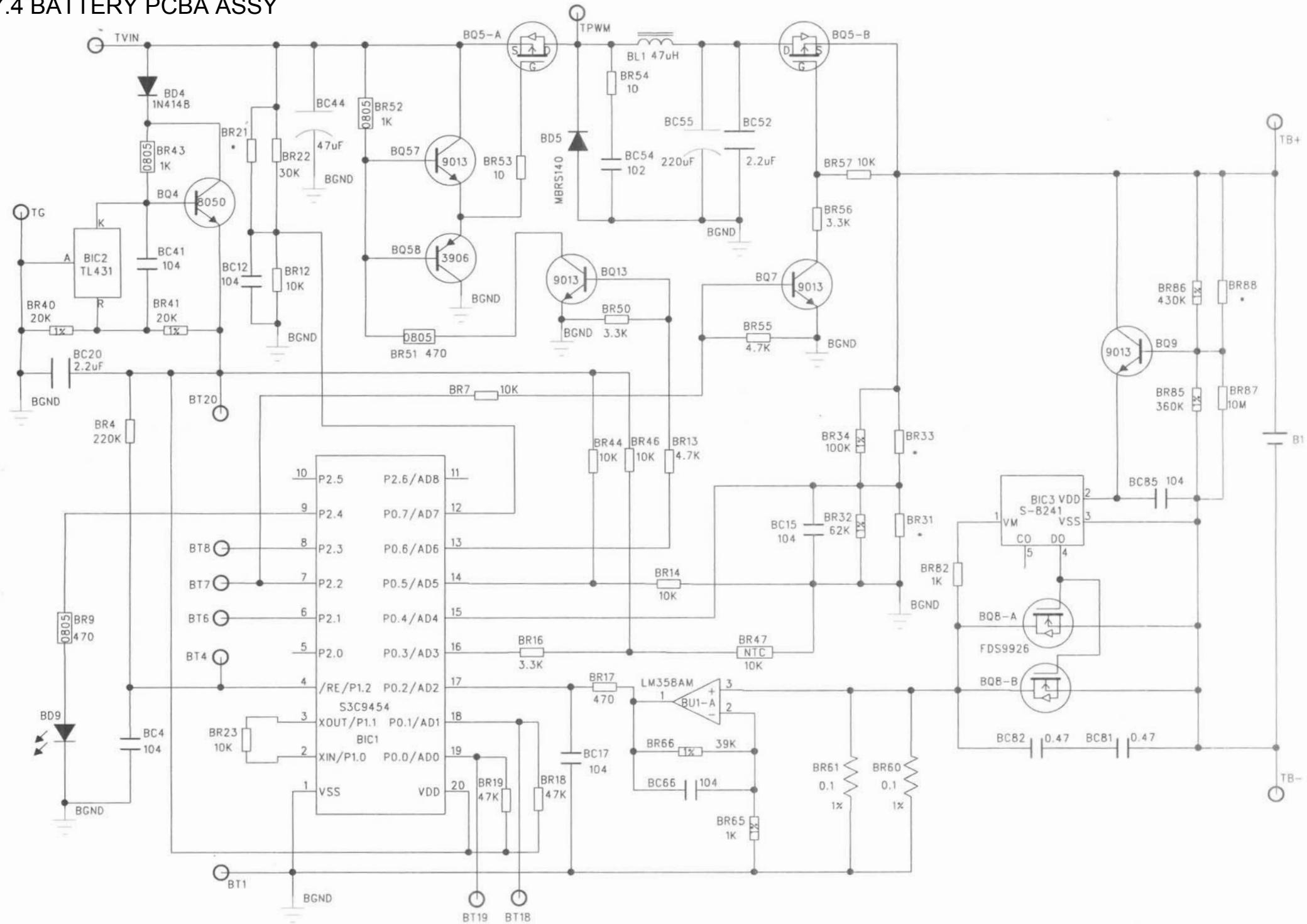
Rev
1.0

Date: Tuesday, March 20, 2007

Sheet 3 of 3

7.0 ELECTRICAL DIAGRAM

7.4 BATTERY PCBA ASSY



8.0 SERVICE PART LIST

Electrical Part List:

No.	Service 12NC	Service Description	Photo		Pos. No.
1	996510002375	MAIN PCBA ASSY PET714		2007/03/10 10:34	100
2	996510002376	KEY PCBA ASSY PET714		2007/03/10 09:45	110
3	996510002395	TFT DRIVER PCB ASSY PET714		2007/03/10 10:10	120
4	996510005925	BATTERY PCB ASSY PET714 (PET714/12,/55,/75,/94)		2007/03/10 10:38	130
	996510006076	LION-POLYER BATTERY PET714 (PET714/05, PET718/12)			

Mechanical Part List:

No.	Service 12NC	Service Description	Photo		Pos. No.
5	996510002377	7" LCD PANEL ASSY CPT (for PET714/12/55/75/94, PET718/12)		2007/03/10 10:48	200
	996510005926	7" LCD PANEL ASSY LG E2 (for PET714/05)			
6	996510001515	DVD LOADER		2007/03/10 10:29	210
7	996510002384	FFC 24P		2007/03/10 10:31	220

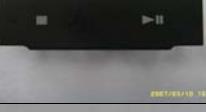
8.0 SERVICE PART LIST

Mechanical Part List:

No.	Service 12NC	Service Description	Photo		Pos. No.
8	996510002378	FRONT CABINET PET714			300
9	996510002379	BOTTOM CABINET PET714 (for PET714/55)			310
	996510003847	BOTTOM CABINET VER 2 PET714 (for PET714/05, /12, /94, /75, PET718/12)			
10	996510002388	DISPLAY FRAME & SPEAKER PET714			320
11	996510002387	MIDDLE CABINET ASSY PET714			330
12	996510002373	HINGE PET714			340
13	996510002385	LENS PET714			350
14	996510002374	POWER BUTTON PET714			400
15	996510002382	NAVIGATION BUTTON			410

8.0 SERVICE PART LIST

Mechanical Part List:

No.	Service 12NC	Service Description	Photo		Pos. No.
16	996510002383	OK BUTTON		2007/03/10 10:45	420
17	996510002389	MENU BUTTON		2007/03/10 10:46	430
18	996510002390	F.F / REW BUTTON		2007/03/10 10:46	440
19	996510002391	PLAY / STOP BUTTON		2007/03/10 10:46	450
20	996510002392	DOOR EJECT BUTTON		2007/03/10 10:46	460
21	996510002393	DOOR SLIDE		2007/03/10 10:46	461
22	996510002394	DOOR BUTTON BRACKET		2007/03/10 10:50	462
23	996510002380	BUTTON BRACKET (BLACK)		2007/03/10 10:50	470
24	996510002381	BUTTON ORNAMENT		2007/03/10 10:50	480

8.0 SERVICE PART LIST

Accessories Part List:

No.	Service 12NC	Service Description	Photo	Pos. No.
25	996510002353	AC/DC ADAPTER EU (for PET714/55, PET714/00, PET714/12 & PET714/94, PET718/12)		ACADAPTOR
	996510002403	AC/DC ADAPTER US (for PET714/37)		ACADAPTOR
	996510005473	AC/DC ADAPTER AUS (for ET714/75)		ACADAPTOR
	996510005927	AC/DC ADAPTER AUS (for ET714/05)		ACADAPTOR
26	996510000788	AV CABLE FOR PET714, PET718		AVCABLE
27	996510001510	CAR ADAPTOR FOR PET714		CARADAPTOR
28	996510002372	REMOTE CONTROL PET714, PET718		RC
29	996510005474	CAR MOUNT (for PET714/75, PET718/12)		CARMOUNT
30	996510006550	AV&DC CABLE 1.8M 5PIN FOR PET718		AVCABLE2
31	996510006564	CAR ADAPTOR FOR PET718		CARADAPTOR
32	996510006549	PAC132 2 ND SCREEN FOR PET718		PAC132

9.0 REVISION LIST

Version 1.0 (3141 785 31670)

- Initial release PET714/55

Version 1.1 (3141 785 31671)

- Update chapter 8.0 to add service part 996510003847 for PET714/94

Version 1.2 (3141 785 31672)

- Update chapter 8.0 to add service part 996510005473 & 996510005474 for PET714/75

Version 1.3 (3141 785 31673)

- Update chapter 8.0 to add service part for PET714/12 & PET714/05

Version 1.4 (3141 785 31674)

- Update chapter 8.0 to add service part for PET718/12