

Acer AL1714

Service Guide

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Conventions

The following conventions are used in this manual:

Screen messages	Denotes actual messages that appear on screen
Note	Gives bits and pieces of additional information related to the current topic.
Warning	Alerts you to any damage that might result from doing or not doing specific actions.
Caution	Gives precautionary measures to avoid possible hardware or software problems.
Important	Reminds you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. this Service Guide provides you with all technical information relating to the BASICCONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. please not WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide, for ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and Service of customer machines.

WARNING: (FOR FCC CERTIFIED MODELS)

NOTE: this equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, Which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

WARNING

Use only shielded signal cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

As an ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

WARNING:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

PRECAUTIONS

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, Swimming pool or in a wet basement.
- Do not place the monitor on an unstable trolley, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a trolley or stand recommended by the manufacture or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacture and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet area provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min. 3.5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- For use only with the attached power adapter (output 12V DC) which have UL,CSA listed license

SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitor and do not indicate a problem.

NOTES

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness in the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

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1.1 Test Conditions

Item	Condition
Temperature	Normal room temperature (25±2)
Humidity	50±10%
AC input voltage	100V±2V, 120±2V, 60Hz / 240±2V, 50Hz
Brightness	Maximum with OSD setting
Contrast	Middle with OSD setting
Resolution setting	1280 x 1024 @60HZ
Color temperature	With OSD setting
Measuring instrument	Topcon luminance colorimeter BM-5A or equivalent
Others	Before measuring, "Auto Config" & "Auto Balance" must be done in advance

1.2 Features

- 17" SXGA TFT LCD Panel
- TN Mode Liquid Crystal
- D-SUB
- Audio Function (Optional)
- Support to 75Hz Refresh Rate
- Support VESA-DCC 2B plug & play function
- Support VESA-DPMS Power Management Function
- Super Wide Viewing Angle
- High Brightness & Contrast Ratio
- High Brightness & Contrast Angular Dependent
- Fast LC Response Time
- Light Weight

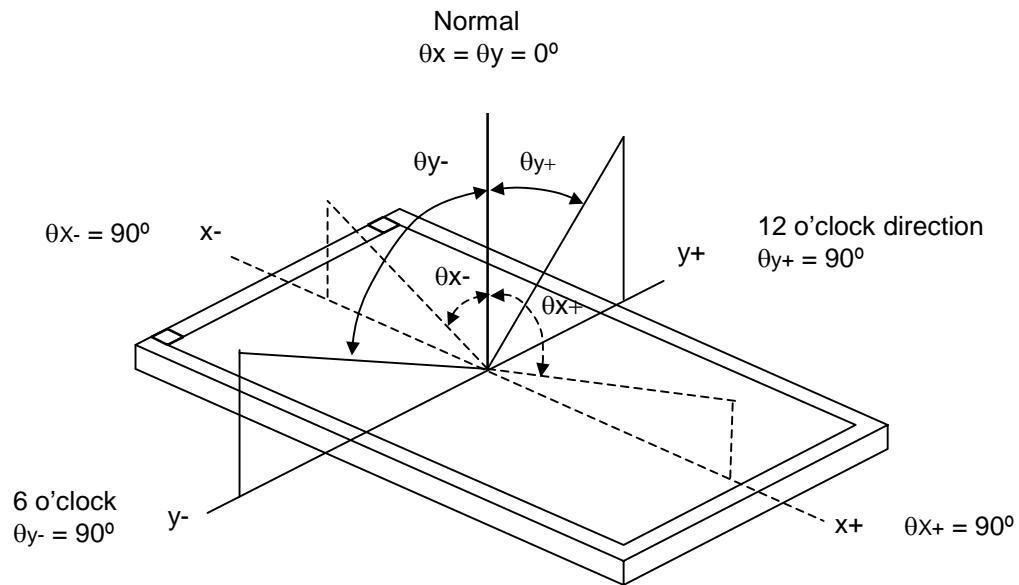
1.3 LCD panel Specification

1.3.1 Optical Specifications

The relative measurement methods of optical characteristics are shown in 4.2. The following items should be measured under the test conditions described in 4.1 and stable environment shown in Note (4).

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Contrast Ratio		CR		250	350	-	-	(2), (4)
LC Response Time		T_R	$\theta_x=0^\circ, \theta_y=0^\circ$ Viewing Normal Angle	-	4	10	ms	(3)
		T_F		-	10	25	ms	
Luminance of center point		L		250	350	-	cd/m ²	(2), (4)
Luminance(Angular dependent)		L_R		-	1.3	1.7	-	(2), (5)
Contrast (Angular-dependent)		Cm		0.5	0.9	-	-	(2), (6)
Brightness Uniformity		Uni.		-	1.1	1.3	-	(2), (4)
Color Chromaticity	Red	Rx		0.604	0.634	0.664	-	(2)
		Ry		0.330	0.360	0.390	-	
	Green	Gx		0.251	0.281	0.311	-	
		Gy		0.572	0.602	0.632	-	
	Blue	Bx		0.112	0.142	0.172	-	
		By		0.037	0.067	0.097	-	
	White	Wx		0.283	0.313	0.343	-	
		Wy		0.299	0.329	0.359	-	
Viewing Angle	Horizontal	θ_{x+}	CR \geq 10	70	80	-	Deg.	(1),(4)
		θ_{x-}		70	80	-		
	Vertical	θ_{y+}		50	60	-		
		θ_{y-}		50	60	-		

Note (1) Definition of Viewing Angle (θ_x , θ_y):



Note (2) Definition of Contrast Ratio (CR):

The contrast ratio can be calculated by the following expression and figure below.

$$\text{Contrast Ratio (CR)} = L_{255} / L_0$$

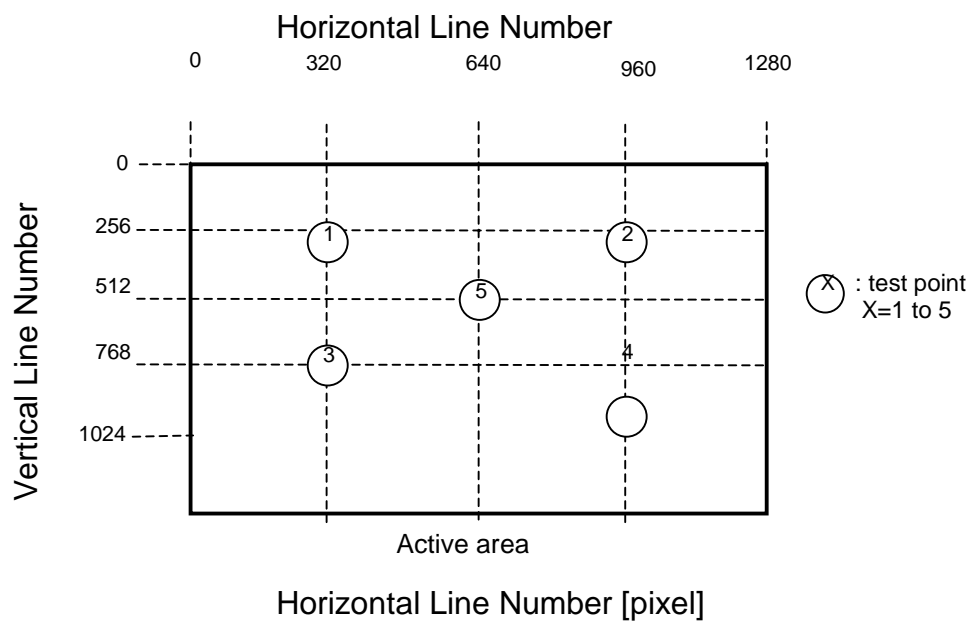
L_{255} : Luminance of gray level 255

L_0 : Luminance of gray level 0

$$CR = CR(5)$$

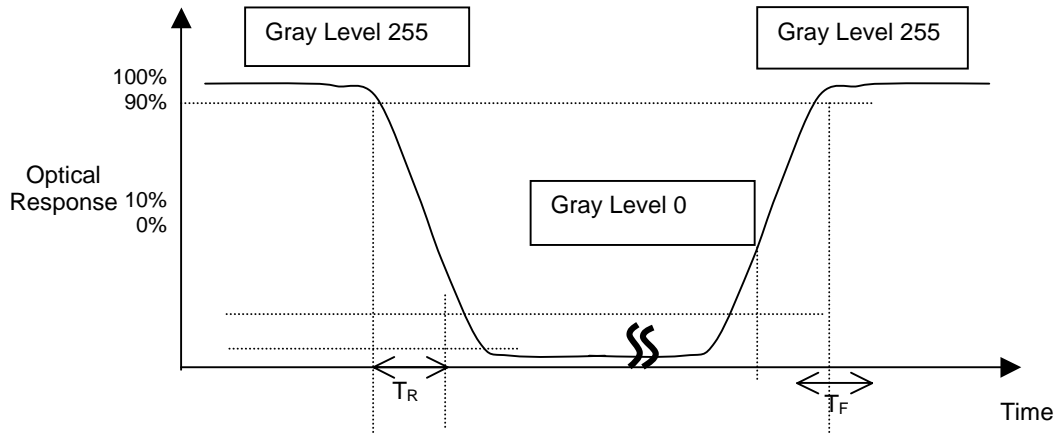
$CR(X)$ is corresponding to the Contrast Ratio of the point X at Figure in Note (5).

Definition of luminance measured points and Brightness Uniformity:



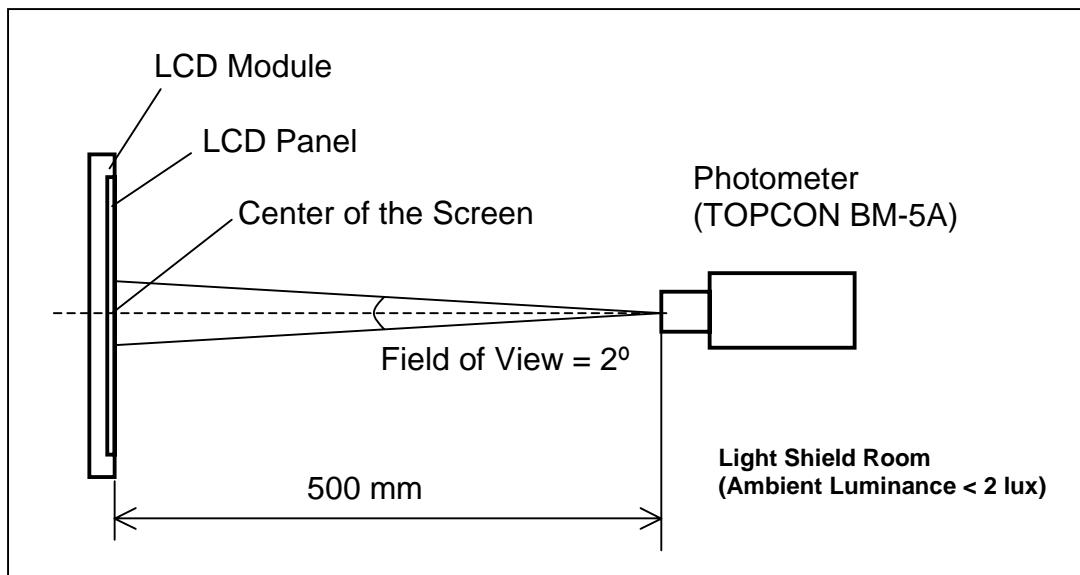
Luminance of center point: $L=L(5)$
 Brightness Uniformity Measurement points: Five specified points 1-5
 Formula: Maximum [L (1), L (2), L (3), L (4), L (5)]/Minimum [L (1), L (2), L (3), L (4), L (5)]

Note (3) Definition of Response Time (T_R , T_F):



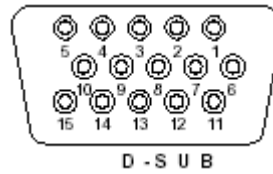
Note (4) Measurement Setup:

The LCD module should be stabilized at given temperature for 20 minutes to avoid abrupt temperature change during measuring. In order to stabilize the luminance, the measurement should be executed after lighting Backlight for 20 minutes in a windless room.



1.4 Connector Pin Assignment

1.4.1 D-sub mini 15pin Connector



Pin No.	Pin Function	Pin No.	Pin Function
1	Red video input	9	NC
2	Green video input	10	Ground
3	Blue video input	11	No connection
4	NC	12	(SDA)
5	Ground	13	Horizontal sync (Composite sync)
6	Red video ground	14	Vertical sync
7	Green video ground	15	(SCL)
8	Blue video ground		

1.4.2 DC Connector

DC Power Jack, d=3.0mm

1.4.3 Audio Connector (Optional)

Phone Jack, d=3.5mm
(AL1714m/ AL1714bm)

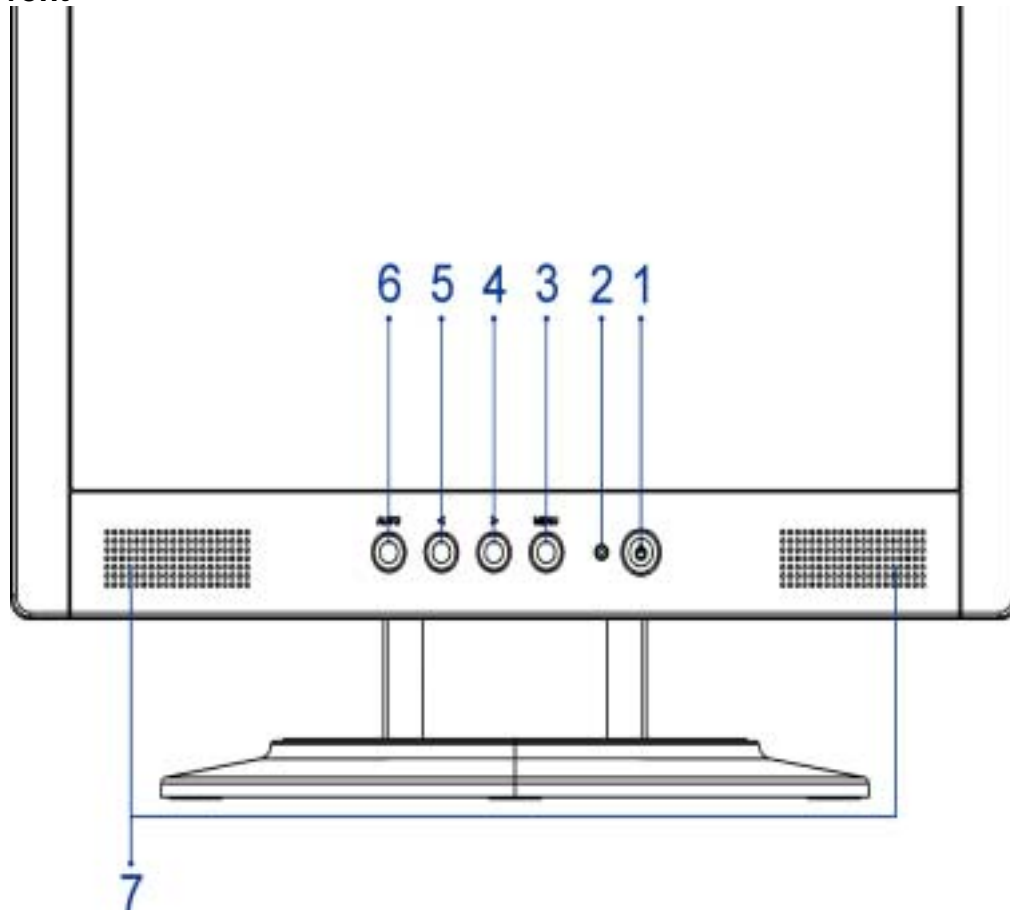
Electrical Characteristics for Entire IC					
(Notes 7, 10)					
The following specifications apply for $V_{DD} = 5V$ unless otherwise noted. Limits apply for $T_A = 25^\circ C$.					
Symbol	Parameter	Conditions	LM4838		Units (Limits)
			Typical (Note 14)	Limit (Note 15)	
V_{DD}	Supply Voltage			2.7	V (min)
				5.5	V (max)
I_{DD}	Quiescent Power Supply Current	$V_{IN} = 0V, I_O = 0A$	15	30	mA (max)
I_{SD}	Shutdown Current	$V_{shutdown} = V_{DD}$	0.7	2.0	μA (max)
V_{SH}	Headphone Sense High Input Voltage			4	V (min)
V_{SL}	Headphone Sense Low Input Voltage			0.8	V (max)

Electrical Characteristics for Volume Attenuators					
(Notes 7, 10)					
The following specifications apply for $V_{DD} = 5V$. Limits apply for $T_A = 25^\circ C$.					
Symbol	Parameter	Conditions	LM4838		Units (Limits)
			Typical (Note 14)	Limit (Note 15)	
C_{RANGE}	Attenuator Range	Gain with $V_{DDVDD} = 5V$, No Load		± 0.75	dB (max)
		Attenuation with $V_{DDVDD} = 0V$ (BM & SE)		-75	dB (min)
A_{M}	Mute Attenuation	$V_{REF} = 5V$, Bridged Mode (BM)		-75	dB (min)
		$V_{REF} = 5V$, Single-Ended Mode (SE)		-75	dB (min)

Electrical Characteristics for Single-Ended Mode Operation					
(Notes 7, 10)					
The following specifications apply for $V_{DD} = 5V$. Limits apply for $T_A = 25^\circ C$.					
Symbol	Parameter	Conditions	LM4838		Units (Limits)
			Typical (Note 14)	Limit (Note 15)	
P_O	Output Power	THD = 1.0%; $f = 1kHz$; $R_L = 32\Omega$	85		mW
		THD = 10%; $f = 1kHz$; $R_L = 32\Omega$	95		mW

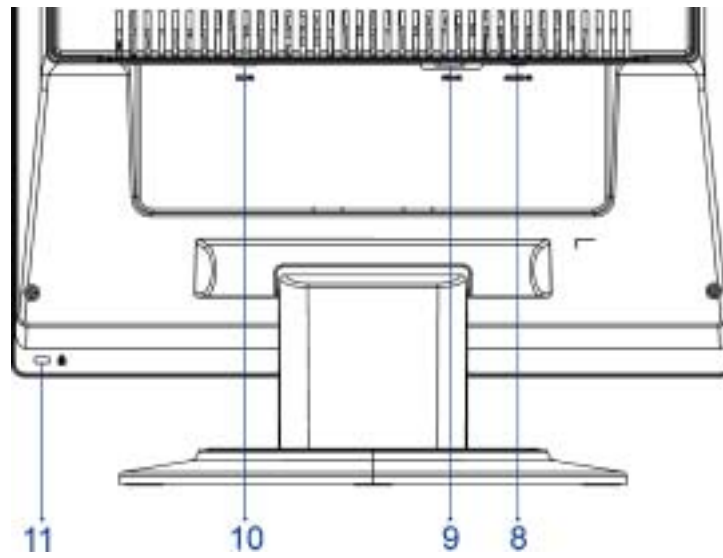
2.1 Function Names

2.1.1 Front



No.	Name	Descriptions	
1	Power Switch	Power On/Off	
2	LED Indicator	Green	Normal operation
		Orange	Power management
3	MENU	OSD control MENU button	
4	>	Right selection/ Volume button (AL1714m/AL1714bm)	
5	<	Left selection/ Volume button (AL1714m/AL1714bm)	
6	AUTO	Adjust Clock, Phase, H Position and V Position automatically	
7	Speaker	2.5W x 2	

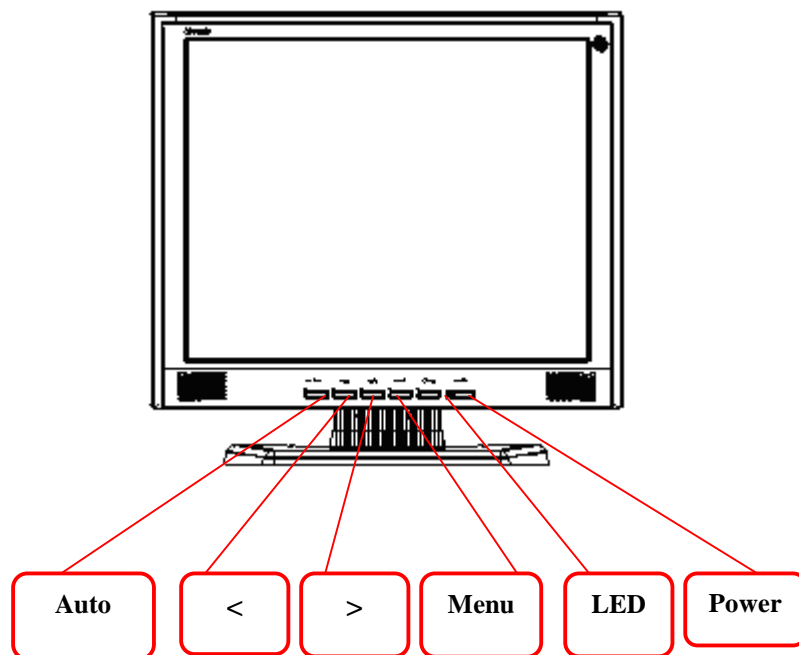
2.1.2 Back



No.	Name	Descriptions
8	AUDIO-IN	d=3.5mm stereo mini Jack (AL1714m/ AL1714bm)
9	VGA-IN	D-sub mini 15pin Connector
10	DC-IN	DC Power Jack, d=2.0mm.
11	Lock hole	Kensington

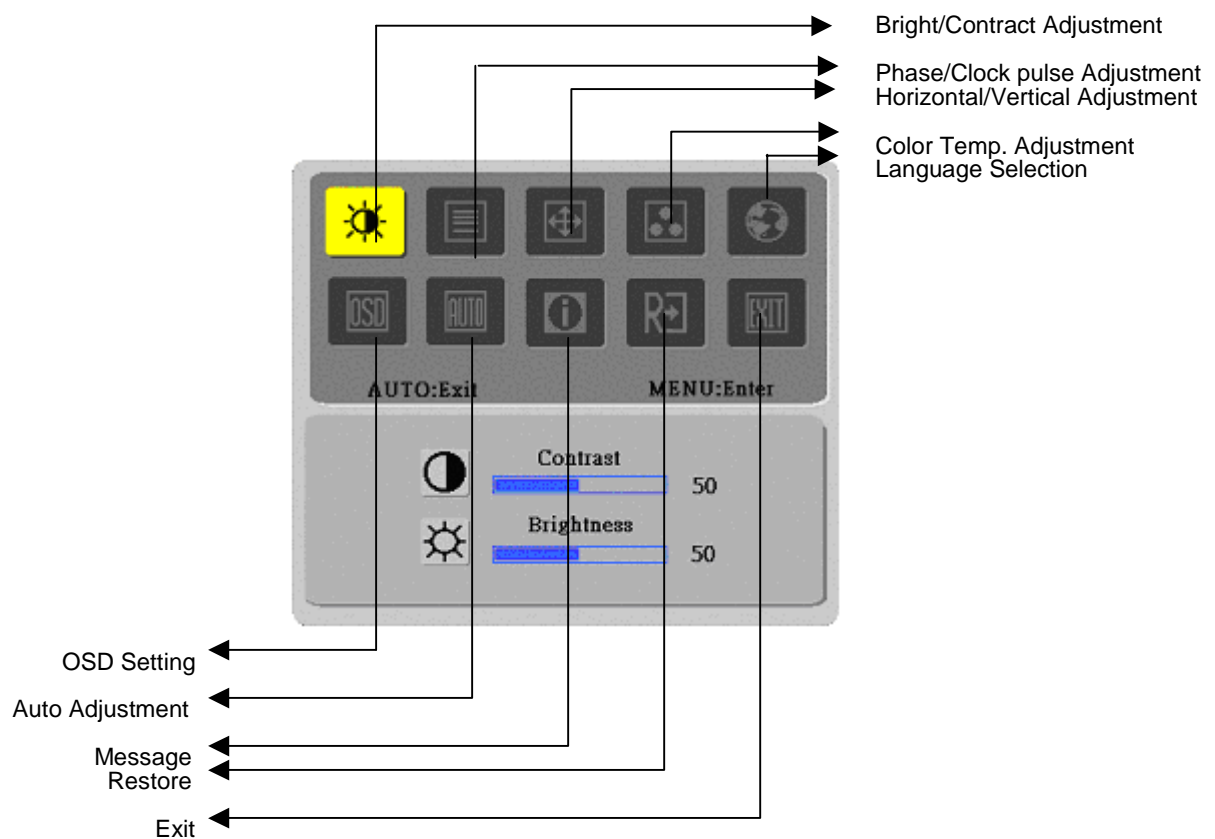
2.2 OSD Menu Description

1. **Power** : Press this key to control power ON/OFF of the Monitor.
Green: Power is on and normal .
Orange Sleep status in the energy-saving mode.
Orange: Power off.
2. **Menu** : Press this button to enter OSD. Press it again to exit OSD.
3. **> / Plus and < / Minus** : Press this button for selection or adjustment when OSD is shown. Press this button and click < and > to adjust volume when OSD is not shown (for the model with speakers only)
4. **Auto** : Press this button to exit the manual when OSD is shown.
Press this button for the display to optimize the position, phase and clock pulse automatically when OSD is not shown.

























2.3 OSD Operation

- ◆ Click MENU to display the OSD window as shown in the following figure.
- ◆ Click < or > to select the function to be adjusted as shown in the following figure.
- ◆ Click the MENU to select the function to be adjusted.
- ◆ Click < or > to change current settings.
- ◆ To exit OSD, select “EXIT” to close the OSD window and save changes. .



2.4 OSD function definition

Primary Directory Symbol	Secondary Directory Symbol	Secondary Directory Items	Description
		Contrast	Adjust the contrast between the foreground and background of an image on the screen
		Brightness	Adjust the background brightness of the screen
		Phase	Adjust the focus of the image (for analog input adjustment only)
		Clock Pulse	Adjust the clock pulse of the image (for input adjustment only)
		Horizontal	Move the image left and right on the screen (for input adjustment only)
		Vertical	Move the image up and down on the screen (for input adjustment only)
	N/A	Warm Color Temp.	Set up the color temp. to be warm white color
	N/A	Cold Color Temp.	Set up the color temp. to be cold white color
		User Definition/Red	Adjust red/green/blue gain
		User Definition/Green	
		User Definition/Blue	
	N/A	English	Select the language you want
	N/A	繁體中文	
	N/A	Deutsch	
	N/A	Français	
	N/A	Español	
	N/A	Italiano	
	N/A	简体中文	
	N/A	日本語	
		Horizontal	Move OSD left and right
		Vertical	Move OSD up and down
		OSD Time Display	Adjust OSD time display settings
 (for analog input only)	N/A	Auto Adjustment	Set up horizontal, vertical, sequence and focus automatically
	N/A	Message	Display resolution, H/V frequency and the input port used for current input timing function.

	N/A	Restore	Restore to factory settings
	N/A	Exit	Close the OSD window and save changes.

2.5 Plug and Play

- ◆ The product provides the latest VESA **plug and play** function to prevent complicated and time-consuming installation procedures. The **plug and play** function allows your computer system to identify the LCD display easily and set up the functions of the LCD display automatically.
- ◆ The LCD display transfers the **Extended Display Identification Data** (EDID) to your computer system via the **Display Data Channel** (DDC), so that your computer can use the self-setting function of the LCD display.








2.6 Power Saver

- ◆ The LCD display has a built-in Power Control System (**Power Saver**).
- ◆ When the LCD display is not operated during a certain time, the Power Control System will bring the LCD display into low voltage status automatically to save power. Move the mouse slightly or press any key to return to the normal operation.
- ◆ The **Power Saver** function can only be operated by the display card of the computer system. You can set up this function from your computer.
- ◆ The LCD display is compatible with EPAENERGY STAR NÜTEK when used with VESA DPMS
- ◆ To save power and extend the life of the product, turn off the LCD display power supply when it is not used or when remaining idle for a long time.




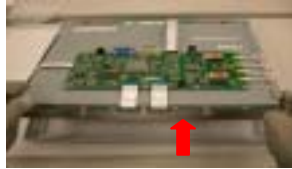


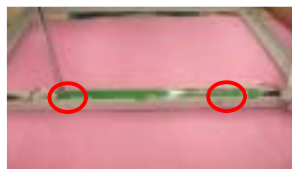

MACHINE DISASSEMBLY AND ASSEMBLY

Chapter 3

3.1 Disassembly Procedures




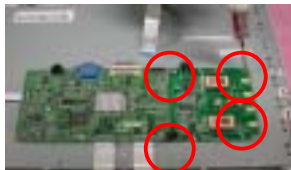




Picture	Description
	Push the hooks and stand bottom away
	Remove Hinge Cover
	Loosen and remove 6 screws to remove Stand Assy
	Loose and remove 5 screws.
	Separate Bezel hooks to take Bezel and Rear Cover apart.
	Lift up Rear Cover
	Remove FFC

	Loose and remove 4 screws
	Loose and remove 5 screws
	Remove the Cover of X-PCB
	Remove 4 pieces of Backlight wires.
	Loose and remove 4 screws
	Remove Power PCBA
	Remove 3 pieces of FFC from AD PCBA
	Open the fixed cover at AD

	Loose and remove 1 screw
	Remove AD PCBA
	Disassembly PCBA complete.
	Lift up LCD module and remove bezel.
	Remove FFC.
	Separate both Audio Cable.
	Loose and remove 2 screws.
	Take OSD PCBA apart

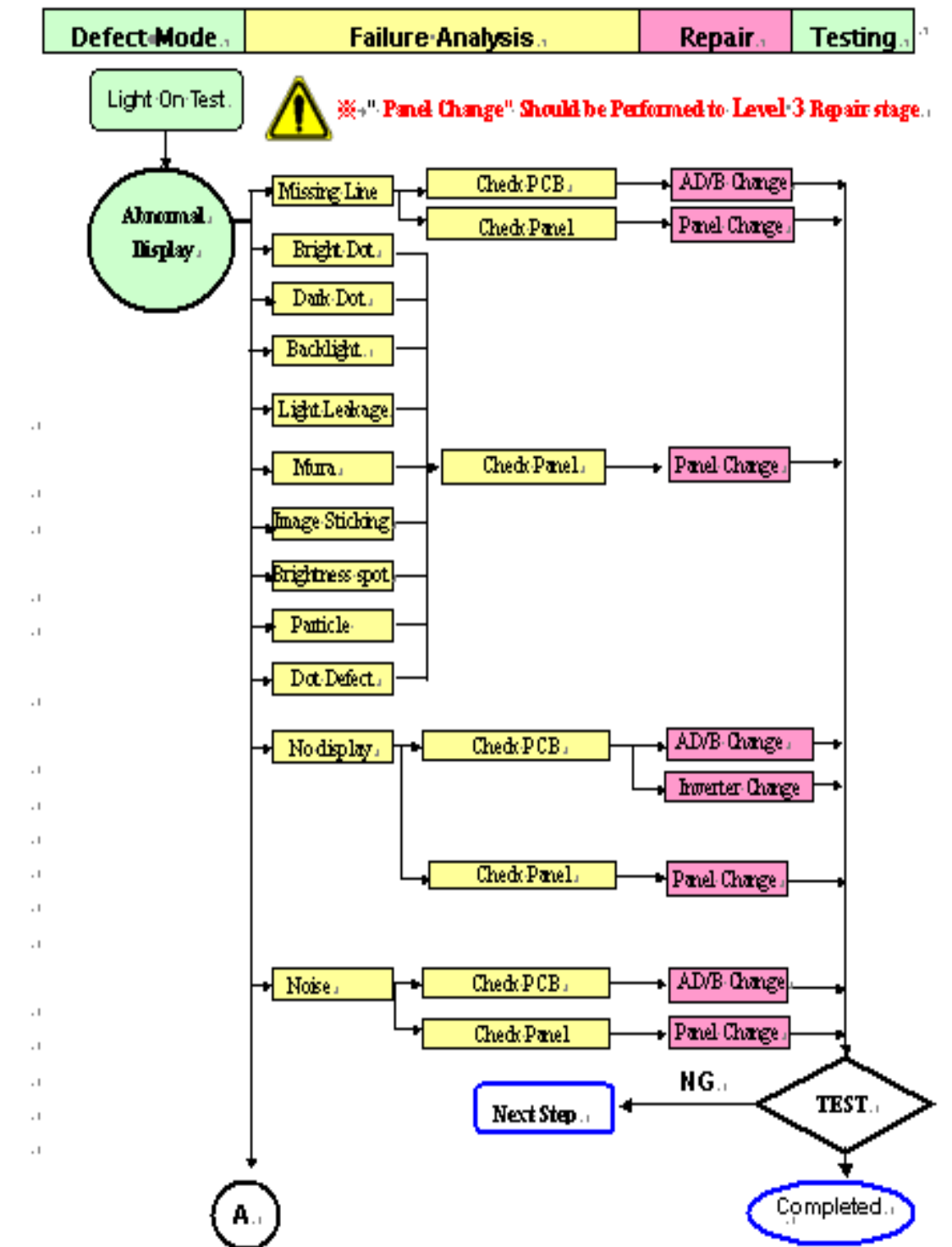
3.2 Assembly Procedures

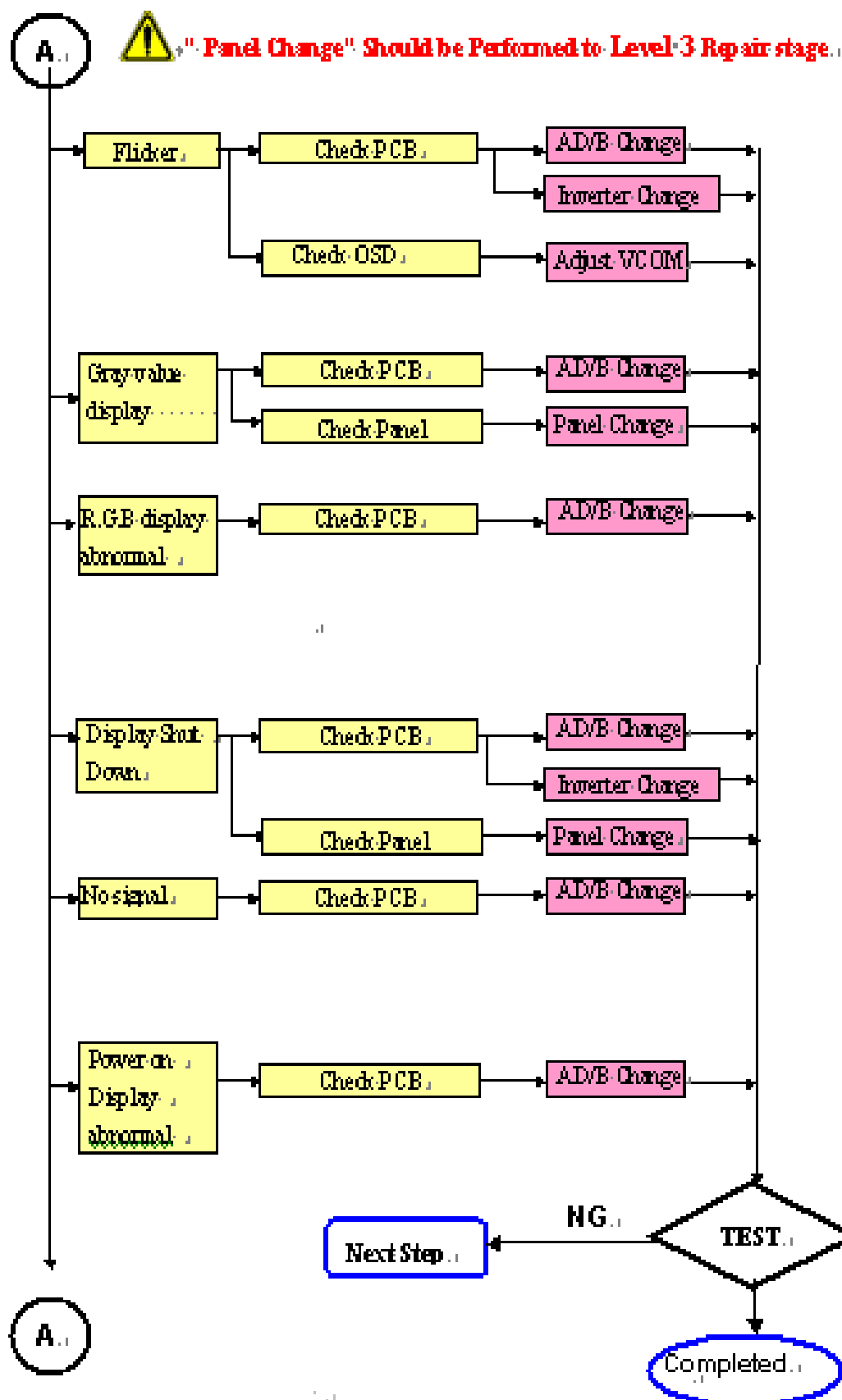
	Place OSD PCBA.
	Fasten 2 screws
	Insert Audit Cable to connectors of OSD PCBA
	Bezel assembly complete.
	Insert FFC.
	Place LCD module.
	Attach the Tinfoil

	<p>Insert new AD PCBA</p>
	<p>Insert 3 pieces of FFC to AD PCBA</p>
	<p>. Insert new Power PCBA</p>
	<p>Fasten 4 fixed screws of Power PCBA</p>
	<p>Insert 4 pieces of Backlight wires</p>
	<p>Fasten 5 screws</p>
	<p>Join the cover hooks of X-PCB and fasten the screw</p>
	<p>Fasten 4 screws</p>

	Place Rear Cover
	Join hooks of Rear Cover with Bezel
	Fasten 5 screws
	Place Stand Assy. Fasten 6 screws
	Insert Stand Cover
	Have the hook latched

4.1 Abnormal Display Troubleshooting

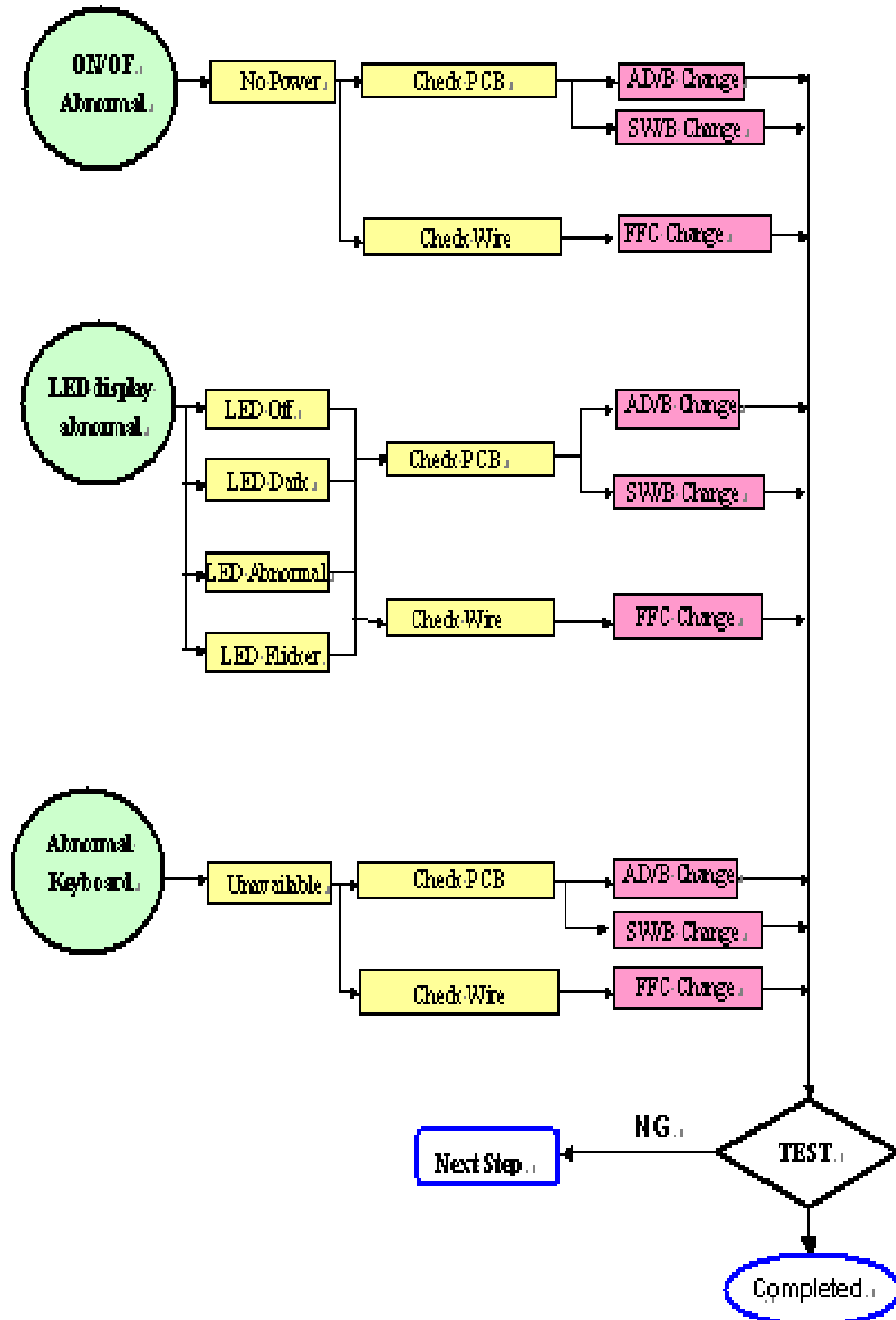




4.2 Abnormal (ON/OFF, LCD display, Keyboard) Troubleshooting



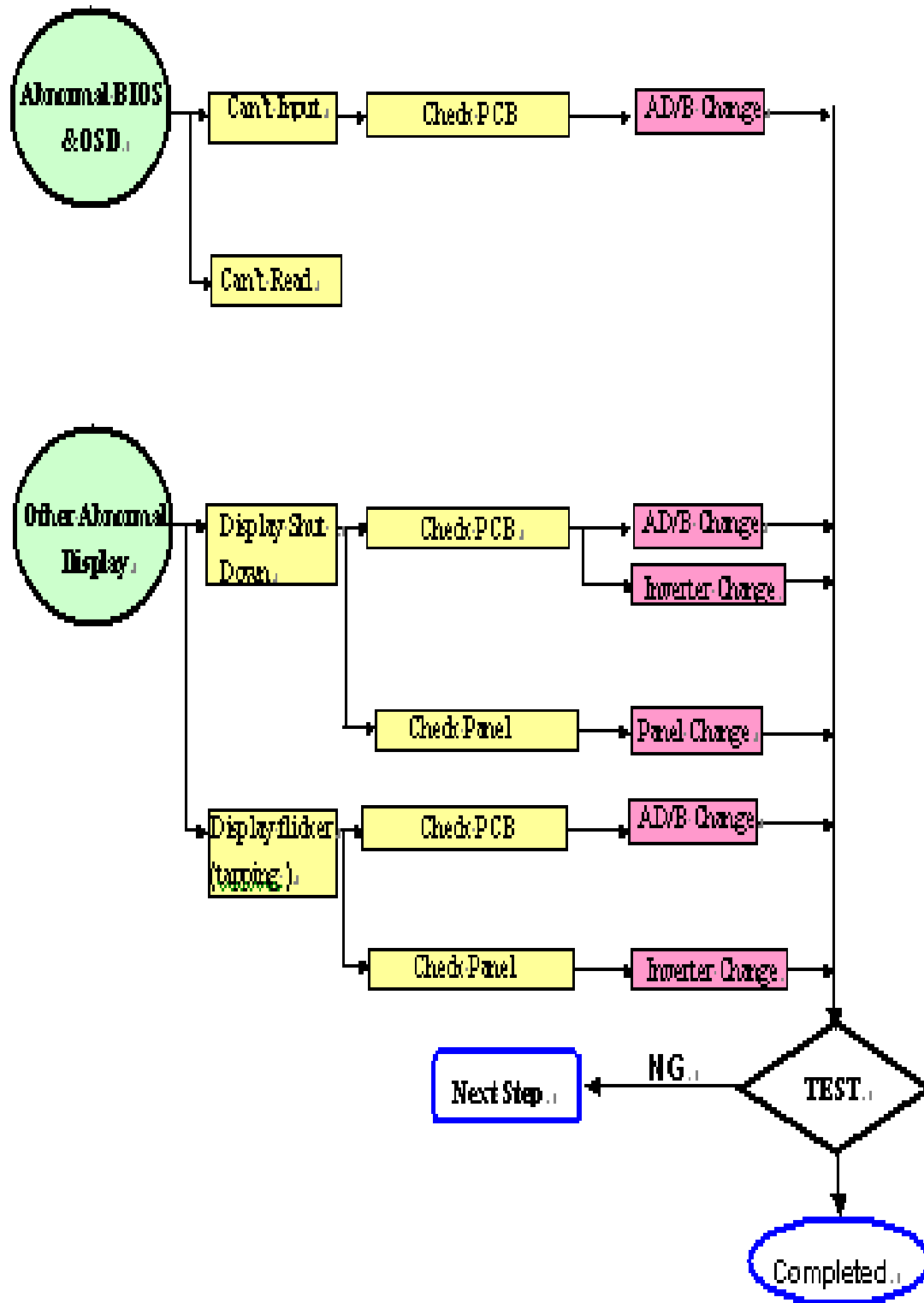
※ "Panel Change" Should be Performed to Level 3 Repair stage.



4.3 Abnormal (BIOS, OSD, Other Display) Troubleshooting



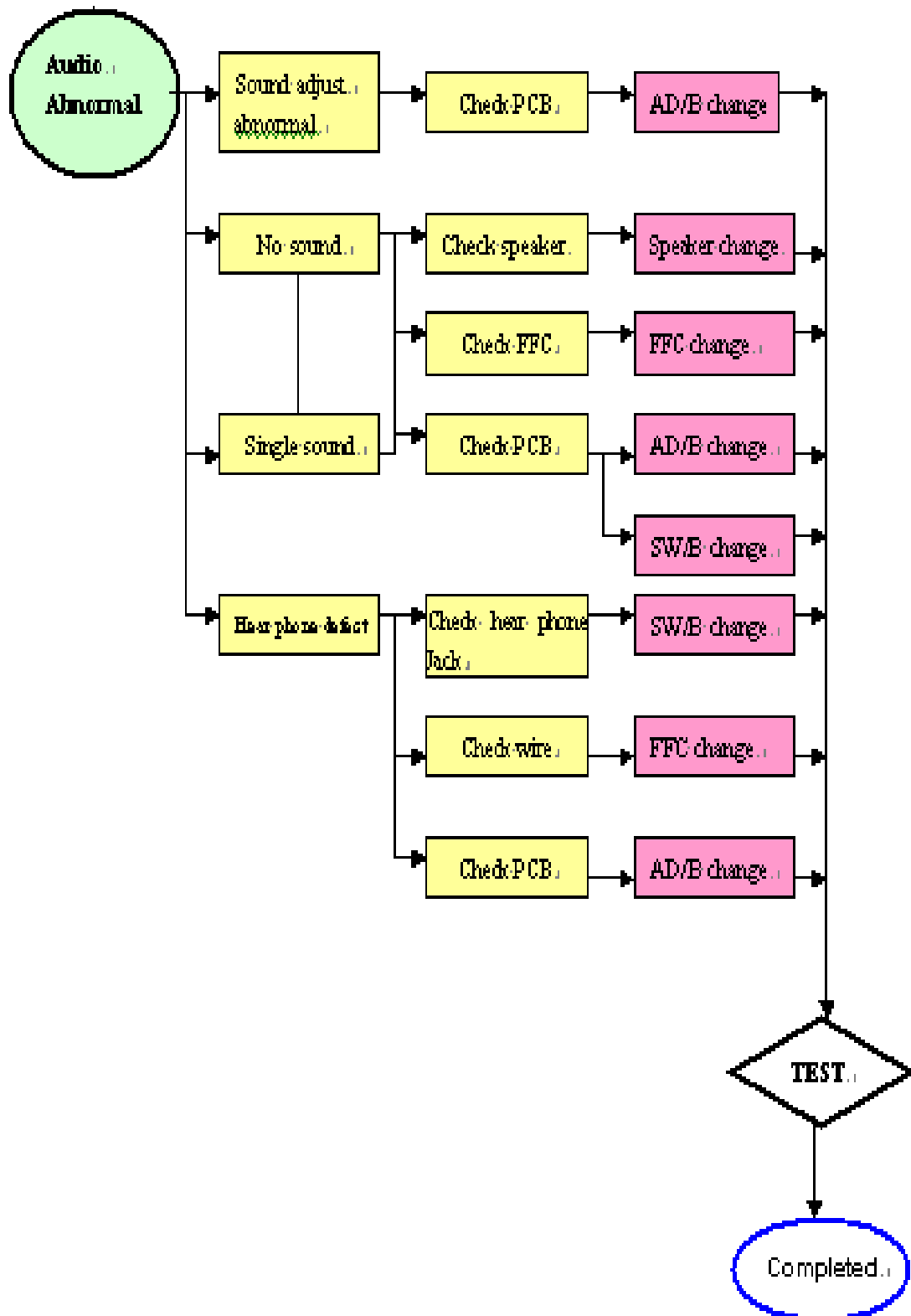
※ "Panel Change" Should be Performed at Level-3 Repair stage.



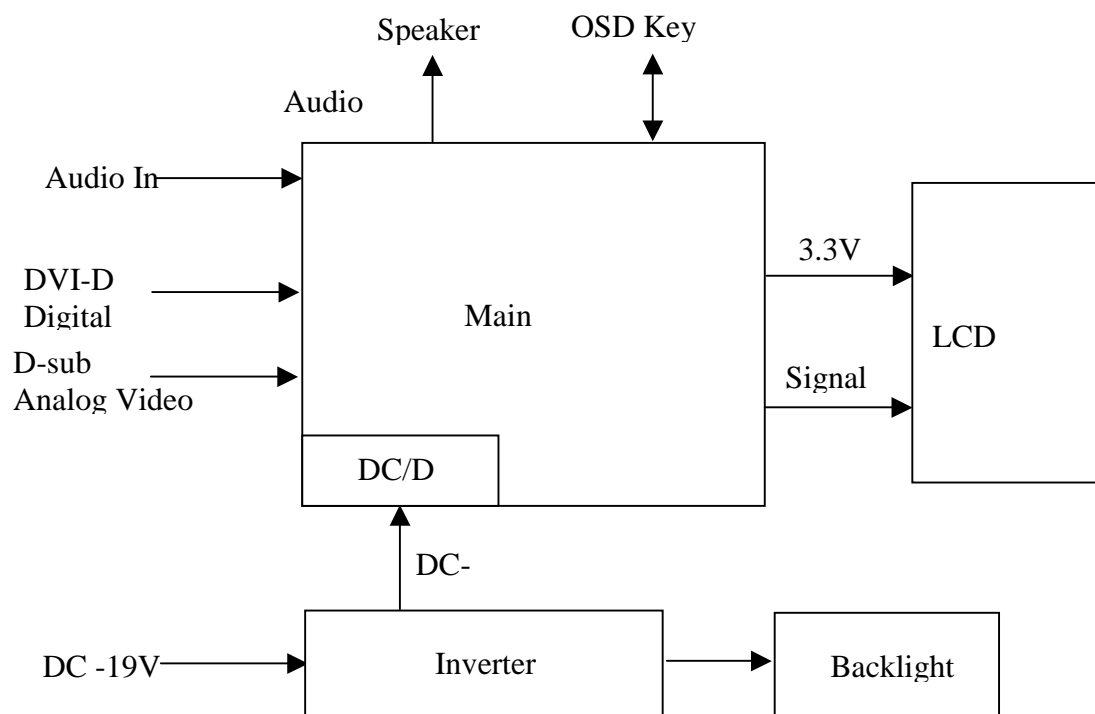
4.4 Audio Abnormal Troubleshooting



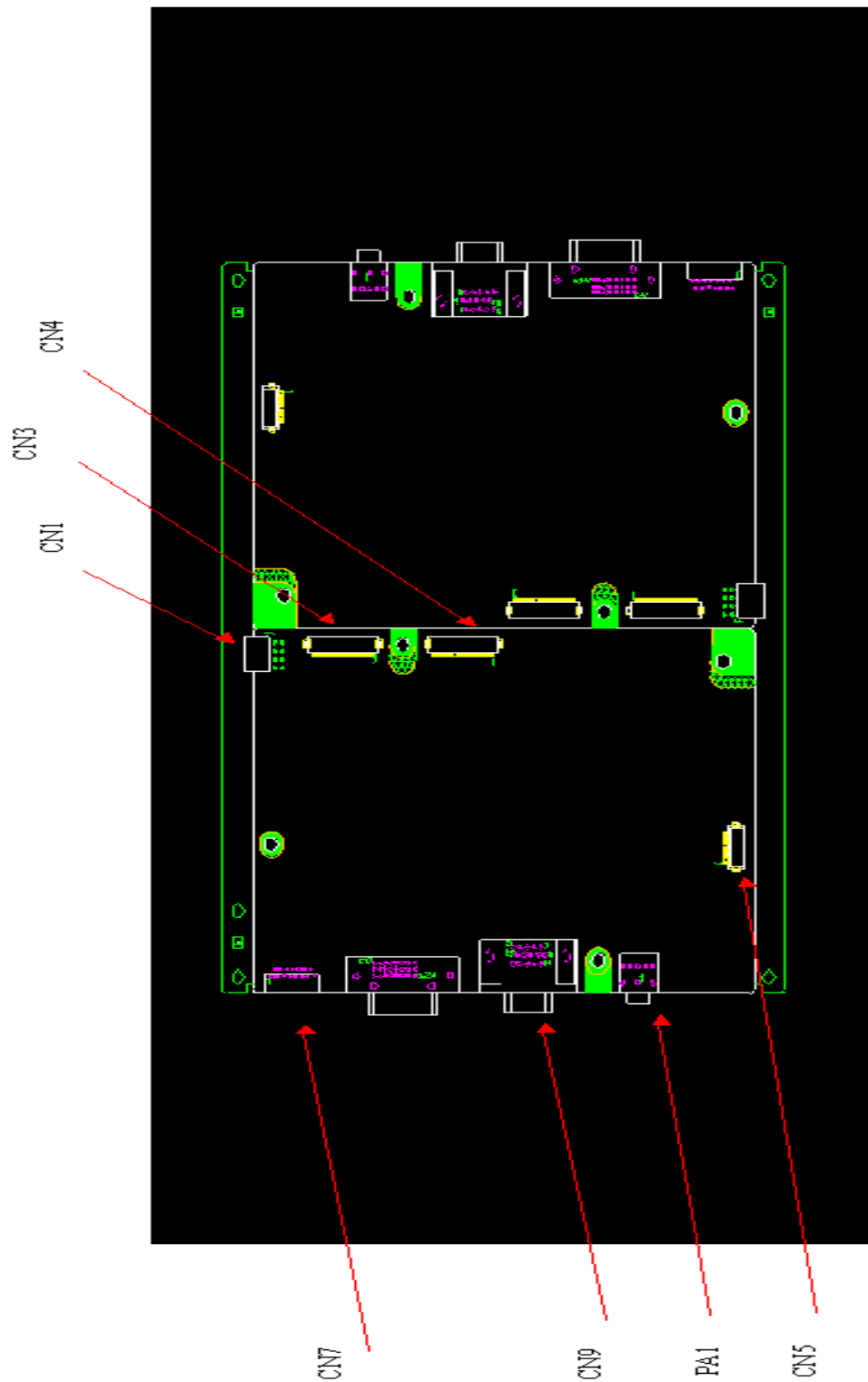
※ "Panel Change" Should be Performed at Level 3 Repair stage.



5.1 Function block Diagram



5.2 Connector Location



5.3 Main Board Pin Assignment Introduction

5.3.1 CN1 Pin assignment

Pin No.	Symbol	Description
1	INV_EN	Inverter enable
2	INV_ADJ	Brightness Adjustment
3	GND	Ground
4	GND	Ground
5	VIN_19V	Input source
6	GND	Ground
7	VIN_19V	Input source
8	VIN_19V	Input source

5.3.2 CN3 Pin assignment

Pin No.	Symbol	Description
1	ESTH	EVEN PATH STAR PULSE
2	GND	GROUND
3	EB2P	EVEN PATH BLUE DATA BIT
4	EB2N	EVEN PATH BLUE DATA BIT
5	EB1P	EVEN PATH BLUE DATA BIT
6	EB1N	EVEN PATH BLUE DATA BIT
7	EB0P	EVEN PATH BLUE DATA BIT
8	EB0N	EVEN PATH BLUE DATA BIT
9	GND	GROUND
10	EG2P	EVEN PATH GREEN DATA BIT
11	EG2N	EVEN PATH GREEN DATA BIT
12	EG1P	EVEN PATH GREEN DATA BIT
13	EG1N	EVEN PATH GREEN DATA BIT
14	EG0P	EVEN PATH GREEN DATA BIT
15	EG0N	EVEN PATH GREEN DATA BIT
16	GND	GROUND
17	GMA10	GAMMA VOLTAGE
18	GMA9	GAMMA VOLTAGE
19	GMA8	GAMMA VOLTAGE
20	GMA7	GAMMA VOLTAGE
21	GMA6	GAMMA VOLTAGE
22	VSA	DATA IC VOLTAGE

23	VSA	DATA IC VOLTAGE
24	VSA	DATA IC VOLTAGE
25	VSA	DATA IC VOLTAGE
26	GMA5	GAMMA VOLTAGE
27	GMA4	GAMMA VOLTAGE
28	GMA3	GAMMA VOLTAGE
29	GMA2	GAMMA VOLTAGE
30	GMA1	GAMMA VOLTAGE
31	GND	GROUND
32	ECLKP	EVEN PATH CLOCK
33	ECLKN	EVEN PATH CLOCK
34	GND	GROUND
35	ER2P	EVEN PATH RED DATA BIT
36	ER2N	EVEN PATH RED DATA BIT
37	ER1P	EVEN PATH RED DATA BIT
38	ER1N	EVEN PATH RED DATA BIT
39	ER0P	EVEN PATH RED DATA BIT
40	ER0N	EVEN PATH RED DATA BIT

5.3.3 CN4 Pin assignment

Pin No.	Symbol	Description
1	OB2P	ODD PATH BLUE DATA BIT
2	OB2N	ODD PATH BLUE DATA BIT
3	OB1P	ODD PATH BLUE DATA BIT
4	OB1N	ODD PATH BLUE DATA BIT
5	OB0P	ODD PATH BLUE DATA BIT
6	OB0N	ODD PATH BLUE DATA BIT
7	GND	GROUND
8	OG2P	ODD PATH GREEN DATA BIT
9	OG2N	ODD PATH GREEN DATA BIT
10	OG1P	ODD PATH GREEN DATA BIT
11	OG1N	ODD PATH GREEN DATA BIT
12	OG0P	ODD PATH GREEN DATA BIT
13	OG0N	ODD PATH GREEN DATA BIT
14	GND	GROUND
15	OCLKP	ODD PATH CLOCK
16	OCLKN	ODD PATH CLOCK

17	GND	GROUND
18	STB	DATA LATCH
19	POL	POLARITH INVERTING
20	GND	GROUND
21	OR2P	ODD PATH RED DATA BIT
22	OR2N	ODD PATH RED DATA BIT
23	OR1P	ODD PATH RED DATA BIT
24	OR1N	ODD PATH RED DATA BIT
25	OR0P	ODD PATH RED DATA BIT
26	OR0N	ODD PATH RED DATA BIT
27	OSTH	ODD PATH STAR PULSE
28	GND	GROUND
29	VSD	DATA IC VOLTAGE
30	VSD	DATA IC VOLTAGE
31	VSD	DATA IC VOLTAGE
32	VCOM	PANEL COMMOM VOLTAGE
33	VCOM	PANEL COMMOM VOLTAGE
34	VCOM	PANEL COMMOM VOLTAGE
35	VCOM	PANEL COMMOM VOLTAGE
36	GND	GROUND
37	REP1	PANEL REPAIR LINE
38	REP2	PANEL REPAIR LINE
39	REP3	PANEL REPAIR LINE
40	REP4	PANEL REPAIR LINE

5.3.4 CN5 Pin assignment

Pin No.	Symbol	Description
1	VCM	PANEL COMMOM VOLTAGE
2	VCM	PANEL COMMOM VOLTAGE
3	GND	GROUND
4	REP4	PANEL REPAIR LINE
5	REP3	PANEL REPAIR LINE
6	REP2	PANEL REPAIR LINE
7	REP1	PANEL REPAIR LINE
8	NC	NC
9	GND	GROUND
10	CKV	SCAN IC CLOCK
11	OE	SCAN DATA OUTPUT ENABLE
12	STV	SCAN IC START PULSE
13	VGD	SCAN IC VOLTAGE
14	VGD	SCAN IC VOLTAGE
15	PANEL_VGL	PANEL DRIVING VOLTAGE
16	PANEL_VGL	PANEL DRIVING VOLTAGE
17	GND	GROUND
18	GND	GROUND
19	PANEL_VHL	PANEL DRIVING VOLTAGE
20	PANEL_VHL	PANEL DRIVING VOLTAGE

5.3.5 CN7 Pin assignment

Pin No.	Symbol	Description
1	GND	GROUND
2	GND	GROUND
3	GND	GROUND
4	AUDIO/L-	AUDIO OUTPUT
5	AUDIO/L+	AUDIO OUTPUT
6	AUDIO/R-	AUDIO OUTPUT
7	AUDIO/R+	AUDIO OUTPUT
8	PWR_SW	POWER KEY
9	LED_O	ORANGE LED
10	LED_G	GREEN LED
11	AUTO_ADJ	AUTO ADJUSTMENT
12	SOURCE_SEL	INPUT SOURCE SELECTION
13	KEY_UP	UP KEY
14	KEY_DOWN	DOWN KEY
15	MENU	MENU KEY

5.3.6 CN9 Pin assignment


Pin No.	Symbol	Description
1	RIN	RED INPUT
2	GIN	GREEN INPUT
3	BIN	BLUE INPUT
4	GND	GROUND
5	GND	GROUND
6	RGN	RED INPUT GROUND
7	GGN	GREEN INPUT GROUND
8	BGN	BLUE INPUT GROUND
9	VGA_5V	VGA INPUT 5V
10	GND	GROUND
11	GND	GROUND
12	VGA_SDA	I2C
13	VGA_HS	H-SYNC
14	VGA_VS	V-SYNC
15	VGA_SCL	I2C

FRU (Field Replaceable Unit) List

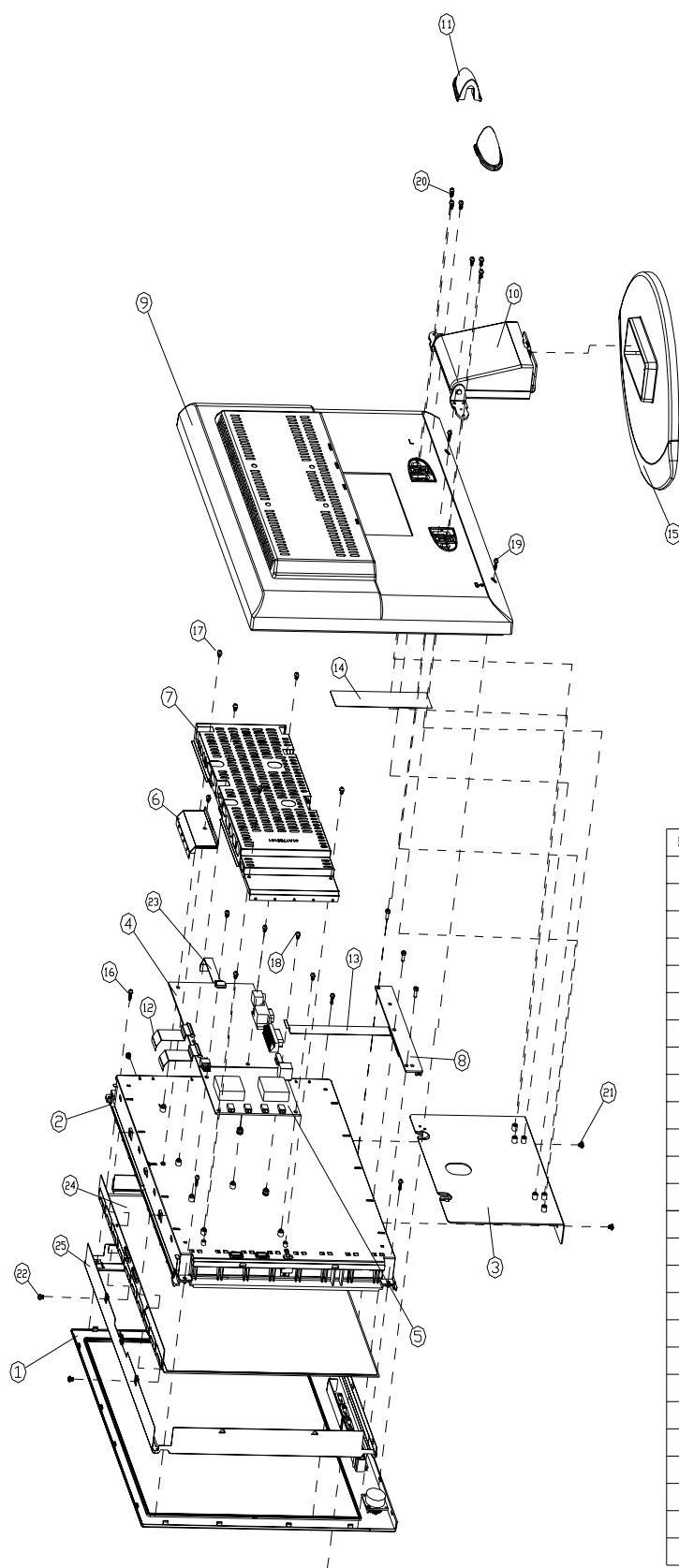
Chapter 6

Part List

Picture	Partname	Description	Vendor Part No.
	Adapter	Adaptor(AC/DC),60W,19V,3.16A,DA-60F19-AB,ASIAN	2719060195
	FUNCTION BUTTON BOARD	PCBA For A170E1-T,A170E1-H01-K,X7,Rigid,103-01	35A17K0110
	INVERTER BOARD	DC/AC Inverter,TWS-444-938,2560V(min)/5mA(Typ)	2714000005
	Main Board	PCBA For A170E1-H,A170E1-H-S,X3,Rigid,105-02	35A17S0123
	CABLES	FFC AD-OSD,15pin,pitch1.0,180*16mm	3241700002
	AUDIO CABLE	28AWG,180 cm	32F2818001

	MONITOR CABLE	427C,30AWG,180cm	32F3018001
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Picture	Partname	Description	Vendor Part No.
	STAND BASE	ABS,modify,origin	40A1792952
	LCD FRONT BEZEL	Bezel Assy	40A1722914
	LCD BACK COVER	Rear Assy	40A1722914
	Hinge Cover	ABS,modify,origin	40A1792957
	MAINBOAR D COVER	Cover_pcb_ad,D-Sub Only	41A1799107
	FFC COVER	Cover-FFC	41A1799102



Item	Part Name	QTY
1	BEZEL ASSY	1
2	BACKLIGHT UNIT	1
3	SUPPORT PLATR ASSY	1
4	AD_PCB_ASSY	1
5	POWER_PCB_ASSY	1
6	COVER_FPC	1
7	COVER_AD	1
8	DSD_PCB_ASSY	1
9	COVER_PASTIC	1
10	HINGE_ASSY	1
11	HINGE_COVER	2
12	FFC	2
13	DSD_FFC	1
14	AL_TAPE	1
15	STAND_BOTTOM_ASSY	1
16	SCREW D3*8L	4
17	SCREW M3*4L	2
18	SCREW M3*4L	5
19	SCREW D3*8L	2
20	SCREW M3*6L	6
21	SCREW M3*4L	2
22	SCREW M3*4L	3
23	FFC	2
24	TFT-PANEL	1
25	Metal Frame Front	1

Chapter 7

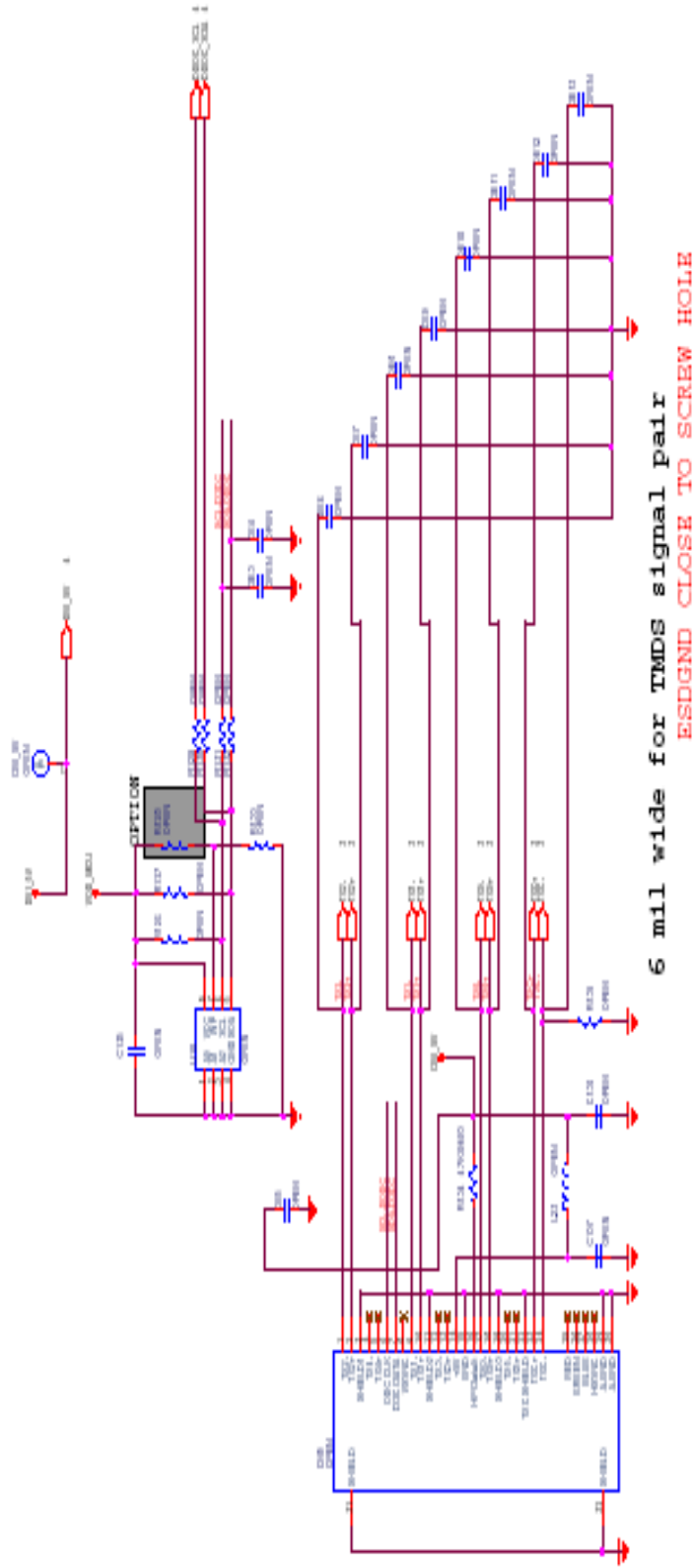
The diagram illustrates a complex electrical control system. At the top, there are two main functional areas:

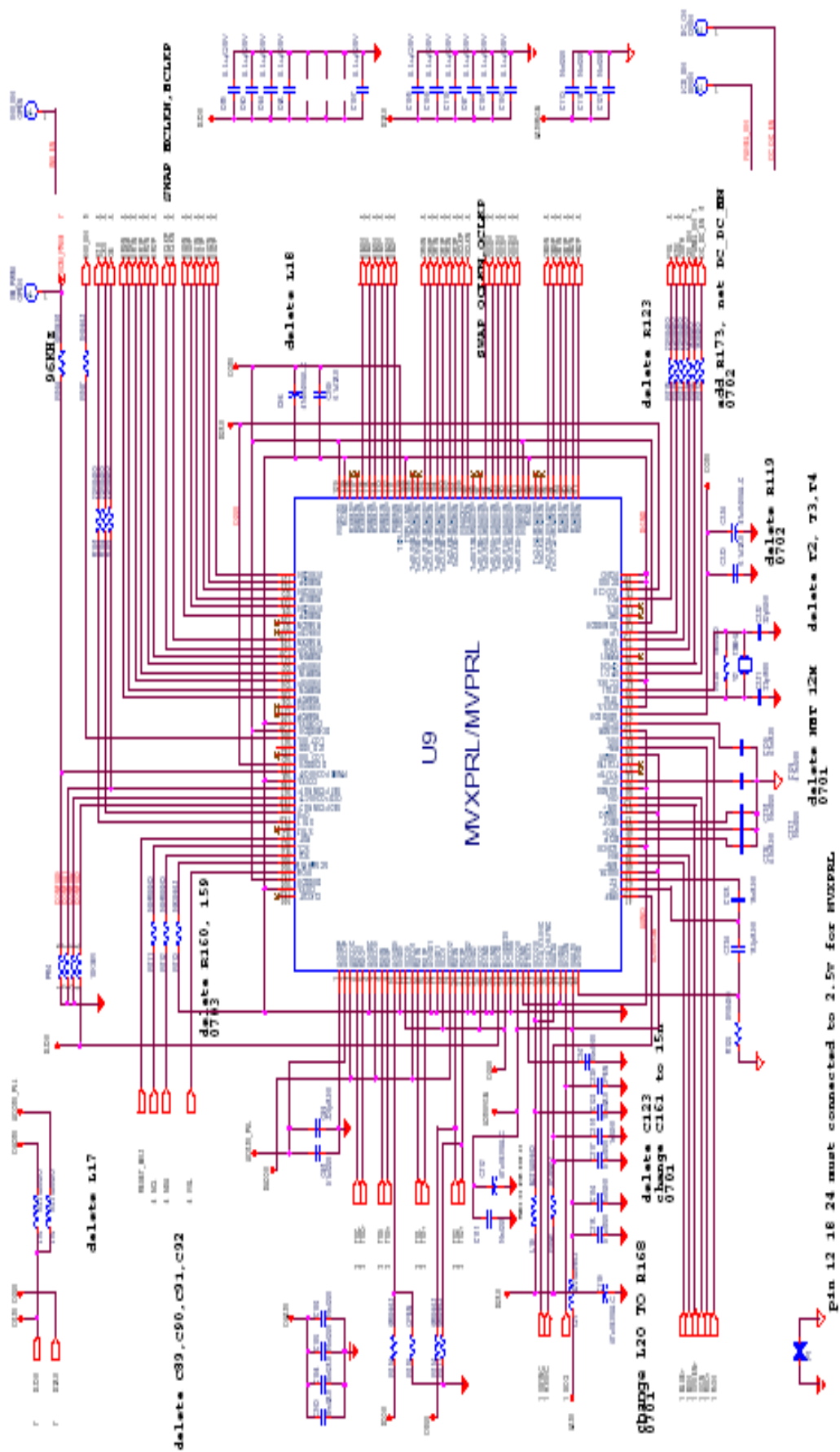
- OPTION Section:** This area contains several relay units (R145, R146, R147) and associated wiring. It includes components like C138, C139, C140, C141, C142, C143, C144, C145, C146, C147, C148, C149, C150, C151, C152, C153, C154, C155, C156, C157, C158, C159, C160, C161, C162, C163, C164, C165, C166, C167, C168, C169, C170, C171, C172, C173, C174, C175, C176, C177, C178, C179, C180, C181, C182, C183, C184, C185, C186, C187, C188, C189, C190, C191, C192, C193, C194, C195, C196, C197, C198, C199, C200.
- DELETE Section:** This section includes components like R145, R146, R147, R148, R149, R150, R151, R152, R153, R154, R155, R156, R157, R158, R159, R160, R161, R162, R163, R164, R165, R166, R167, R168, R169, R170, R171, R172, R173, R174, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188, R189, R190, R191, R192, R193, R194, R195, R196, R197, R198, R199, R200.

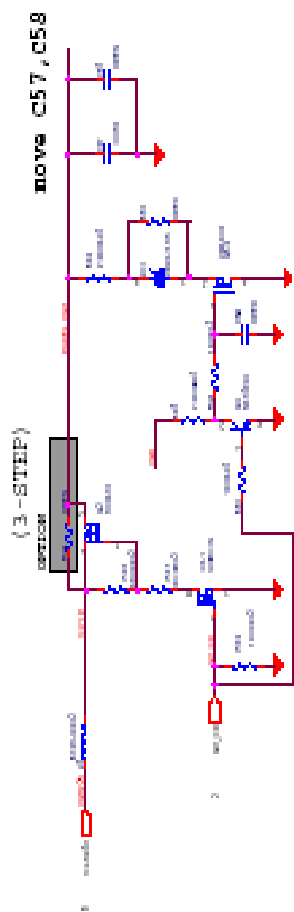
The central part of the diagram features a large rectangular block labeled "DELETE R145, 148 0702". Below this, there is a section labeled "MOVE R146, R147". To the right of the central block, there is a section labeled "DELETE R153 DELETE R154".

The bottom left corner shows a power supply section with a transformer and various resistors and capacitors. The bottom right corner shows a motor control section with a motor and associated wiring.

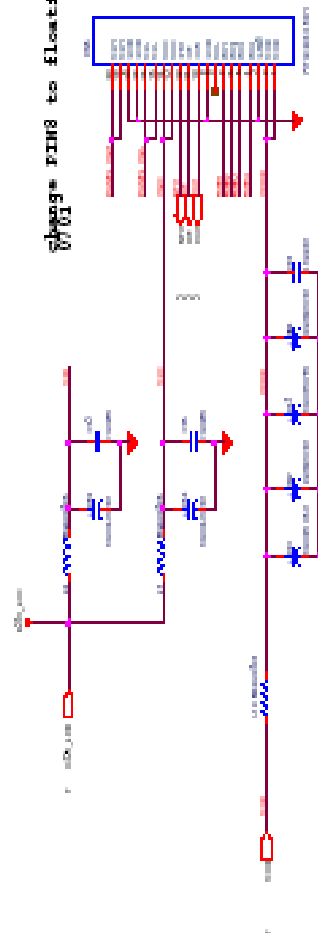
At the very bottom, there is a label "ESDEND CLOSE TO SCREW HOLE" in red text.





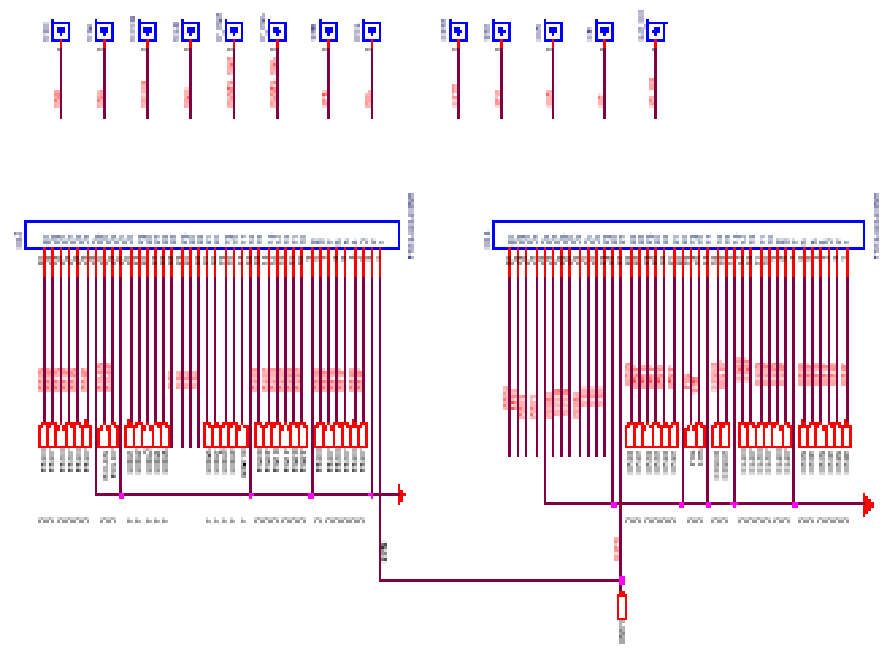
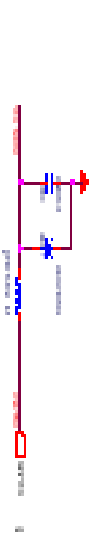
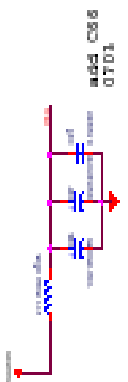


change PIN8 to floating

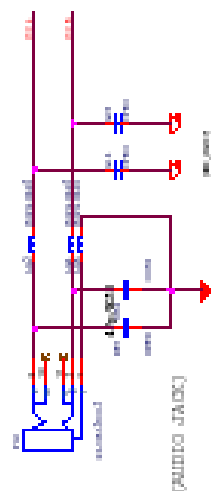
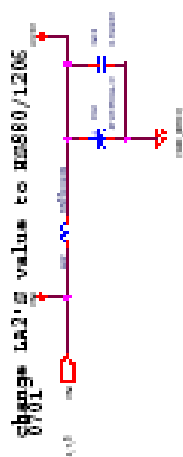


[X-BOARD INTERFACE]

add C63, C64
D70.3



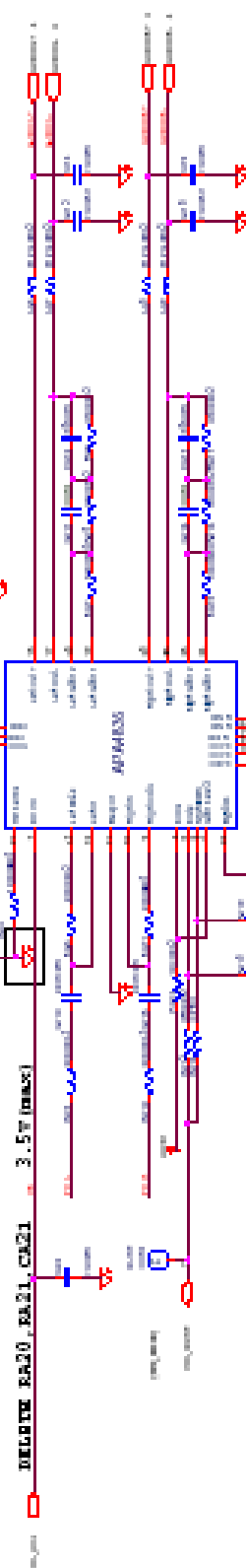
[X-BOARD INTERFACE]



ESDEND CLOSE TO SCREW HOLE

CORRECT HP DETECT TO GND 0801

TO HEAD PHONE JACK



RA3, RA18 OPEN, CHANGED
0801

[TO STRAPER]

