

Acer V193W
Service Guide
(for NT68167)

Service Guide Version and Revision

[illegible]

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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	Remind 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 BASIC CONFIGURATION 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 note 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.

Notice:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibility of the user to correct such interference.

As 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. Dangerous 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 manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are 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. 5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.

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 on 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.

Table Of Contents

Chapter 1	Monitor Features	7
	Introduction	7
	Monitor Block Diagram	7
	LCD Monitor General Specification	8
	Factory preset modes	9
	Connector Information	9
	Main Board Diagram	10
	Power Board Diagram	10
	Software Flow chart	11
Chapter 2	LCD Panel Features	12
	General Features	12
	Electrical Characteristics	12
	BackLight Unit	13
	Panel Block Diagram	13
	Optical Characteristics	14
	LVDS pin assignment	15
Chapter 3	Operating Instructions	16
	Installation	16
	Attaching/Removing the Base	16
	Front Button Controls	17
	eColor Management (OSD)	18
	How to Adjust a Setting	19
	OSD Message	22
	Factory Mode OSD	23
Chapter 4	Machine Disassembly	25
	Disassembly Procedure	25
Chapter 5	Troubleshooting	29
Chapter 6	FRU (Field Replacement Unit) List	34
	Exploded Diagram	34
	Key components list	35
Chapter 7	Schematic Diagram	37
Chapter 8	PCB Layout	45

Monitor Features

Chapter 1

Introduction

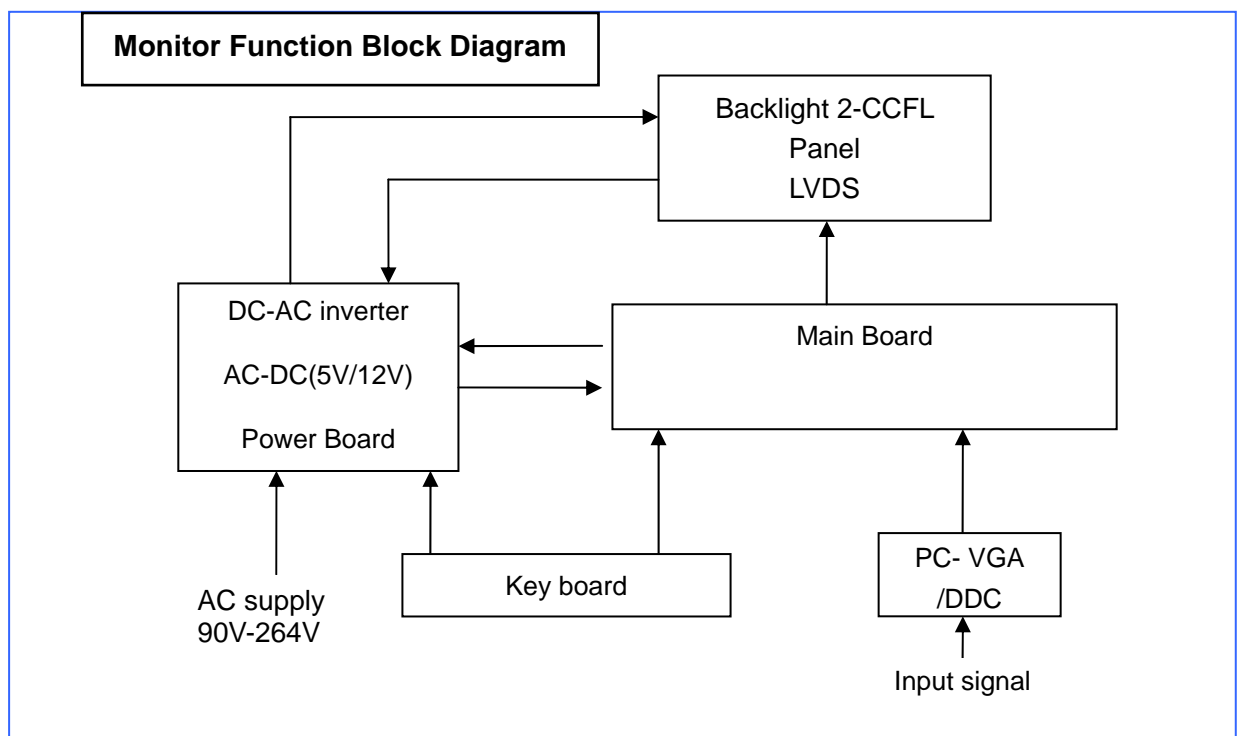
This specification defines the requirements for the 19" MICROPROCESSOR based Multi-mode supported high resolution color LCD monitor. This monitor can be directly connected to general 15-pin D-sub VGA connector, also supports VESA DPMS power management and plug & play function.

The LCD monitor is designed with the latest LCD technology to provide a performance oriented product with no radiation. This will alleviate the growing health concerns. It is also a space saving design, allowing more desktop space, and comparing to the traditional CRT monitor, it consumes less power and gets less weight in addition MTBF target is 50k hours or more.

Monitor Block Diagram

The LCD MONITOR will contain a main board, a power board, and key board which house the flat panel control logic, brightness control logic and DDC.

The power board will provide AC to DC Inverter voltage to drive the backlight of panel and the main board chips each voltage.



LCD Monitor General Specification

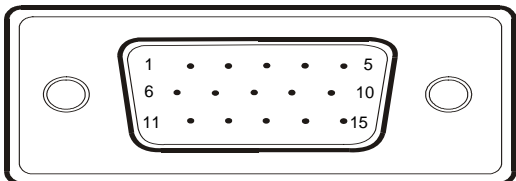
Model	ACER	B/V193W
LCD Panel	Driving system	TFT Color LCD
	Active Display Area	408.24 (H) x 255.15 (V)
	Pixel pitch	0.2835(H) x 0.2835(W)
	Contrast Ratio	800 : 1
	Response time	5ms
	Luminance of White	300(Typ.) cd/m ²
Input	Video signal	R, G, B Analog D-Sub 15pin interface,
	Separate Sync.	H/V TTL
	H-Frequency	30kHz – 80kHz
	V-Frequency	55-75Hz
	Dot Clock	140MHz(max)
Viewing angle	(H)160 (V) 160(Type)	
Display Colors	16.7M	
Display mode	1440 x 900 @75Hz	
EPA ENERGY STAR®	ON Mode	< 22.7W
	Saving/OFF Mode	< 1W
Power Source	90 V ~ 240 V, 50 ± 3Hz, 60 ± 3Hz	
Environmental Considerations	Operating Temp: 0° to 40°C Storage Temp: -30° to 65°C Operating Humidity: 0% to 90% Storage Humidity: 0% to 90%	
Peak surge current	< 55A peak at 240 VAC and cold starting	
Power line surge	No advance effects (no loss of information or defect) with a maximum of 1 half-wave missing per second	

Factory preset modes

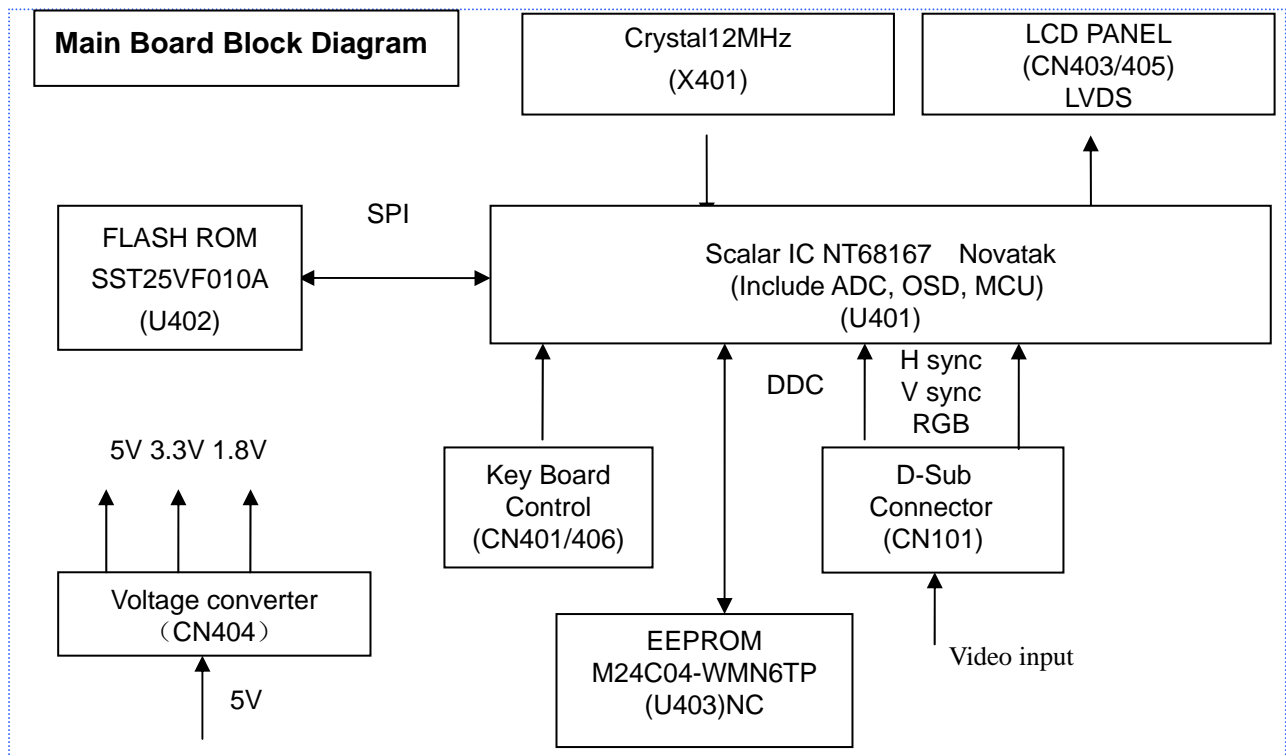
Mode	Resolution
VGA	640 x 480@60Hz
	640 x 480@72Hz
	640 x 480@75Hz
SVGA	800 x 600@56Hz
	800 x 600@60Hz
	800 x 600@72Hz
	800 x 600@75Hz
XGA	1024 x 768@60Hz
	1024 x 768@70Hz
	1024 x 768@75Hz
VESA	1152 x 864@75Hz
	1280 x 960@60HZ
	1280 x 720@60HZ
	1280 x 768@60HZ
	1280 x 768@75HZ
SXGA	1280 x 1024@60Hz
	1280 x 1024@75Hz
WXGA	1360 x 768@60HZ
	1440 x 900@60Hz
	1440 x 900@75Hz

Connector Information

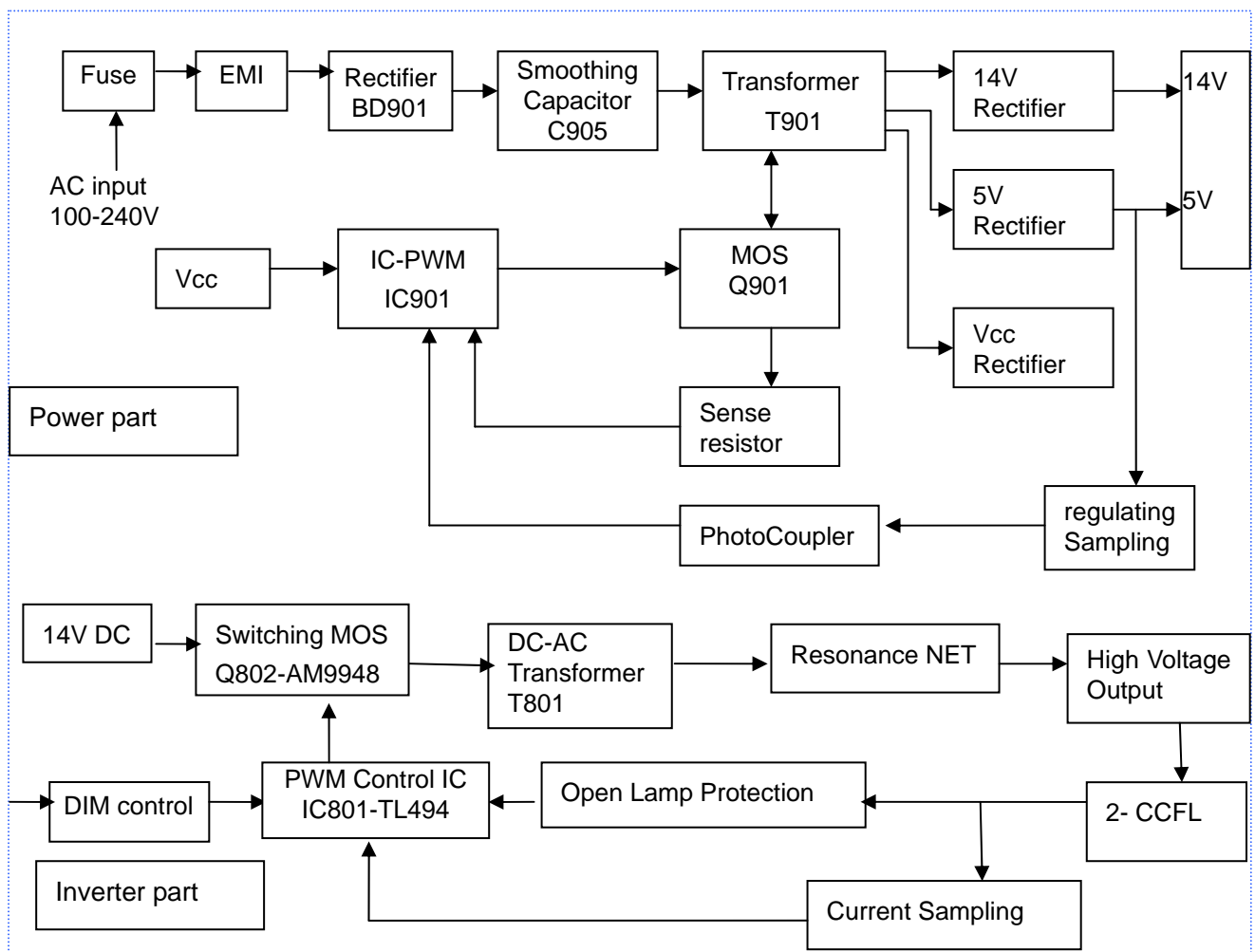
Input Signal Connector---- D-Sub 15pin Connector

Pin No.	Description	Pin No.	Description
1.	Red Input	9.	+5VDC
2.	Green Input	10.	GND
3.	Blue Input	11.	RS232/GND
4.	RS232/GND	12.	SDA- DDC-Serial Data
5.	Connection detect	13.	H Sync
6.	Red GND	14.	V Sync
7.	Green GND	15.	SCL- DDC-Serial Clock
8.	Blue GND		
VGA Connector layout			

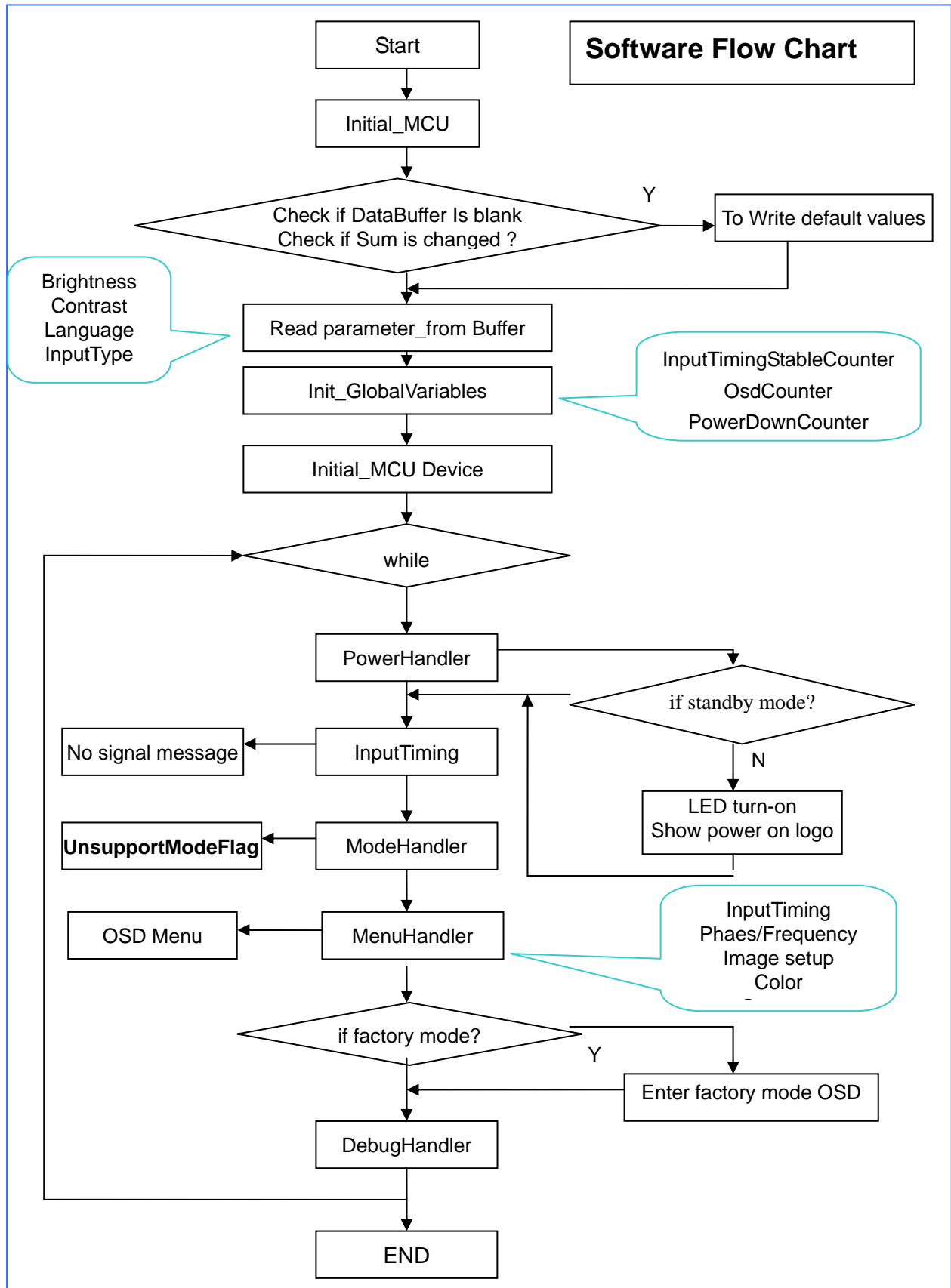
MainBoard Block Diagram



PowerBoard Block Diagram



Software Flow Chart



LCD Panel Features**Chapter 2****General Features**

LTM190BT03 is a 19" wide TFT Liquid Crystal Display module with 2ch-LVDS interface. This module supports 1440 x 900 WXGA+ mode and can display 16.7M colors. High speed response(Typ 5ms).The inverter module for Backlight is not built in. 2 CCFLs(Cold Cathode Fluorescent Lamp).

Items	Specification	Unit	Note
Pixel Pitch	0.2835(H) x 0.2835(W)	mm	
Active Display Area	408.24(H) x 255.15(V)	mm	
Surface Treatment	Haze 25%, Hard-coating(3H)		
Display Colors	16.7M (6bit Hi-FRC)	colors	
Number of Pixels	1440 x 900	pixel	
Pixel Arrangement	RGB vertical stripe		
Display Mode	Normally White		
Luminance of White	250(Typ.)	cd/m ²	

Electrical Characteristics

Item		Symbol	Min.	Typ.	Max.	Unit	Note
Voltage of Power Supply		V _{DD}	4.5	5.0	5.5	V	(1)
LVDS Input Characteristics	Differential Input Voltage for LVDS Receiver Threshold	High	-	-	+100	mV	(2)
		Low	-100	-	-	mV	
	LVDS skew	t _{SKREW}	-300		300		(3)
	Differential input voltage	V _{ID}	200		600	mV	(4)
	Input voltage range (single-ended)	V _{IN}	0		2.4	V	(4)
	Common mode voltage	V _{CM}	0+ V _{ID} /2	1.2	2.4- V _{ID} /2	V	(4)
Current of Power Supply	(a) Black	I _{DD}	-	850	-	mA	(5),(6)
	(b) White		-	550	-	mA	
	(c) Dot		-	1000	1200	mA	
Vsync Frequency		f _V	56	60	76	Hz	
Hsync Frequency		f _H	52.6	56.4	71.4	kHz	
Main Frequency		f _{DCLK}	48.4	51.9	65.7	MHz	
Rush Current		I _{RUSH}	-	-	3	A	(7)

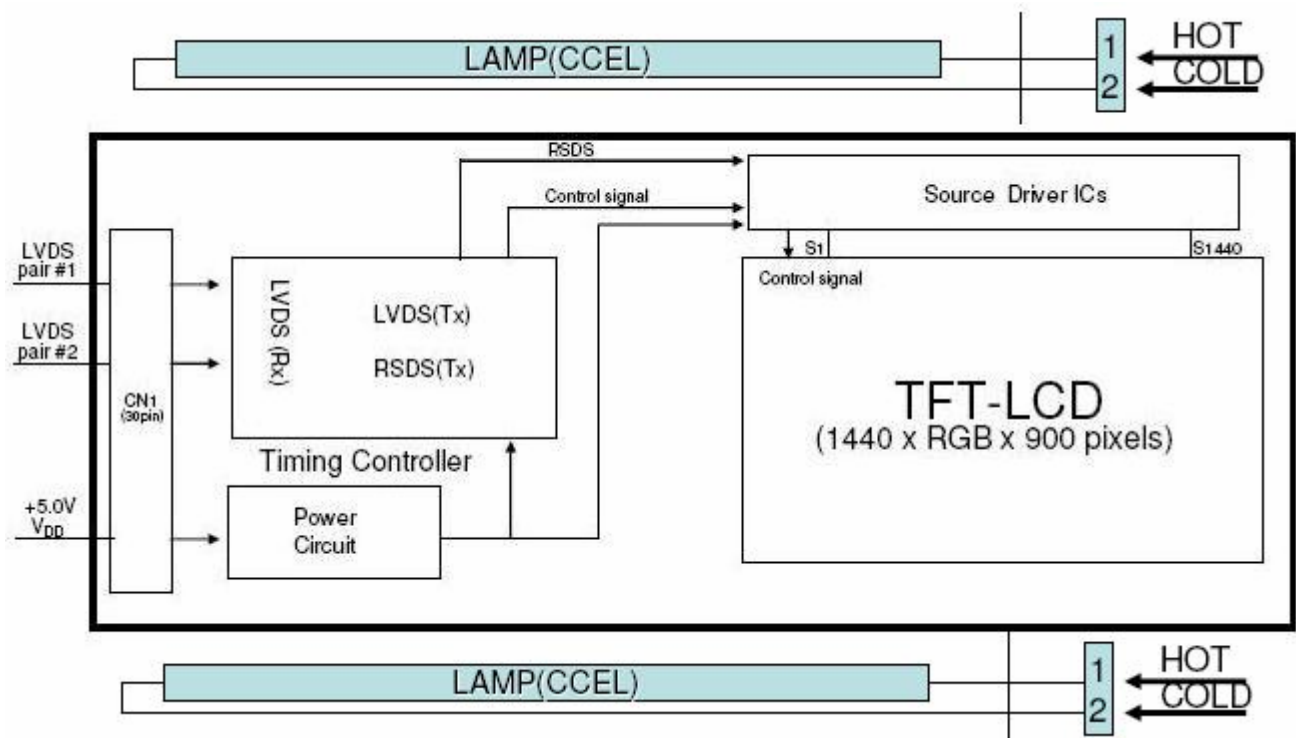
BackLight Unit

The back light unit is an edge - lighting type with 2 CCFLs (Cold Cathode Fluorescent Lamp) The characteristics of two dual lamps are shown in the following tables.

$T_a = 25 \pm 2^\circ\text{C}$

Item		Symbol	Min.	Typ.	Max.	Unit	Note
Lamp Current		I _L	3.0	7.5	8.0	mArms	(1)
Lamp Voltage		V _L	-	700	-	Vrms	
Lamp Frequency		f _L	40	-	60	kHz	(2)
Operating Life Time		Hr	50,000	-	-	Hour	(3)
Inverter waveform	Asymmetry rate	Wasy	-	-	10	%	(4)
	Distortion rate	Wdis	1.2726	1.414	1.5554		
Startup Voltage		Vs	-	-	0℃ : 1,480	Vrms	(5)
					25℃ : 1,170		

Panel Block Diagram for 2 CCFL



Optical Characteristics

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Contrast Ratio (Center of screen)		C/R	Normal $\theta_{L,R}=0$ $\theta_{U,D}=0$ Viewing Angle	600	1000	-		(3) SR-3
Response Time	On/Off	Tr+ Tf		-	5	10	msec	(5) RD-850S
Luminance of White (Center of screen)		Y_L		200	250	-	cd/m2	(6) SR-3
Color Chromaticity (CIE 1931)	Red	Rx		-0.030	0.640	+0.030		(7),(8) SR-3
		Ry			0.330			
	Green	Gx			0.300			
		Gy			0.600			
	Blue	Bx			0.150			
		By			0.060			
	White	Wx			0.313			
		Wy			0.329			
	Red	Ru'		-	0.451	-		
		Rv'		-	0.523	-		
Color Chromaticity (CIE 1976)	Green	Gu'		-	0.125	-		
		Gv'		-	0.563	-		
	Blue	Bu'		-	0.175	-		
		Bv'		-	0.158	-		
	White	Wu'		-	0.198	-		
		Wv'		-	0.468	-		
	White	Wu'		-	0.198	-		
		Wv'		-	0.468	-		
C.G.L	White	$\Delta u'v'$		-	-	0.02		(9)

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Color Gamut		-		-	72	-	%	
Color Temperature		-		-	6500	-	K	
Viewing Angle	Hor.	θ_L	$CR \geq 10$	70	80	-	Degrees	(8) EZ- Contrast
		θ_R		70	80	-		
	Ver.	θ_U		70	80	-		
		θ_D		70	80	-		
Brightness Uniformity (9 Points)		B_{uni}		-	-	25	%	(4) SR-3

LVDS pin assignment

Pin#	Signal Name	Pin#	Signal Name
1	RxOIN0-	2	RxOIN0+
3	RxOIN1-	4	RxOIN1+
5	RxOIN2-	6	RxOIN2+
7	GND	8	RxOCLKIN-
9	RxOCLKIN+	10	RxOIN3-
11	RxOIN3+	12	RxEIN0-
13	RxEIN0+	14	GND
15	RxEIN1-	16	RxEIN1+
17	GND	18	RxEIN2-
19	RxEIN2+	20	RxECLKIN-
21	RxECLKIN+	22	RxEIN3-
23	RxEIN3+	24	GND
25	NC (for test only. Do not connect)	26	NC (for test only. Do not connect)
27	NC (for test only. Do not connect)	28	+5.0V power supply
29	+5.0V power supply	30	+5.0V power supply

Operating Instructions

Chapter 3

Installation

To install the monitor on your host system, please follow the steps below:

1 Connect the video cable

A: Make sure both the monitor and computer are switched off.

B: Connect the VGA video cable to the computer.

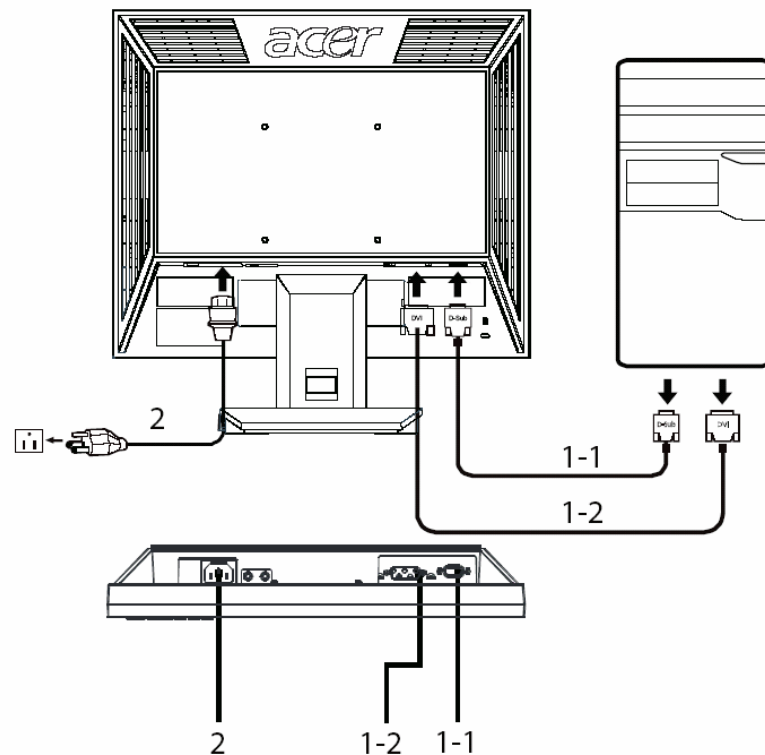
2 Connect the power cord

Connect the power cord to the monitor, then to a properly grounded AC outlet.

3 Turn on the monitor and computer

Turn on the monitor first, then the computer. This sequence is very important.

4 If the monitor does not function properly, please refer to the troubleshooting section to diagnose the problem.



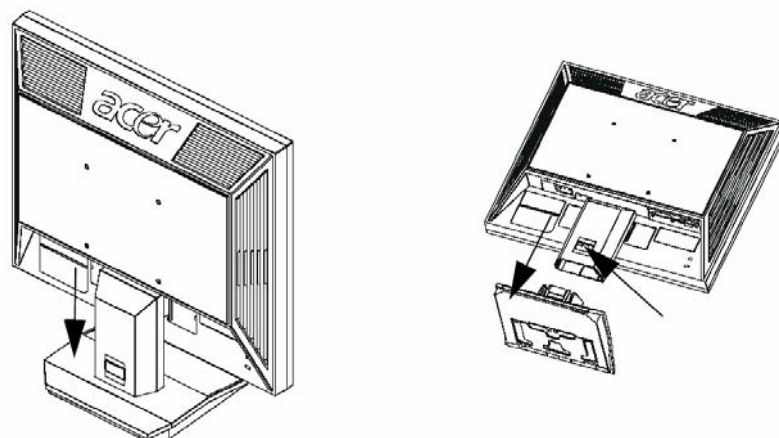
Attaching/Removing the Base

Attaching:

Align the release button on the bottom of the monitor with the corresponding slots on the bottom of the base.

Removing:

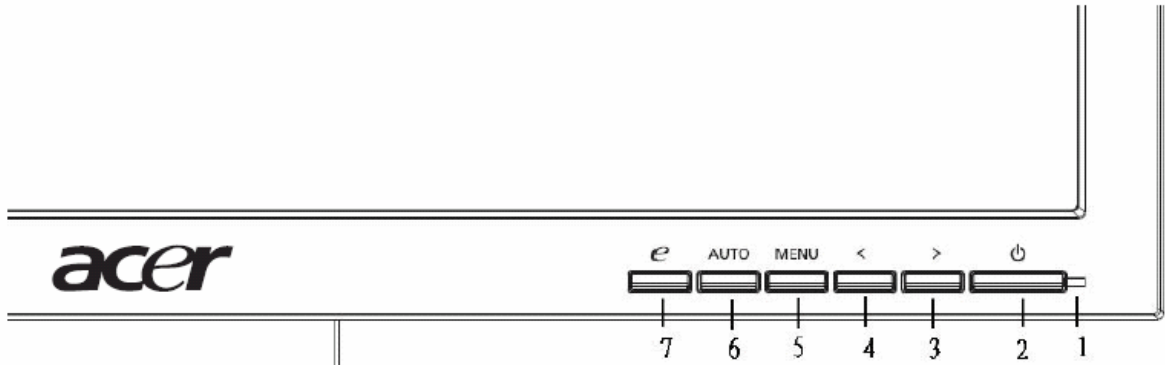
Press the release button as indicated, then pull in the direction of the arrow to remove the base.



Front Button Controls

Press the power button to turn the monitor on or off. The other control buttons are located at front panel of the monitor. By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor position. The power indicator will light up.



1 Power LED: Lights up to indicate the power is turned on.

2 Power Switch: Turn the power on or off.

3.4 < / > : Press < or > to navigate to the desired function, press Enter to select the function. Press < or > to change the settings of the current function.

5 Menu/Enter: Activate the OSD menu when the OSD is off or activate deactivate the adjustment function when the OSD is on.

6 Auto adjust button/Exit:

a. When the OSD menu is active, this button will act as the exit key exit OSD menu).

b. When the OSD menu is inactive, press this button for two seconds to activate the Auto Adjustment function. The Auto Adjustment function is used to set the HPos, VPos, Clock and Focus.

7 Empowering Key/Exit:

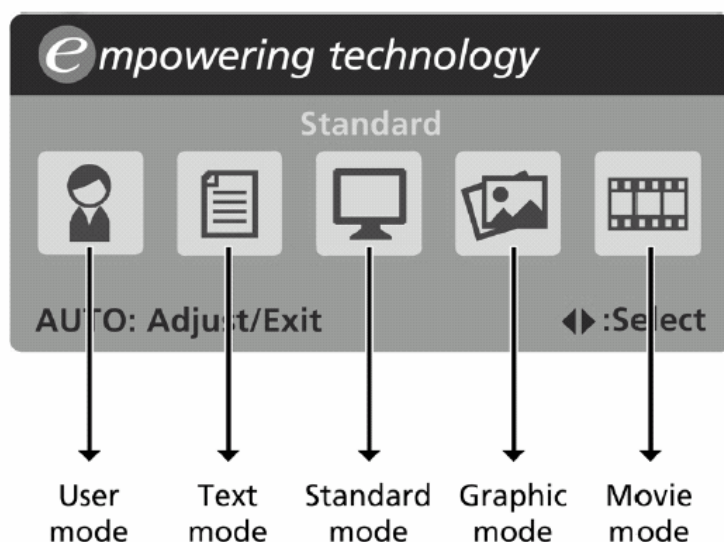
a. When the OSD menu is active, this button will act as the exit key exit OSD menu).

b. When the OSD menu is inactive, press this button to select scenario mode.






NO	Name	Function
1	LED	Power indicator
2	Power Switch	Turn on / turn off.
3	>	Right
4	<	Left
5	Menu	Menu/Enter
6	Auto	Auto Adjustment /Exit
7	e	Empowering Key/Exit

eColor Management (OSD)

- Operation instructions
 - 1 Press the *e* Empowering Key to open the Acer eColor Management OSD and access the scenario modes.
 - 2 Press "<" or ">" to select the mode.
 - 3 Press the Auto-adjust button to confirm the mode and run Auto Adjust.

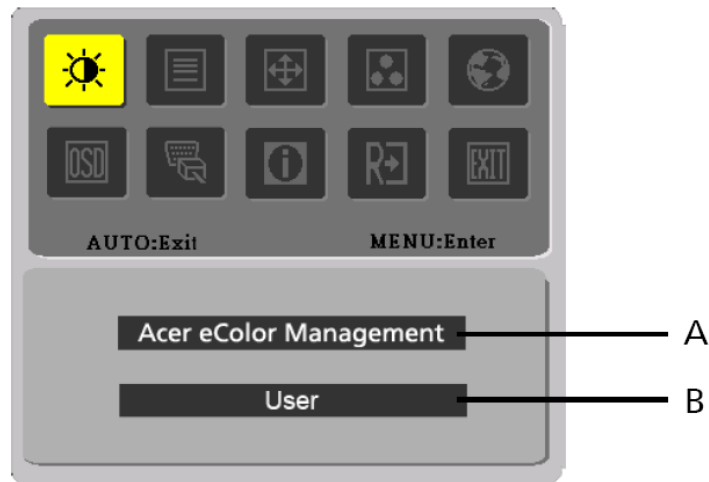


- Features and benefits

Main menu icon	Sub menu item	Description
	User mode	User-defined. Settings can be fine-tuned to suit any situation.
	Text mode	Optimal balance of brightness and contrast to prevent eyestrain. The most comfortable way to read onscreen text.
	Standard mode	Default settings. Reflects native display capability.
	Graphic mode	Enhances colors and emphasizes fine detail. Pictures and photographs appear in vibrant colors with sharp detail.
	Movie mode	Displays scenes in clearest detail. Presents great visuals, even in unsuitably-lit environments.

How to Adjust a Setting

1. Press the MENU-button to activate the OSD window.
 2. Press < or > to select the desired function.
 3. Press the MENU-button to select the function that you want to adjust.
 4. Press < or > to change the settings of the current function.
 5. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-4.
- P/X Series OSD behave
When user press "MENU" button on front bezel



- A. Acer eColor Management
If selected to "Acer eColor Management" item, will appear the Acer eColor" OSD
- B. USER
If selected to "USER" item, will appear the Standard OSD

















I. Only Analog Input Model












II. Only Dual Input Model

Adjusting the picture

Main Menu icon	Sub Menu icon	Sub Menu item	Description
		Contrast	Adjust the contrast between the foreground and background of the screen image
		Brightness	Adjust the background brightness of the screen image
		ACM	ACM (Adaptive Contrast Management)A CM ON/OFF Switch, default "OFF"
		Focus	Adjust picture Focus (available in analog mode only)
		Clock	Adjust picture Clock (available in analog mode only)

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		H. Position	Adjust the horizontal position. (available in Analog mode only)
		V. Position	Adjust the vertical position. (available in Analog mode only)
	N/A	Warm	Set the color temperature to warm white.
	N/A	Cool	Set the color temperature to cool white.
		User /Red	Adjusts Red/Green/Blue intensity.
		User /Green	
		User /Blue	

	N/A	English	Multi-language selection.
	N/A	繁體中文	
	N/A	Deutsch	
	N/A	Francais	
	N/A	Espanol	
	N/A	Italiano	
	N/A	简体中文	
	N/A	日本語	
	N/A	Suomi	
	N/A	Nederlands	EMEA version OSD only
	N/A	Русский	

Main Menu Icon	Sub Menu Icon	Sub Menu Item	Description
		H. Position	Adjust the horizontal position of the OSD.
		V. Position	Adjust the vertical position of the OSD.
		OSD Timeout	Adjust the OSD timeout.
	N/A	Analog	Select input signal from analog (D-Sub)
	N/A	Digital (only Dual-Input Model)	Select input signal from digital(DVI) (only Dual-Input Model)
	N/A	DDC/CI	Turn ON/OFF DDC/CI support
	N/A	Information	Show the resolution, H/V frequency and input port of current input timing.
	N/A	Reset	Clear each old status of Auto-configuration and set the color temperature to Cool.
	N/A	Exit	Save user adjustment and OSD disappear.

OSD Message

a. Outline



b. The Description For OSD Message

Item	Description
Auto Config Please Wait	When Analog signal input, if User Press Hot-Key “Auto”, will show this message, and the monitor do the auto config function.
Input Not Supported	When the Hsync Frequency, Vsync Frequency or Resolution is out of the monitor support range, will show this message. This message will be flying.
Cable Not Connected	Analog-Only Model: When the video cable is not connected, will show this message. This message will be flying.
No Signal	Analog-Only Model: When the video cable is connected, but there is no active signal input, will show this message, then enter power saving.

Logo

When the monitor is power on, the LOGO will be showed in the center, and disappear slowly.



How To Optimize The DOS-Mode

Plug And Play

Plug & Play DDC2B Feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.

The DDC2B is a bi-directional data channel based on the I²C protocol. The host can request EDID information over the DDC2B channel.

This monitor will appear to be non-functional if there is no video input signal. In order for this monitor

to operate properly, there must be a video input signal.

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association (VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signals this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. Pressing a key on the keyboard, or clicking the mouse restores the display.

Using The Right Power Cord

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volts AC.



Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V, and CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.

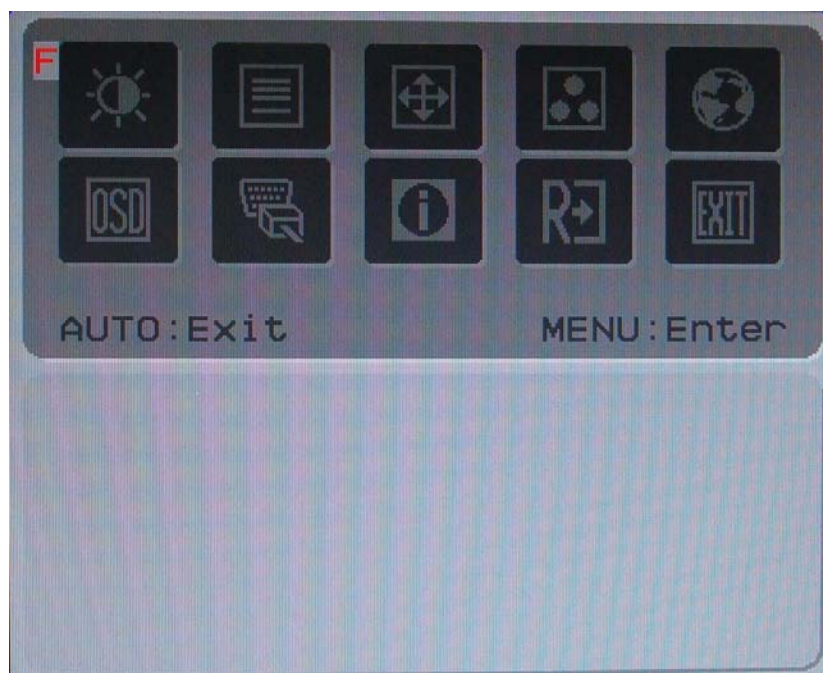
Please note that power supply cord needs to use VDE 0602, 0625, 0821 approval power cord in European countries.

Factory mode OSD

It is necessary that Factory mode is emerged for check the Panel and soft information .

for enter the Factory mode:

Conditions in the power-off, Press  button and hold, press , power on the monitor, then ,press MENU , the monitor will may enter Factory OSD Menu. Then Press MENU , Factory OSD Menu will appear in the screen.




```

ACER 20100405 V0.12
Auto Level
Black Level 128 128
Gain      R122  G123  B122
Offset    R122  G129  B133

Cool      BRI  90    CON  50
          R218  G220  B246
Warm      BRI  90    CON  50
          R253  G243  B246

Burn In: OFF
Register
Information
Return

```

```

ACER 20100405 V0.12
Panel:      8 Bit
SEC-LTM190BT03
Spread Sp.: ON      5
Scaler:     NT68167

Timing:      40
            H: 56KHz  V: 60Hz
            1440x900

Return

```


Machine Disassembly

Chapter 4

This chapter contains step-by-step procedures on how to disassemble the monitor for maintenance.

Disassembly Procedure

1. Remove the cover hinge as the following indicator. (Fig 1)

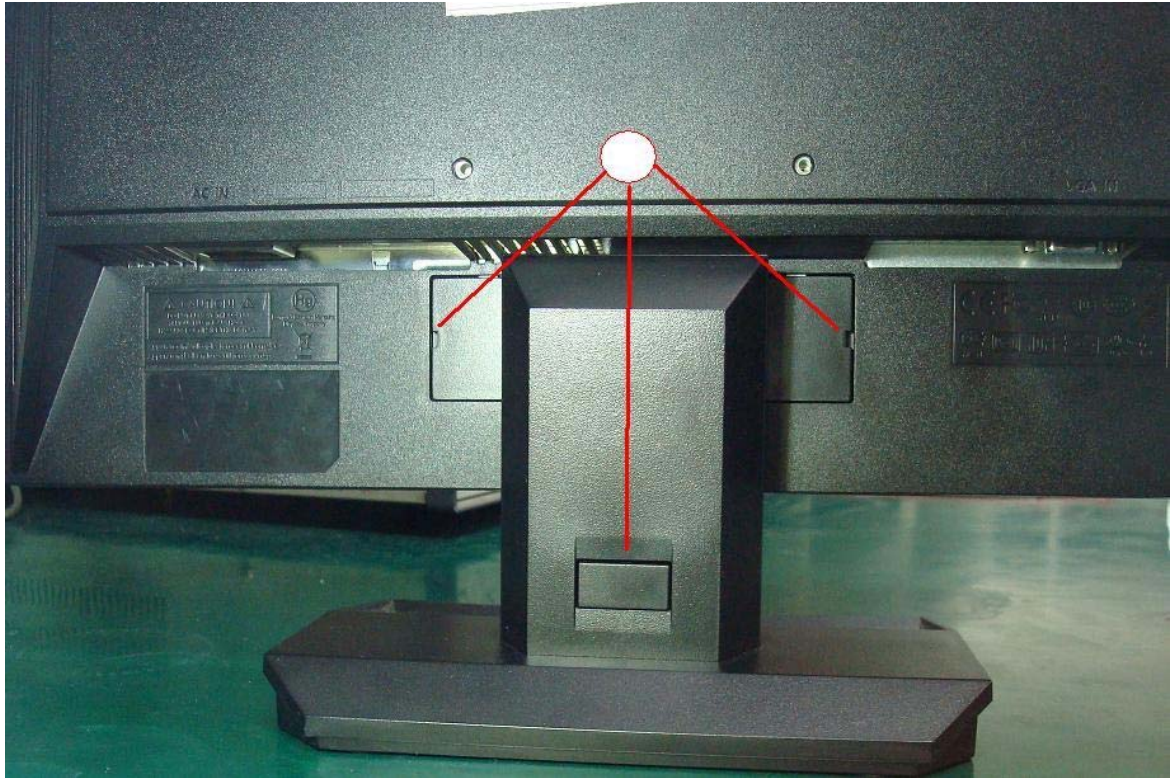


Fig 1

2. Remove the screws as following indicate to release base stand. (Fig 2)

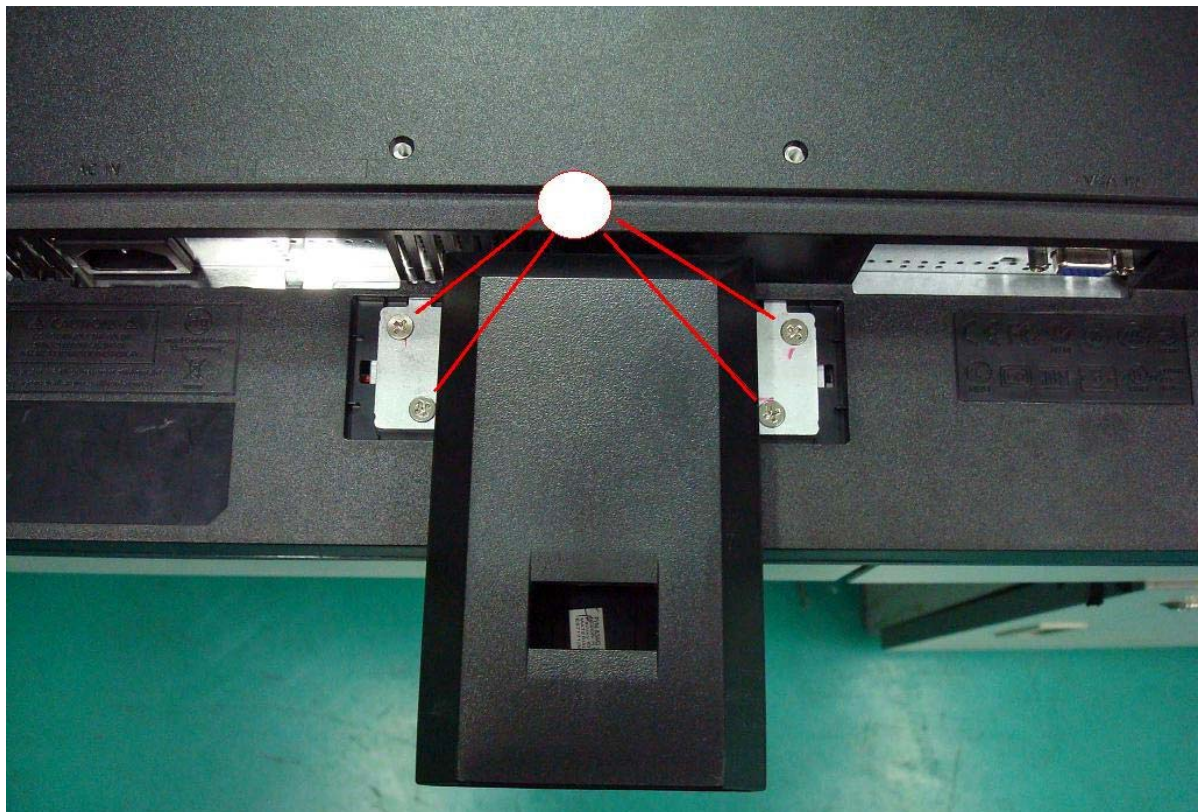


Fig 2

3. Remove the back cover and bezel.key board (Fig 3)



Fig 3

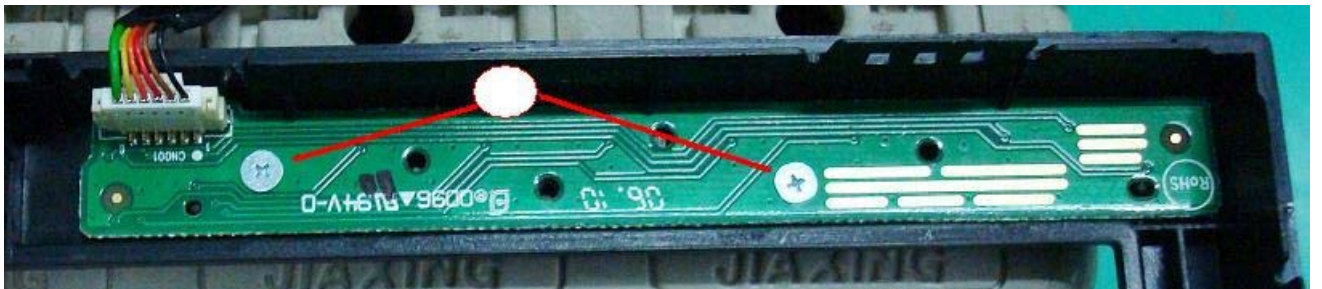


Fig 4

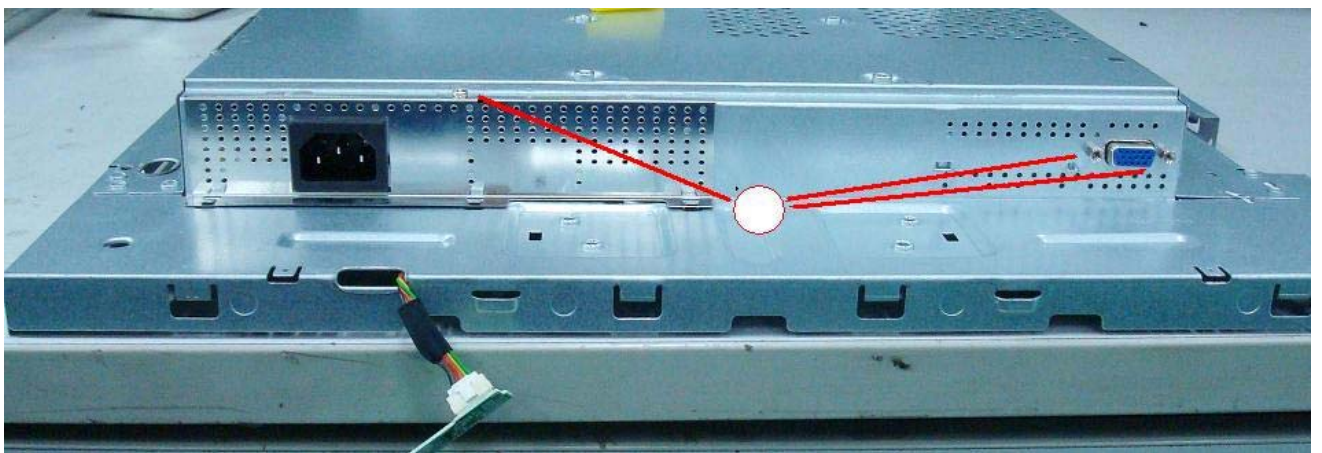


Fig 5

4. Remove the lamp connectors and the screw. (Fig 6-7)

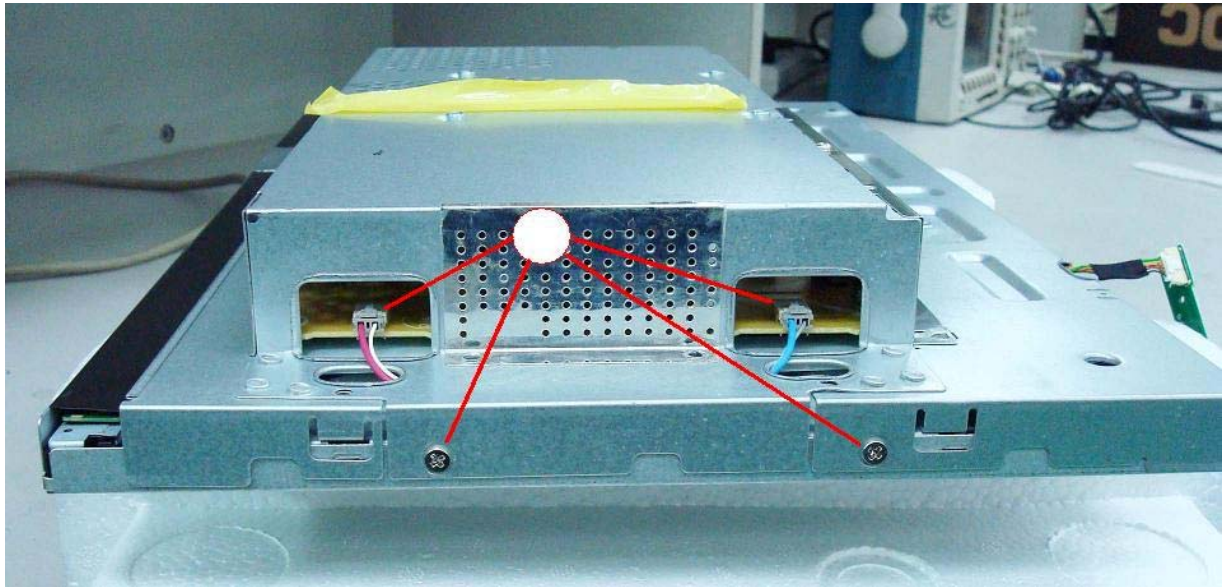


Fig 6

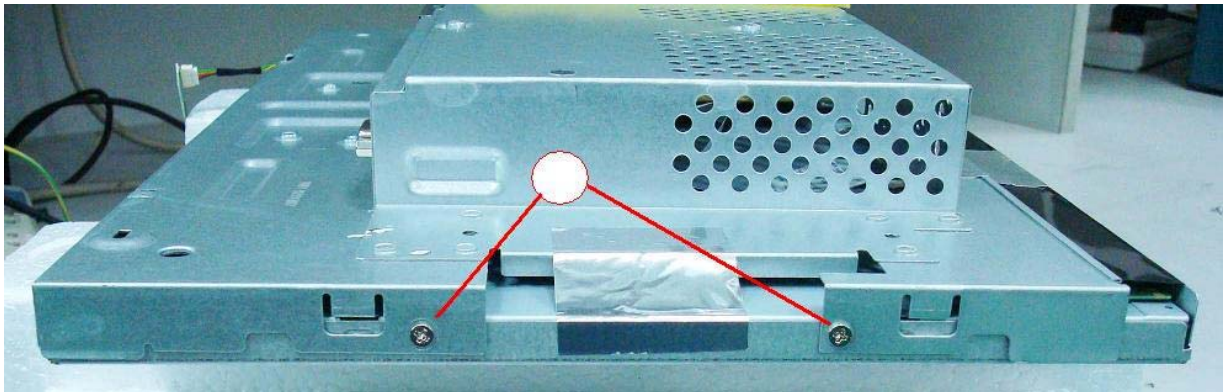


Fig 7

5. Remove the screws to remove the panel. Put attention to the LVDS cable.(Fig8)



Fig 8

6. Remove the screws to remove the main board and power board.(Fig 9)

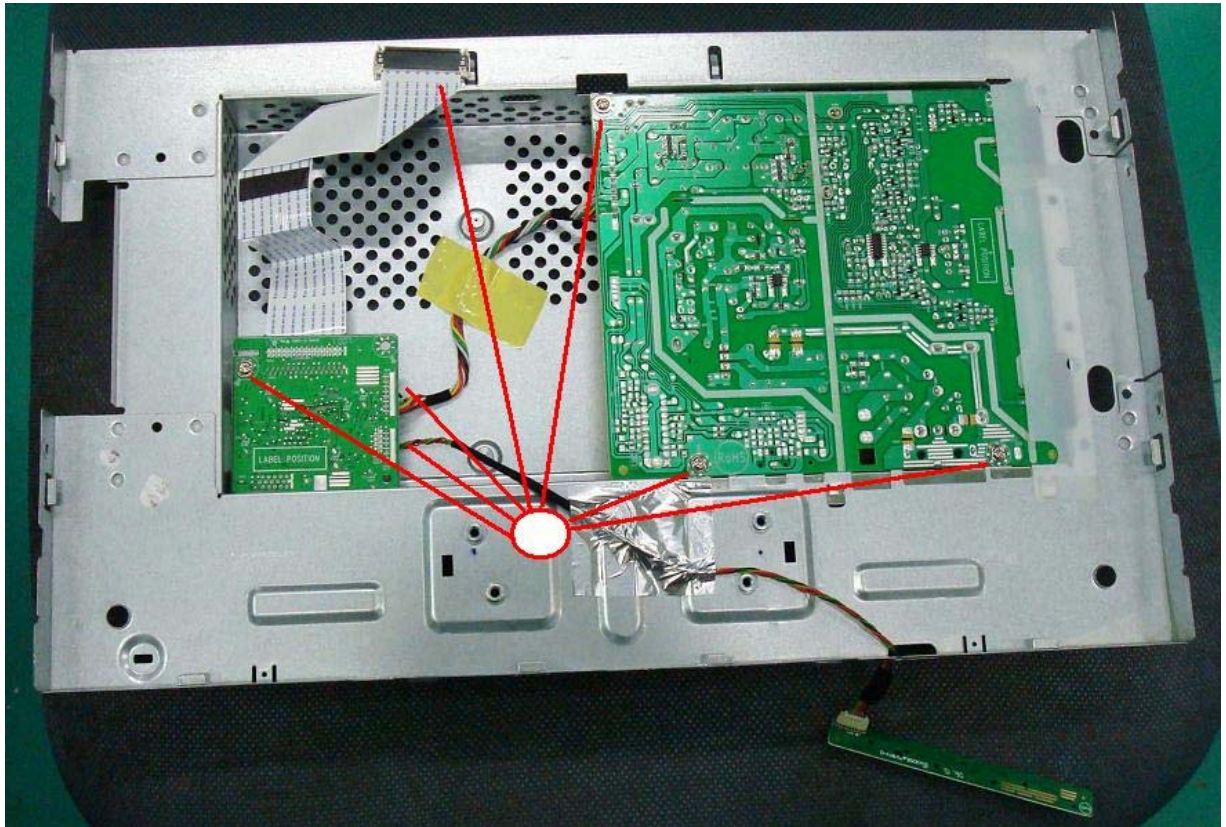
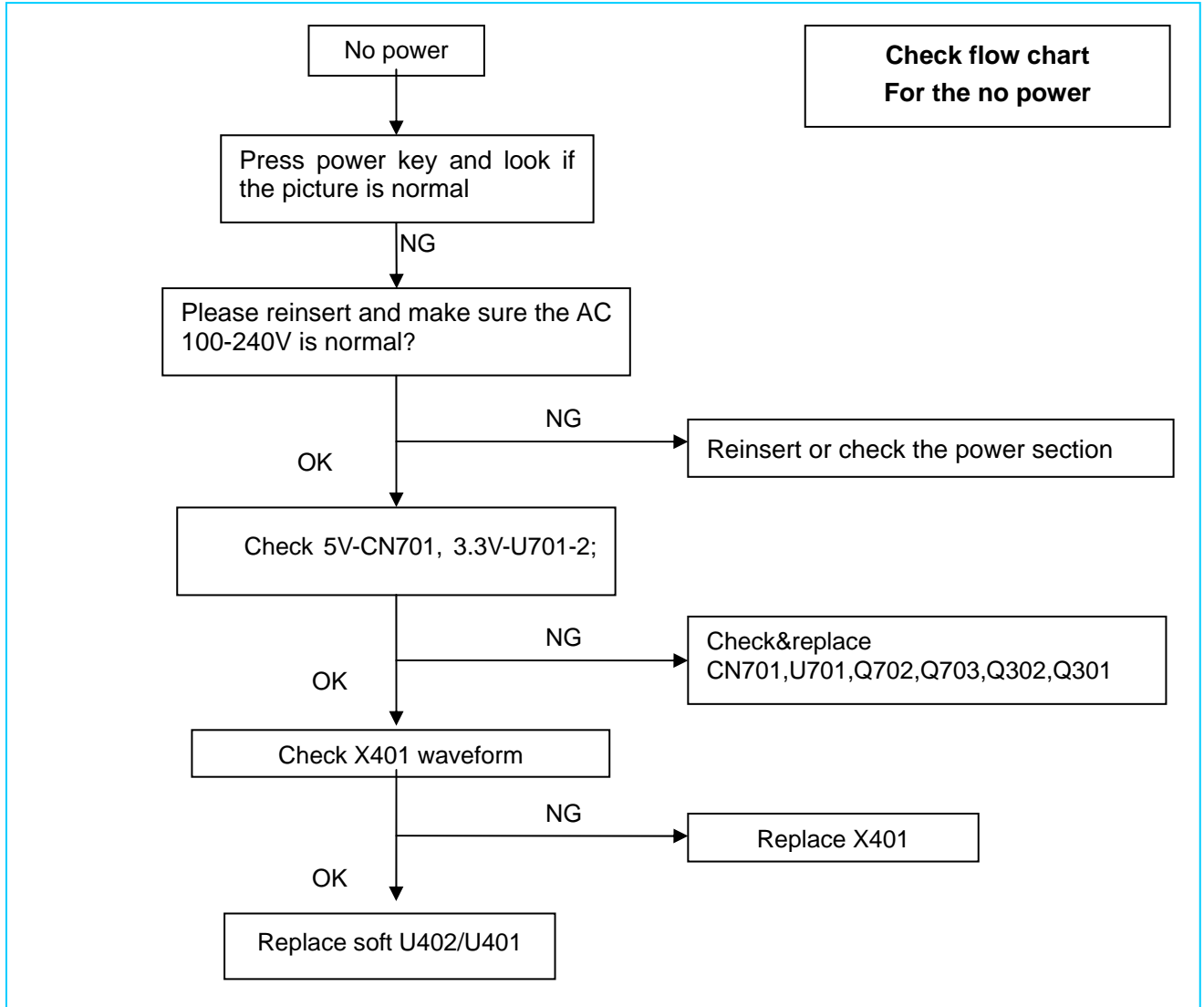


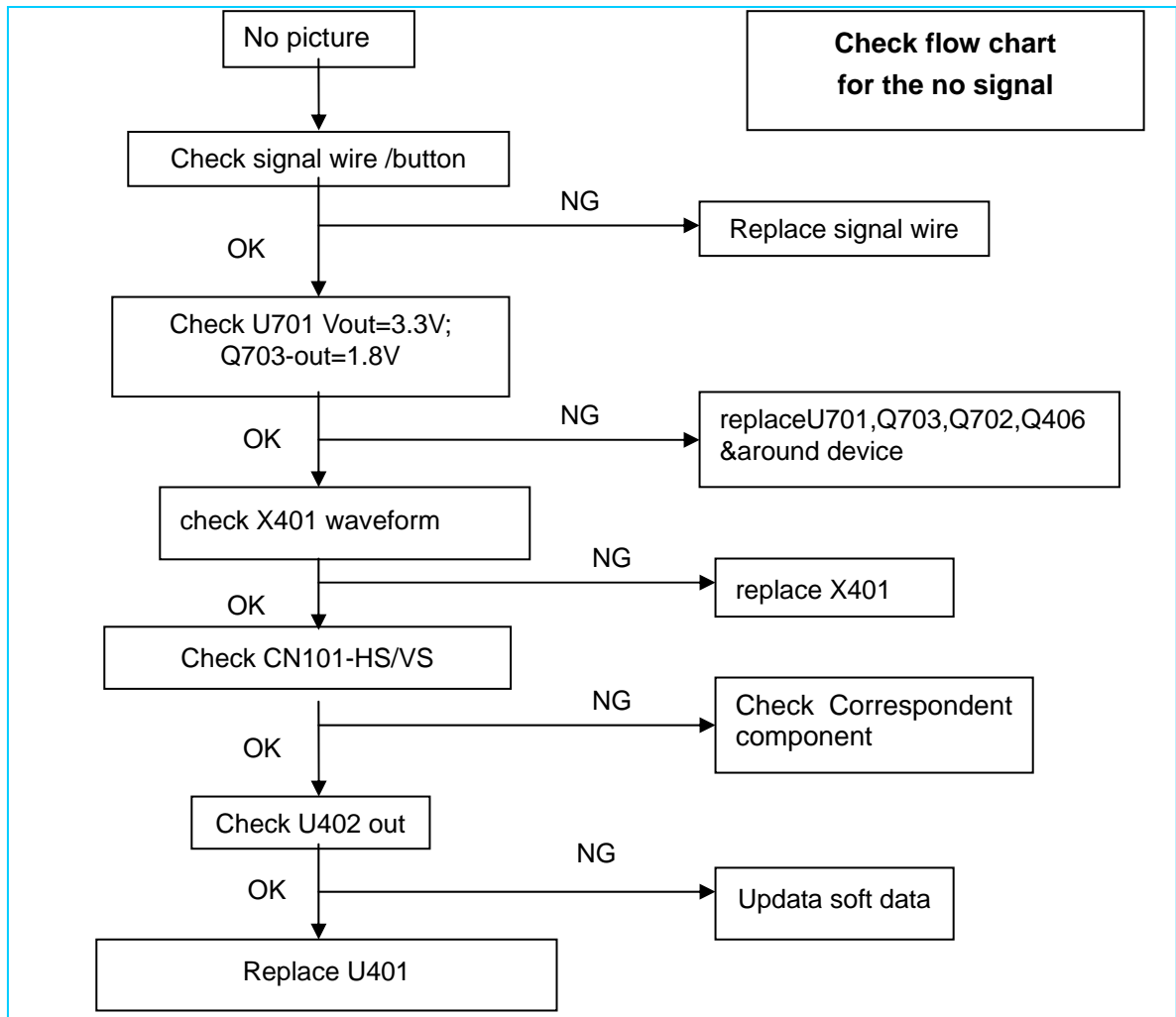
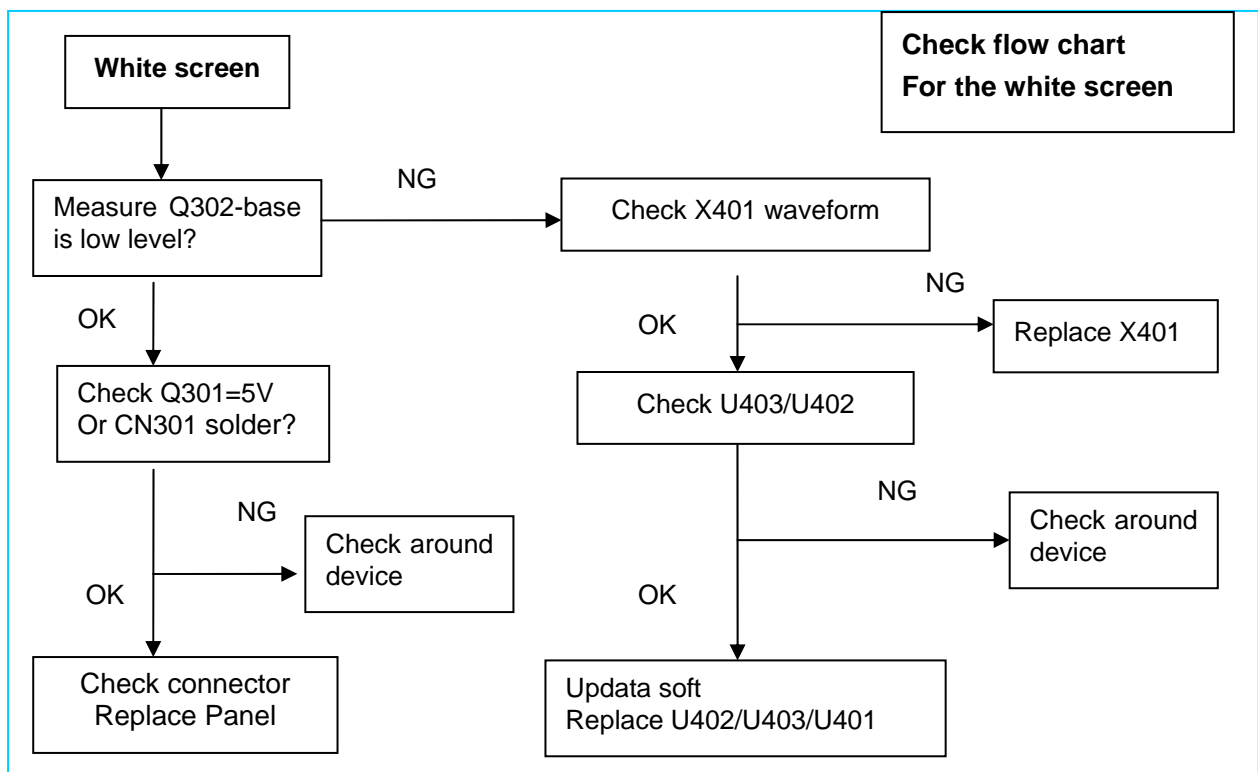
Fig 9

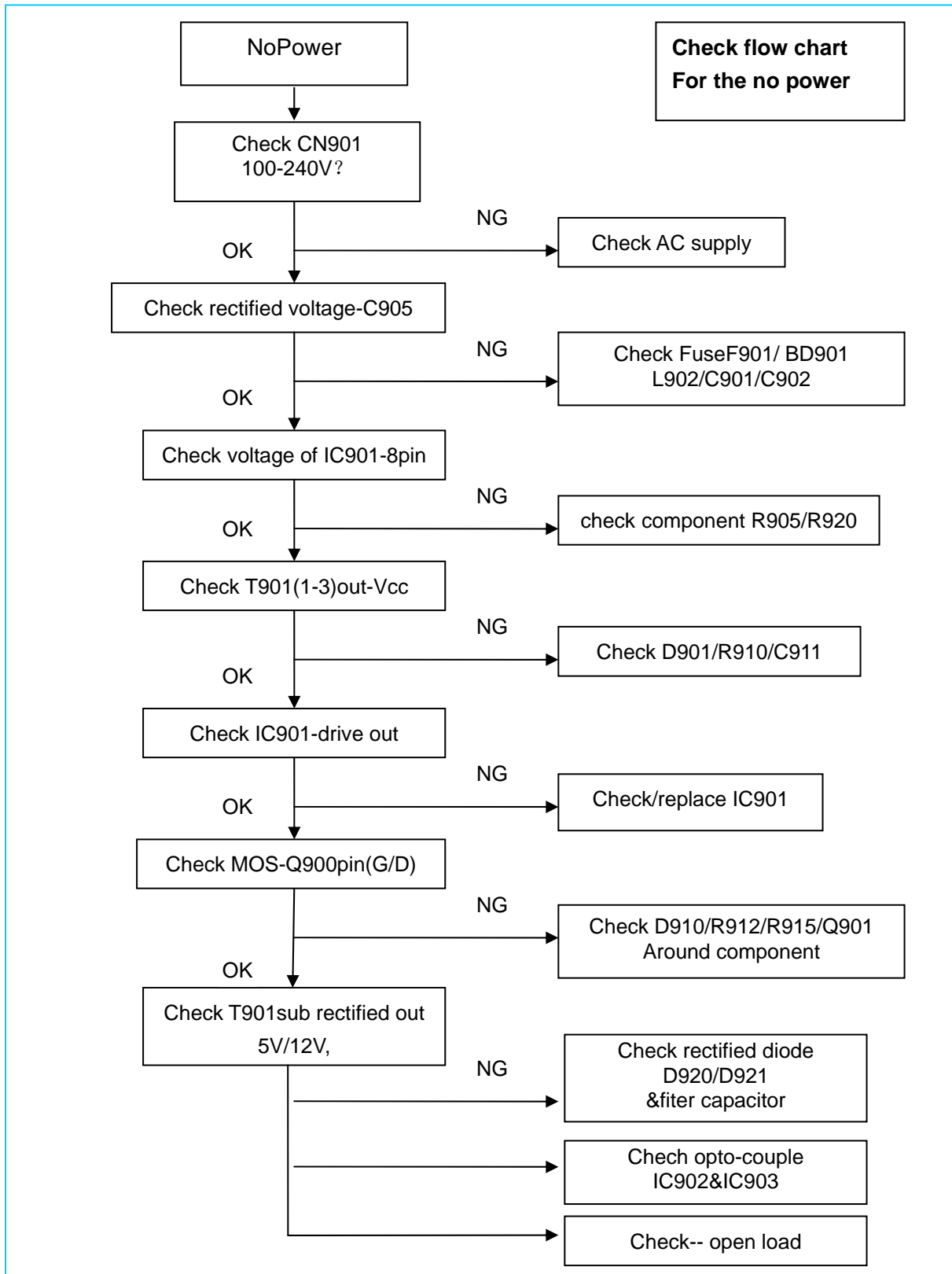
Troubleshooting**Chapter 5**

This chapter provides troubleshooting information for the V193W:

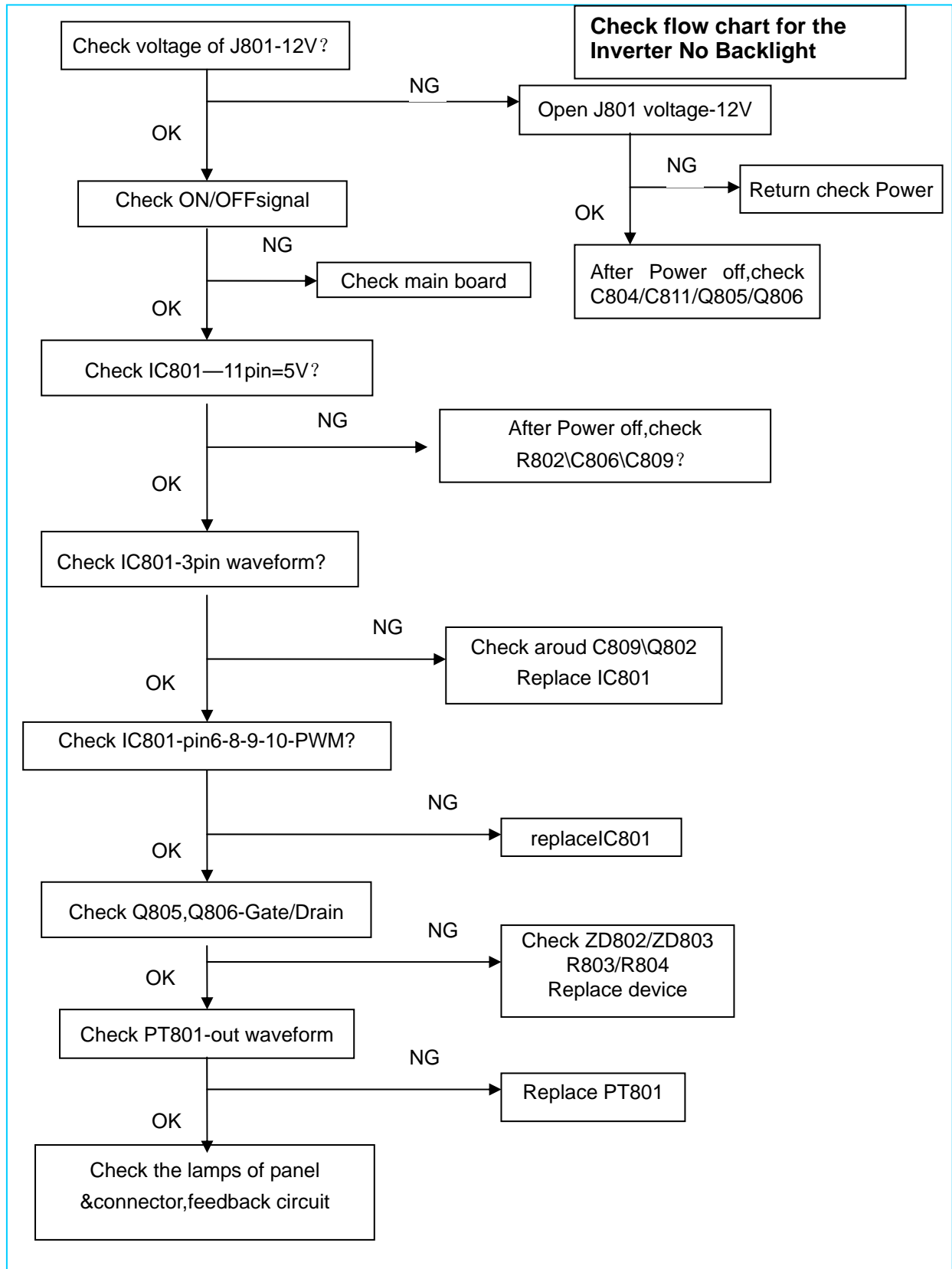
Main Board

1. No Power

2. No Picture (LED is orange)**3. White screen**

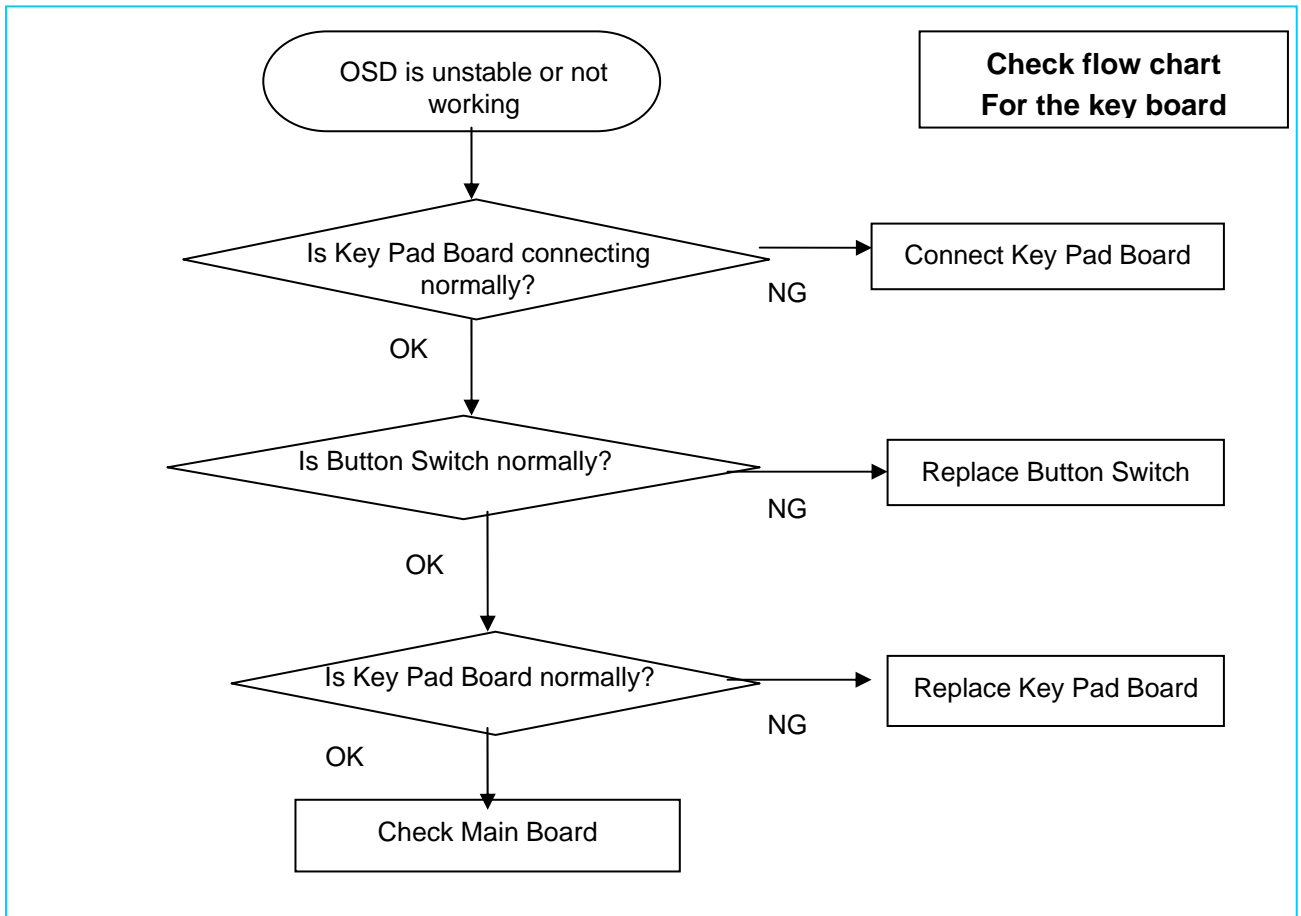
4. Power Circuit No 14V/5V

5. No Backlight of panel



6. Key Board

OSD no working



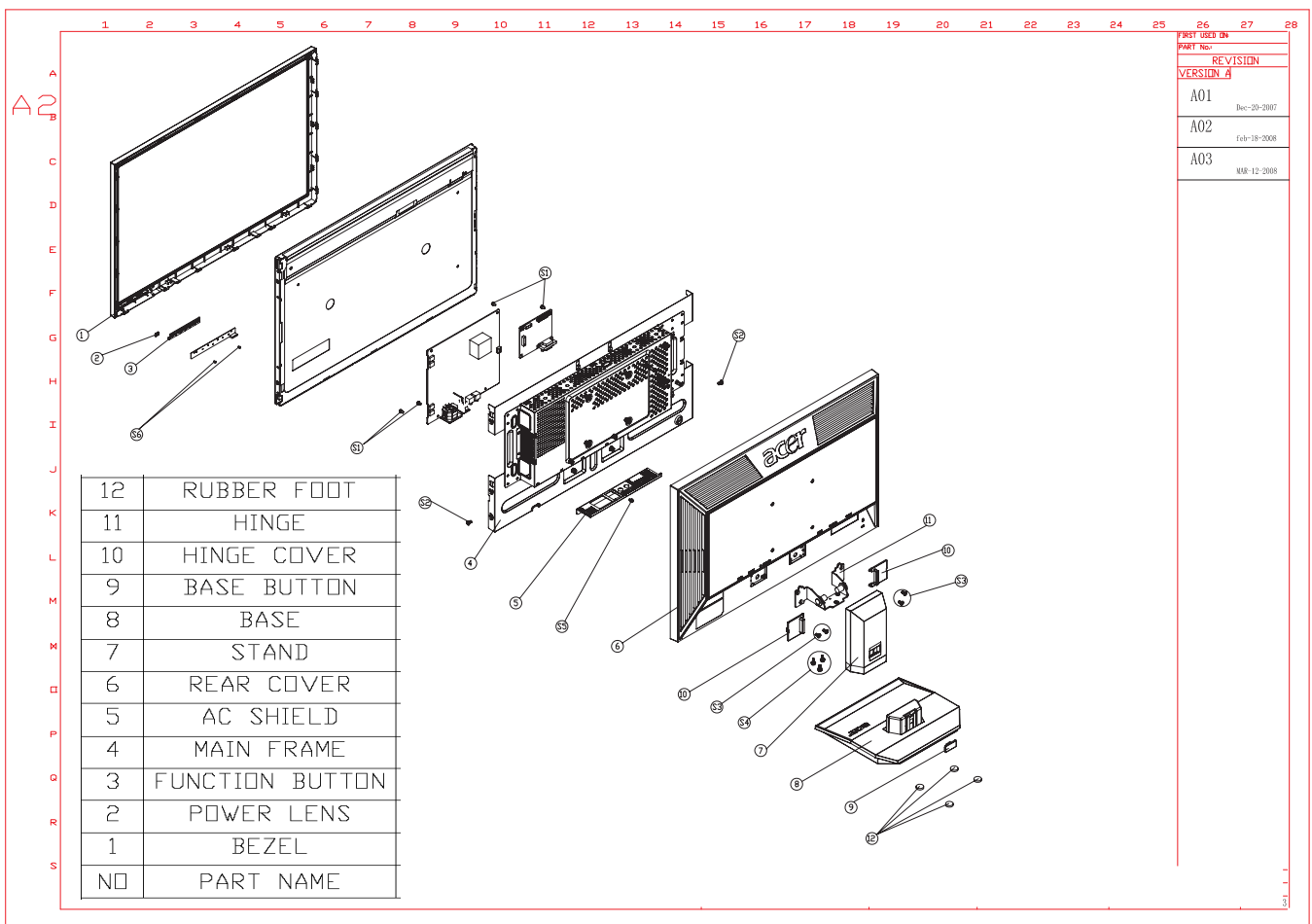
FRU (Field Replaceable Unit) List**Chapter 6**

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of V193W. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE: Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel (<http://aicsl.acer.com.tw/spl/>). For whatever reasons 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 from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

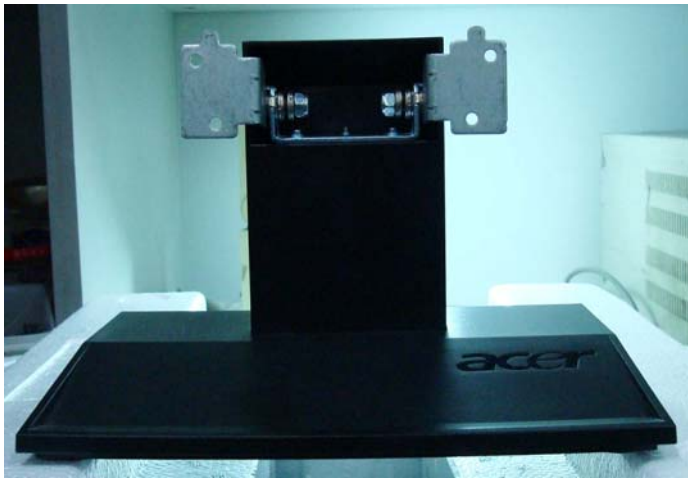
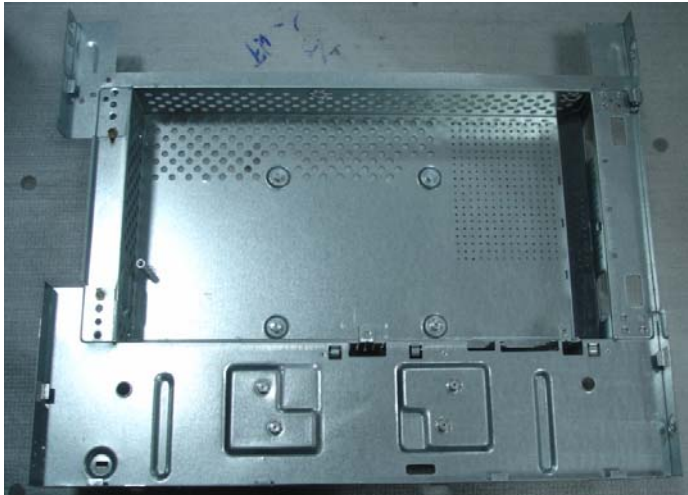

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

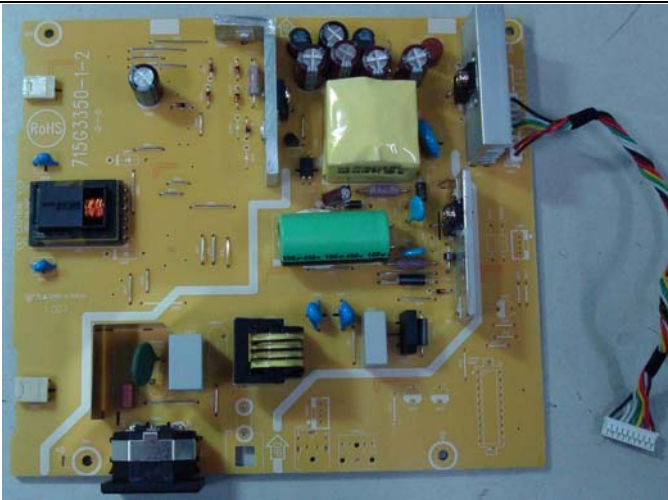

Note: The parts information listed below are for reference only, and are subject to change without notice. Please go to <http://cs.tpv.com.cn/hello1.asp> for the latest information.

Exploded Diagram (Model: V193W)

Key components List

Exploded Diagram show the description of the following component.

Item	Picture	Description
1		Base
2		Main Frame
4		Panel

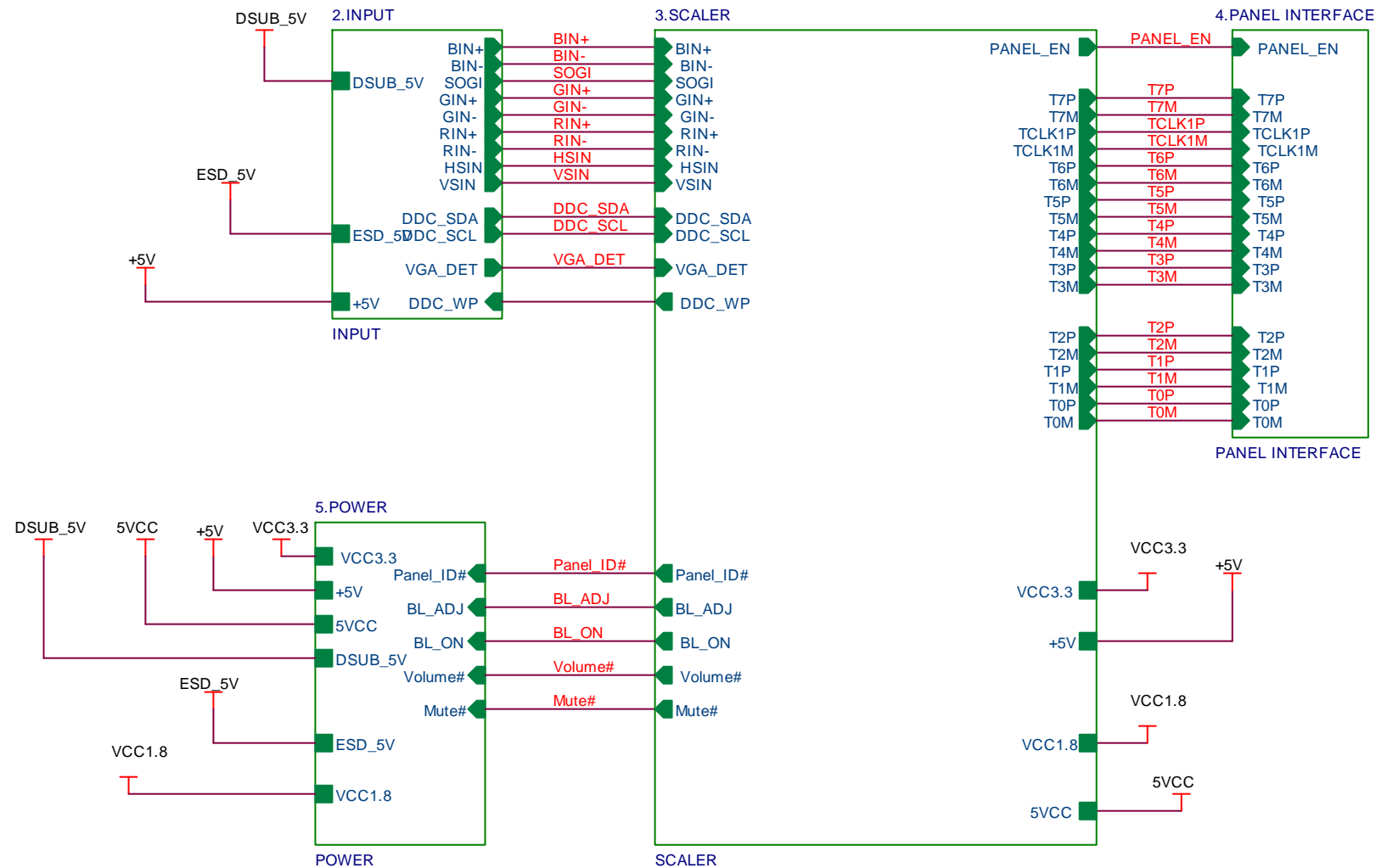
5		Power Board
6		Main Board

Symbol	Description	Symbol	Description
U401	IC NT68167FG/D QFP64	CN101	D-SUB 15PIN
U402	SST25VF010A-33-4C-SAE	CN403	FFC/FPC CONNECTOR
U102	IC AZC099-04S SOT23-6L	CN404	WAFER 9P RIGHT ANELE PITCH
U103	IC AZC099-04S SOT23-6L	CN406	WAFER 6PIN
X401	CRYSTAL 12MHz NXS12.000AC30F-KAB10	CN902	WIRE HARNESS 9P(SCN)-9P(PH)
U701	IC AZ1117D-3.3TRG1 1A/3.3V TO-252	CN901	AC socket
IC801	IC TL494IDR SOIC-16	Q901	2SK2645
IC901	LD7575PS SOP-8	E750	750GLS190BT3DCN0AC
main	715G3225 1 CBPCRNFBQAJ	E750	750GLS190BT3ECN0AC
power	715G3350 1 2 PW8921EQIXSMTJ	E750	750GLU190W1512N0AC
key	715G2944 3 KEPC8QK4J	E750	750GLU190W1513N0AC

Schematic Diagram

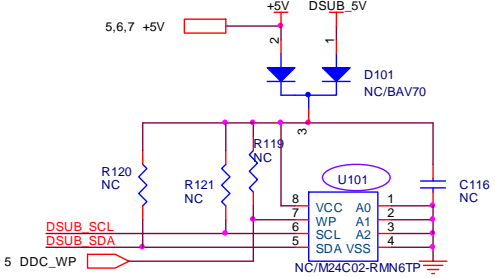
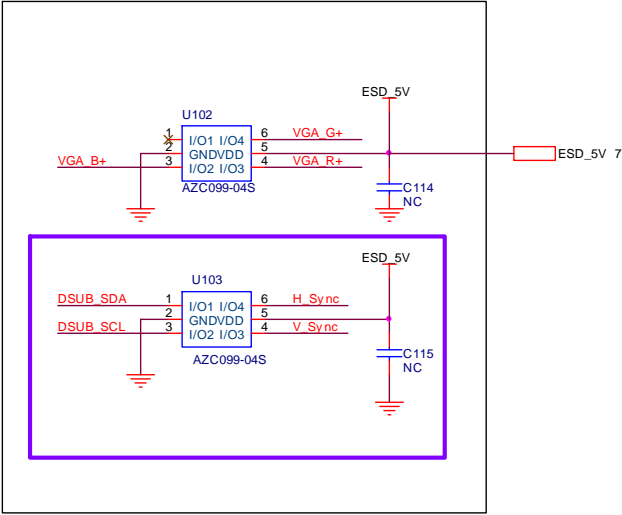
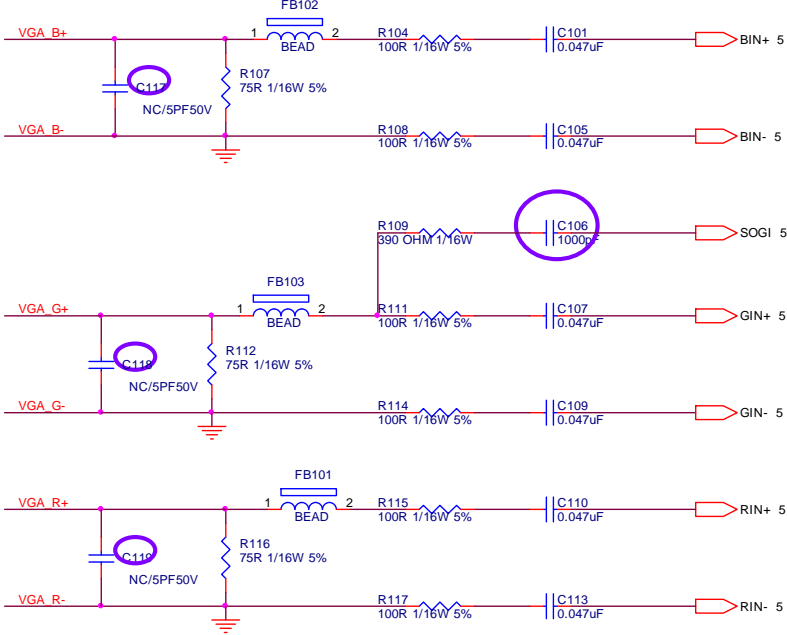
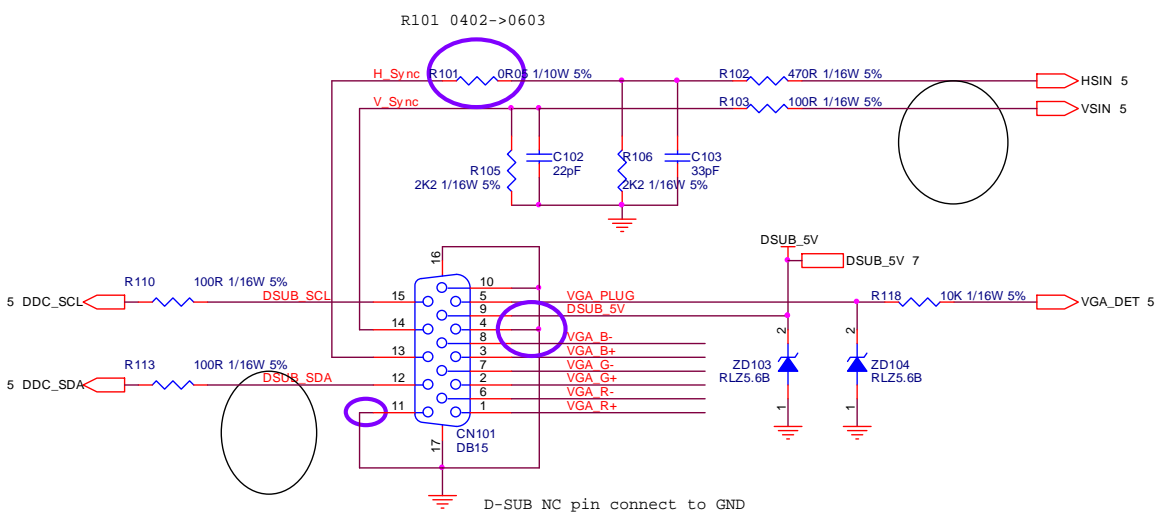
Chapter 7

Main Board ---715G3225-1



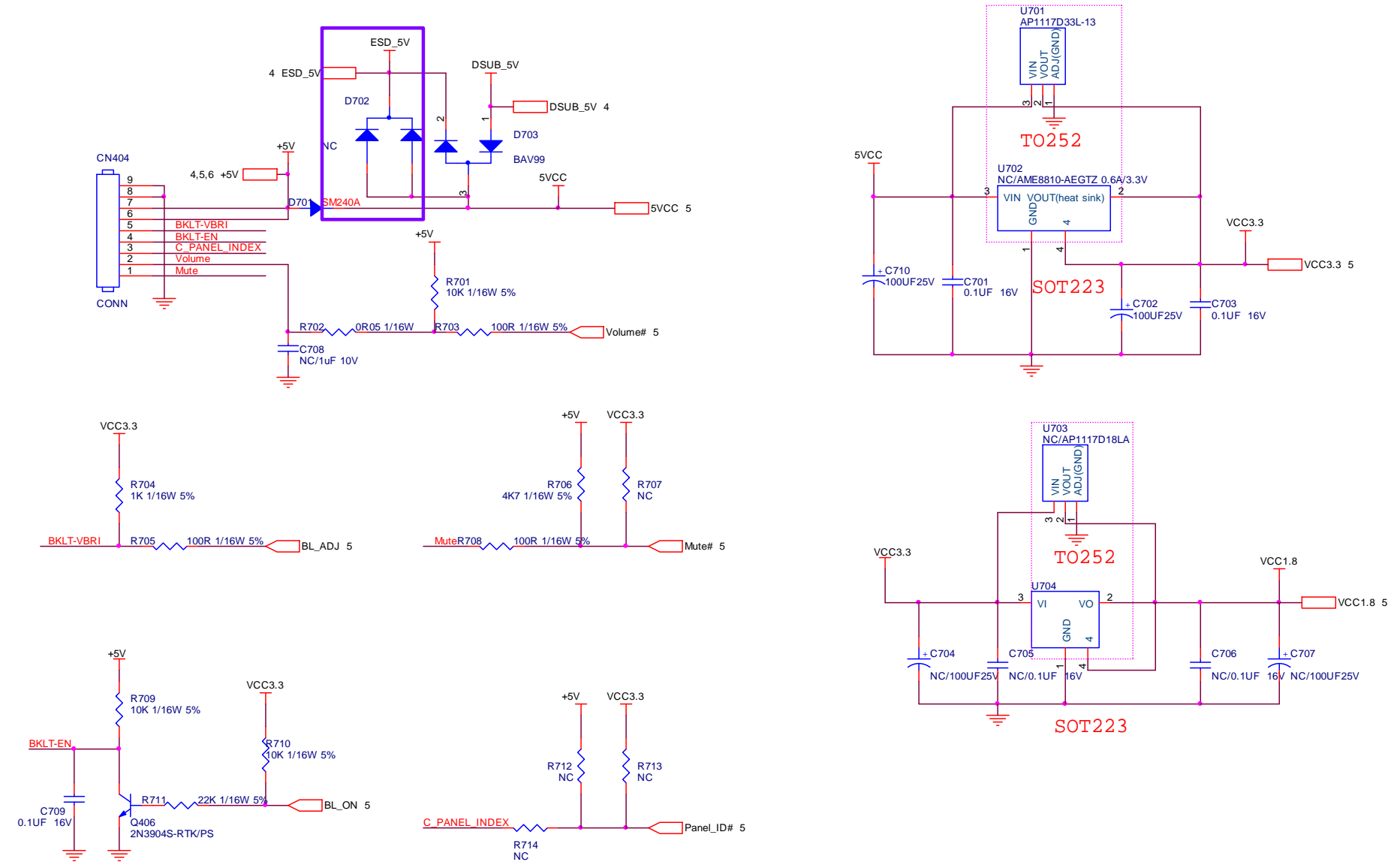
T P V (Top Victory Electronics Co . , Ltd .)	OEM MODEL	ACER	Size	A
紙隔瓜網腹	G3225-1-X-X-3-090220	TPV MODEL	B/V173 ,B/V193	Rev
Key Component	1.0.COVER	PCB NAME	715G3225-1	称爹
Date	Wednesday , April 21, 2010	Sheet	3 of 7	

Input part---CN101



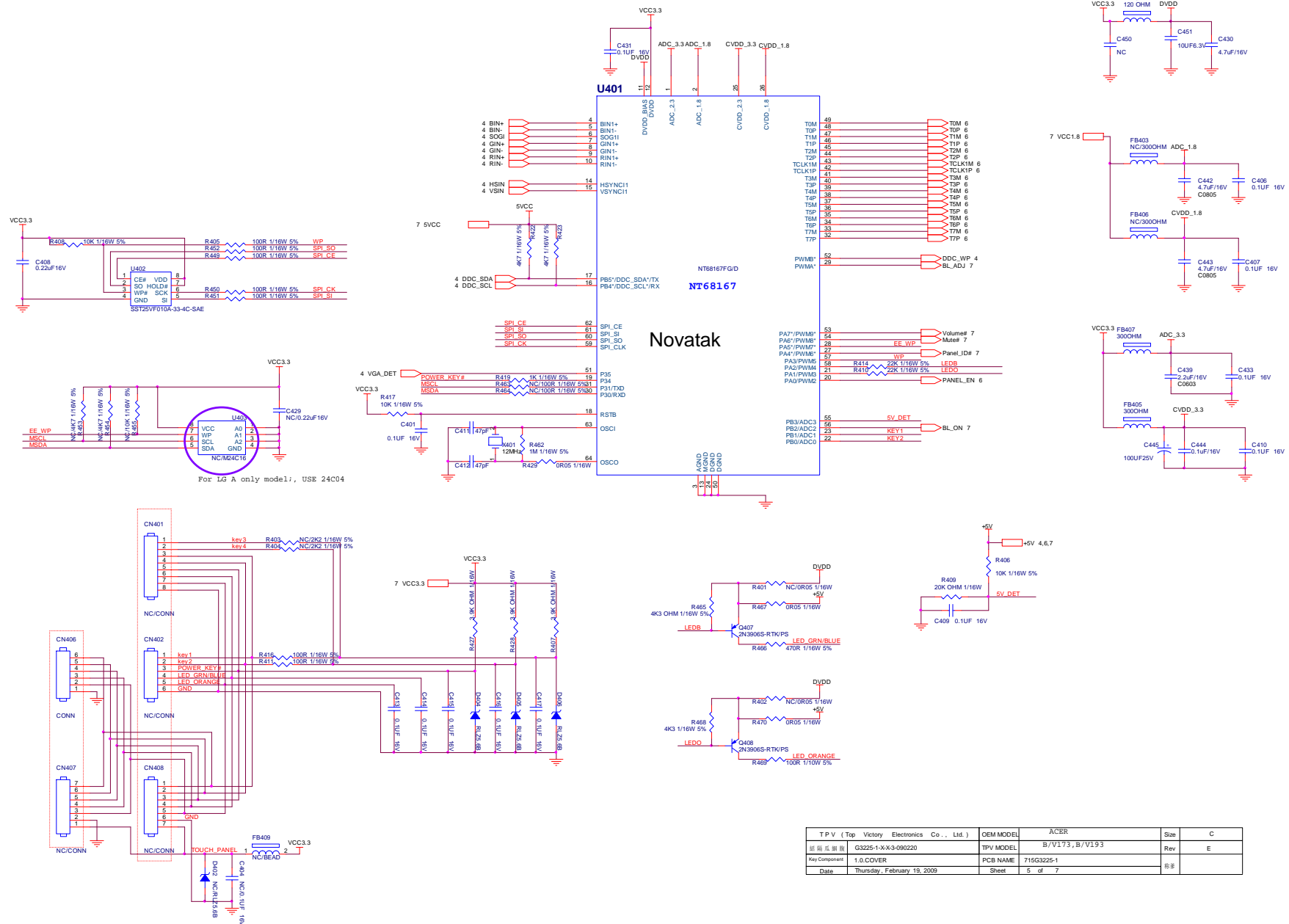
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	ACER	Size	B
結構圖	G3225-1-X-X-3-090220	TPV MODEL	B/V173, B/V193	Rev
Key Component	1.0 COVER	PCB NAME	715G3225-1	E
Date	Thursday, February 19, 2009	Sheet	4 of 7	稱審

Power part---5V/3.3V/1.8V

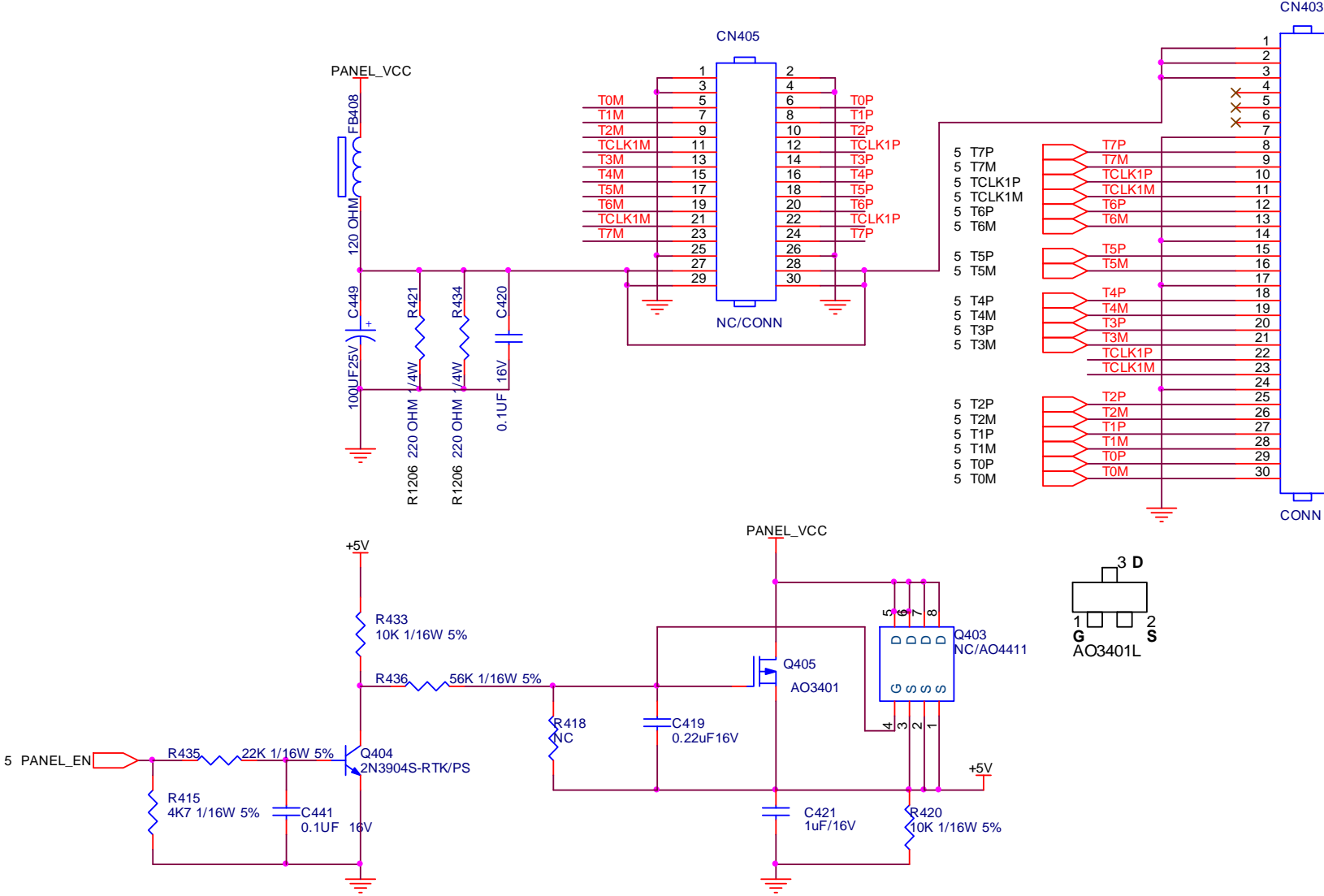


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	ACER	Size	B
結構瓜網膜	TPV MODEL	B/V173, B/V193	Rev	E
Key Component	1.0.COVER	PCB NAME	715G3225-1	称爹
Date	Thursday, February 19, 2009	Sheet	7 of 7	

Scalar part ----U401/U402

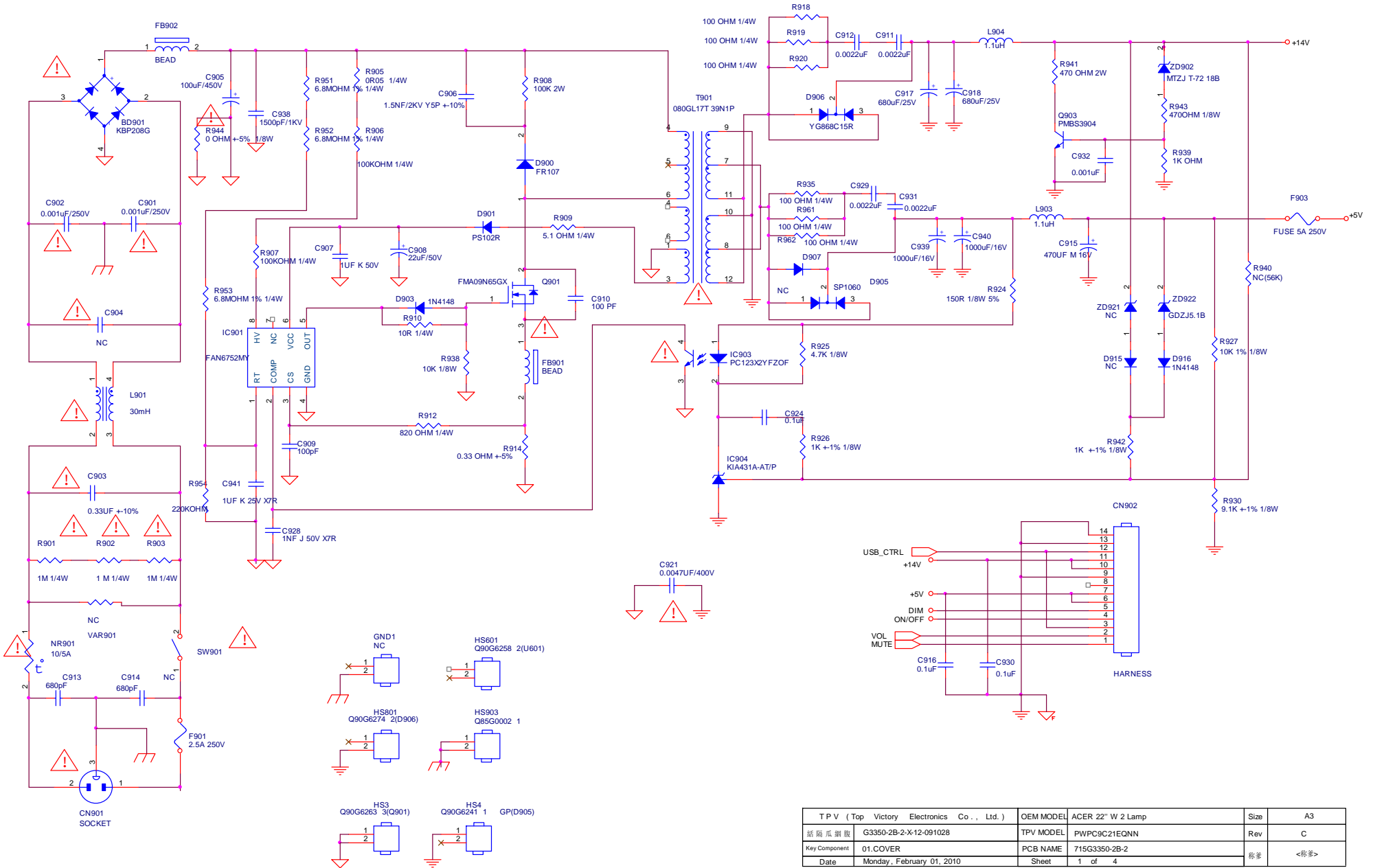


LVDS out part---CN403



T P V (Top Victory Electronics Co . , Ltd.)	OEM MODEL	ACER	Size	A
結 隔 瓜 網 腹	G3225-1-X-X-3-090220	TPV MODEL	B/V173 , B/V193	Rev
Key Component	1.0.COVER	PCB NAME	715G3225-1	称爹
Date	Thursday , February 19, 2009	Sheet	6 of 7	

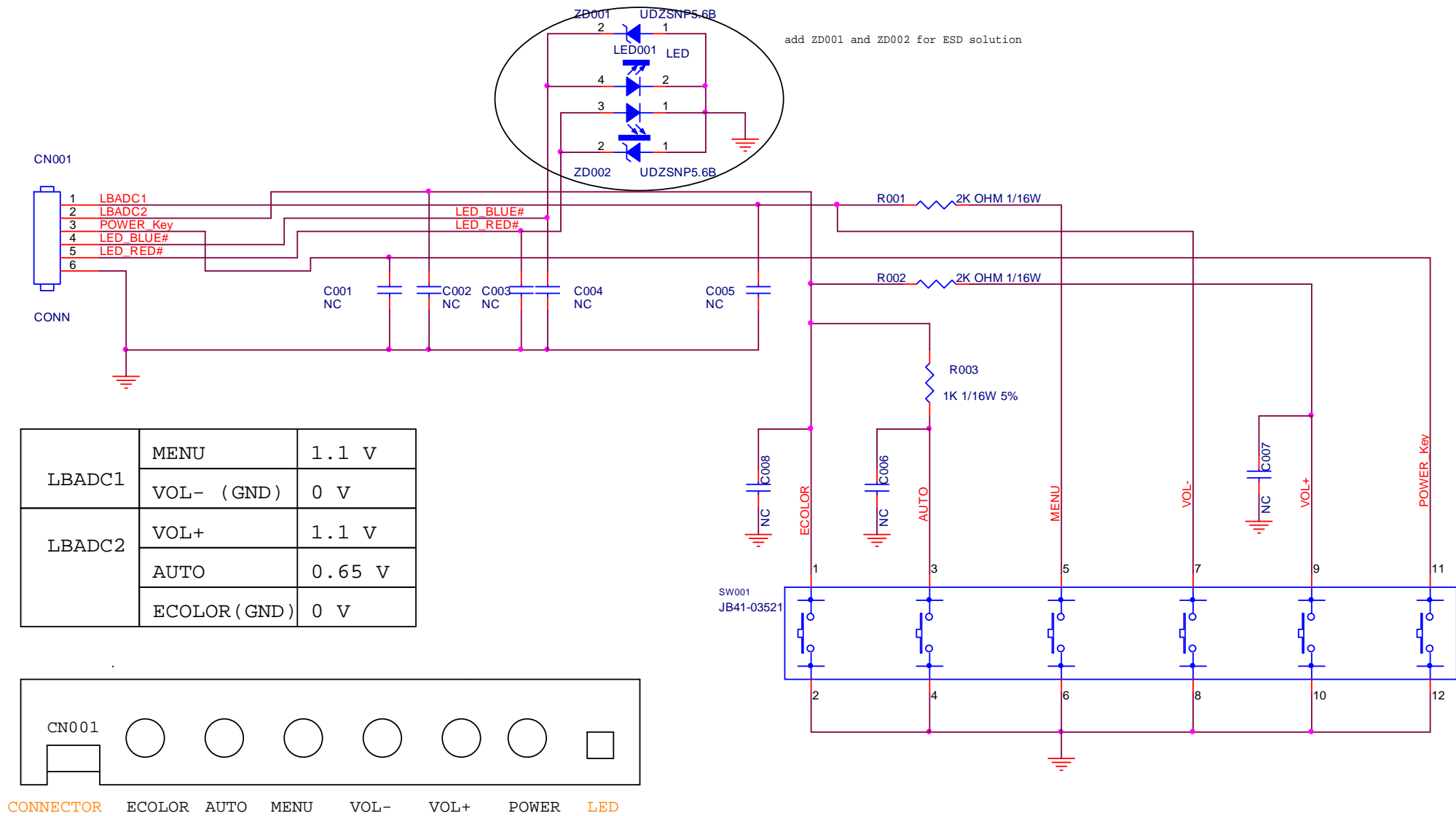
Power board---715G3350-1-2



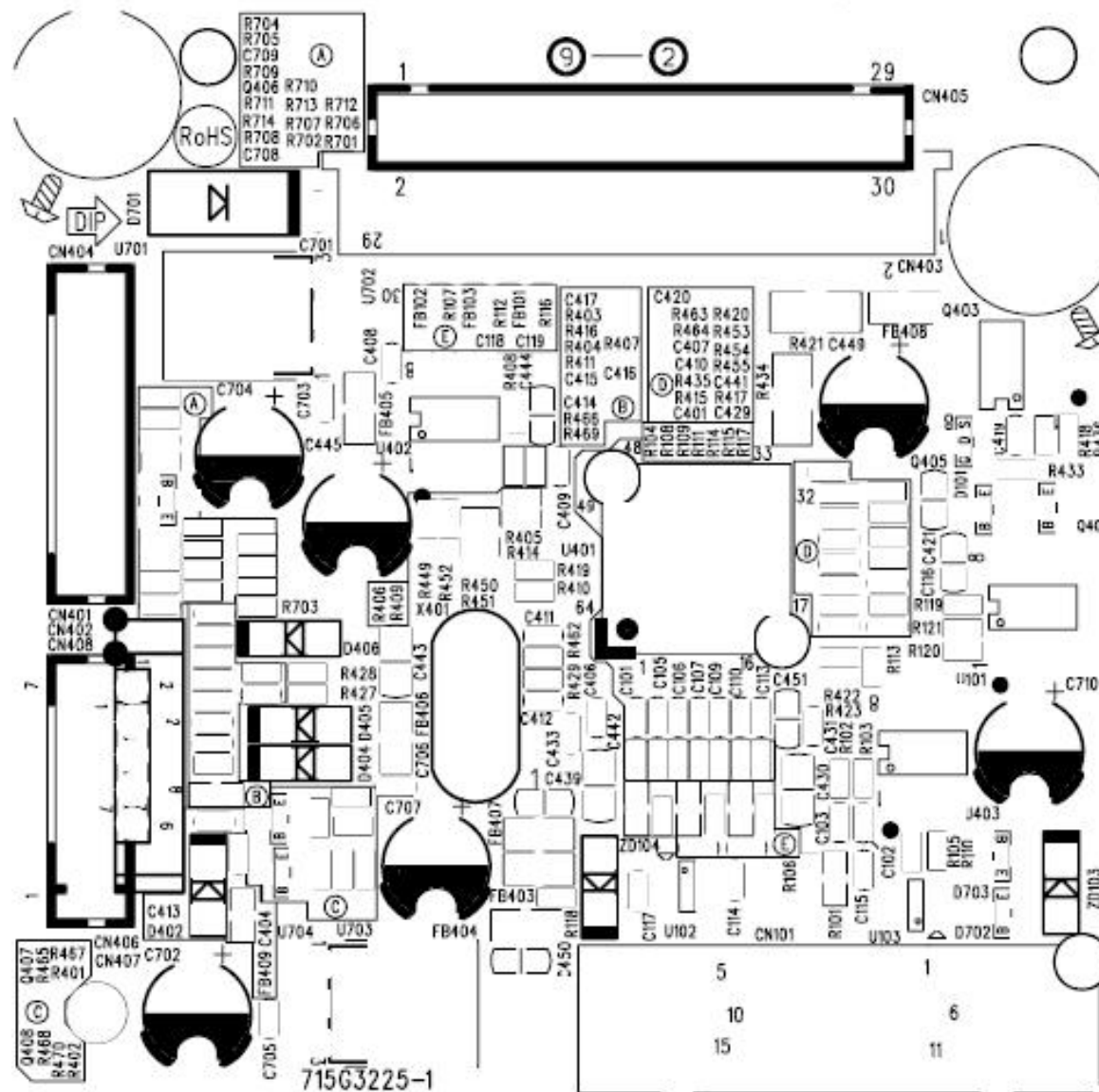
T P V (Top Victory Electronics Co . , Ltd .)		OEM MODEL	ACER 22" W 2 Lamp	Size	A3
紙隔瓜銀版		G3350-2B-2-X12-091028	TPV MODEL	PWPC9C21EQNN	Rev C
Key Component	01.COVER	PCB NAME	715G3350-2B-2	修業	<修業>
Date	Monday, February 01, 2010	Sheet	1 of 4		

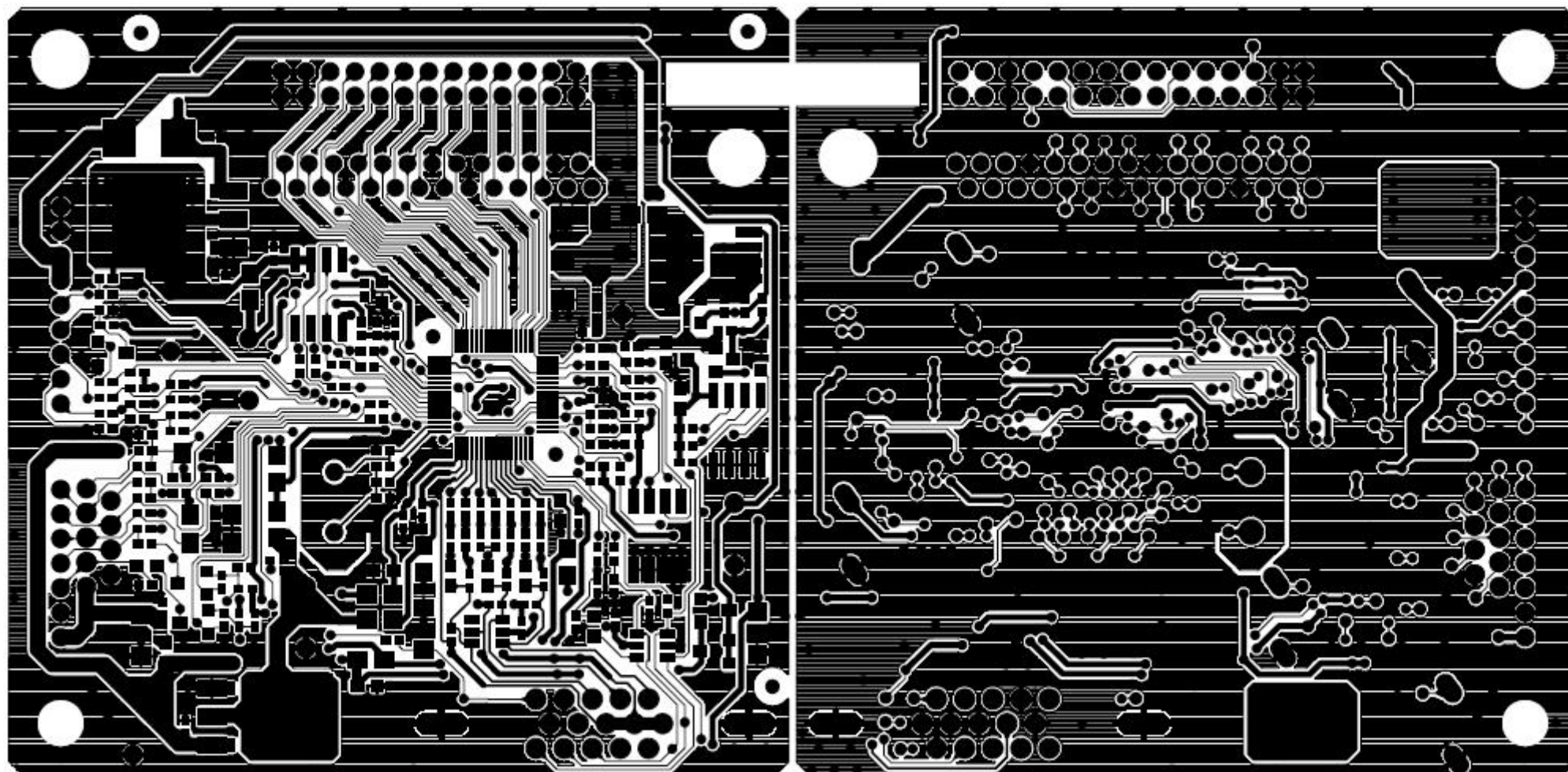
T P V (Top Victory Electronics Co., Ltd.)		OEM MODEL	ACER 22" W 2 Lamp	Size	Custom
坏南瓜测试	G3350-2B-2-X-12-091028	TPV MODEL	PWP3C21EQNN	Rev	C
Key Component	01.COVER	PCB NAME	715G3350-2B-2	修漆	<修漆>
Date	Wednesday, April 21, 2010	Sheet	1 of 4		

Key board--- 715G2944-3

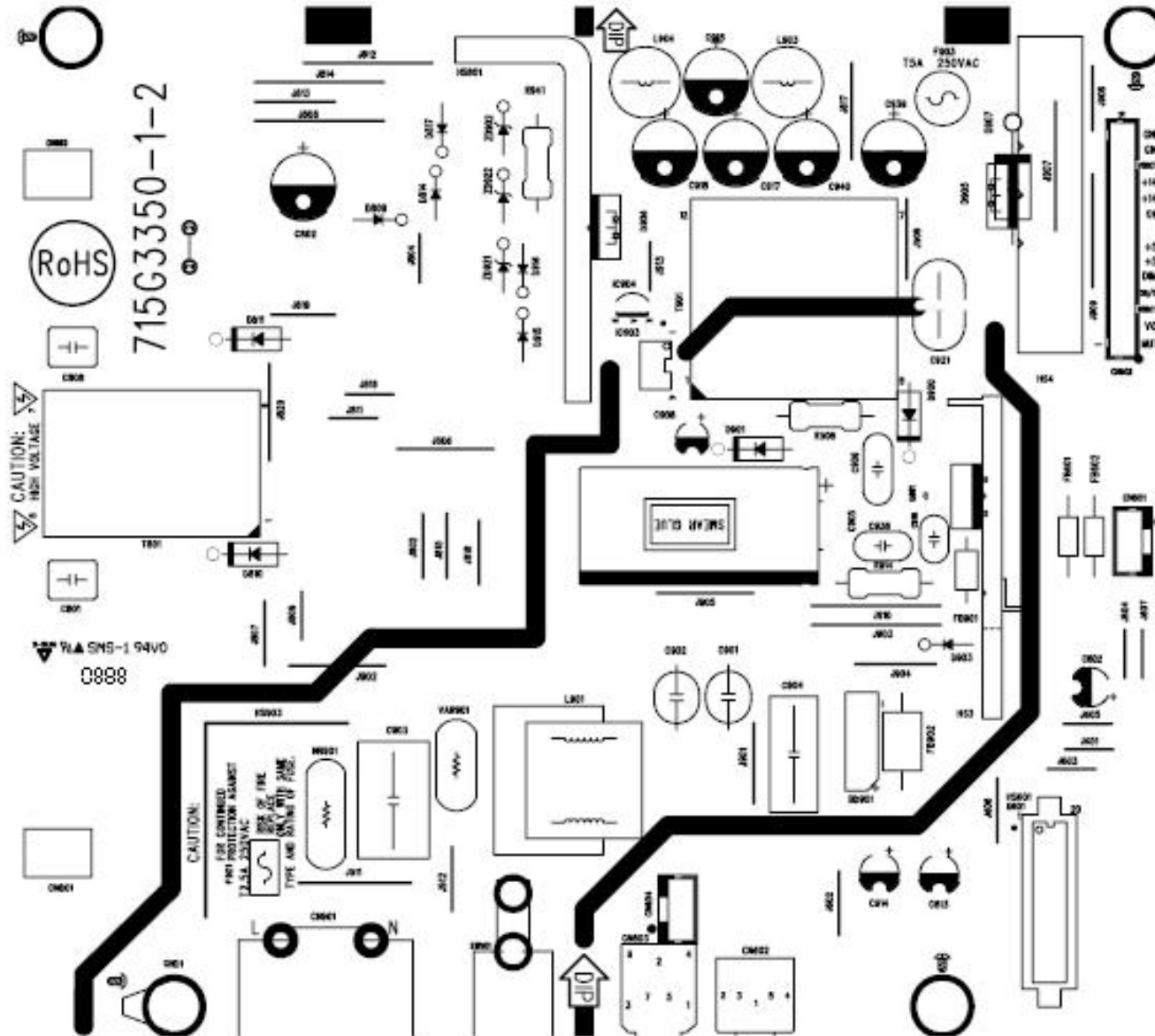


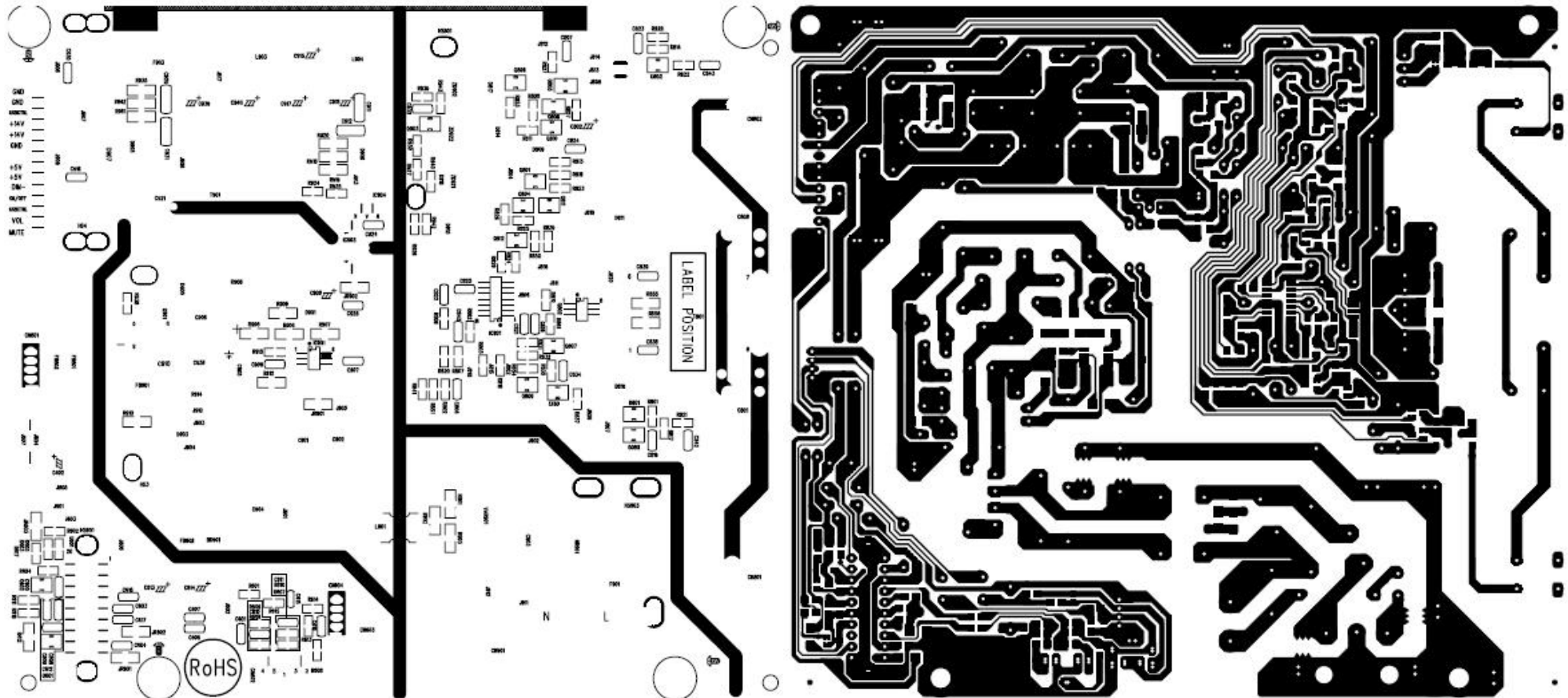
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	acer B and V key pad	Size	A4	
結隔瓜網腹	G2944-E-X-X-1-080218	TPV MODEL	acer	Rev	E
Key Component	02.KEY	PCB NAME	715G2944-E	称爹	<称爹>
Date	Wednesday, September 10, 2008	Sheet	2 of 2		

PCB Layout**Chapter 8****Main Board Layout**



Power board Layout





Key board Layout

