

Service Manual

**ViewSonic VP930-2
VP930b-2**

**Model No. VS10725
19" Color TFT LCD Display**

(VP930-2_VP930b-2_SM Rev. 1a Mar. 2006)

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Revision History

Revision	SM Editing Date	ECR Number	Description of Changes	Editor
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1. Precautions and Safety Notices

1. Appropriate Operation

- (1) Turn off the product before cleaning.
- (2) Use only a dry soft cloth when cleaning the LCD panel surface.
- (3) Use a soft cloth soaked with mild detergent to clean the display housing.
- (4) Use only a high quality, safety approved AC/DC power cord.
- (5) Disconnect the power plug from the AC outlet if the product will not be used for a long period of time.
- (6) If smoke, abnormal noise, or strange odor is present, immediately switch the LCD display off.
- (7) Do not touch the LCD panel surface with sharp or hard objects.
- (8) Do not place heavy objects on the LCD display, video cable, or power cord.
- (9) Do not use abrasive cleaners, waxes or solvents for your cleaning.
- (10) Do not operate the product under the following conditions:
 - Extremely hot, cold or humid environment.
 - Areas containing excessive dust and dirt.
 - Near any appliance generating a strong magnetic field.
 - In direct sunlight.

2. Caution

No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guidelines.

3. Safety Check

Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit, the voltage is exposed in such areas as the associated transformer circuits.

4. LCD Module Handling Precautions

4.1 Handling Precautions

- (1) Since front polarizer is easily damaged, pay attention not to scratch it.
- (2) Be sure to turn off power supply when connecting or disconnecting input connector.
- (3) Wipe off water drops immediately. Long contact with water may cause discoloration or spots.
- (4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
- (5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
- (6) Since CMOS LSI is used in this module, take care of static electricity and ensure human earth when handling.
- (7) Do not open or modify the Module Assembly.
- (8) Do not press the reflector sheet at the back of the module in any direction.
- (9) In the event that a Module must be put back into the packing container slot after it was taken out of the container, do not press the center of the CCFL Reflector edge. Instead, press at the far ends of the CFL Reflector edge softly. Otherwise the TFT Module may be damaged.
- (10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate or tilt the Interface Connector of the TFT Module.

- (11) After installation of the TFT Module into an enclosure (LCD monitor housing, for example), do not twist or bend the TFT Module even momentarily. When designing the enclosure, it should be taken into consideration that no bending/twisting forces may be applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.
- (12) The cold cathode fluorescent lamp in the LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.
- (13) The LCD module contains a small amount of materials having no flammability grade. The LCD module should be supplied with power that complies with the requirements of Limited Power Source (IEC60950 or UL1950), or an exemption should be applied for.
- (14) The LCD module is designed so that the CCFL in it is supplied by a Limited Current Circuit (IEC60950 or UL1950). Do not connect the CCFL to a Hazardous Voltage Circuit.

Correct Methods:	Incorrect Methods:
<p>Only touch the metal frame of the LCD panel or the front cover of the monitor. Do not touch the surface of the polarizer.</p>	<p>Surface of the LCD panel is pressed by fingers and that will probably cause "Mura".</p>
	
	
<p>Take out the monitor with cushions</p> 	<p>Taking out the monitor by grasping the LCD panel. That will probably cause "Mura".</p> 

Place the monitor on a clean and soft foam pad.



Placing the monitor on foreign objects. That will probably scratch the surface of the panel or cause "Mura."



The panel is placed facedown on the lap. That will probably cause "Mura."



2.SPECIFICATIONS

GENERAL specification

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

VIDEO INTERFACE

Input Connector (refer the appendix A)	D-Sub1 = DB-15 (Analog) D-Sub2 = DB-15 (Analog) DVI-D = DVI-I (Digital)
Default Input Connector	Defaults to the first detected input
Video Cable Strain Relief	Equal to twice the weight of the monitor for five minutes
Video Cable Connector DB-15 Pin out	Compliant DDC/CI
Video Signals	Video RGB (Analog) Separate Sync / Composite Sync / SOG TMDS (Digital)
Video Impedance	75 Ohms (Analog), 100 Ohms (Digital)
Maximum PC Video Signal	950 mV with no damage to monitor
Maximum Mac Video Signal	1250 mV with no damage to monitor
Sync Signals	TTL
DDC/CI	Compliant with Revision 1.0
Sync Compatibility	Separate Sync / Composite Sync / SOG
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350, 640 x 400, 640 x 480, 640 x 870, 720 x 400, 720 x 480, 720 x 576, 800 x 600, 832 x 624, 1024 x 768, 1152 x 864, 1152 x 870, 1280 x 720, 1280 x 768, 1280 x 960, 1280 x 1024
Exclusions	Not compatible with interlaced video

Horizontal / Vertical Frequency

Horizontal Frequency	24 – 82 KHZ
Vertical Refresh Rate	50 – 85 HZ
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity

Table : 15 pin D-sub connector pin assignment

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

Timing Table

Item	Timing	Analog	Digital	Remark
1	640 x 350 @ 70 Hz, 31.5 KHz	Yes	Yes	DMT;
2	640 x 400 @ 60 Hz, 31.5 KHz	Yes	Yes	DMT
3	640 x 400 @ 70 Hz, 31.5 KHz	Yes	Yes	DMT
4	640 x 480 @ 50 Hz, 24.7 KHz	Yes	Yes	DMT
5	640 x 480 @ 60 Hz, 31.5 KHz	Yes	Yes	DMT;
6	640 x 480 @ 67 Hz, 35.0 KHz	Yes	Yes	For MAC
7	640 x 480 @ 72 Hz, 37.9 KHz	Yes	Yes	DMT
8	640 x 480 @ 75 Hz, 37.5 KHz	Yes	Yes	DMT
9	640 x 480 @ 85 Hz, 43.3 KHz	Yes	Yes	DMT
10	640 x 870 @ 75 Hz, 68.9 KHz	Yes	Yes	MAC
11	720 x 400 @ 70 Hz, 31.5 KHz	Separate Only	Yes	DMT
12	720 x 480 @ 60 Hz, 31.5 KHz	Yes	Yes	DMT
13	720 x 576 @ 50 Hz, 31.3 KHz	Yes	Yes	DMT"
14	800 x 600 @ 56 Hz, 35.1 KHz	Yes	Yes	DMT
15	800 x 600 @ 60 Hz, 37.9 KHz	Yes	Yes	DMT

16	800 x 600	@	72 Hz,	48.1	KHz	Yes	Yes	DMT
17	800 x 600	@	75 Hz,	46.9	KHz	Yes	Yes	DMT
18	800 x 600	@	85 Hz,	53.7	KHz	Yes	Yes	DMT
19	832 x 624	@	75 Hz,	49.7	KHz	Yes	Yes	MAC
20	1024 x 768	@	50 Hz,	39.6	KHz	Yes	Yes	DMT;
21	1024 x 768	@	60 Hz,	48.4	KHz	Yes	Yes	DMT
22	1024 x 768	@	70 Hz,	56.5	KHz	Yes	Yes	DMT
23	1024 x 768	@	72 Hz,	58.1	KHz	Yes	Yes	DMT
24	1024 x 768	@	75 Hz,	60.0	KHz	Yes	Yes	DMT
25	1024 x 768	@	75 Hz,	60.2	KHz	Yes	Yes	For MAC
26	1024 x 768	@	85 Hz,	68.7	KHz	Yes	Yes	DMT
27	1152 x 864	@	75 Hz,	67.5	KHz	Yes	Yes	DMT
28	1152 x 870	@	75 Hz,	68.7	KHz	Yes	Yes	For MAC
29	1280 x 720	@	50 Hz,	37.5	KHz	Yes	Yes	720p
30	1280 x 720	@	60 Hz,	45.0	KHz	Yes	Yes	720p
31	1280 x 768	@	50 Hz,	39.6	KHz	Yes	Yes	DMT
32	1280 x 768	@	60 Hz,	47.8	KHz	Separate Only	Yes	DMT;
33	1280 x 768	@	75 Hz,	60.3	KHz	Separate Only	Yes	DMT;
34	1280 x 768	@	85 Hz,	68.6	KHz	Separate Only	Yes	DMT;"
35	1280 x 960	@	50 Hz,	49.4	KHz	Yes	Yes	DMT
36	1280 x 960	@	60 Hz,	59.7	KHz	Yes	Yes	DMT
37	1280 x 960	@	75 Hz,	75.2	KHz	Yes	Yes	DMT
38	1280 x 1024	@	50 Hz,	52.7	KHz	Yes	Yes	DMT
39	1280 x 1024	@	60 Hz,	64.0	KHz	Yes	Yes	DMT
40	1280 x 1024	@	75 Hz,	80.0	KHz	Yes	Yes	DMT

*1. Tolerance $\geq \pm 2\text{KHz}$.

*2. Any timing not in the list, it should display as normal or show on "OUT OF RANGE" OSD message without blanking.

*3. The image quality of 85Hz mode might be worse than 75Hz.

Primary Presets

1280x1024 @ 60Hz

User Presets

Number of User Presets (recognized timings) Available: 10 presets total in FIFO configuration

Panel Characteristics

1st Source Panel

Model number	AUO M190EN03 V.2
Type	Active Matrix TFT, TN technology
Active Size	19"
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.294 mm
Glass Treatment	Anti-Glare
# of Backlights	4 CCFL
Backlight Life	50000 Hrs (Typ) 30000 Hrs (Min)
Luminance (Center) – CT = 6500K, Contrast/ Brightness = Max	250 cd/m ² (Typ after 30 minute warm up) 200 cd/m ² (Min after 30 minute warm up)
Brightness Uniformity	80 % (Typ) / 75 % (Min)
Contrast Ratio	1000 :1 (Typ) 750 : 1 (Min)
Color Depth	16.7 million colors (8 bit panel)
Horizontal Viewing Angle	170 degrees (Typ) / 150 degrees (Min) @ CR>10
Vertical Viewing Angle	130 degrees (Typ) / 110 degrees (Min) @ CR>10
Response Time 10%-90% @ Ta=25°C	GTG 8ms (Avg) / 16ms (Max)
Mercury	3.0 mg per lamp
Panel Defects	Please see Panel Quality Specifications.

IMAGE PERFORMANCE

Factory Defaults

Item	Defaults	Item	Defaults
Contrast	70%	Input Priority	Auto Search
Brightness	100%	Resolution Notice	Enabled
Color Temperature	6500K	Volume	N/A
Sharpness	100%	Balance	N/A
OSD H. Position	50%	Treble	N/A
OSD V. Position	50%	Bass	N/A
OSD Time Out	15 Sec		
OSD Background	Enabled		

Dimension (Desktop)

Width	412mm (16.2")
Height (Height adjust to the bottom)	356mm (14") / 491mm (19.3")
Depth	289mm (11.4")
Monitor Weight	6.8 Kg (15 lbs)

*Refer to Figure 1

Dimension (Head Only / Wall Mount)

Width	412mm (16.2")
Height	336mm (13.2")
Depth	61mm (2.4")
Monitor Weight	4.2 Kg (9.3 lbs)

*Refer to Figure 1

Ergonomics

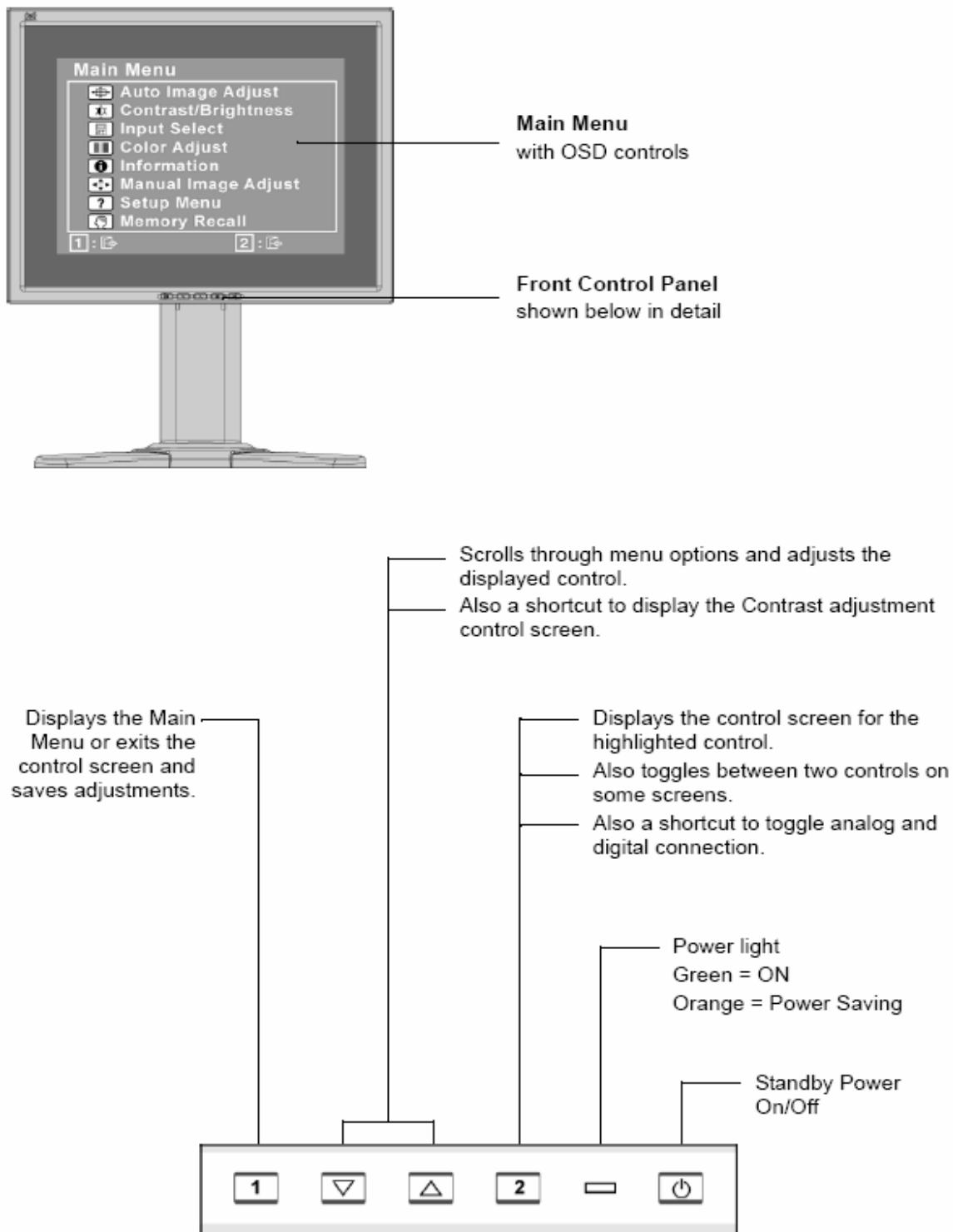
Tilt Up	$\geq 20^\circ$
Tilt Down	From 0° down to $-3^\circ \sim -5^\circ$
Swivel Right	$\geq 135^\circ$
Swivel Left	$\geq 135^\circ$
Height Adjust	$0 \sim \geq 135$ mm
Pivot	0~90 degrees (Clockwise)

3. Front Panel Function Control Description

3.1 Location of Controls

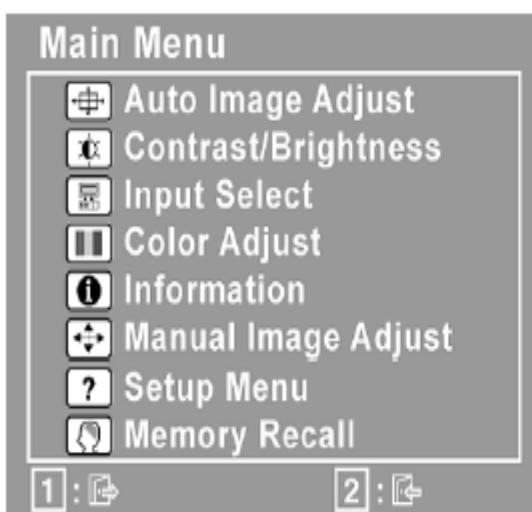
Adjusting the Screen Image

Use the buttons on the front control panel to display and adjust the OSD controls which display on the screen. The OSD controls are explained at the top of the next page and are defined in "Main Menu Controls" on page 11.



Do the following to adjust the display setting:

1. To display the Main Menu, press button [1].



NOTE: All OSD menus and adjustment screens disappear automatically after about 15 seconds. This is adjustable through the OSD timeout setting in the setup menu.

2. To select a control to adjust, press **▲** or **▼** to scroll up or down in the Main Menu.
3. After the desired control is selected, press button [2]. A control screen like the one shown below appears.
4. To adjust the setting, press the up **▲** or down **▼** buttons.
5. To save the adjustments and exit the menu, press button [1] *twice*.

The following tips may help you optimize your display:

- Adjust the computer's graphics card so that it outputs a 1280 x 1024 @ 60Hz video signal to the LCD display. (Look for instructions on "changing the refresh rate" in the graphics card's user guide.)
- If necessary, make small adjustments using H. POSITION and V. POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated "active area" of the LCD display.)

Main Menu Controls

Adjust the menu items shown below by using the up ▲ and down ▼ buttons.

Control Explanation



Auto Image Adjust automatically sizes, centers, and fine tunes the video signal to eliminate waviness and distortion. Press the [2] button to obtain a sharper image.

NOTE: Auto Image Adjust works with most common video cards. If this function does not work on your LCD display, then lower the video refresh rate to 60 Hz and set the resolution to its pre-set value.



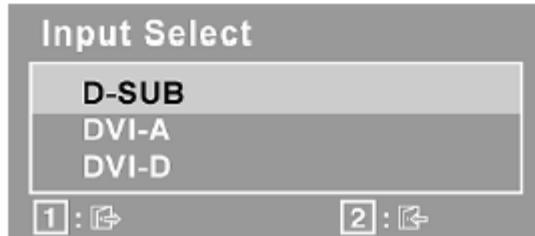
Contrast adjusts the difference between the image background (black level) and the foreground (white level).



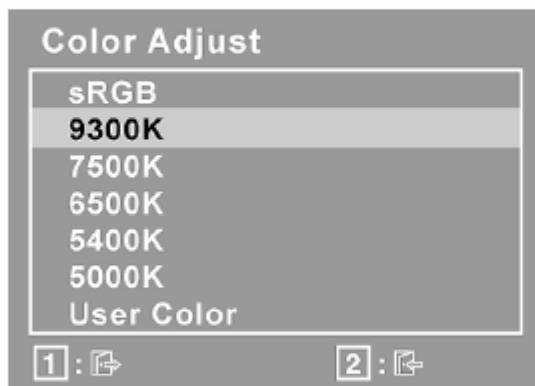
Brightness adjusts background black level of the screen image.



Input Select allows the user to toggle between an analog and a digital signal.



Color Adjust provides several color adjustment modes, including preset color temperatures and a User Color mode which allows independent adjustment of red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500 Kelvin).



sRGB-This is quickly becoming the industry standard for color management, with support being included in many of the latest applications. Enabling this setting allows the LCD display to more accurately display colors the way they were originally intended. Enabling the sRGB setting will cause the Contrast and Brightness adjustments to be disabled.

Control Explanation

9300K - Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

7500K - Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

6500K - Adds red to the screen image for warmer white and richer red.

5400K - Adds green to the screen image for a darker color.

5000K - Adds blue and green to the screen image for a darker color.

User Color - Individual adjustments for red (R), green (G), and blue (B).

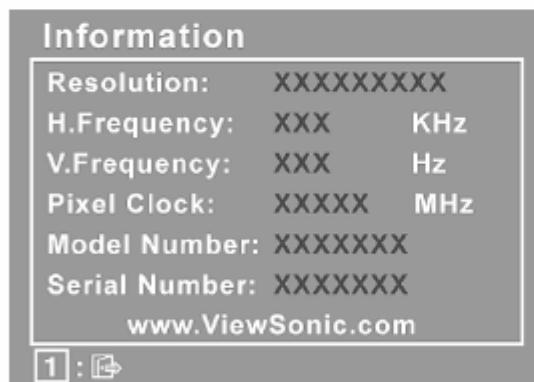
1. To select color (R, G or B) press button [2].
2. To adjust selected color, press ▲ or ▼.

Important: If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.

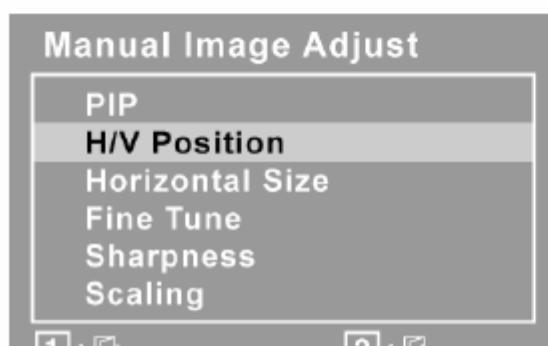


Information displays the timing mode (video signal input) coming from the graphics card in the computer, the LCD model number, the serial number, and the ViewSonic® website URL. See your graphics card's user guide for instructions on changing the resolution and refresh rate (vertical frequency).

NOTE: VESA 1280 x 1024 @ 60Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.



Manual Image Adjust displays the Manual Image Adjust menu.



Control Explanation

H./V. Position (Horizontal/Vertical Position) moves the screen image left or right and up or down.

Horizontal Size adjusts the width of the screen image.

Fine Tune sharpens the focus by aligning text and/or graphics with pixel boundaries.

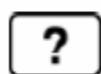
Sharpness adjusts the clarity and focus of the screen image.

Scaling adjusts the video input signal to the screen size other than 1280 x 1024 using the following options.

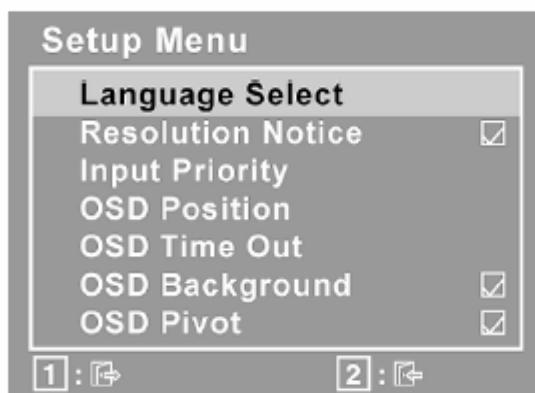
1:1 adjusts the video signal so that the height and width of the picture are the same.

Fill all adjusts the video signal to fill the screen.

Fill Aspect Ratio maintains the correct video signal proportions for different resolutions.



Setup Menu displays the menu shown below:



Language Select allows the user to choose the language used in the menus and control screens.

Resolution Notice allows the user to enable or disable this notice.

Input Priority If multiple computers will be connected to the display, this function can be used to select which computer has priority depending on the selected Input Priority, the display will do a one time detection for available inputs when first powered on.

OSD Position allows the user to move the OSD menus and control screens.

Control Explanation

OSD Timeout sets the length of time the OSD screen is displayed. For example, with a “15 second” setting, if a control is not pushed within 15 seconds, the display screen disappears.

OSD Background allows the user to turn the OSD background On or Off.

OSD Pivot This function is used to rotate the OSD menu, changing the OSD screen to Landscape or Portrait mode.



Memory Recall returns the adjustments back to factory settings if the display is operating in a factory Preset Timing Mode listed in the Specifications of this manual.

Exception: This control does not affect changes made with the User Color control, Language Select or Power Lock setting.

Hot Key for Function Controls

Buttons:	Functions:
[1]	Main menu
[2]	Input Select
[Up] or [Dn]	To immediately activate Contrast menu. It should be change to Brightness OSD by push button [2]
[Up] + [Dn]	Recall both of Contrast and Brightness to default
[1] + [2]	Toggle 720x400 and 640x400 mode when input 720x400 or 640x400 mode.
[1] + [Up] + [Dn]	Auto White Balance.(Not shown on user's guide)
[1] + [Dn]	Power Lock
[1] + [Up]	OSD Lock
[1] + [Dn] + [2]	Didable Theft Defence function
[Up] + [PW] + Main Power On	All reset
No signal + [PW] +[2] + Main Power on	Burning mode
Signal + [PW] +[2] + Main Power on	Factory Mode
Remark : All the short cuts function are only available while OSD off	

4. Circuit Description

1. WORKING THEOREM

A. Scaler

The TSU66AJ is total solution graphics processing IC for LCD monitors with panel resolutions up to SXGA. It is configured with a high-speed integrated triple-ADC/PLL, an integrated DVI receiver, a high quality display processing engine, and an integrated output display interface that can support LVDS panel interface format. To further reduce system costs, the TSU66AJ also integrates intelligent power management control capability for green-mode requirements and spread-spectrum support for EMI management. The TSU66AJ incorporates the world's first coherent oversampled RGB graphics ADC in a monitor controller system¹. The oversampling ADC samples the input RGB signals at a frequency that is much higher than the signal source pixel rate. This can preserve details in the video signal that ordinarily would be lost due to input signal jitter or bandwidth limitations in non-oversampled systems. The TSU66AJ also incorporates a new Dynamic Frame Rate (DFR) generator² for the digital output video to the display panel that preserves the advantages of a fixed output clock rate, while eliminating the output end of frame short-line.

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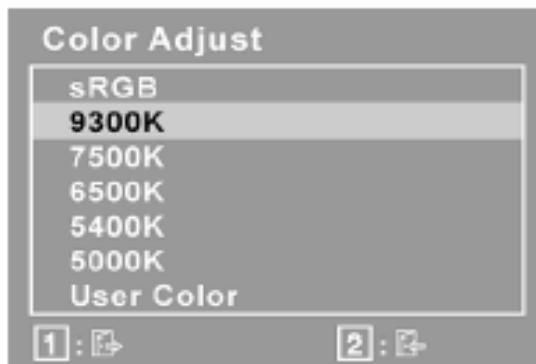
B. MCU:

The MTV416M micro-controller is an 8051 CPU core embedded device targeted for LCD Monitor or LCD TV application. It includes an 8051 CPU core, a 128K-byte internal program Flash-ROM, a 768-byte SRAM, 4 channels of PWM DAC, 4 channels of 6-bit ADC, and a built-in sync-processor. It also includes two IIC Slave B ports, supporting VESA DDC/CI for both D-sub and DVI interfaces, and a Boot-Code-Free ISP (In System Programming).

5. Adjusting Procedure



Color Adjust provides several color adjustment modes, including preset color temperatures and a User Color mode which allows independent adjustment of red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500 Kelvin).



sRGB-This is quickly becoming the industry standard for color management, with support being included in many of the latest applications. Enabling this setting allows the LCD display to more accurately display colors the way they were originally intended. Enabling the sRGB setting will cause the Contrast and Brightness adjustments to be disabled.

9300K - Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

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5000K - Adds blue and green to the screen image for a darker color.

User Color - Individual adjustments for red (R), green (G), and blue (B).

1. To select color (R, G or B) press button [2].
2. To adjust selected color, press ▲ or ▼.

Important: If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.

5-1.1 Product

17" LCD Monitor

5-1.2 Test Equipment

Color Video Signal & Pattern (or PC with SXGA resolution)

5-1.3 Test Condition

Before function test and alignment, each LCD Monitor should be run-in and warmed up for at least

30 minutes with the following conditions:

- (a) In room temperature,
- (b) With full-white screen, RGB, and Black
- (c) With cycled display modes,
640*480 (H=43.27 kHz, V=85Hz)
800*600 (H=53.7 kHz, V=85Hz)
1024*768 (H=68.67 kHz, V=85Hz)
1280*1024(H=80.0KHz, V=75Hz)

5-1.4 Test Display Modes & Pattern

5-1.4.1 Compatible Modes

Analog Digital

Item	Timing		
1	640 x 350	@	70 Hz, 31.5 KHz
2	640 x 400	@	60 Hz, 31.5 KHz
3	640 x 400	@	70 Hz, 31.5 KHz
4	640 x 480	@	50 Hz, 24.7 KHz
5	640 x 480	@	60 Hz, 31.5 KHz
6	640 x 480	@	67 Hz, 35.0 KHz
7	640 x 480	@	72 Hz, 37.9 KHz
8	640 x 480	@	75 Hz, 37.5 KHz
9	640 x 480	@	85 Hz, 43.3 KHz
10	640 x 870	@	75 Hz, 68.9 KHz
11	720 x 400	@	70 Hz, 31.5 KHz
12	720 x 400	@	85 Hz, 37.9 KHz
13	720 x 480	@	60 Hz, 31.5 KHz
14	720 x 576	@	50 Hz, 31.3 KHz
15	800 x 600	@	50 Hz, 24.7 KHz
16	800 x 600	@	56 Hz, 35.1 KHz
17	800 x 600	@	60 Hz, 37.9 KHz
18	800 x 600	@	72 Hz, 48.1 KHz
19	800 x 600	@	75 Hz, 46.9 KHz
20	800 x 600	@	85 Hz, 53.7 KHz
21	832 x 624	@	75 Hz, 49.7 KHz
22	1024 x 768	@	50 Hz, 39.6 KHz
23	1024 x 768	@	60 Hz, 48.4 KHz
24	1024 x 768	@	70 Hz, 56.5 KHz
25	1024 x 768	@	72 Hz, 58.1 KHz
26	1024 x 768	@	75 Hz, 60.0 KHz
27	1024 x 768	@	75 Hz, 60.2 KHz
28	1024 x 768	@	85 Hz, 68.7 KHz
29	1152 x 864	@	75 Hz, 67.5 KHz
30	1152 x 870	@	75 Hz, 68.7 KHz
31	1280 x 720	@	50 Hz, 37.5 KHz
32	1280 x 720	@	60 Hz, 45.0 KHz
33	1280 x 768	@	50 Hz, 39.6 KHz
34	1280 x 768	@	60 Hz, 47.4 KHz
35	1280 x 768	@	60 Hz, 47.8 KHz
36	1280 x 768	@	75 Hz, 60.3 KHz
37	1280 x 768	@	85 Hz, 68.6 KHz
38	1280 x 960	@	50 Hz, 49.4 KHz
39	1280 x 960	@	60 Hz, 59.7 KHz

40	1280 x 960	@	75 Hz, 75.2 KHz
41	1280 x 1024	@	50 Hz, 52.7 KHz
42	1280 x 1024	@	60 Hz, 64.0 KHz
43	1280 x 1024	@	75 Hz, 80.0 KHz

5-1.5.2 Auto Image Adjust

Please select and enter “**Auto Image Adjust**” function on Main Menu to see if it is workable. The “**Auto Image Adjust**” function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

5-1.5.3 Firmware

Test Pattern: Burn in Mode (Refer to Chapter III-3. Hot Keys for Function Controls)

- Make sure the F/W is the latest version.

5-1.5.4 DDC

Test Pattern: EDID program

- Make sure it can pass test program.

5-1.5.5 Fine Tune and Sharpness

Test Signal: 1280 x 1024 @ 60.0kHz

Test Pattern: Line Moiré Pattern

- Check and see if the image has noise and focus performs well. Eliminate visual line bar.
- If not, readjust by the following steps:
 - (a) Select and enter “**Fine Tune**” function on “**Manual Image Adjust**” to adjust the image to eliminate visual wavy noise.
 - (b) Then, select and enter “**Sharpness**” function to adjust the clarity and focus of the screen image.

5-1.5.6 White Balance

Test Signal: 640*480@60Hz

Test Pattern: Full White and Black Pattern

5-1.5.7 R, G, B, Colors Contrast

Test Signal: 1280 x 1024 @ 60.0kHz

Test Pattern: R, G, B, Color Intensities Pattern and 16 Gray Scale Pattern

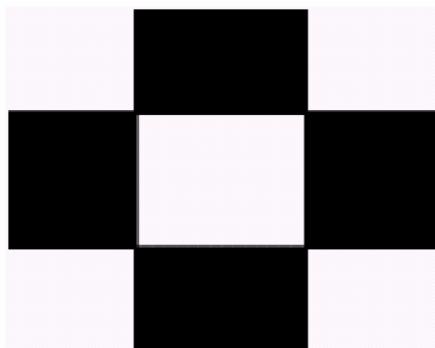
- Check and see if each color is normal and distinguishable.
- If not, please return the unit to repair area.

5-1.5.8 Screen Uniformity and Flicker

Test Signal: 1280 x 1024 @ 60.0kHz

Test Pattern: Full White Pattern

- Check and see if it is in normal condition.



5-1.5.9 Dead Pixel and Line

Test Signal: 1280 x 1024 @ 60.0kHz

Test Pattern: Dark and White Screen Pattern

- Check and see if there are dead pixels on LCD panel with shadow gauge and filter film.
- The total numbers and distance of dead pixels should be compliant with the spec.

5-1.5.10 Mura

Test Pattern: White, RGB, Black, & Grey

Test Tool: 10 % ND Filter

- Check if the Mura can pass 10 % ND Filter.

5-1.5.11 Check for Secondary Display Modes

Test Signal:

Analog: 640*350@70Hz; 640*400@60Hz; 640*480@50/60/67/72/75/85Hz;
720*400@70Hz/85Hz; 720*480@60Hz; 720*576@50Hz; 800*600@56/60/72/75/85Hz;
832*624@75Hz, 1024*768@50/60/70/72/75/85Hz; 1152*864@75Hz; 1152*870@75Hz;
1280*720@50/60Hz; 1280*768@50/60/75/85Hz; 1280*960@50/60/75Hz; 1280*1024@50/60/75Hz

Digital: 640*350@70Hz; 640*400@60Hz; 640*480@50/60/67/72/75/85Hz;
720*400@70Hz/85Hz; 720*480@60Hz; 720*576@50Hz; 800*600@56/60/72/75/85Hz;
832*624@75Hz, 1024*768@50/60/70/72/75/85Hz; 1152*864@75Hz; 1152*870@75Hz;
1280*720@50/60Hz; 1280*768@50/60/75/85Hz; 1280*960@50/60/75Hz; 1280*1024@50/60/75Hz

- Normally when the primary mode 1280*1024@60Hz is well adjusted and compliant with the specification, the secondary display modes will be great possible to be compliant with the spec. But we still have to check with the general test pattern to make sure every secondary is compliant with the specification.

5-1.5.12 All Modes Reset

After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do "All Mode Reset" again.

5-1.5.13 Power off Monitor

Turn off the monitor by pressing "Power" button.

5-2. Firmware Upgrade Procedure

5-2.1 Equipment Needed

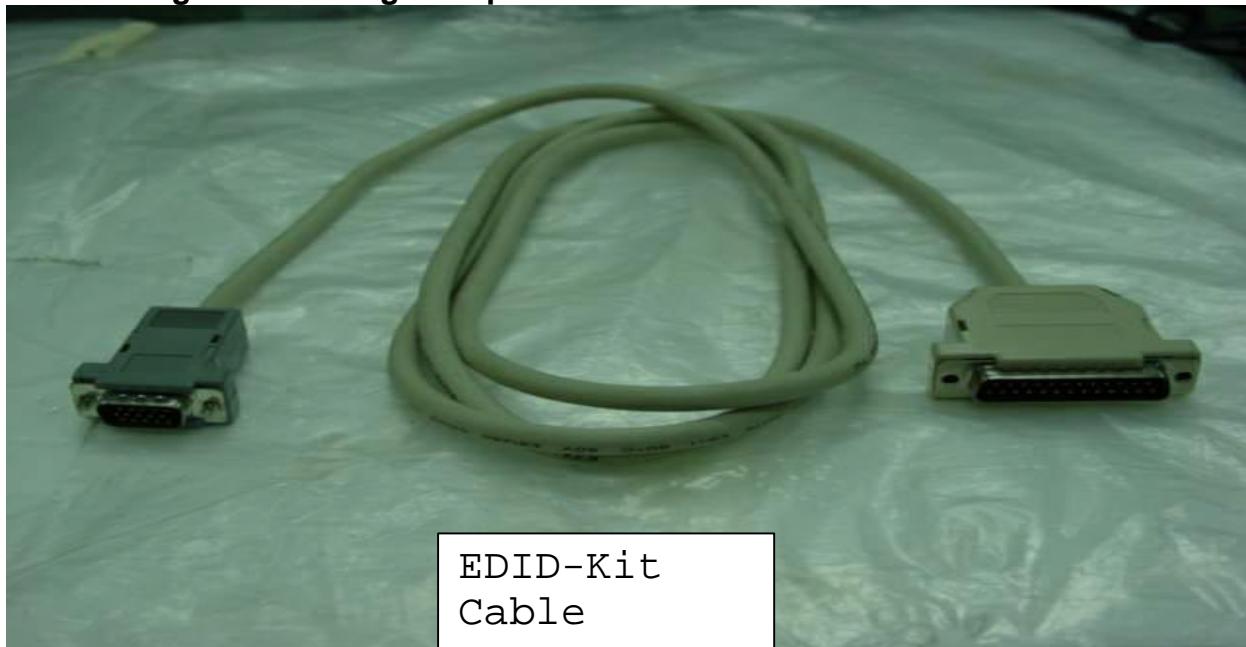
- VP930 Monitor
 - Fixture for Firmware Upgrade
 - Power Adapter (P/N: 47.58201.001) *1 for Fixture
 - VGA Cable (P/N: 42.59901.003) *1 (Pin 4, 11 should be connected to GND)
 - PC (Personal Computer)
 - LPT Cable (P/N: 42.59906.001) *1
 - Firmware Upgrade Program
 - One additional monitor for checking the program execution PC
- Fixture
Printer Port
VP930

5.3 . EDID Procedure

DDC User's manual

1. Hardware installation

- A. The EDID cable has equipped 2 different terminals; one is male 25 pin printer connector and another side is male 15 pin D-sub connector.
- B. Connect the EDID cable from PC Printer port to monitor D-sub connector.
- C. **Make sure the monitor was working under power saving mode and keep it at “Power Saving state” during DDC process.**



PC printer
port 25pin
connector



D-Sub of
Monitor
15pin VGA

2. Programming procedure

- A. Normally, you received a EDID zip file of new model. You need to unzipped it.
- B. There will need the following files for DDC program: (VP730 is an example)
 1. DPS.EXE
 2. VP930.BAT
 3. VP930.DDC
 4. VP930.CFG
 5. VP930.DPS
- C. Execute the **VP930.BAT** (for VP930 monitor only) from Programming PC. Below screen will display.

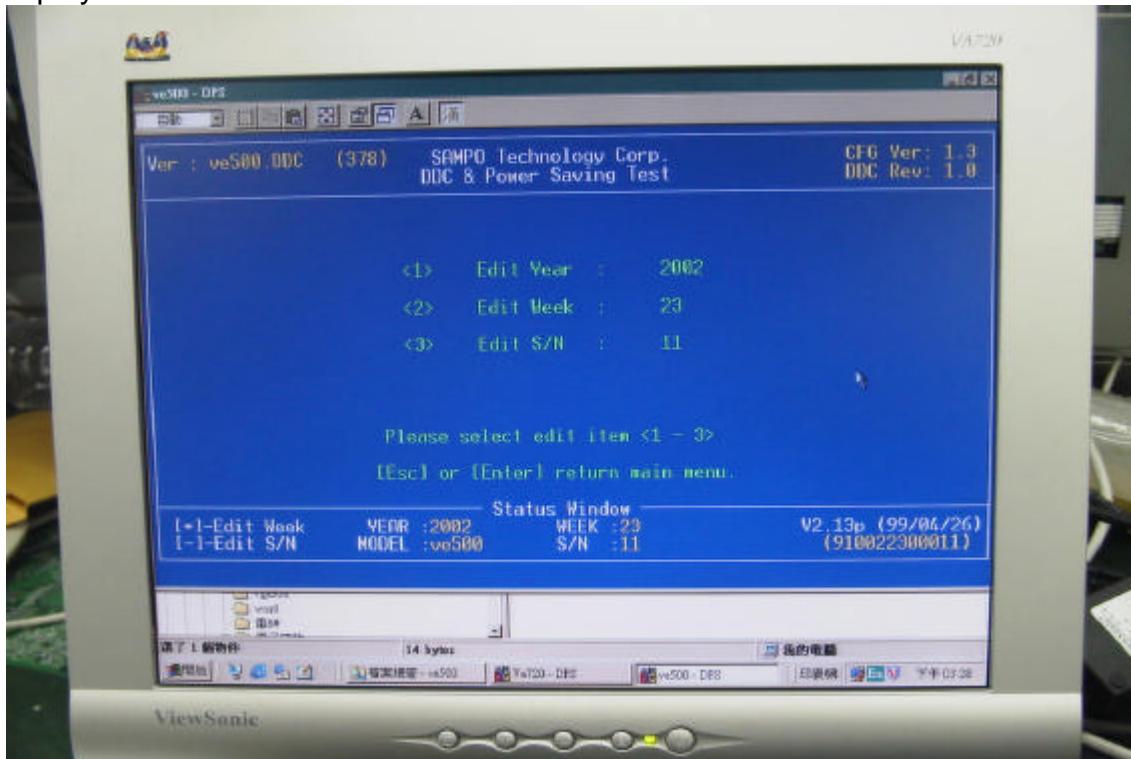


Fig-DDC1

Refer to Fig-DDC1; you have to select the required item if the display data was not you want.

Press 1: For year, the cursor will move to the column behind “Edit Year” than you can key in the data you want after that press enter to exit and return. (It needs 4 numbers for this data)

Press 2: For week, the cursor will move to the column behind “Edit Week” than you can key in the data you want after that press enter to exit and return. (This data is within 1 ~ 53.)

Press 3: For S/N,, the cursor will move to the column behind “Edit S/N” than you can key in the data you want after that press enter to exit and return. (This data is within 0 ~ 99999, 5 numbers max.)

D. Press “ESC” or “Enter” key to return main menu, the Fig-DDC2 will be displayed and the correct serial number will show on right corner of screen.

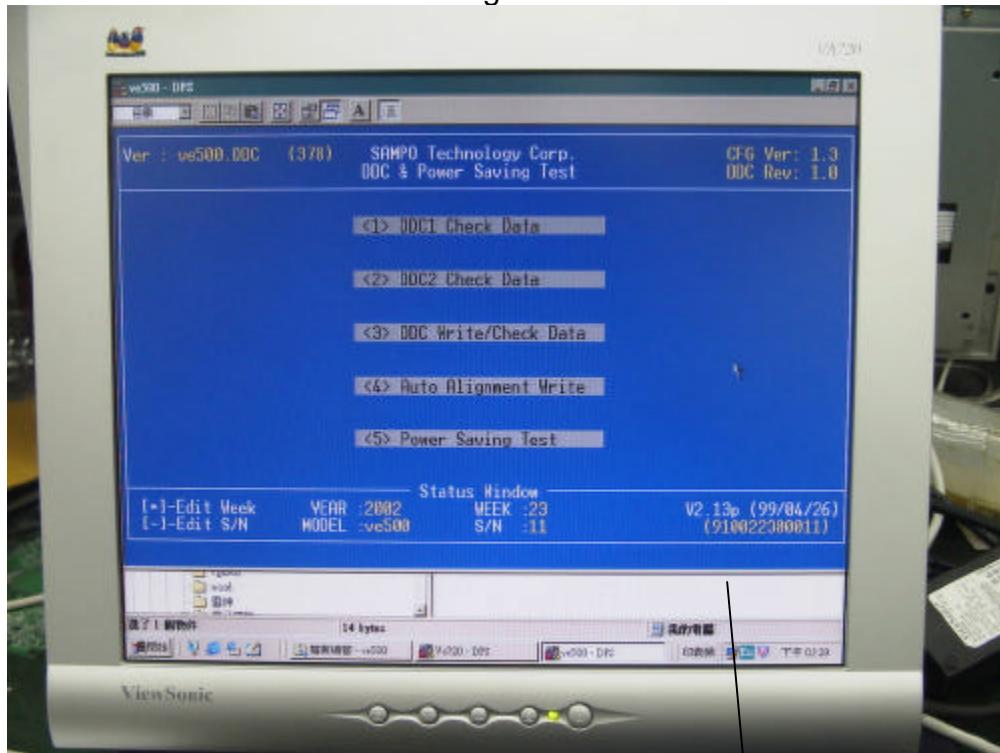


Fig-DDC2

Display updated serial number.

Under Fig-DDC2, you could change the “Week” data by press “*” key and the “S/N” data by press “-“ key.

Press 3 “DDC Writer/Check Data”: The Kit will start to program new data of EDID into monitor, all DDC data will display on the screen after programming.
Please refer to Fig-DDC3 below, the DDC process is finished.



Fig-DDC3

The message (E2PROM Acknowledge Not Echo) will display on the screen if there is any error detected by Programming PC. If error message is happened, please re-check the connection of cable and return to first step.



Please refer to the Viewsonic EDID data format that was printing on ID label.

PPYYWWxxxxx

PPP = Viewsonic Regional Product ID Code, EX. VE500 is "910", VE700 is "A10" and VG900 is "A1C".

YY= 2 digits of Manufacturing year. (range 1996-2015).

WW = 2 digits of Manufacturing week (range 01-54).

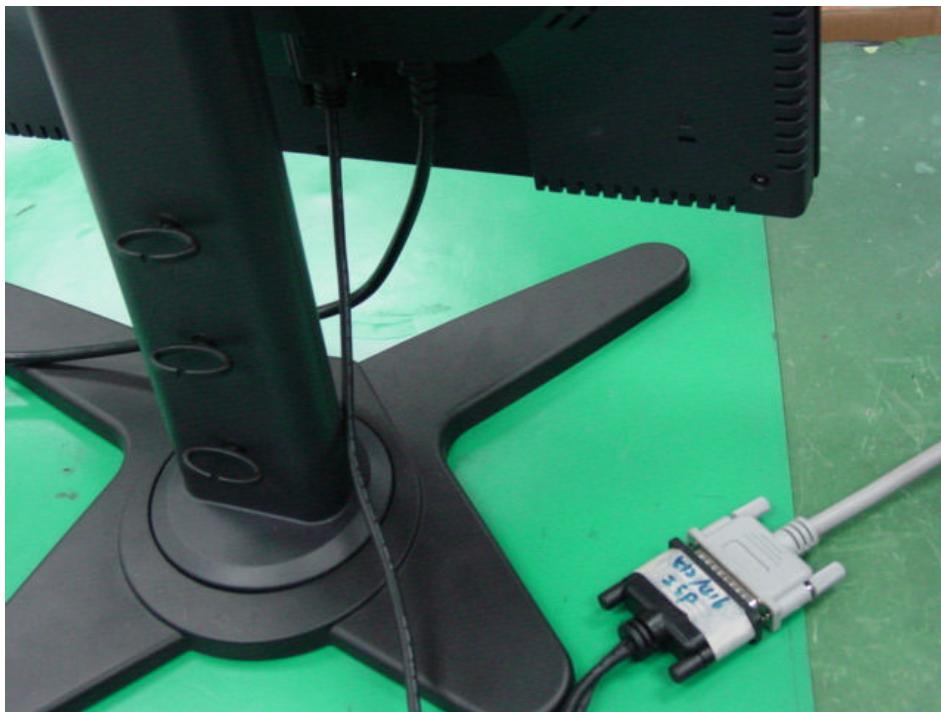
xxxxx = 5 digits of Sequence number. (range 00001-99999).

5.4 . ISP procedure

Connection of I S P Kit :

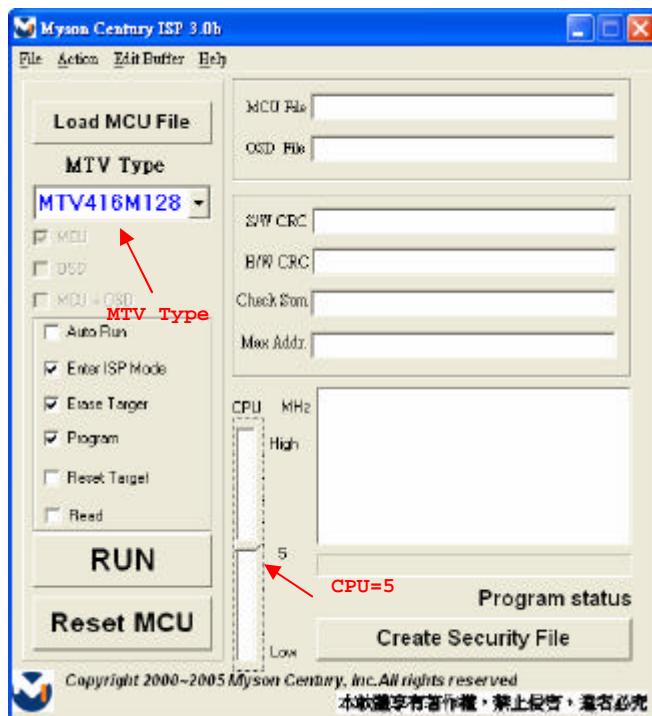
Using ISP cable connect PC Print port

Using VGA cable connect monitor (destination).

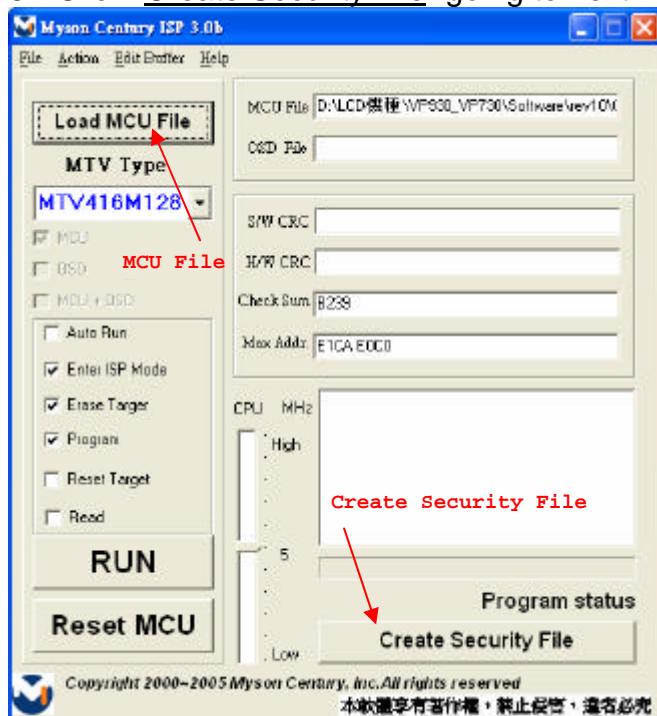


Setting of ISP program on PC

1. Setup MYSON ISP program,
2. Execute ISP program to get the window below
3. Select “MTV416M128” MCU type,
4. Select CPU=5 MHz

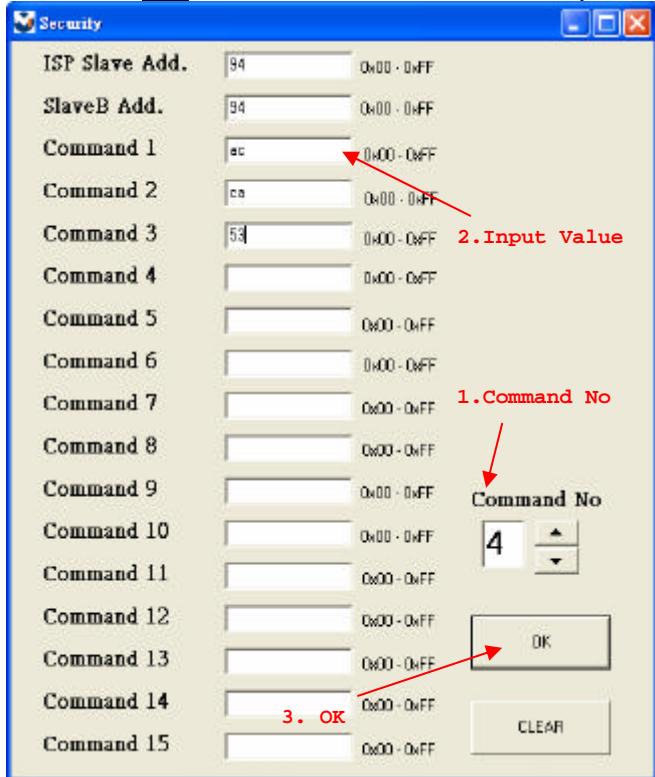


5. Click “Load MCU file” and then find the updated firmware code.
6. Click “Create Security File” going to next window

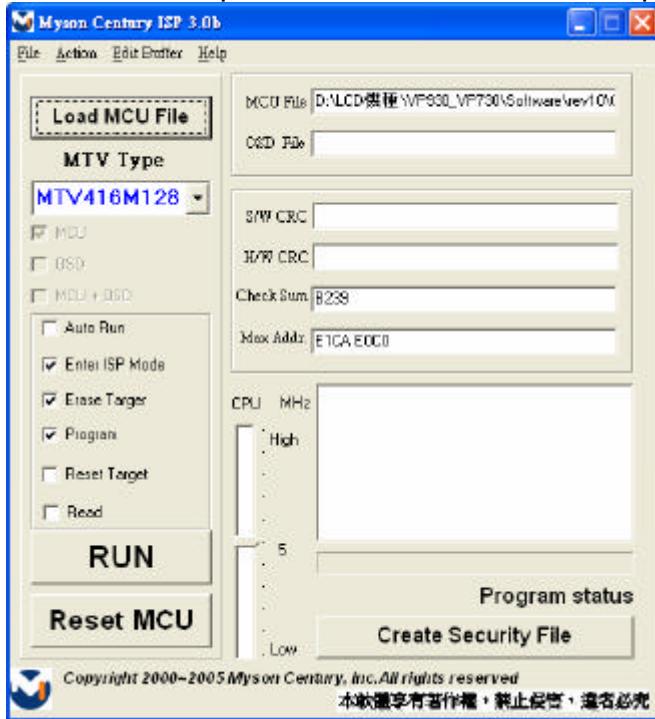


7. Select Command No=4

8. Put ISP Slave Add=94 ; Slave B Add=94 ; Command 1=ac ; Command 2=ca
Command 3=53
9. Click “OK” to start ISP function and update the firmware into Monitor.

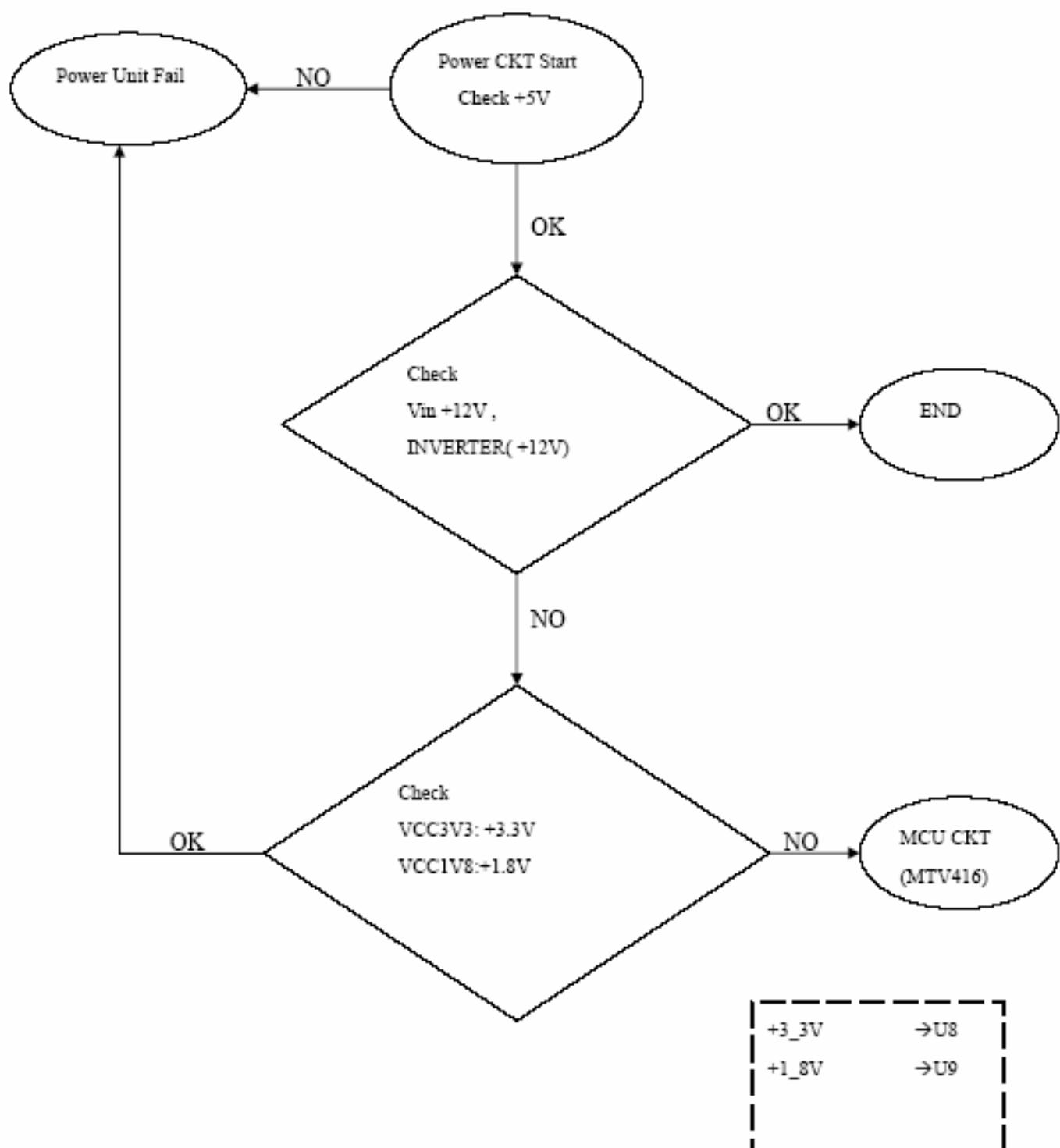


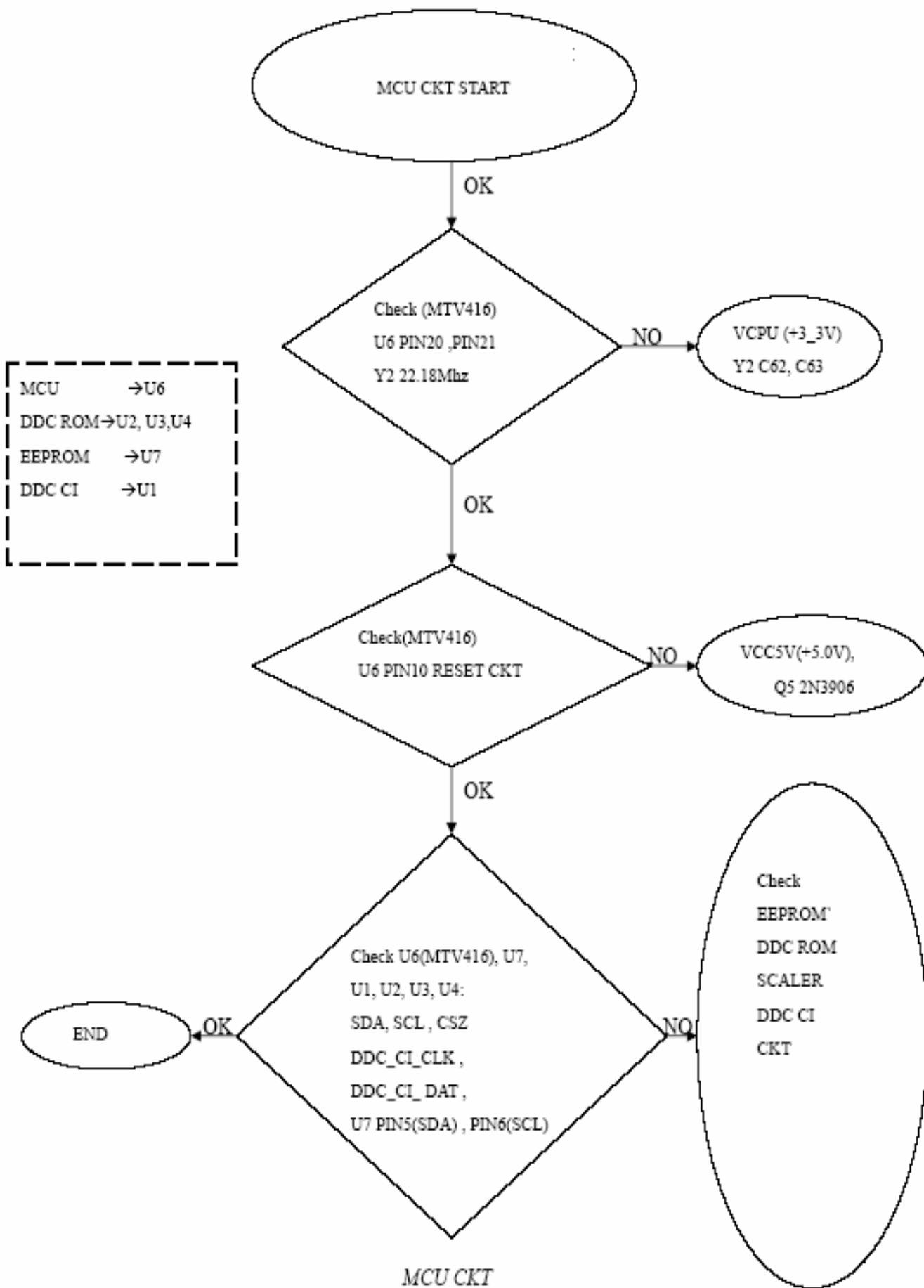
10. Firmware update is finished when the display backed to the window below.

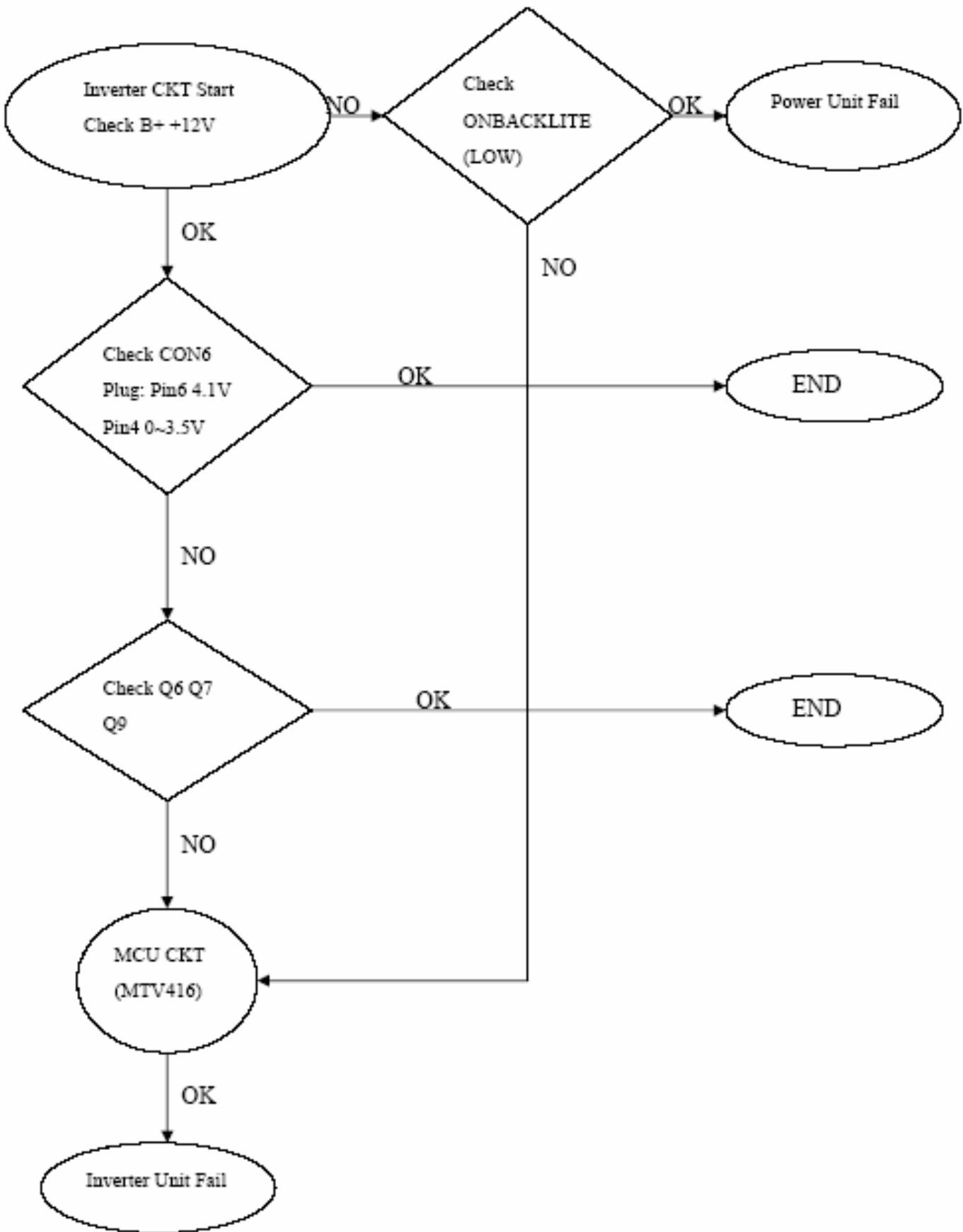


6.TROUBLE SHOOTING FLOW CHART

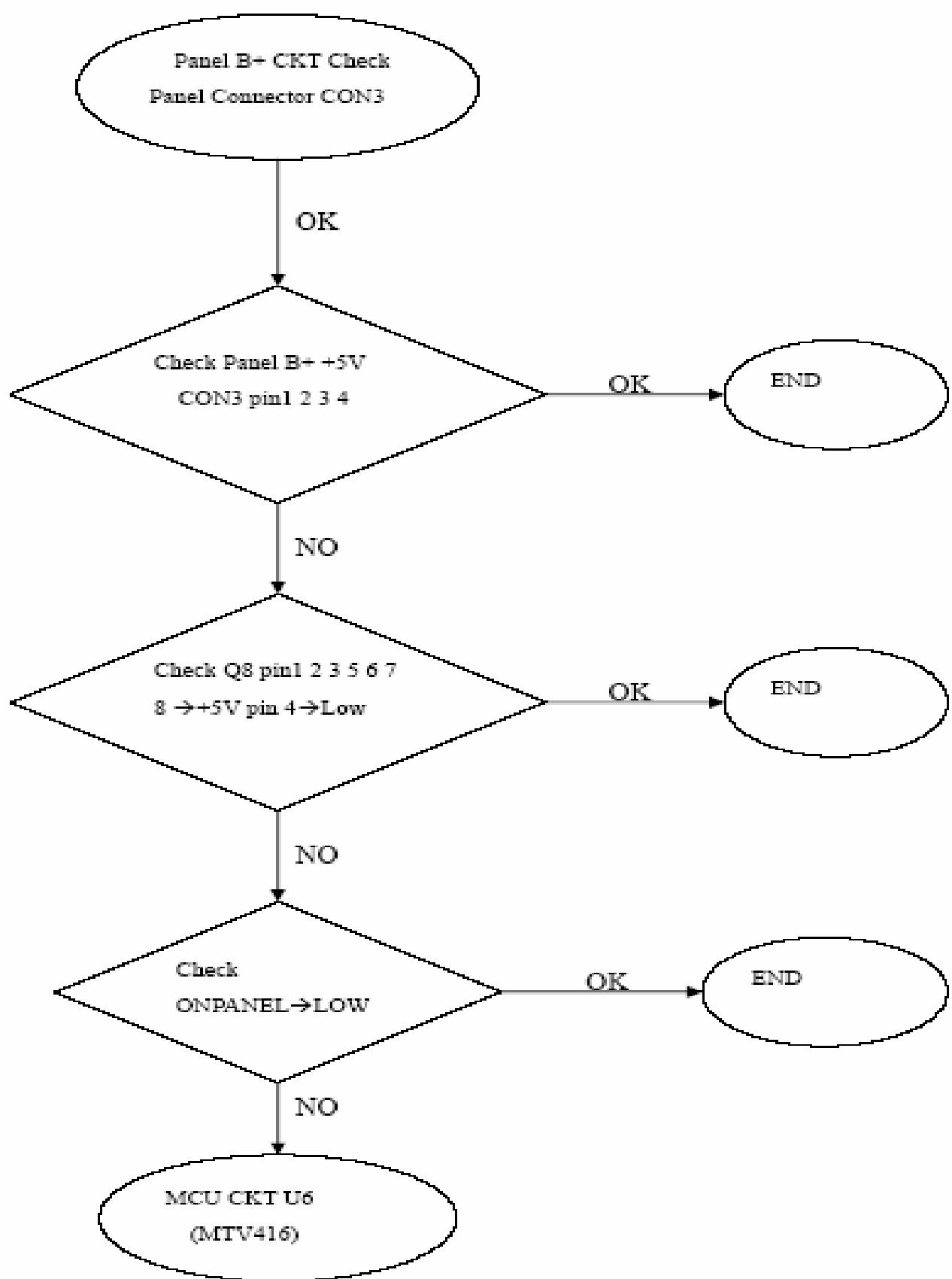
Trouble Shooting



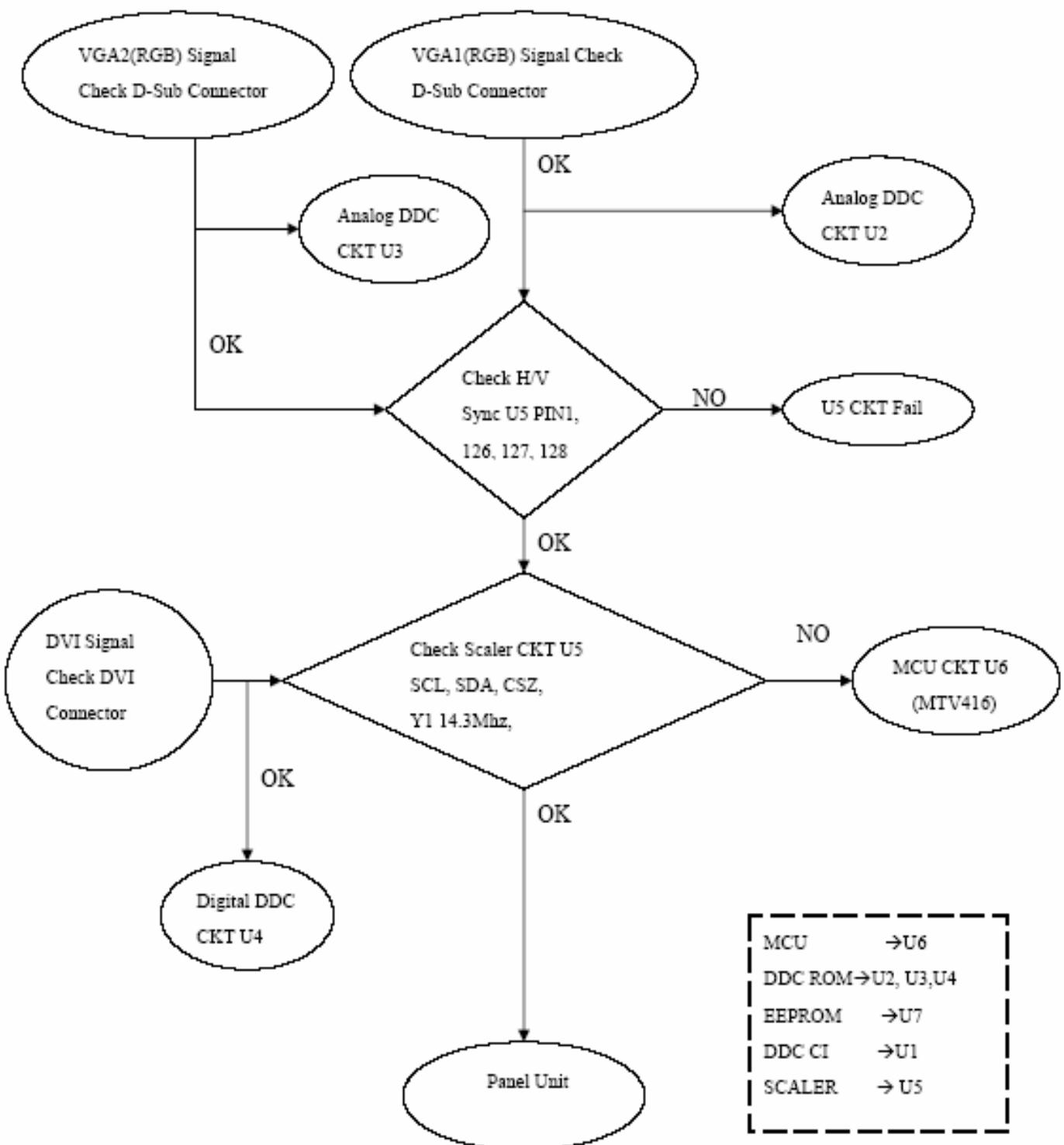




INVERTER CKT



Panel B+ CKT



DVI & VGA CKT

7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VP930-2U)

ViewSonic Model Number: VS10725

Rev: 1A

Serial No. Prefix: Q8G

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	Accessories: AC POWER CORD QACC-1126D8D SAMPO		A-00005316	2427190002P	P951		1
2	Board Assembly: INVERTER BOARD RUNTP5655T8 (INVERTER) SAMPO		B-00005310	2200501200P	U901		1
3	POWER BOARD RUNTP5654T8 (POWER/B) SAMPO		B-00005311	2200501400P	U801		1
4	MAINE BOARD DPWBN5718T8V (MAIN/B) SAMPO		B-00005312	2200501600P	U101		1
5	KEY BOARD DPWBN5722T8 (KEY/B) SAMPO		B-00005313	2200501700P	U701		1
6	Cables: I/O CABLE D15/D15 20276(5.8) 1.83M BLACK		CB-00005317	2427501196P	P961		1
7	I/O CABLE (DVI) QCODS1641D8D-A 1.8M BLK SAMPO		CB-00005318	2427590004P	P971		1
8	FFC CABLE QCOPD1229T8 SAMPO		CB-00005319	2420390001P	P980		1
9	Documentation CD-OWNER GUIDE VP930 QSG TINSE3194T8		DC-00005307	2002370009P	6P82		1
10	CD-Wizard (CD-ROI) VP930 CD DDSKC0058T8		DC-00005308	2438570006P	6P80		1
11	CD-OWNER GUIDE VP930 CD-DRIVER DDSKC00628T8		DC-00005309	2438570007P	6P81		1
12	Electronic Components: LCD PANEL M190EN03-V2 AUO		E-00005320	2212090100P	V901		1
13	Packing Material: CARTON BOX VP930-2 VS10725 TCO03		P-00005321	2011091102P	6P01		1
14	POLYFOAM SPAKA6617T8F VP930B		P-00005322	2012186700P	6P20		1
15	Plastics: STAND GSTN-27957T8K---BLK		PL-00005315	2028262002P	5B01		1
16	Cabinets: CAB-A GCABA2369T8F--- PS-7604B		C-00005327	2024272902P	1F01		1
17	CAB-B GCABB1883T8F--- BLK		C-00005328	2022267502P	2C01		1
18	BACK COVER GC0VD2626T8F--- BLK		C-00005326	2022267402P	2C02		1

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.

Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior versions.

RECOMMENDED SPARE PARTS LIST (VP930b-2)

ViewSonic Model Number: VS10725

Rev: 1A

Serial No. Prefix: Q8H

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	Accessories: AC POWER CORD QACC-1126D8D SAMPO		A-00005316	2427190002P	P951		1
2	Board Assembly: INVERTER BOARD RUNTP5655T8 (INVERTER) SAMPO		B-00005310	2200501200P	U901		1
3	POWER BOARD RUNTP5654T8 (POWER/B) SAMPO		B-00005311	2200501400P	U801		1
4	MAIN BOARD DPWBN5718T8V (MAIN/B) SAMPO		B-00005312	2200501600P	U101		1
5	KEY BOARD DPWBN5722T8 (KEY/B) SAMPO		B-00005313	2200501700P	U701		1
6	Cabinets: CAB-A GCABA2369T8F VP930B		C-00005324	2603307945			1
	BACK COVER GC0VD2626T8F VP930B		C-00005331	2022267401P	2C02		1
	CAB-B GCABB1883T8F VP930B		C-00005329	2022267501P	2C01		1
7	Cables: I/O CABLE D15/D15 20276(5.8) 1.83M BLACK		CB-00005317	2427501196P	P961		1
8	I/O CABLE (DVI) QCODS1641D8D-A 1.8M BLK SAMPO		CB-00005318	2427590004P	P971		1
9	FLAT CABLE (FFC) QCOPD1229T8 SAMPO		CB-00005319	2420390001P	P980		1
10	Documentation: Quick Start Guide CD VP930 QSG TINSE3194T8		DC-00005307	2002370009P	6P82		1
11	CD-Owner (CD-Rom) VP930 CD DDSKC0058T8		DC-00005308	2438570006P	6P80		1
12	CD-OWNER GUIDE VP930 CD-DRIVER DDSKC00628T8		DC-00005309	2438570007P	6P81		1
13	Electronic Components: LCD PANEL M190EN03-V2 AUO		E-00005320	2212090100P	V901		1
14	Packing Material: PACKING FOAM SPAKA6617T8F VP930B		P-00005322	2012186700P	6P20		1
15	BOX CARTON VP930b BOX SPAKC3715T8		P-00005325	2011091101P	6P01		1
16	Plastics: STAND GSTN-2957T8 VP930B		PL-00005323	2028262001P	5B01		1

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.

Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior versions.

BOM LIST (VP930-2)

ViewSonic Model Number: VS10725

Rev: 1a

Serial No. Prefi Q8G

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	C-00005327	2024272902P	FRONT BEZELGCABA2369T8F---- PS-7604B	1F01		1
2	#N/A	2053756001P	LED INDIC.-PWRHDECP2012TSF VP930	1F02		1
3	#N/A	2044269101P	FUNCTION KEY JKNBP2392T8F VP930B	1F03		1
4	#N/A	2051354900P	NAME PLATE HBDGE1393T8 VP930B	1F04		1
5	#N/A	2071881100P	BRACKET,FIXLANGF2194T8---A VP930	1F10		4
6	#N/A	2061456100P	BUSHING PCUSG1647T8 VP930B	1F11		2
7	#N/A	2061456200P	BUSHING PCUSG1674T8 VP930B	1F12		1
8	#N/A	2071979700P	METAL FITTGLANGF2227T8 VP930B	1F16		1
9	#N/A	2071881300P	BRACKET,FIXLANGF2232T8 VP930B	1F17		2
10	#N/A	2080006400P	SCREW,SPE XBBNS30P04000- (M3*4) VP930B	1F18		4
11	#N/A	2080006300P	SCREW,SPE LBOSM1069DB VP930B	1F22		6
12	#N/A	2061456300P	BUSHING PCUSG1687T8 VP930B	1F23		3
13	#N/A	2080006600P	SCREW,SPE XHISE40P08TV0-- (M4*8) VP930B	1F24		1
14	#N/A	2061456400P	BUSHING PCUSG1651T8---	1F25		1
15	#N/A	2061456500P	BUSHING PISLS1177d----	1F26		1
16	#N/A	2072461300P	INSULATOR PISLV0262T8----	1F27		1
17	C-00005329	2022267501P	CABI BACK GCABB1883T8F VP930B	2C01		1
18	C-00005331	2022267401P	CABI BACK GC0VD2626T8F VP930B	2C02		1
19	#N/A	2080006200P	SCREW,SPE XBMSB30P06000 VP930B	2C03		4
20	#N/A	2071881200P	BRACKET,FIXLANGF206-3D--B VP930B	2C04		1
21	#N/A	2080006500P	SCREW,SPE XBMSB30P05000- (M3*5) VP930B	2C05		11
22	#N/A	2080006800P	SCREW,SPE SCREW, FOR BASE MENTAL	2C06		4
23	PL-00005323	2028262001P	STANDGSTN-2957T8 VP930B	5B01		1
24	#N/A	2080006100P	SCREW,SPE XBPSB40P10JS0 (M4*10) VP930B	5B02		4
25	P-00005321	2011091102P	CARTON BOX VP930-2 VS10725 TCO03	6P01		1
26	#N/A	2055670026P	LABELVP930-2 VS10725 (E) AUO	6P02		1
27	#N/A	2055613281P	LABELVIEWSONIC NO.2 STICKER	6P03		1
28	#N/A	2055613441P	LABELVIEWSONIC 8ms STICKER 89X58mm	6P04		2
29	#N/A	2055690023P	LABELVP930-2 VS10725 SMALL LABEL	6P05		1
30	M-LB-0813-0856	2055613379P	LABELVIEWSONIC CONTAINER LABEL	6P11		0.028"
31	#N/A	2055690014P	LABELVP930 H1-POT TLAB-5657T8	6P13		1
32	#N/A	2055690015P	LABELVP930 HIGHVOLTAGE TLABZ4916T8	6P14		1
33	P-00005322	2012186700P	POLYFOAMSPAKA6617T8F VP930B	6P20		1
34	#N/A	2063302400P	PROTECTOR PISL-1351T8 VP930B	6P23		1
35	#N/A	2055170060P	LABELVP930-2 VS10725 TCO03	6P50		1
36	M-LB-0813-0002	2056603050P	SERIAL LABEL VIEWSONIC LCD SERIAL LABEL	6P51		1
37	M-LB-0813-0528	2055103400P	LABELJK0936F WEN	6P52		1
38	#N/A	2013054030P	POLYETHY BAG VP930 LCD BAG SSAKH1356D8-T-B	6P60		1
39	#N/A	2438570011P	CD-OWNER GUIDEVP930-2 SERIES VS10725 AUO	6P80		1
40	DC-00005309	2438570007P	CD-OWNER GUIDEVP930 CD-DRIVER DDSKC00628T8	6P81		1
41	DC-00005307	2002370009P	GUARANT CARD VP930 QSG TINSE3194T8	6P82		1
42	#N/A	2013054031P	POLYETHY BAG VP930 UG BAG SSAKD0010-1-T	6P83		1
43	#N/A	2433312131P	SHIELDING FOAMW12*H3*L13mm	K901		1
44	#N/A	2433301010P	SHIELDING FOAMW10*H8*L10mm	K902		1
45	#N/A	2434425070P	AL SHIELDING TAPEW25*L70mm (AL)	K903 K904 K905 K906		4
46	#N/A	2434425040P	AL SHIELDING TAPEW25*L40mm (AL)	K907 K908		2
47	#N/A	2434450160P	AL SHIELDING TAPEW50*L160mm (AL)	K915		1
48	M-MS-0808-6571	2433303010P	SHIELDING FOAMW10*H10.5*L10mm	K916 K917 K918		3
49	#N/A	2434416030P	AL SHIELDING TAPEW16*L30mm (AL)	K919		1
50	#N/A	2427490001P	WIRE HARNESS QCOPD1230T8 (KEY) SAMPO	P701		1
51	#N/A	2427190003P	AC POWER CORD QACC-1228T8D-F SAMPO	P951		1
52	CB-00005317	2427501196P	I/O CABLE D15/D15 20276(5.8) 1.83M BLACK	P961		1
53	CB-00005318	2427590004P	I/O CABLE (DVI) QCODS1641D8D-A 1.8M BLK SAMPO	P971		1
54	CB-00005319	2420390001P	FFC CABLE QCOPD1229T8 SAMPO	P980		1
55	#N/A	2427490002P	WIRE HARNESS QCNWS0907T8021 (POWER)SAMPO	P981		1
56	#N/A	2427490003P	WIRE HARNESS QCNWS0906T8038 INVERTER SAMPO	P982		1
57	B-00005312	2200501600P	PC BOARD ASS'YDPWBN5718T8V (MAIN/B)SAMPO	U101		1
58	B-00005313	2200501700P	PC BOARD ASS'Y SMD DPWBN5722T8 (KEY/B) SAMPO	U701		1
59	B-00005311	2200501400P	PC BOARD ASS'Y SMD RUNTP5654T8 (POWER/B)SAMPO	U801RA		1
60	#N/A	2200501500P	PC BOARD ASS'Y SMD RUNTP5656T8 (POWER/B)SAMPO	U801RB		1
61	#N/A	2200501300P	PC BOARD ASS'Y SMD RUNTP5663T8 (INVERTER) SAMPO	U901RA		1
62	B-00005310	2200501200P	PC BOARD ASS'Y SMD RUNTP5655T8 (INVERTER) SAMPO	U901RB		1
63	E-00005320	2212090100P	LCD PANEL M190EN03-V2 AUO	V901		1

BOM LIST (VP930b-2)

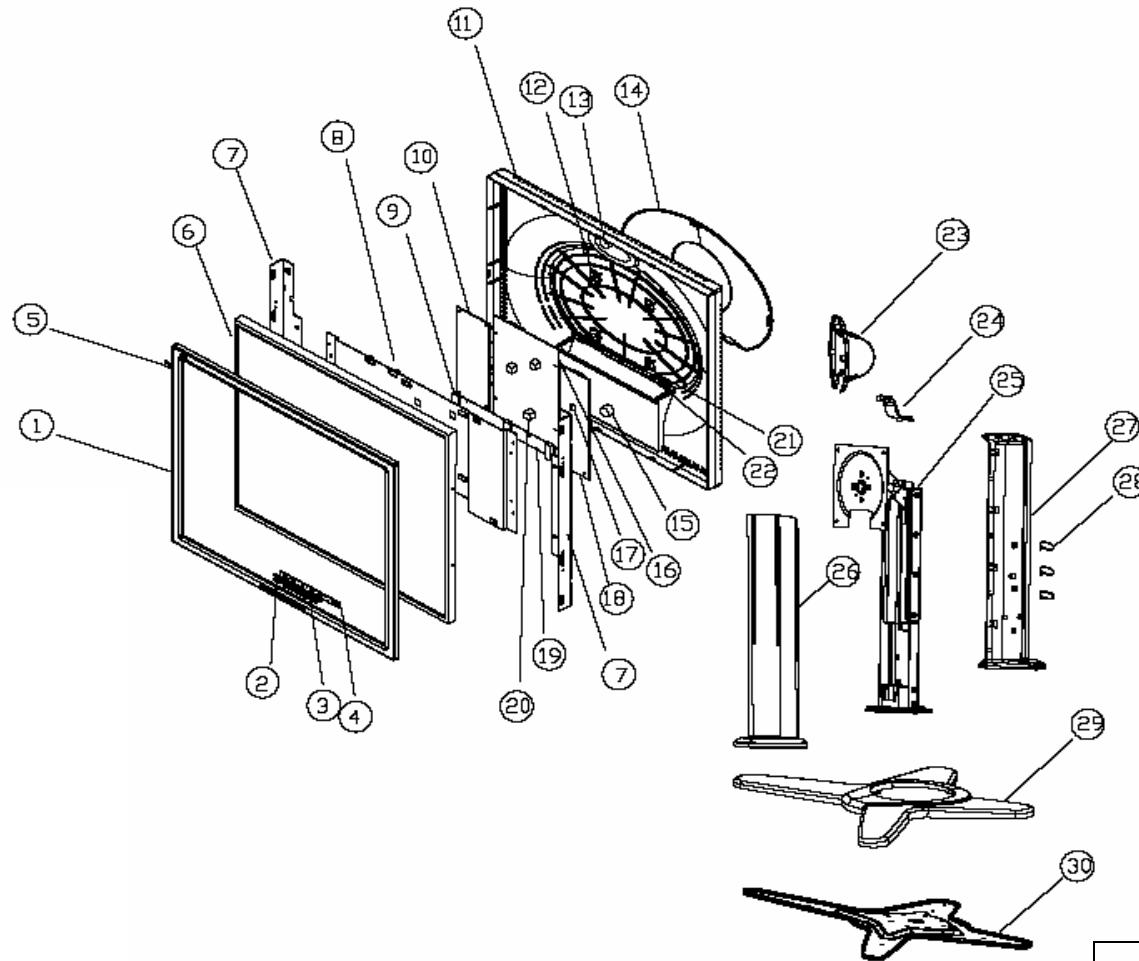
ViewSonic Model Number: VS10725

Rev: 1a

Serial No. Prefi Q8H

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	#N/A	2024272901P	FRONT BEZEL GCABA2369T8F VP930B	1F01		1
2	#N/A	2053756001P	LED INDIC.-PWR HDECP2012TSF VP930	1F02		1
3	#N/A	2044269101P	FUNCTION KEY JKNBP2392T8F VP930B	1F03		1
4	#N/A	2051354900P	NAME PLATE HBDGE1393T8 VP930B	1F04		1
5	#N/A	2071881100P	BRACKET, FIX LANGF2194T8--A VP930	1F10		4
6	#N/A	2061456100P	BUSHING PCUSG1647T8 VP930B	1F11		2
7	#N/A	2061456200P	BUSHING PCUSG1674T8 VP930B	1F12		1
8	#N/A	2071979700P	METAL FITTG LANGF2227T8 VP930B	1F16		1
9	#N/A	2071881300P	BRACKET, FIX LANGF2232T8 VP930B	1F17		2
10	#N/A	2080006400P	SCREW,SPE XBBSN30P04000- (M3*4) VP930B	1F18		4
11	#N/A	2080006300P	SCREW,SPE LBOSM1069DB VP930B	1F22		6
12	#N/A	2061456300P	BUSHING PCUSG1687T8 VP930B	1F23		3
13	#N/A	2080006600P	SCREW,SPE XHISE40P08TV-- (M4*8) VP930B	1F24		1
14	#N/A	2061456400P	BUSHING PCUSG1651T8--	1F25		1
15	#N/A	2061456500P	BUSHING PISLS1177d8----	1F26		1
16	#N/A	2072461300P	INSULATOR PISL0V262T8---	1F27		1
17	C-00005329	2022267501P	CABI BACK GCABB1883T8F VP930B	2C01		1
18	C-00005331	2022267401P	CABI BACK GC0VD2626T8F VP930B	2C02		1
19	#N/A	2080006200P	SCREW,SPE XBMSB30P06000 VP930B	2C03		4
20	#N/A	2071881200P	BRACKET, FIX LANGF206-3D8--B VP930B	2C04		1
21	#N/A	2080006500P	SCREW,SPE XBMSB30P05000- (M3*5) VP930B	2C05		11
22	#N/A	2080006800P	SCREW,SPE SCREW, FOR BASE MENTAL	2C06		4
23	PL-00005323	2028262001P	STAND GSTN-2957T8 VP930B	5B01		1
24	#N/A	2080006100P	SCREW,SPE XBPSB40P10JS0 (M4*10) VP930B	5B02		4
25	P-00005325	2011091101P	CARTON BOX VP930b BOX SPAKCC3715T8	6P01		1
26	#N/A	2055670015P	LABEL VP930b UPC LABEL TLABZ3903D8	6P02		1
27	#N/A	2055613441P	LABEL VIEWSONIC 8ms STICKER 89X58mm	6P04		2
28	#N/A	2055670016P	LABEL VP930b SMALL LABEL TLAB-5532D8	6P05		1
29	DC-00001586	2055613435P	LABEL VIEWSONIC INSET PAGE-1280X1024	6P06		1
30	M-LB-0813-0856	2055613379P	LABEL VIEWSONIC CONTAINER LABEL	6P11		0.028
31	#N/A	2055690014P	LABEL VP930 H1-POT TLAB-5657T8	6P13		1
32	#N/A	2055690015P	LABEL VP930 HIGHVOLTAGE TLABZ4916T8	6P14		1
33	P-00005322	2012186700P	POLYFOAM SPAKA6617T8F VP930B	6P20		1
34	#N/A	2063302400P	PROTECTOR PISL-1351T8 VP930B	6P23		1
35	#N/A	2055170034P	LABEL VP930b SET LABEL TLABM4485T8	6P50		1
36	#N/A	2056670001P	SERIAL LABEL VP930 SN LABEL TLAB-5523D8	6P51		1
37	#N/A	2013054030P	POLYETHY BAG VP930 LCD BAG SSAKH1356D8-T-B	6P60		1
38	DC-00005308	2438570006P	CD-OWNER GUIDE VP930 CD DDSKC0058T8	6P80		1
39	DC-00005309	2438570007P	CD-OWNER GUIDE VP930 CD-DRIVER DDSKC00628T8	6P81		1
40	DC-00005307	2002370009P	GUARANT CARD VP930 QSG TINSE3194T8	6P82		1
41	#N/A	2013054031P	POLYETHY BAG VP930 UG BAG SSAKD0010-1-T	6P83		1
42	#N/A	2001970003P	ATTACH SHEET VP930 CD CORRECT PAGE	6P84		1
43	#N/A	2433312131P	SHIELDING FOAM W12*H3*L13mm	K901		1
44	#N/A	2433301010P	SHIELDING FOAM W10*H8*L10mm	K902		1
45	#N/A	2434425070P	AL SHIELDING TAPE W25*L70mm (AL)	K903 K904 K905 K906		4
46	#N/A	2434425040P	AL SHIELDING TAPE W25*L40mm (AL)	K907 K908		2
47	#N/A	2434450160P	AL SHIELDING TAPE W50*L160mm (AL)	K915		1
48	M-MS-0808-6571	2433303010P	SHIELDING FOAM W10*H10.5*L10mm	K916 K917 K918		3
49	#N/A	2434416030P	AL SHIELDING TAPE W16*L30mm (AL)	K919		1
50	#N/A	2427490001P	WIRE HARNESS QCOPD1230T8 (KEY) SAMPO	P701		1
51	A-00005316	2427190002P	AC POWER CORD QACC-112G6D8D SAMPO	P951		1
52	CB-00005317	2427501196P	I/O CABLE D15/D15 20276(5.8) 1.83M BLACK	P961		1
53	CB-00005318	2427590004P	I/O CABLE (DVI) QCQDS1641D8D-A 1.8M BLK SAMPO	P971		1
54	CB-00005319	2420390001P	FFC CABLE QCOPD1229T8 SAMPO	P980		1
55	#N/A	2427490002P	WIRE HARNESS QCNWNS0907T8021 (POWER) SAMPO	P981		1
56	#N/A	2427490003P	WIRE HARNESS QCNWNS0906T8038 INVERTER SAMPO	P982		1
57	B-00005312	2200501600P	PC BOARD ASS'Y DPWBN5718T8V (MAIN/B) SAMPO	U101		1
58	B-00005313	2200501700P	PC BOARD ASS'Y SMD DPWBN5722T8 (KEY/B) SAMPO	U701		1
59	B-00005311	2200501400P	PC BOARD ASS'Y SMD RUNTP5654T8 (POWER/B) SAMPO	U801 RA		1
60	#N/A	2200501500P	PC BOARD ASS'Y SMD RUNTP5656T8 (POWER/B) SAMPO	U801 RB		1
61	#N/A	2200501300P	PC BOARD ASS'Y SMD RUNTP5663T8 (INVERTER) SAMPO	U901 RA		1
62	B-00005310	2200501200P	PC BOARD ASS'Y SMD RUNTP5655T8 (INVERTER) SAMPO	U901 RB		1
63	E-00005320	2212090100P	LCD PANEL M190EN03-V2 AUO	V901		1

8.Exploded Diagram And Spare Parts List



ViewSonic Corporation

Model	
Title	
Date	Rev:

EXPLODED PARTS LIST (VP930-2)

ViewSonic Model Number: VS10725-2E

Rev: 1a

Serial No. Prefix: Q8G

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	C-00004132	GCABA2369T8F---	CAB-A	1
2	PL-00004130	JKNBP2392T8F---	KNOB	1
3	PL-00004124	HDECP2012T8F---	LENS	1
4	B-00004103	DPWBN5722T8----	KEY BOARD	1
5	PL-00004125	HBDGE1393T8----	LOGO PLATE	1
6	E-00000927	VVLM190EN02V2--	19" AUO PANEL	1
7	HW-00004137	LANGF2232T8----	METAL FOR PANEL	2
8	HW-00004121	LANGF2227T8----	METAL BRACKET	1
9	N/A	PCUSG1687T8----	RUBBER	1
10	B-00005001	RUNTP5654T8----	POWER BOARD	1
11	C-00004133	GCABB1883T8F---	CAB-B	1
12	N/A	LANGF2194T8---A	VESA-FIX	4
13	M-00003927	PCUSG1671T8----	RUBBER	1
14	C-00004126	GCOVD2626T8F---	BACK COVER	1
15	N/A	PCUSG1674T8----	RUBBER	1
16	B-00004101	DPWBN5718T8V---	I/F BOARD	1
17	N/A	PCUSG1651T8----	BUBBER	1
18	B-00004102	RUNTP5663T8----	INVERTER BOARD	1
19	N/A	PISLV0262T8----	DECORATION MYLAR	1
20	N/A	PCUSG1395D8----	SPONGE	3
21	N/A	PCUS-1443T8---A	VESA METAL USE	1
22	N/A	PCUSS1588T8----	SPONGE	1
23	N/A	GCOVD2632T8F---	HINGE COVER	1
24	N/A	GCOVD2633T8F---	HINGE COVER	1
25	N/A	MHNGM0067T8----	HINGE BODAY	1
26	N/A	GCOVD2630T8F---	NECK FRONT	1
27	N/A	GCOVD2631T8F---	NECK BACK	1
28	N/A	GCOVD2634T8F---	CABLE FIED	3
29	N/A	GSTN-2950T8F---	19" BASE	1
30	N/A	LANGF2229T8----	19" BASE-METAL	1

EXPLODED PARTS LIST (VP930b-2)

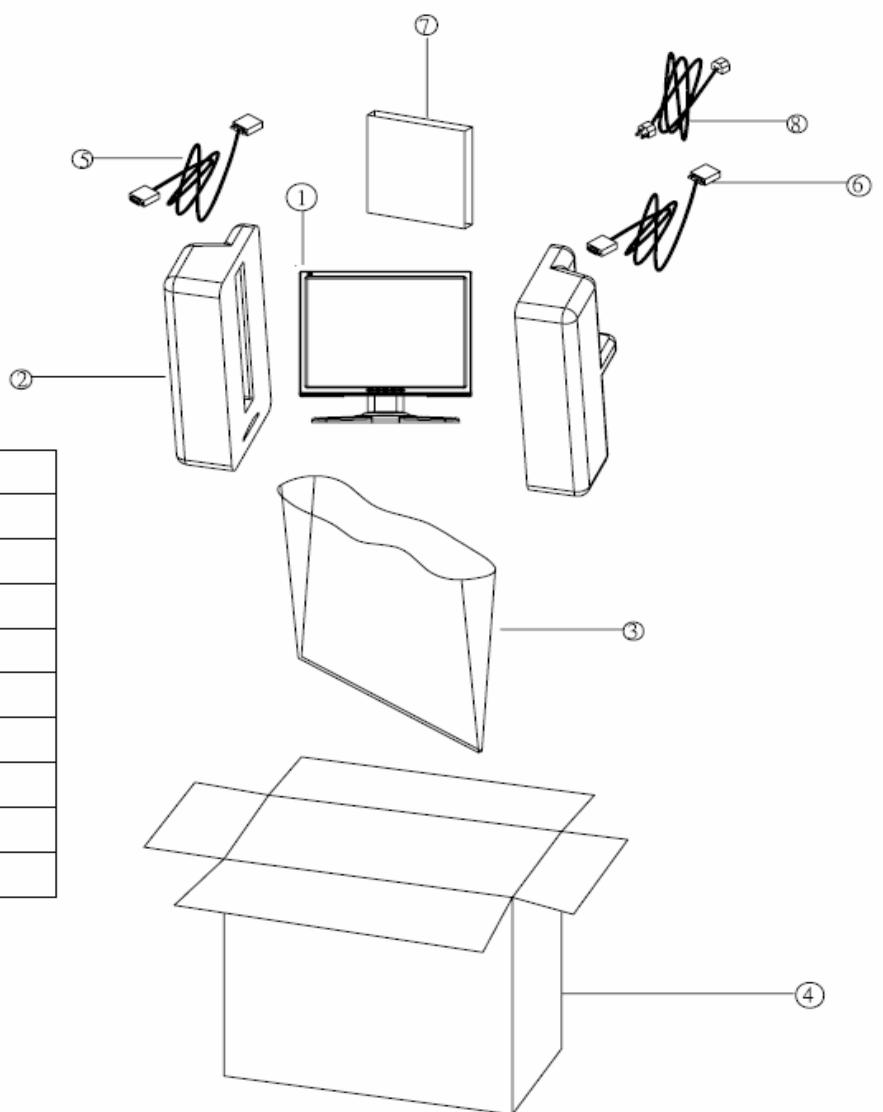
ViewSonic Model Number: VS10725-2W

Rev: 1A

Serial No. Prefix: Q8Q

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	C-00004139	GCABA2369T8F--B	CAB-A	1
2	PL-00004123	JKNBP2392T8F--B	KNOB	1
3	PL-00004124	HDECP2012T8F---	LENS	1
4	B-00004103	DPWBN5722T8----	KEY BOARD	1
5	PL-00004125	HBDGE1393T8----	LOGO PLATE	1
6	E-00000927	VVLM190EN02V2--	19" AUO PANEL	1
7	HW-00004137	LANGF2232T8----	METAL FOR PANEL	2
8	HW-00004121	LANGF2227T8----	METAL BRACKET	1
9	N/A	PCUSG1687T8----	RUBBER	1
10	B-00005001	RUNTP5654T8----	POWER BOARD	1
11	C-00004140	GCABB1883T8F--B	CAB-B	1
12	N/A	LANGF2194T8---A	VESA-FIX	4
13	M-00003927	PCUSG1671T8----	RUBBER	1
14	C-00004104	GCOVD2626T8F--B	BACK COVER	1
15	N/A	PCUSG1674T8----	RUBBER	1
16	B-00004101	DPWBN5718T8V---	I/F BOARD	1
17	N/A	PCUSG1651T8----	BUBBER	1
18	B-00004102	RUNTP5663T8----	INVERTER BOARD	1
19	N/A	PISLV0262T8----	DECORATION MYLAR	1
20	N/A	PCUSG1395D8----	Sponge	3
21	N/A	PCUS-1443T8---A	VESA METAL USE	1
22	N/A	PCUSS1588T8----	Sponge	1
23	N/A	GCOVD2632T8F--B	HINGE COVER	1
24	N/A	GCOVD2633T8F--B	HINGE COVER	1
25	N/A	MHNGM0067T8----	HINGE BODAY	1
26	N/A	GCOVD2630T8F--B	NECK FRONT	1
27	N/A	GCOVD2631T8F--B	NECK BACK	1
28	N/A	GCOVD2634T8F---	CABLE FIED	3
29	N/A	GSTN-2950T8F--B	19" BASE	1
30	N/A	LANGF2229T8----	19" BASE-METAL	1

1	LCD 19"
2	PACKING
3	BAG
4	CARTON
5	D-SUB CABLE
6	DVI CABLE
7	MENU
8	POWER CORD
9	
10	



Packing For Shipping

1. Packing Procedure

1.1 Paste protecting film to protect the monitor. (Figure 1)

1.2 Put the monitor in the PE bag and seal the bag with tape. (Figure 2)



Figure 1



Figure 2

1.3 Put the cushions on the monitor. (Figure 3)

1.4 Place the monitor into the carton and then put all the accessories into the carton. At last, seal the carton and seal it with tape. (Figure 4)



Figure 3



Figure 4

Disassembly

Lie down the monitor on flat table



Remove Back cover and Stand by 4 screw



Remove CAB-B: Take out 4 screw



Take off D-sub 6 screws



Remove the power board by 3 screws



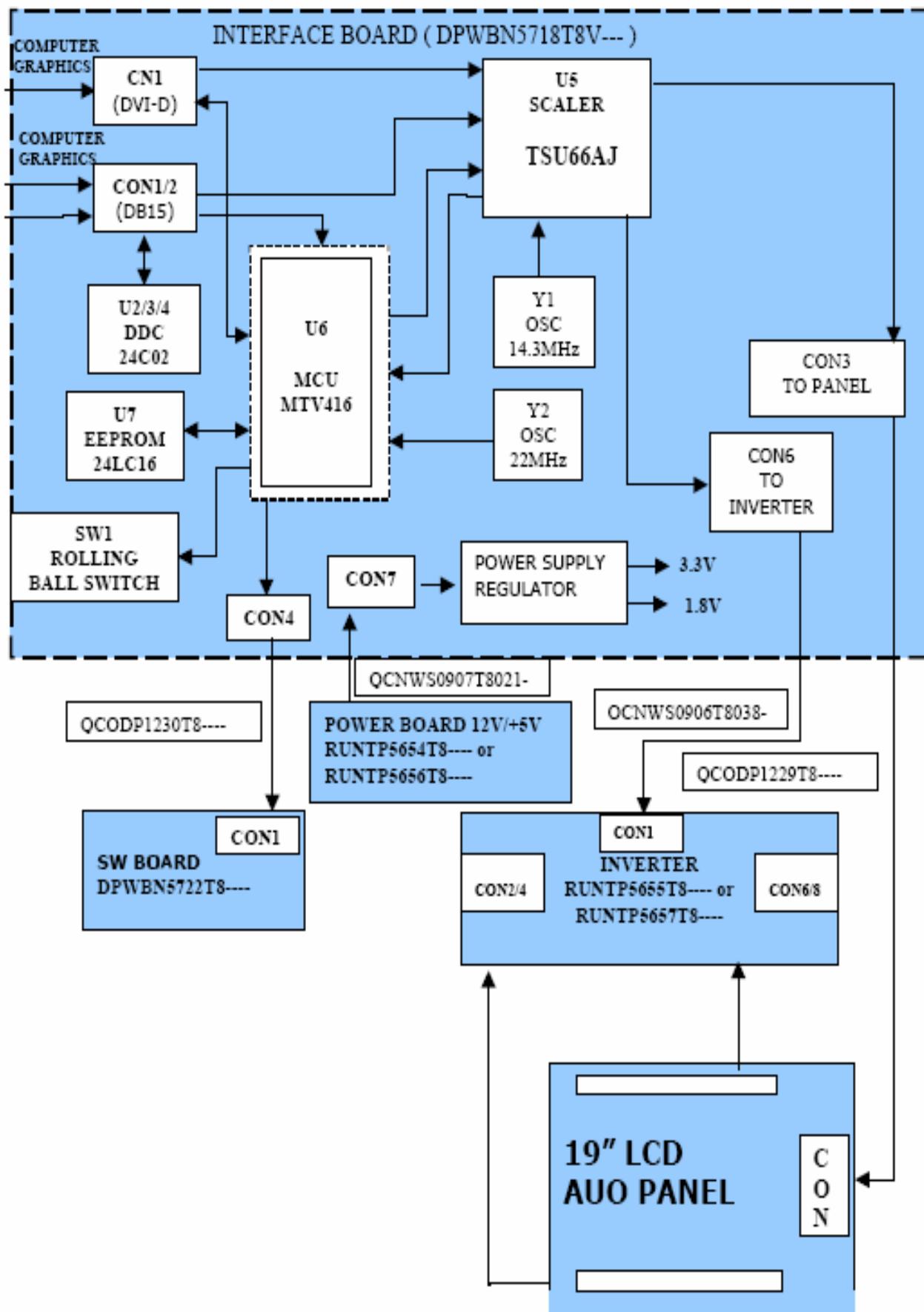
Remove the Inverter board by 2 screws



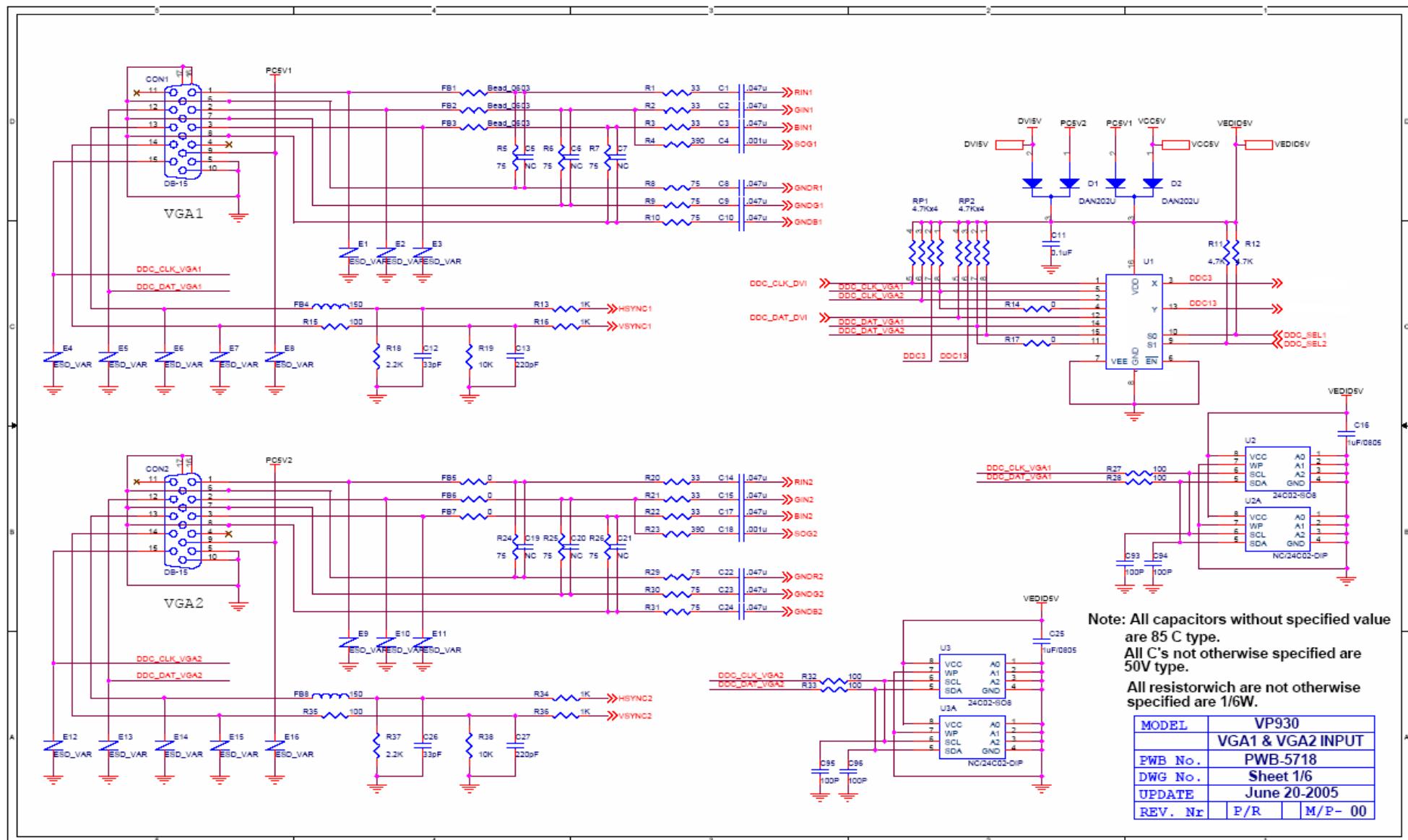
Remove the I/F board by 2 screws

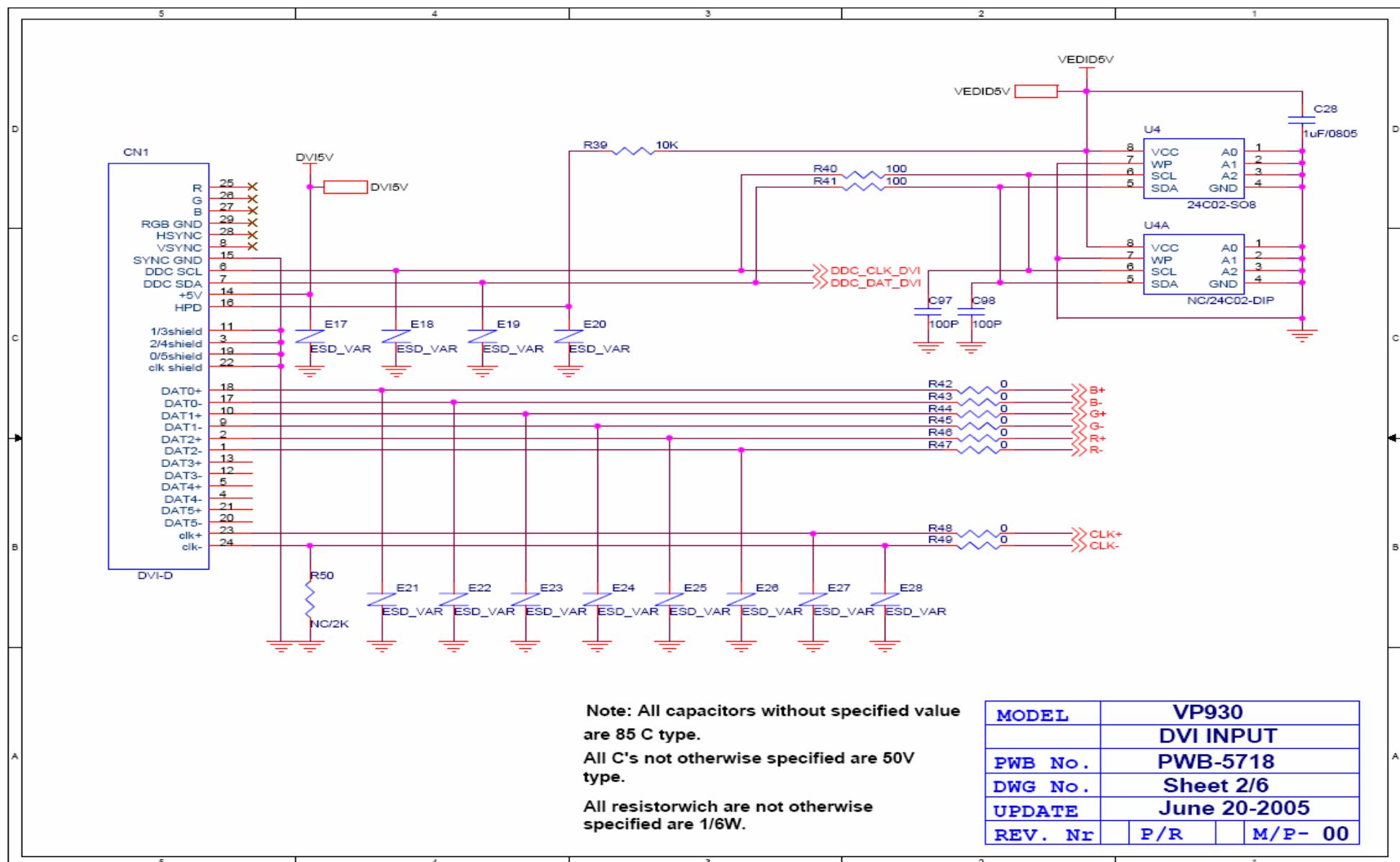


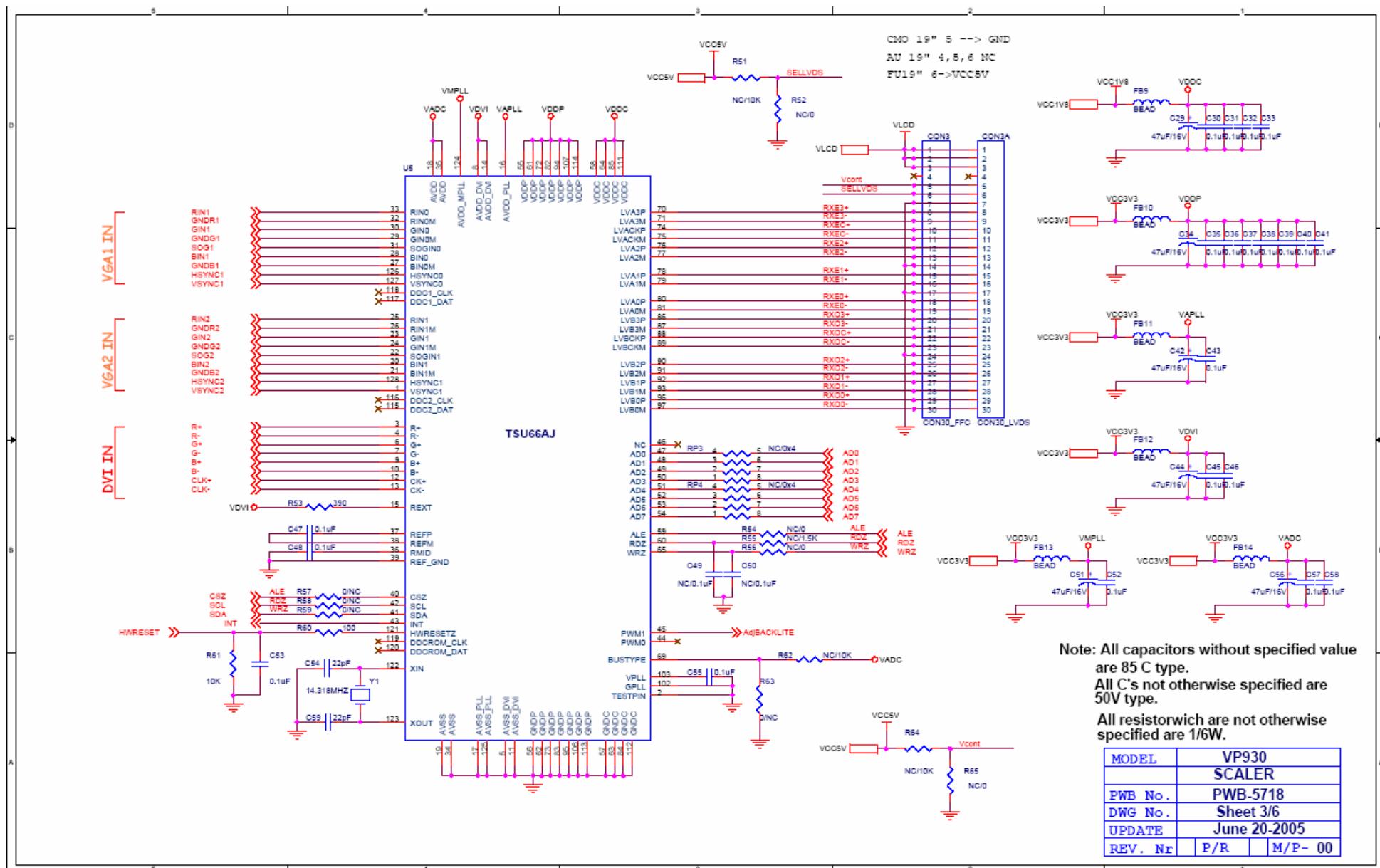
9. Block Diagram



10.Schematic Diagram





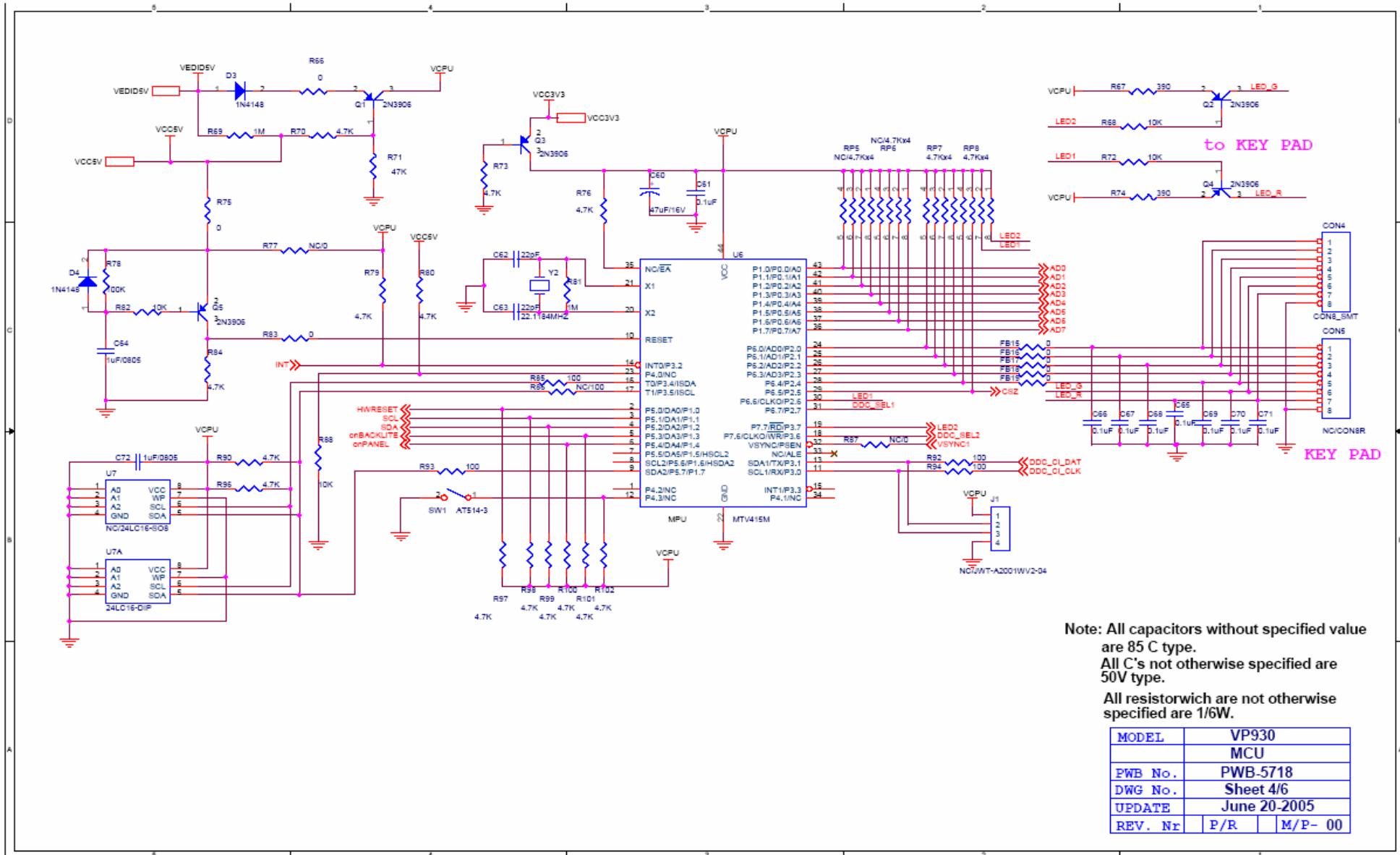


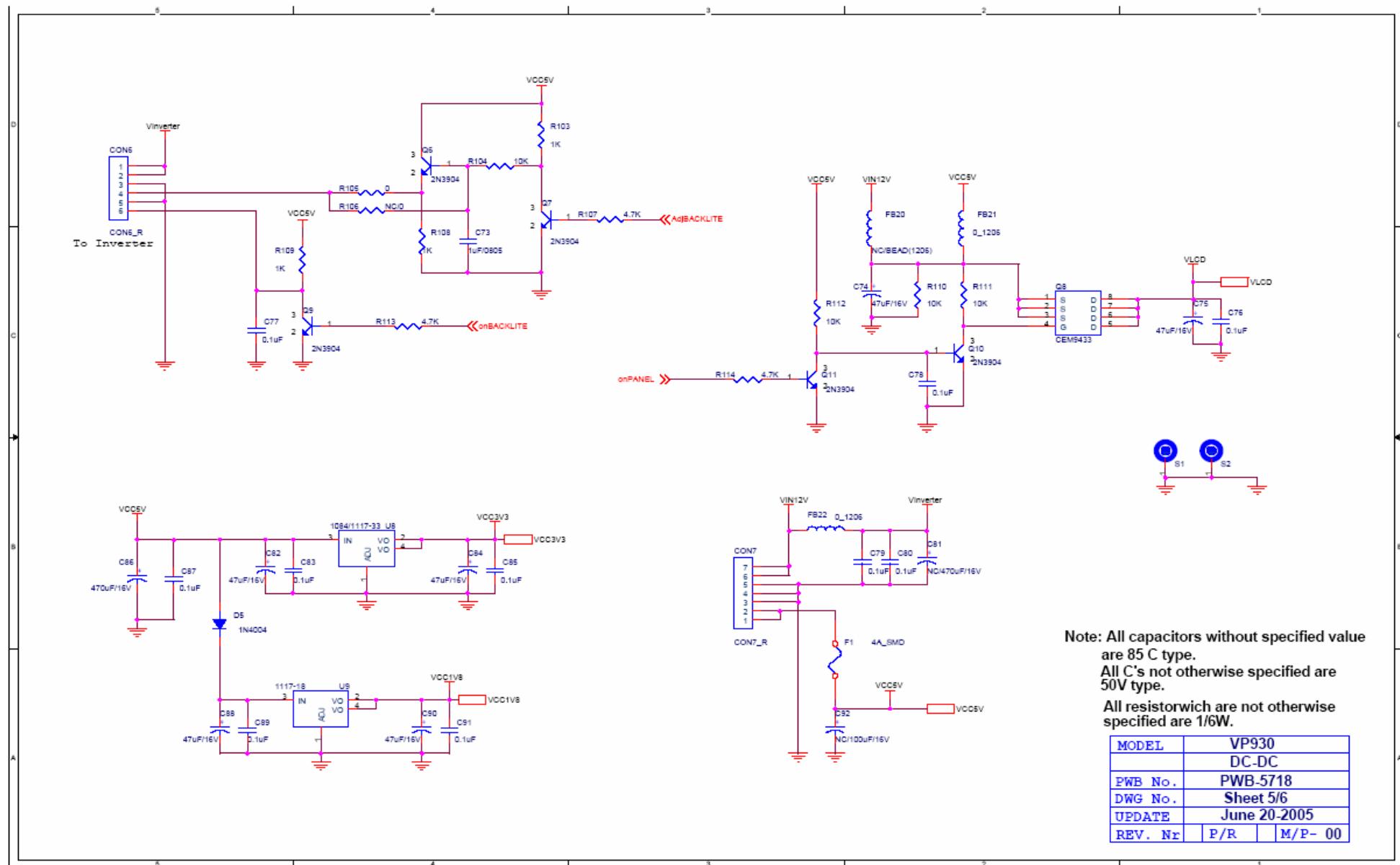
Note: All capacitors without specified value
are 85°C type.
All C's not otherwise specified are
50V type.

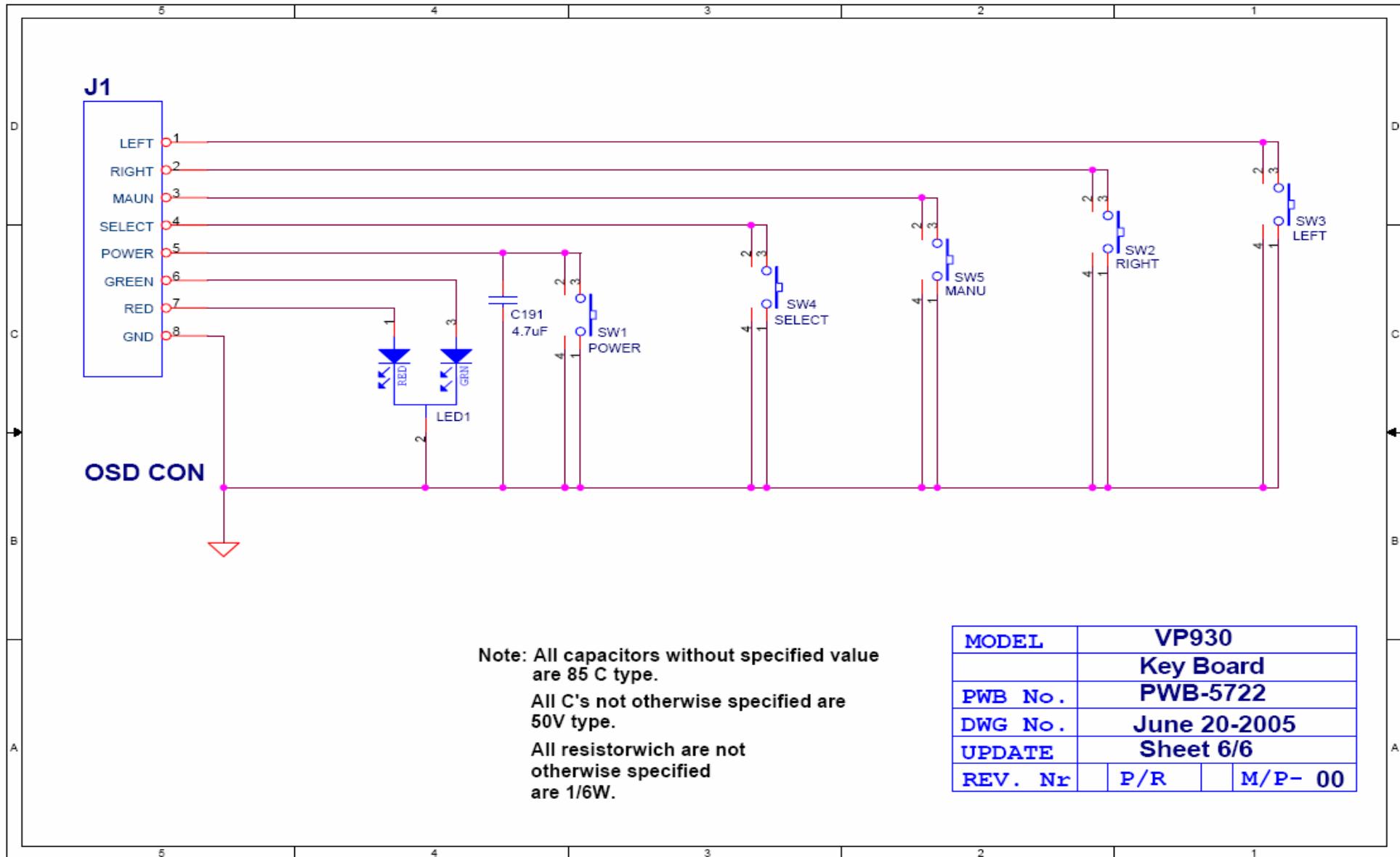
All resistorwich are not otherwise specified are 1/6W.

All resistorwich are not otherwise specified are 1/6W.

MODEL	VP930	
	SCALER	
PWB No.	PWB-5718	
DWG No.	Sheet 3/6	
UPDATE	June 20-2005	
REV. Nr	P/R	M/P- 00

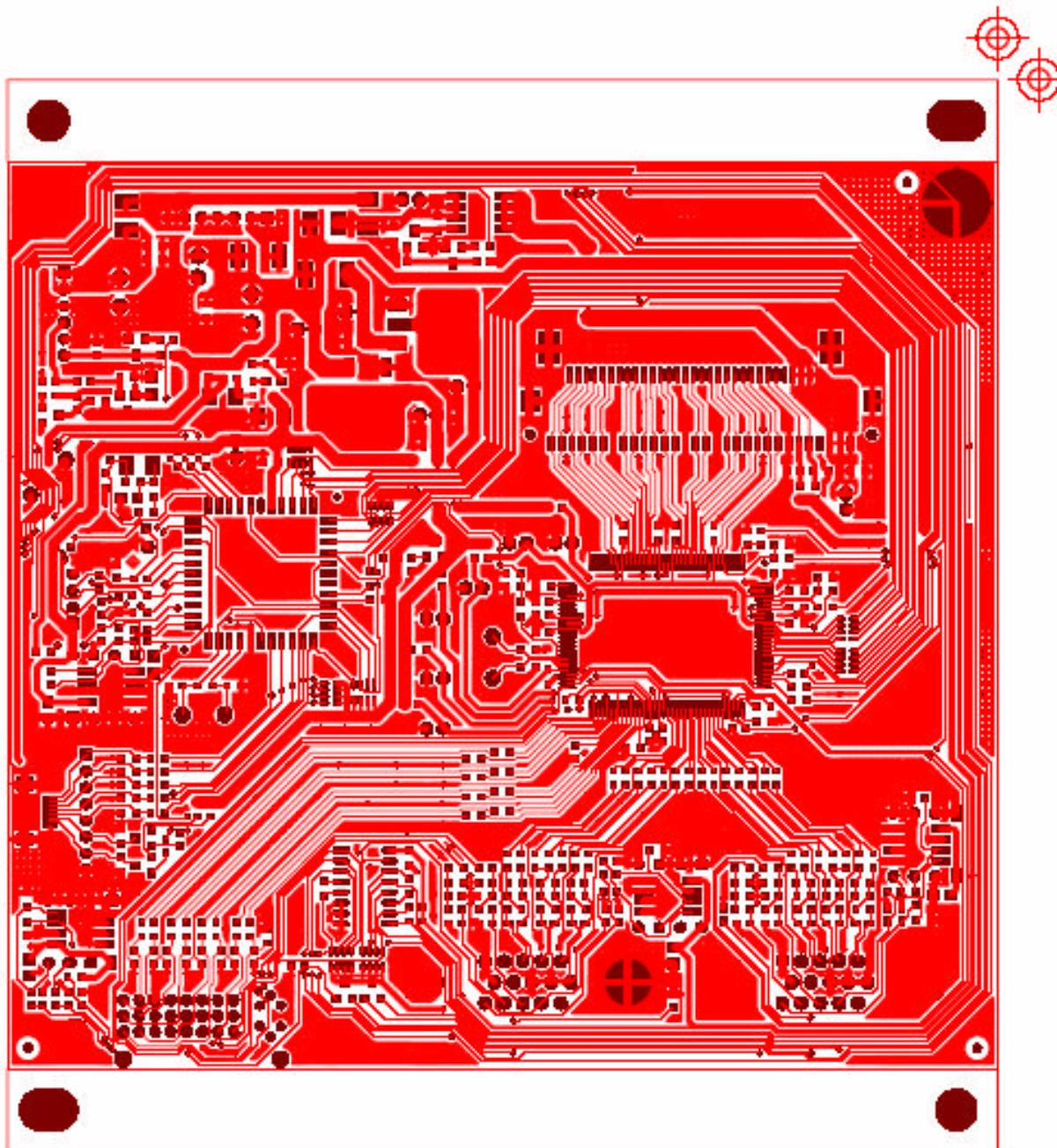




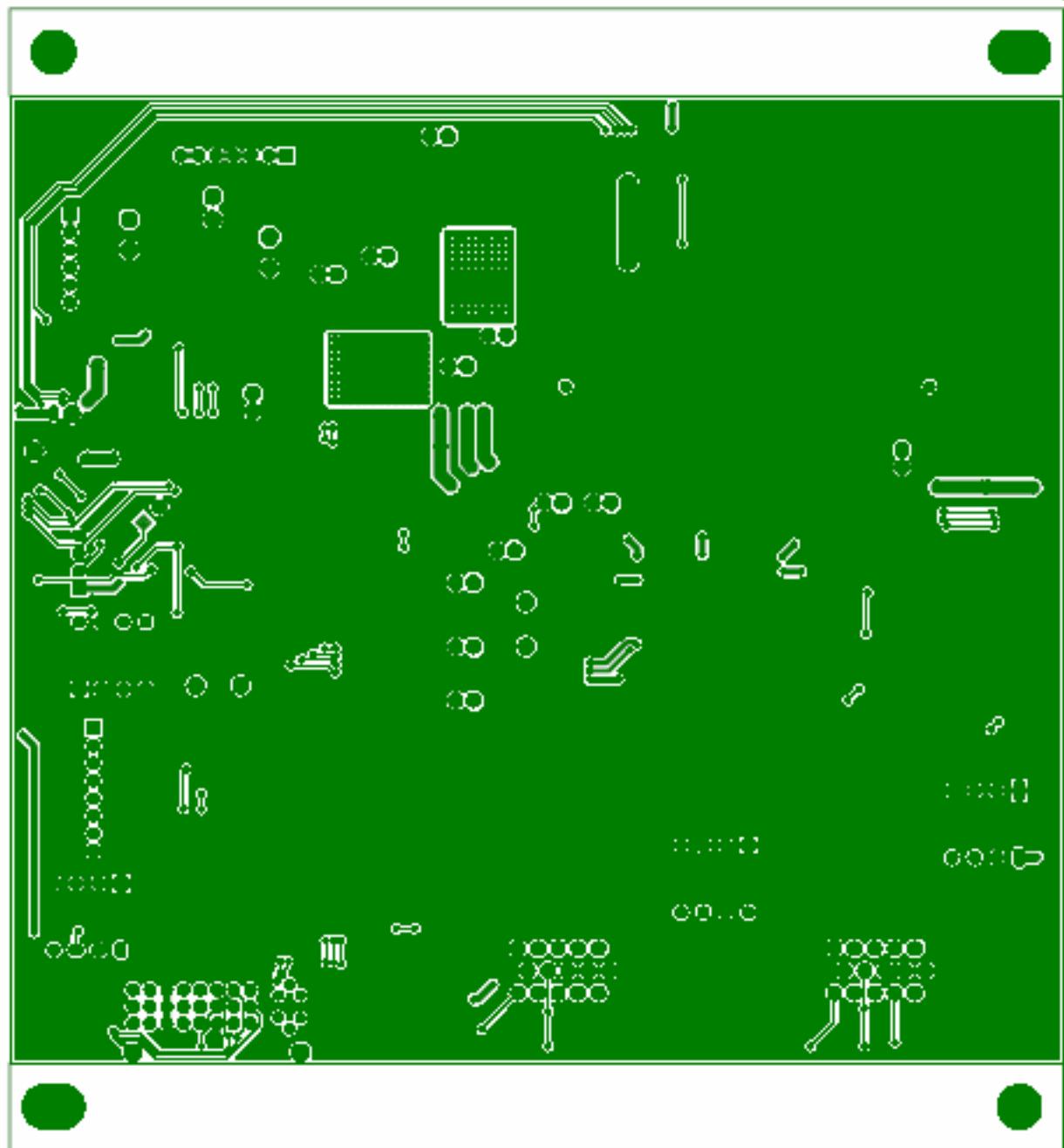


11. PCB Layout Diagrams

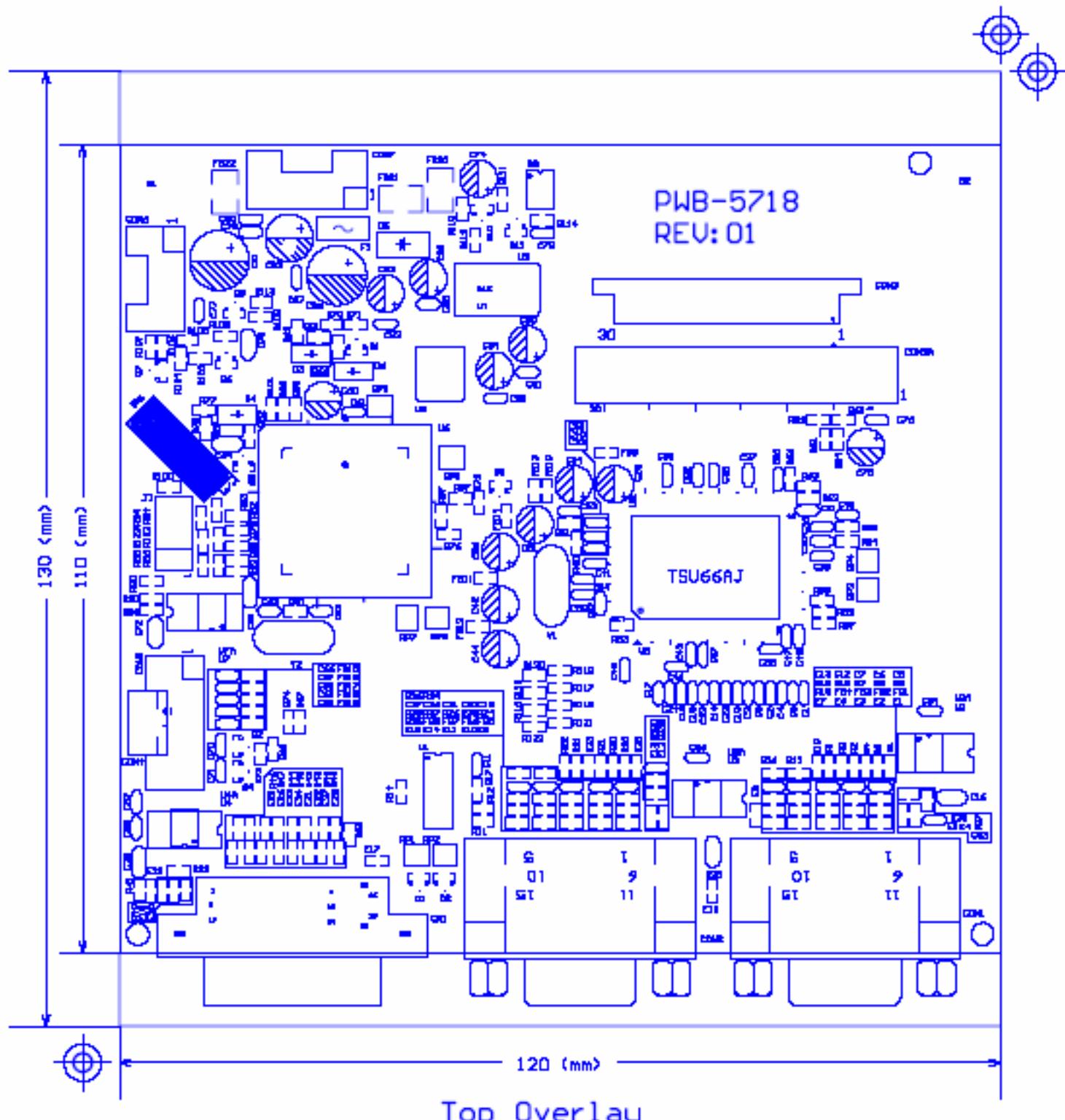
IF-board



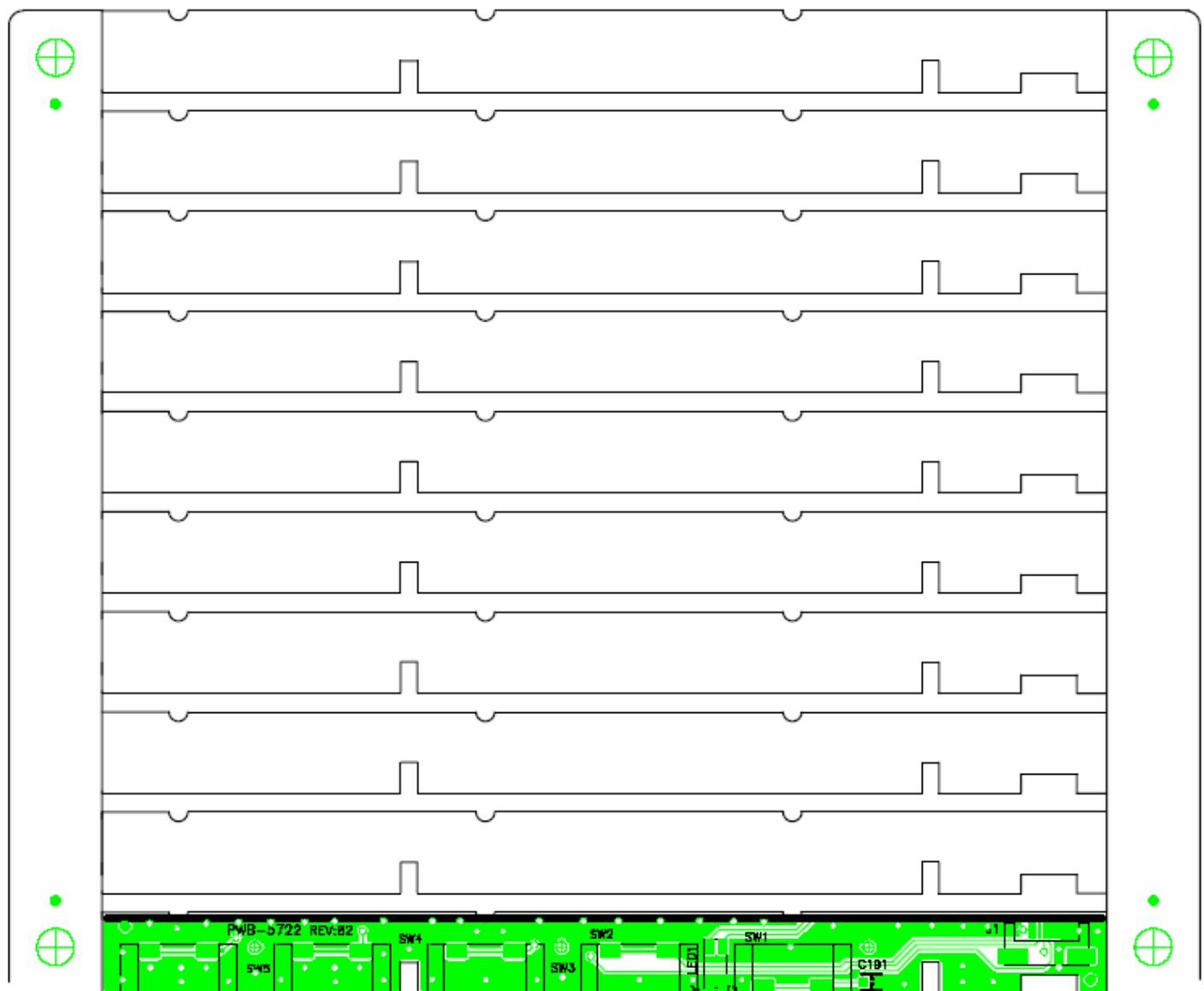
TopLayer

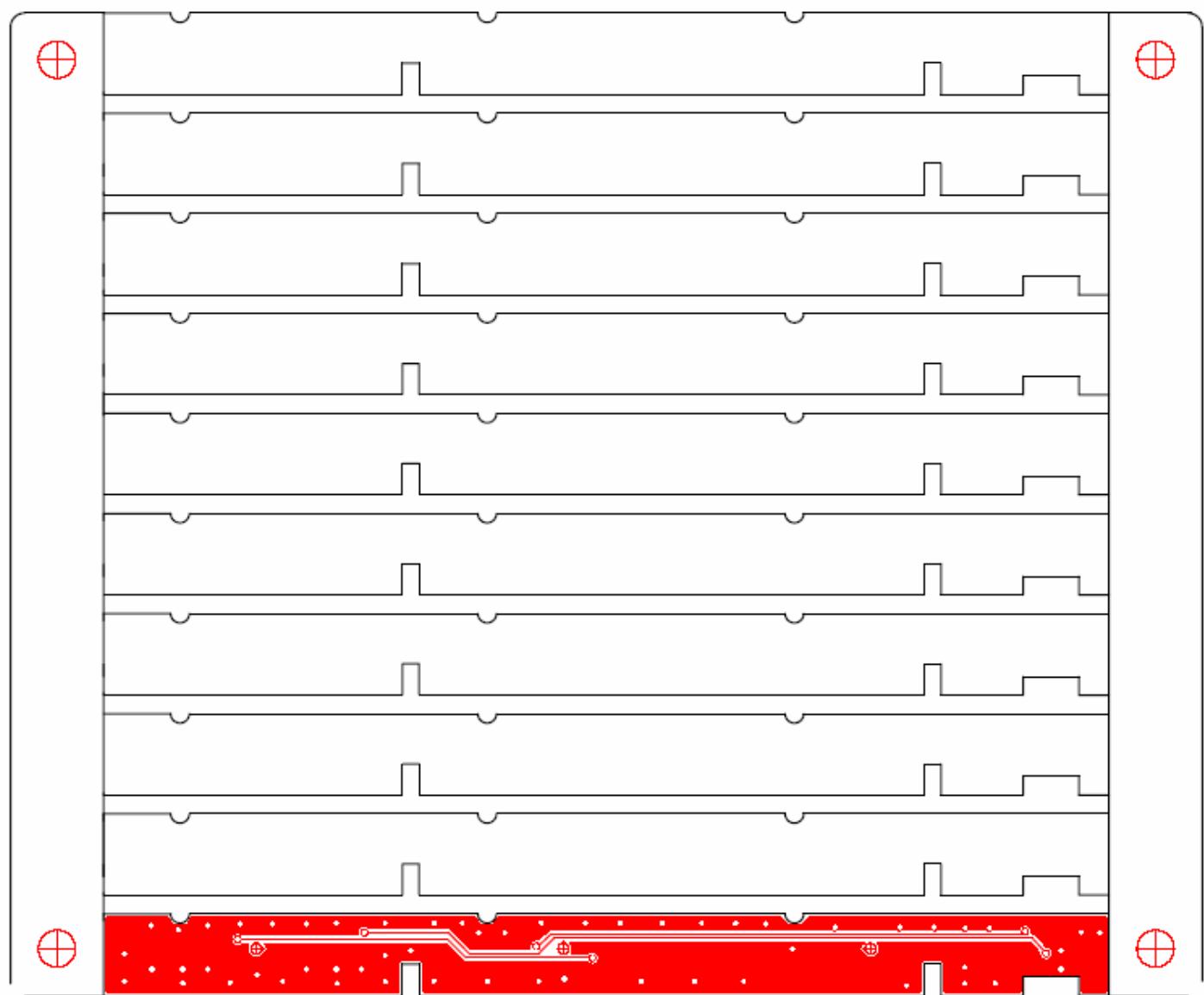


BottomLayer



Key board





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Assessment

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1. Precautions and Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Exploded Parts List				
9. Block Diagrams				
10. Schematic Diagrams				
11. PCB Layout Diagrams				

B. Are you satisfied with this Service Manual?

<i>Item</i>	<i>Excellent</i>	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

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Company:			
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E-mail:			

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