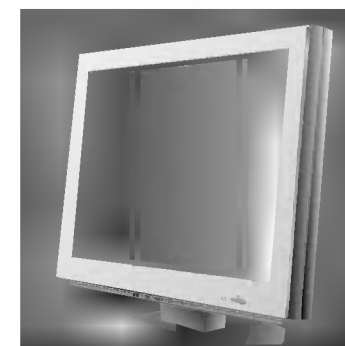




StudioWorks 880LC



Manual do proprietário
User's Guide
Guia del Usuario

Por favor, leia cuidadosamente este manual antes de operar o seu monitor. Guarde-o para consulta futura.
Anote o número do modelo e o número de série do aparelho.
Consulte a etiqueta afixada na tampa posterior e dê esta informação ao seu revendedor quando precisar de assistência técnica.

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The **StudioWorks 880LC** Flat Panel Monitor has an active matrix TFT (Thin-Film Transistor) LCD (Liquid Crystal Display).

This monitor is designed for use in small working areas or for those who need more working space on the desk.

Features

- The **StudioWorks 880LC** is a 18.1-inch (18.1 inches viewable) intelligent microprocessor based monitor.
- Digitally controlled auto-scanning is done with the microprocessor for horizontal scan frequencies between 31 and 80kHz, and vertical scan frequencies between 56 and 120Hz. The microprocessor-based intelligence allows the monitor to operate in each frequency mode with the precision of a fixed frequency monitor.
- The microprocessor-based digital controls allow you to conveniently adjust a variety of image controls by using the OSD (On Screen Display).
- It supports resolutions up to 1280x1024, and has a wide viewing angle of ± 80 degrees horizontal and ± 80 degrees vertical.
- USB (Universal Serial Bus) ports at the base of the monitor are prepared for the USB cable and hub. You can easily and flexibly connect USB-designed devices-such as a mouse, keyboard or printer- to the monitor for true Plug and Play function.
- The monitor is shipped with 16 factory pre-programmed video modes that are permanently resident. In addition, there are 16 user-storable modes, for a total of 32 memory modes.
- For greater user health and safety, this monitor complies with the stringent Swedish TCO '99 requirements for low radiation emissions.
- Two signal connectors on the rear panel enabling connection to two computers.

Monitor Registration

The model and serial numbers are found on the rear of this unit. These numbers are unique to this unit and not available to others. You should record requested information here and retain this guide as a permanent record of your purchase. Staple your receipt here.

Date of Purchase : _____
Dealer Purchased From : _____
Dealer Address : _____
Dealer Phone No. : _____
Model No. : _____
Serial No. : _____

Notice

All rights reserved. Reproduction in any manner, in whole or in part, is strictly prohibited without the written permission of LG Electronics Inc.

Trademark Acknowledgments

LG is a trademark of **LG Electronics Inc.**

IBM is a registered trademark and **VGA** is a trademark of International Business Machines Corporation.


WARNING : To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

AVERTISSEMENT : Ne pas placer cet appareil dans un endroit humide.
Cela peut entraîner un incendie ou une décharge électrique.

Important Precautions

This unit has been engineered and manufactured to assure your personal safety, but improper use can result in potential electrical shock or fire hazard. In order not to defeat the safeguards incorporated in this monitor, observe the following basic rules for its installation, use, and servicing. Also follow all warnings and instructions marked directly on your monitor.

On Safety

1. Use only the power cord supplied with the unit. In case you use another power cord, make sure that it is certified by the applicable national standards if not being provided by the supplier. If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.
2. Operate the monitor only from a power source indicated in the specifications of this manual or listed on the monitor. If you are not sure what type of power supply you have in your home, consult your dealer.
3. Overloaded AC outlets and extension cords are dangerous. So are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.
4.  **DO NOT OPEN THE MONITOR.** There are no user-serviceable components inside. There are Dangerous High Voltages inside, even when the power is OFF. Contact your dealer if the monitor is not operating properly.
5. To avoid personal injury :
 - Do not place the monitor on a sloping shelf unless properly secured.
 - Use only a stand recommended by the manufacturer.
 - Do not try to roll a stand with small casters across thresholds or deep pile carpets.
6. To prevent Fire or Hazards:
 - Always turn the monitor OFF if you leave the room for more than a short period of time. Never leave the monitor ON when leaving the house or office.
 - Keep children from dropping or pushing objects into the monitor's cabinet openings. Some internal parts carry hazardous voltages.
 - Do not add accessories that have not been designed for this monitor.
 - During a lightning storm or when the monitor is to be left unattended for an extended period of time, unplug it from the wall outlet.
 - Do not bring magnetic devices such as magnets or motors near the picture tube.

On Installation

1. Do not allow anything to rest upon or roll over the power cord, and do not place the monitor where the power cord is subject to damage.
2. Do not use this monitor near water such as near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.
3. Monitors are provided with ventilation openings in the cabinet to allow the release of heat generated during operation. If these openings are blocked, built-up heat can cause failures which may result in a fire hazard. Therefore, NEVER:
 - Block the bottom ventilation slots by placing the monitor on a bed, sofa, rug, etc.
 - Place the monitor in a built-in enclosure unless proper ventilation is provided.
 - Cover the openings with cloth or other material.
 - Place the monitor near or over a radiator or heat source.
4. Do not rub or strike the Active Matrix LCD with anything hard as this may scratch, mar, or damage the Active Matrix LCD permanently.
5. Do not press the LCD screen with your finger for a long time as this may incur some afterimages.
6. Some dot defects may appear on the screen, like Red, Green or Blue spots on the screen. However, this will have no impact or effect on the monitor performance.
7. If possible, use the VESA 1280x1024 @60Hz video mode to obtain the best image quality for your LCD monitor. If used under any modes except the VESA 1280x1024 @60Hz video mode, some scaled or processed images may appear on the screen.

On Cleaning

- Unplug the monitor before cleaning the face of the LCD Screen.
- Dust the monitor by wiping the screen and the cabinet with a soft, clean cloth. If the screen requires additional cleaning, use a clean, damp cloth.
- Do not use liquid cleaners or aerosol cleaners.

On Repacking

- Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it in its original material.

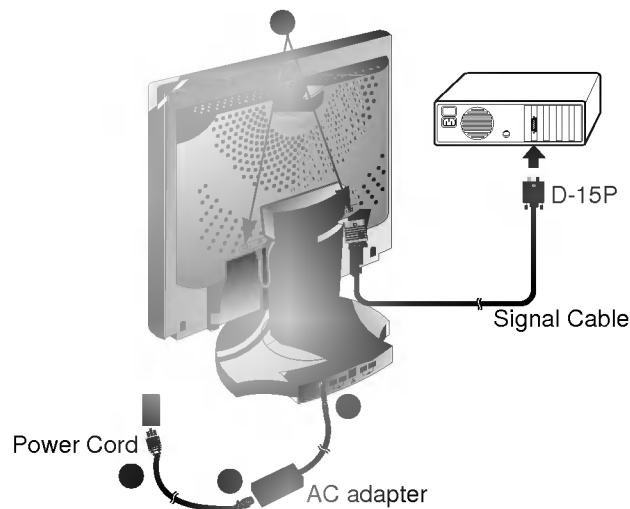
Connecting the Monitor

To set up the monitor, ensure that the power is turned off to the monitor, computer system, and other attached devices, then follow these steps:

Connect to any IBM Compatible PC

- Place the monitor in a convenient, well-ventilated location near your computer.
- Connect one end of the monitor signal cable to one of the two connectors ● on the rear panel of the monitor. Connect the other end to the 15-pin connector on the rear panel of the computer and tighten the screws. Be sure the signal cable aligns with the 15-pin connector.
- Connect the plug from the AC adapter into the base of the monitor. ●
- Connect one end of the AC power cord to the AC adapter ● and the other end to a properly grounded AC outlet that is easily accessible and close to the monitor. ●
- Power ON the PC, then the monitor.
- If you see the **Check Signal Cable** message, check the signal cable and connectors.
- After using the system, power OFF the monitor, then the PC.

Note : If you see the "Outside Range Limits" message, check to make sure your system is set to one of the factory preset modes (see page A15), or is set to a resolution and refresh rate within the specification limits of this monitor.

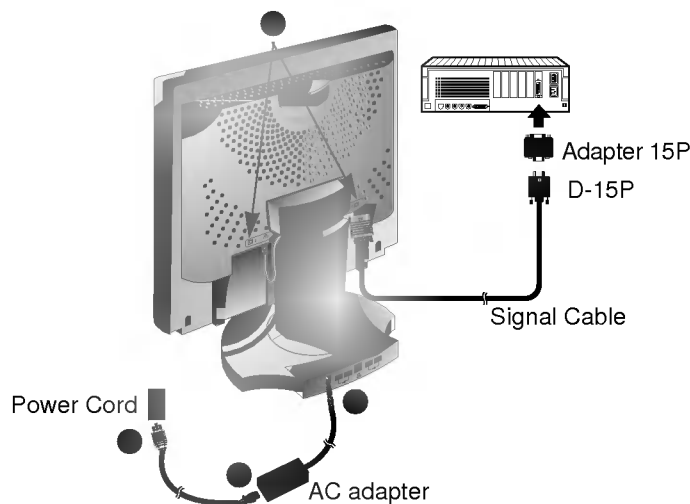


Connect to an APPLE Macintosh System

The figure below shows the connection to an Apple Macintosh, using a separately purchased adapter. For more information on adapter requirements, contact your authorized dealer, reseller, or service provider.

- Place the monitor in a convenient, well-ventilated location near your computer.
- Connect one end of the monitor signal cable to one of the two connectors ● on the rear panel of the monitor. Connect the other end of the monitor signal cable to the rear panel of Macintosh computer through a Macintosh adapter and then tighten screws.
- Connect the plug from the AC adapter into the base of the monitor. ●
- Connect one end of the AC power cord to the AC adapter ● and the other end to a properly grounded AC outlet that is easily accessible and close to the monitor. ●
- Power ON the PC, then the monitor.
- If you see the **Check Signal Cable** message, check the signal cable and connectors.
- After using the system, power OFF the monitor, then the PC.

Note : If you see the "Outside Range Limits" message, check to make sure your system is set to one of the factory preset modes (see page A15), or is set to a resolution and refresh rate within the specification limits of this monitor.

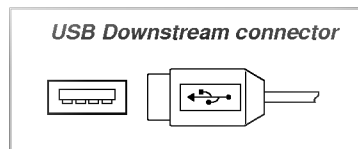
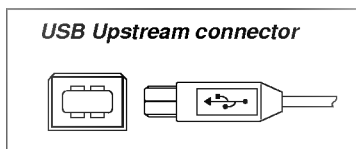
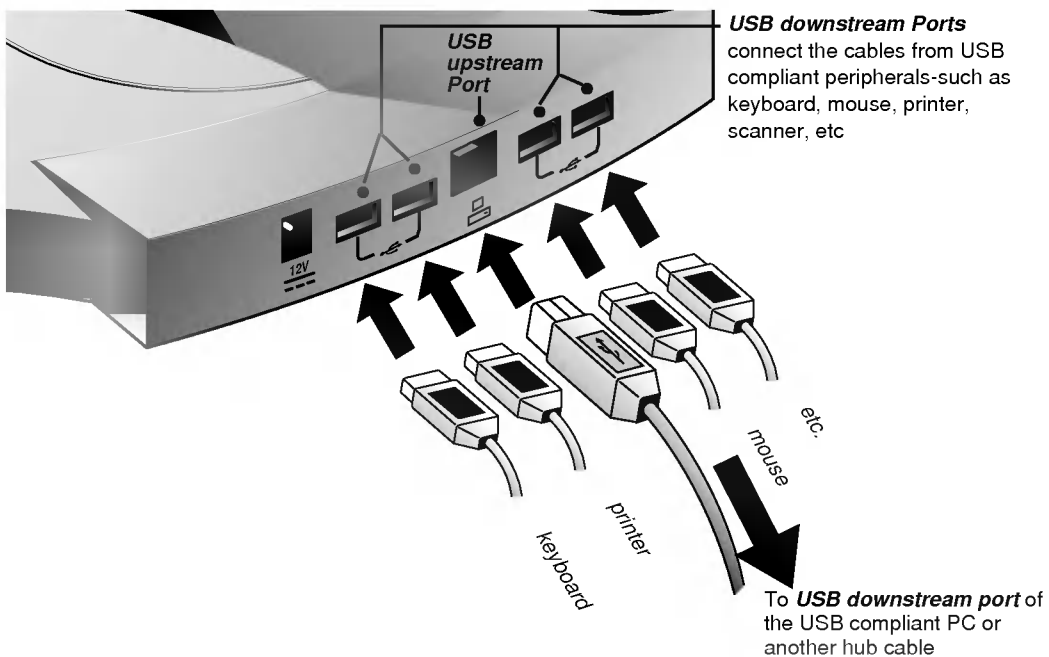


Making use of USB (Universal Serial Bus) Feature

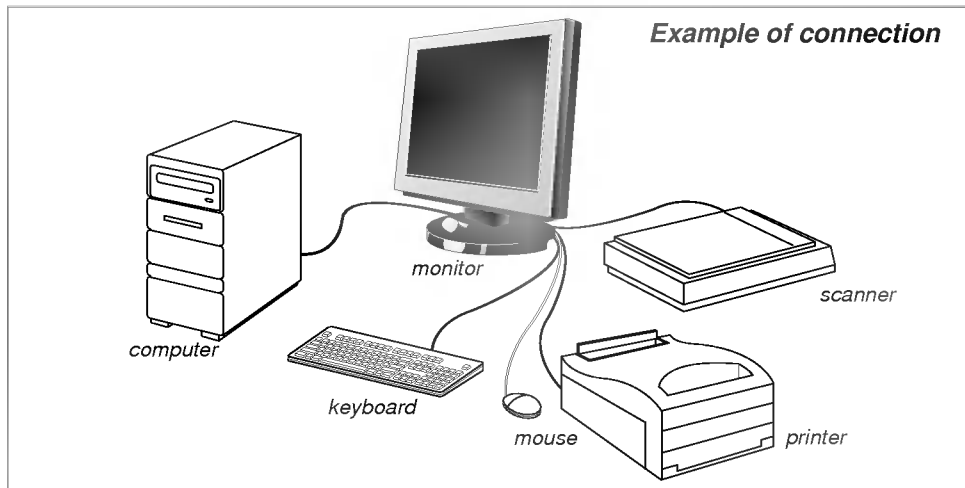
USB (Universal Serial Bus) is an innovation in connecting your different desktop peripherals conveniently to your computer. By using the USB, you will be able to connect your mouse, keyboard, printer, and other peripherals to your monitor instead of having to connect them to your computer. This will give you greater flexibility in setting up your system. USB allows you to connect chain up to 120 devices on a single USB port, and you can "hot" plug (attach them while the computer is running) or unplug them while maintaining Plug and Play auto detection and configuration. This monitor has an integrated self-powered USB hub, allowing up to 4 other USB devices to be attached to it.

USB connection

- (1) Connect the upstream port of the monitor to the downstream port of the USB compliant PC or another hub using the USB cable (Computer must have a USB port).
- (2) Connect the USB compliant peripherals to the downstream ports of the monitor.



Making use of USB (Universal Serial Bus)



Note : To activate the USB hub function, the monitor must be connected to a USB compliant PC(OS) or another hub with the USB cable(enclosed).

When connecting the USB cable, check that the shape of the connector at the cable side matches the shape at the connecting side.

When the monitor is not plugged into an electric socket, the peripherals connected to the downstream ports will not operate.

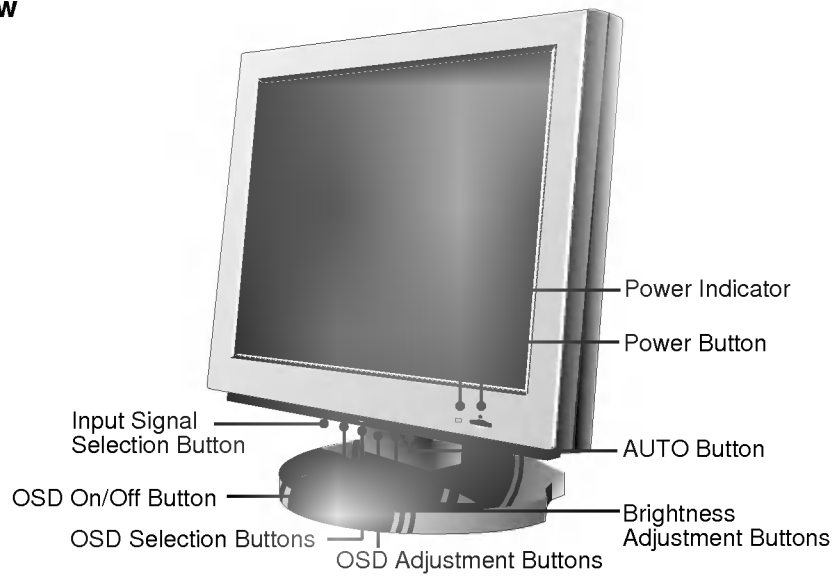
Even if the monitor is in a power saving mode, USB compliant devices will function when they are connected the USB ports(both the upstream and downstream) of the monitor.

USB specifications

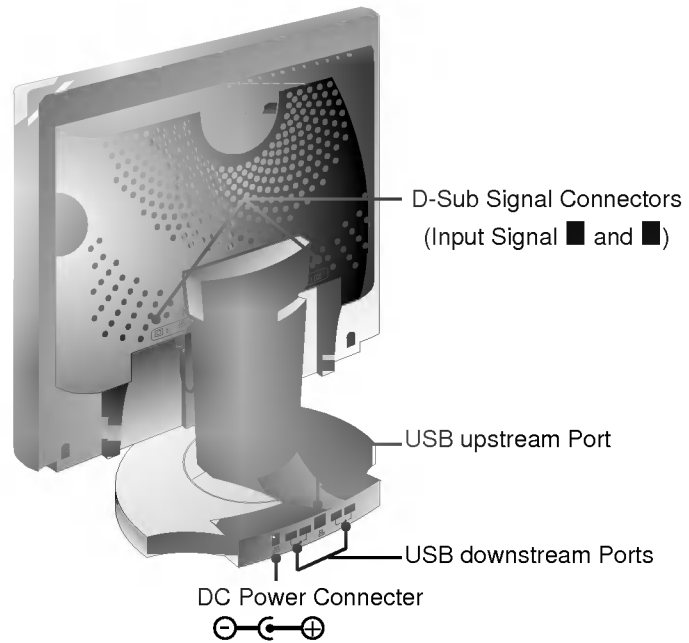
USB standard	Rev. 1.0 complied self-powered hub
Downstream power supply	500mA for each (MAX)
Communication speed	12 Mbps (full), 1.5 Mbps (low)
	1 Upstream port
	4 Downstream ports

Location and Function of Controls

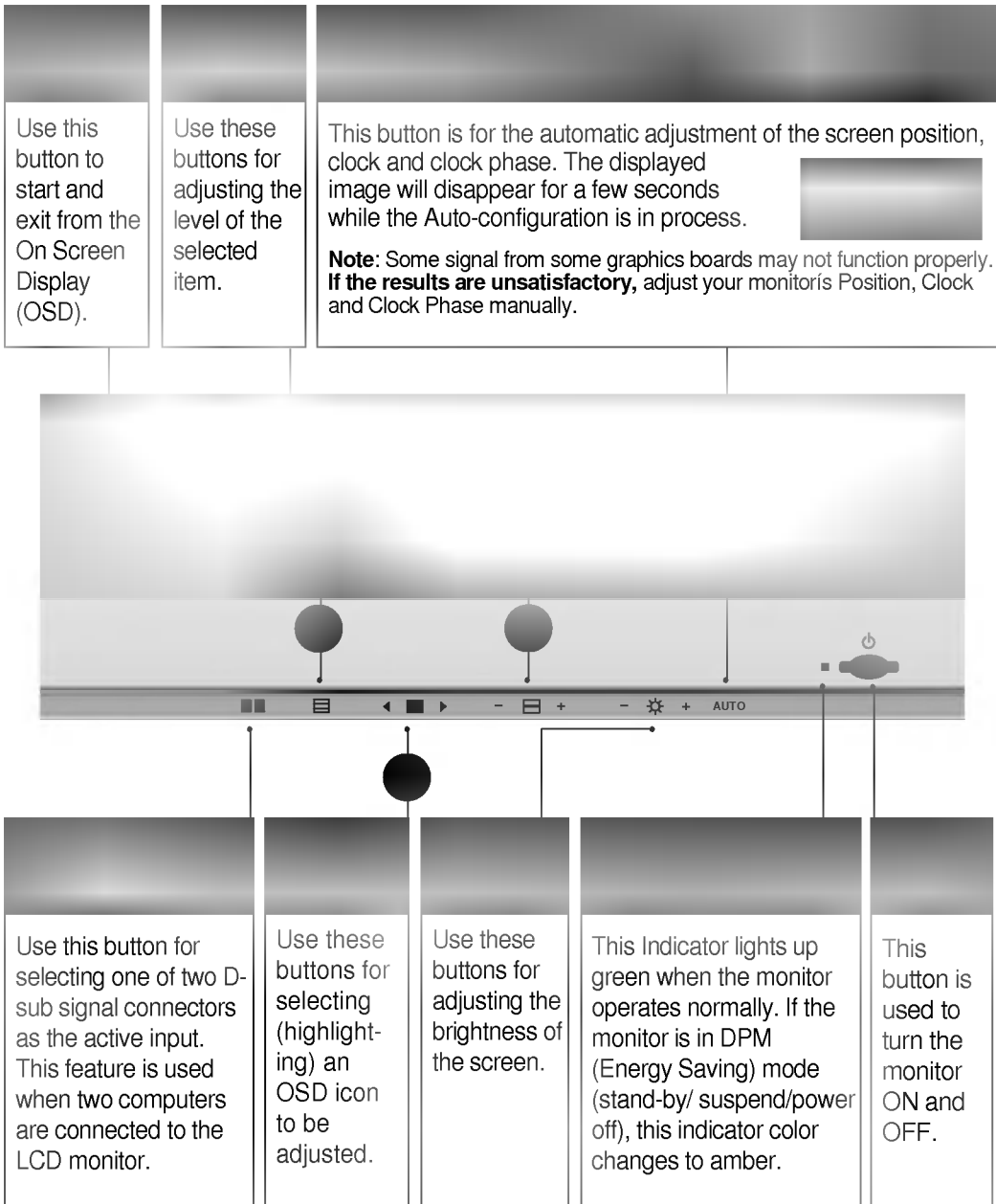
Front View



Rear View






Control Panel Function

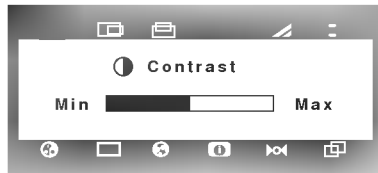


On Screen Display (OSD) Control Adjustment

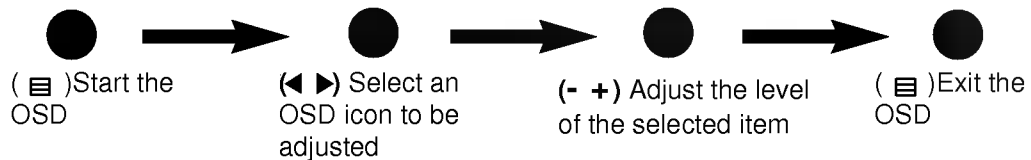
Making adjustments to the image size, position and operating parameters of the monitor are quick and easy with the On Screen Display Control system. The following section is an outline of the available adjustments and selections you can make using the OSD.

Note : Allow the monitor to stabilize for at least 30 minutes before making image adjustment.

Pressing the  (OSD On/Off) button activates the monitor's on screen menu. This menu contains the monitor's various adjustment features. You can select a feature using the   buttons.






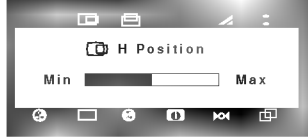

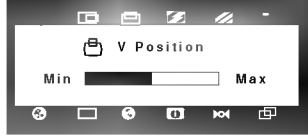

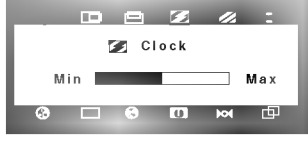

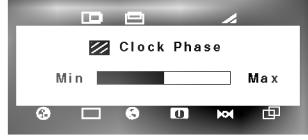
To make adjustments in the On Screen Display, follow these steps:



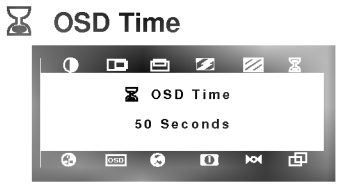
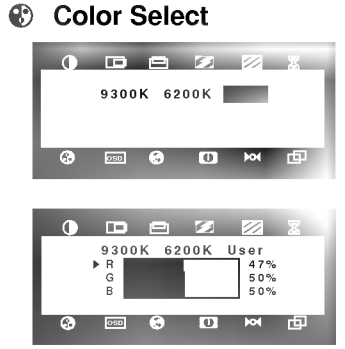
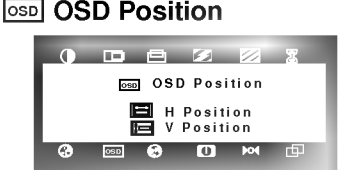
On Screen Display (OSD) Selection and Adjustment

You were introduced to the procedure of selection and adjusting an item using the OSD system.




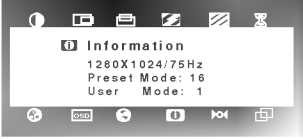
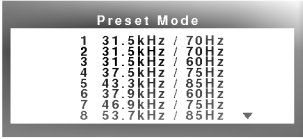
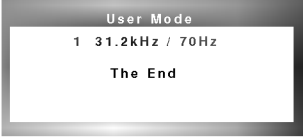




Listed below are the icons, icon names, and icon descriptions of the items that are shown on the Menu.

OSD Adjust	Description
 Contrast 	To adjust the display to the contrast desired.
 H Position 	To move picture image left and right. <ul style="list-style-type: none"> - Moves the screen image left. + Moves the screen image right.
 V Position 	To move image up and down. <ul style="list-style-type: none"> - Moves the screen image down. + Moves the screen image up.
 Clock 	To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.
 Clock Phase 	To adjust the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters. Clock Phase adjustments should be can done after adjusting the Clock .

On Screen Display (OSD) Selection and Adjustment

OSD Adjust	Description
 <p>The screenshot shows the OSD Time menu. At the top, there is an hourglass icon and the text "OSD Time". Below that, it displays "50 Seconds". The menu is surrounded by various navigation icons like back, forward, and home.</p>	<p>To select OSD display duration time. (5 - 120 seconds)</p>
 <p>The first screenshot shows the Color Select menu with options for "9300K" and "6200K". The second screenshot shows the "User" mode with sliders for "R" (47%), "G" (50%), and "B" (50%).</p>	<p>To select color temperature, 9300K/ 6200K and USER.</p> <p>9300K: Slightly bluish white. 6200K: Warm-white tone, similar to white paper or daylight. This temperature is good for video-image display. This is the default setting for your monitor.</p> <p>Select the desired color temperature or select user to set your own color levels. To adjust User, press the + button. This function allows for specific adjustments to Red, Green, and Blue (R/G/B) intensity.</p>
 <p>The screenshot shows the OSD Position menu. It has options for "H Position" and "V Position".</p>	<p>This item gives access to 2 elements : Horizontal position and Vertical position. Press the select button to select the desired item to change.</p> <p>H position : To move image right and left. V position : To move image up and down.</p>

On Screen Display (OSD) Selection and Adjustment

OSD Adjust	Description
<p> Language</p> 	<p>To choose the language in which the control names are displayed. OSD Menus are available in five language : English, German, French, Spanish, and Italian.</p>
<p> Information</p>   	<p>To inform users of the current mode the monitor is using, and also shows the preset and user modes stored in the monitor.</p>
<p> Mode Recall</p> 	<p>If the monitor is operating in a factory preset mode, this control will reset the image to the factory preset mode. If the monitor is operating in a user mode, this control has no effect.</p>
<p> Image Size</p> 	<p>This function displays the image in its original size or enlarged size so as to fit in the full screen of the LCD panel.</p>

Video Memory Modes

The monitor has 32 memory locations for display modes, 16 of which are factory preset to popular video modes. This monitor automatically recognizes these preset modes and they will appear properly sized and centered on the screen.

Display Modes (Resolution)

1	VGA	640 x 350	31.5	70
2	VGA	720 x 400	31.5	70
3	VGA	640 x 480	31.5	60
4	VESA	640 x 480	37.5	75
5	VESA	640 x 480	43.3	85
6	VESA	800 x 600	37.9	60
7	VESA	800 x 600	46.9	75
8	VESA	800 x 600	53.7	85
9	MAC	832 x 624	49.7	75
10	VESA	1024 x 768	48.4	60
11	VESA	1024 x 768	60.1	75
12	VESA	1024 x 768	68.7	85
13	MAC	1152 x 870	68.7	75
14	SUN	1152 x 900	61.8	66
15	VESA	1280 x 1024	63.9	60
16	VESA	1280 x 1024	79.9	75

User Modes

Modes 17-32 are empty and can accept new video data. If the monitor detects a new video mode that has not been present before or is not one of the preset modes, it stores the new mode automatically in one of the empty modes starting with mode 17.

If you use the 16 blank modes and still have more new video modes, the monitor replaces the information in the user modes starting with mode 17.

Recalling Display Modes

When your monitor detects a mode it has seen before, it automatically recalls the image settings you may have made the last time you used that mode.

You may, however, manually force a recall of each of the 16 preset modes by pressing the Recall button. All preset modes are automatically recalled as the monitor senses the incoming signal.

The ability to recall the preset modes is dependent on the signal coming from your PC's video card or system. If this signal does not match any of the factory modes, the monitor automatically sets itself to display the image.

Power Management System

This monitor incorporates new circuitry for lowering energy usage during idle time, following the Display Power Management Signalling (DPMS) guide lines of the Video Electronics Standards Association (VESA), and is certified as exceeding the EPA's Energy Star program for reduced power usage.

For the power savings feature to operate, the monitor must be used with a PC having power saving circuitry. The monitor has three power-saving states, and the power saving operation is indicated by the power indicator on the front panel. When the power indicator is green, operation is normal. When the power indicator is amber, the monitor is in a power saving mode.

If the power indicator is amber, press the power button to turn on the monitor. If the power indicator is amber and you wish to use the PC again, move your mouse pointer or touch a keyboard button. When the monitor is not in use, save energy by turning it off.

Power Consumption

Mode	H.Sync	V.Sync	Video	Power Consumption	LED Color
Normal(Max.)	On	On	Normal	≤ 60W(70W)	Green
Stand-by	Off	On	Off	≤ 5W(17W)	Amber
Suspend	On	Off	Off	≤ 5W(17W)	Amber
Power off	Off	Off	Off	≤ 5W(17W)	Amber

*(): with USB

Note : Pushing the OSD On/Off and AUTO Buttons simultaneously displays the VESA DPMS OSD screen.



Select **ON** to automatically reduce the monitor's power consumption during idle periods in accordance with the PC's screenSaver software.

Low Radiation Compliance (MPR II)

This monitor meets one of the strictest guidelines available today for low radiation emissions, offering the user extra shielding and an anti-static screen coating. These guidelines, set forth by a government agency in Sweden, limit the amount of emission allowed in the Extremely Low Frequency (ELF) and Very Low Frequency (VLF) electromagnetic range.

Self Diagnostics Messages

Special Self Diagnostics messages will appear on the screen when identifying the following monitor conditions:

- Check Signal Cable



This OSD may pop up when it is **ON** but no signal is detected. In this case the message **Check Signal Cable** will be highlighted, alerting you to check the signal cable connections.

- Outside Range Limits



This OSD may appear to inform you that the signal being sent to the monitor is not within its frequency range. In this case, you would need to check the resolution and refresh rate you have your video card set to, and adjust to be within the range of the monitor.

DDC (Display Data Channel)

DDC is a communication channel over which the monitor automatically informs the host system (PC) about its capabilities. This monitor has two DDC function; DDC1 and DDC2B. DDC1 and DDC2B carry out uni-directional communication between the PC and the monitor. Under these situations, the PC sends display data to the monitor but not commands to control the monitor settings.

- Note :**
- PC must support DDC functions to do this.
 - Some older computer systems are not compatible with the DDC standard. If your monitor is displaying a monochrome image or the wrong resolution, you need to change to a DDC compatible VGA card.

Troubleshooting

Display Position is incorrect.

- Push the **AUTO** Button and select **YES**.
 - If the results are unsatisfactory, adjust the image position using the H position and V position icon in the on screen display.
-

On the screen background, vertical bars or stripes are visible.

- Push the **AUTO** Button and select **YES**.
 - If the results are unsatisfactory, decrease the vertical bars or stripes using the **Clock** icon in the on screen display.
-

Any horizontal noise appearing in any image or characters are not clearly portraided.

- Push the **AUTO** Button and select **YES**.
 - If the results are unsatisfactory, decrease the horizontal bars using the **Clock Phase** icon in the on screen display.
-

Check Signal Cable message.

- The signal cable is not connected, or is loose. Check and secure the connection.
-

Outside Range Limits message appears. Picture is blank.

- The frequency of the signal from the video card is outside the operating range of the monitor.

Horizontal Frequency: 31kHz-80kHz

Vertical Frequency: 56Hz-120Hz

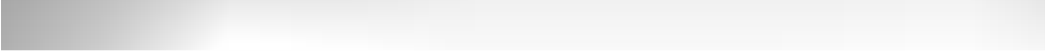
- * Use the graphics board's utility software to change the frequency setting (Refer to the manual for graphics board).
 - * You can change the setup to the supported resolution using the **Safe Mode** (Press the F8 key during booting the system).
-

The power LED is illuminated amber.

- The monitor is in its display power management mode.
 - There is no active signal coming from the PC.
 - The signal cable is not fastened securely.
 - Check the computer power and graphics adapter configuration.
-

The monitor doesn't enter the power saving off mode (Amber).

- Computer video signal is not VESA DPMS standard. Either the PC or the video controller card is not using the VESA DPMS power management function.

- 
1. Unplug the monitor from the wall outlet and refer servicing to qualified service personnel when:
 - The power cord or plug is damaged or frayed.
 - Liquid has been spilled into the monitor.
 - The monitor has been exposed to rain or water.
 - The monitor does not operate normally following the operating instructions. Adjust only those controls that are covered in the operating instructions. An improper adjustment of other controls may result in damage and often requires extensive work by a qualified technician to restore the monitor to normal operation.
 - The monitor has been dropped or the cabinet has been damaged.
 - The monitor exhibits a distinct change in performance.
 2. Do not attempt to service the monitor yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Specifications

Sync Signal types

Priority	Type	H. Sync	V. Sync
1	Separate Sync	H. Sync	V. Sync
2	Composite Sync	H/V. Sync	N.C
3	Sync On Green	N.C	N.C

(N.C : No Connection)


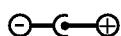
Note: When using a PC, selecting "COMPOSITE" as an input signal may cause an abnormal picture to be displayed. If this occurs, try switching the input signal to "SEPARATE", the default value, to obtain a normal picture on the screen.

Signal Connector Pin Assignment



Pin	Signal (D-sub)	Pin	Signal (D-sub)
1	Red	9	NC
2	Green	10	Ground
3	Blue	11	Ground
4	Ground	12	SDA
5	Ground	13	Horizontal Sync.
6	Red Ground	14	Vertical Sync.
7	Green Ground	15	SCL
8	Blue Ground		

AC Adapter

Input	AC 100-240V ~2.0 - 1.0A 50/60Hz	
Output	DC 12V  5.8A	
Manufacturer : SAMSUNG Electro-Mechanics Co.,LTD.		
Model : PSCV700101A		

Use only the AC adapter supplied with the monitor.

Specifications

Display	
Type	18.1inch (45.97cm) Flat Panel Active matrix-TFT LCD, Anti-Glare coating
Viewable Size	18.1inch (45.97cm)
Viewing Angle(max)	80° (Left/Right/Up/Down)
Pixel pitch	0.28mm
Colors	16.5million colors
Sync Input	
Horizontal Freq.	31kHz - 80kHz (Automatic)
Vertical Freq.	56Hz - 120Hz (Automatic)
Input form	Separate, TTL, Positive/Negative Composite, TTL,Positive/Negative SOG(Sync. On Green)
Signal input	15 pin D-Sub connector x 2
Video Input	
Input Form	Separate, RGB Analog, 0.7Vp-p/75ohm, Positive
Recommended resolution	1280 x 1024 @60Hz
Power Input	DC 12V 5.8A
Dimensions (WxDxH)	17.08 x 9.25 x 17.44inch / 434 x 235 x 443.1mm
Weight (net)	19.84lbs / 9.0kg
Tilt/Swivel Range	
Tilt	5°(Down) 25°(Up)
Swivel	30°(Left) 30°(Right)
Environment	
Operating condition	
Temperature	10°C to 35°C
Humidity	10% to 80% non-condensing
Storage condition	
Temperature	-20°C to 60°C
Humidity	5% to 95% non-condensing

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