AOC

LCD Monitor User Manual

E970SWN/E970SWNL/E970SWN5

E2270SWN/E2270SWN6/E2270SWN5

(LED Backlight)

Safety

National Conventions

The following subsections describe notational conventions used in this document.

Notes, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, cautions, and warnings, and they are used as follows:

NOTE: A NOTE indicates important information that helps you make better use of your computer system**.**

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates the potential for bodily harm and tells you how to avoid the problem.Some warnings may appear in alternate formats and may be unaccompanied by an icon. In such cases, the specific presentation of the warning is mandated by regulatory authority.

Power

⚠ 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.

⚠ The wall socket shall be installed near the equipment and shall be easily accessible.

Installation

⚠️ Do not place the monitor on an unstable cart, stand, tripod, bracket, or table. If the monitor falls, it can injure a person and cause serious damage to this product. Use only a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with this product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. A product and cart combination should be moved with care.

⚠️ Never push any object into the slot on the monitor cabinet. It could damage circuit parts causing a fire or electric shock. Never spill liquids on the monitor.

⚠️ Do not place the front of the product on the floor.

⚠️ If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.

⚠️ Leave some space around the monitor as shown below. Otherwise, air-circulation may be inadequate hence overheating may cause a fire or damage to the monitor.

⚠️ To avoid potential damage, for example the panel peeling from the bezel, ensure that the monitor does not tilt downward by more than -5 degrees. If the -5 degree downward tilt angle maximum is exceeded, the monitor damage will not be covered under warranty.

See below the recommended ventilation areas around the monitor when the monitor is installed on the wall or on the stand:

Installed on the wall

11 7/8 inches
30cm

4 inches
10cm

4 inches
10cm

Leave at least this space around the set.

4 inches
10cm

Installed with stand

11 7/8 inches
30cm

4 inches
10cm

4 inches
10cm

4 inches
10cm

Leave at least this space
around the set.
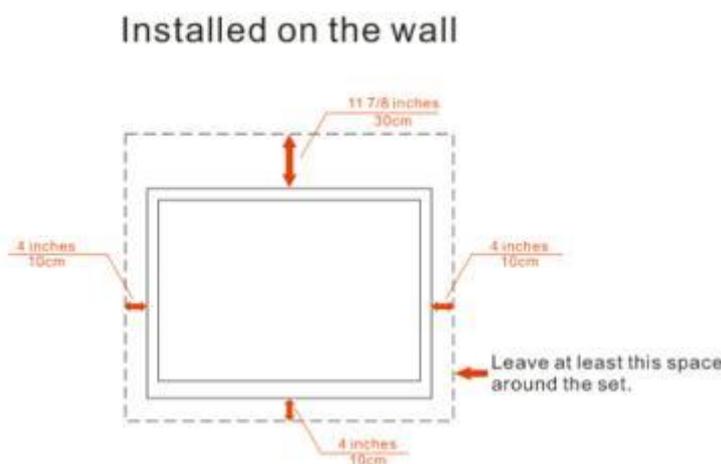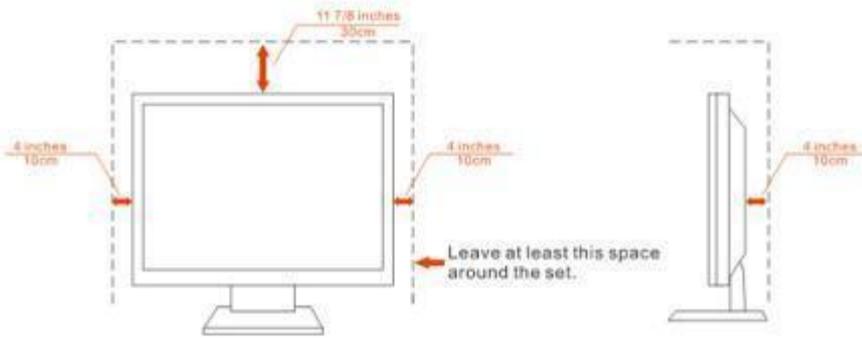
Cleaning

⚠️Clean the cabinet regularly with cloth.   You can use soft-detergent to wipe out the stain, instead of strong-detergent which will cauterize the product cabinet.

⚠️When cleaning, make sure no detergent is leaked into the product. The cleaning cloth should not be too roughas it will scratch the screen surface.

⚠️Please disconnect the power cord before cleaning the product.

Other

⚠️If the product is emitting a strange smell, sound or smoke, disconnect the power plug IMMEDIATELY and contact a Service Center.

⚠️Make sure that the ventilating openings are not blocked by a table or curtain.

⚠️Do not engage the LCD monitor in severe vibration or high impact conditions during operation.

⚠️Do not knock or drop the monitor during operation or transportation.

⚠️For display with glossy bezel the user should consider the placement of the display as the bezel may cause disturbing reflections from surrounding light and bright surfaces.

Setup

Contents of Box

Monitor

CD Manual   Monitor Base

Power Cable   Analog Cable

Setup Stand

Please setup or remove the Stand following the steps as below.

Setup:
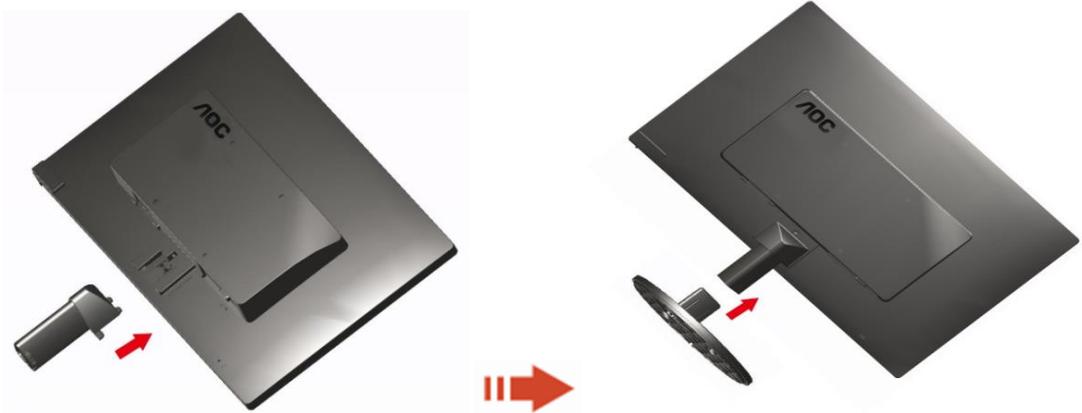
Remove:
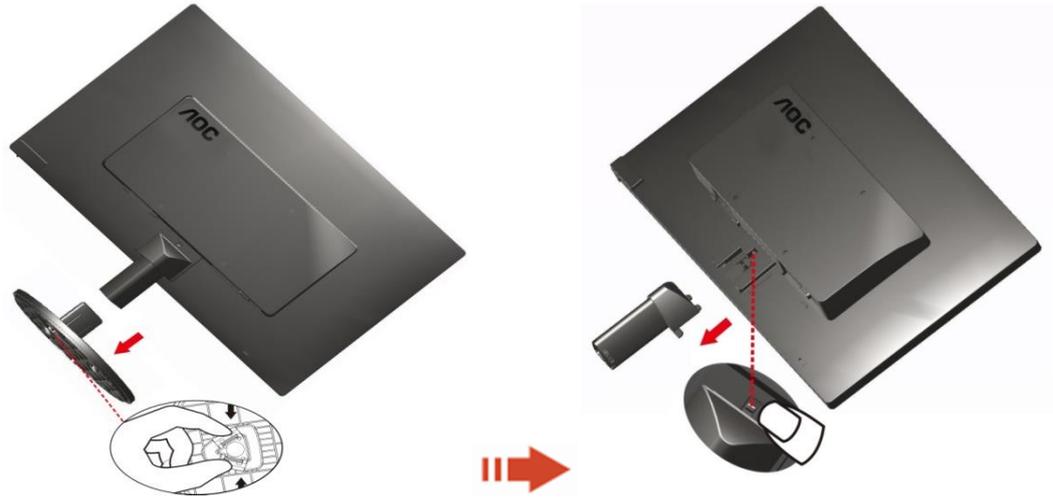
Adjusting Viewing Angle

For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.

Hold the stand so you will not topple the monitor when you change the monitor's angle.

You are able to adjust the monitor's angle from-3° to 10 °(E970SWN/E970SWNL/E970SWN5) or -5° to 15 °(E2270Swn/E2270SWN6/E2270SWN5).

E970Swn/E970Swnl/E970SWN5   E2270Swn/E2270SWN6/E2270SWN5
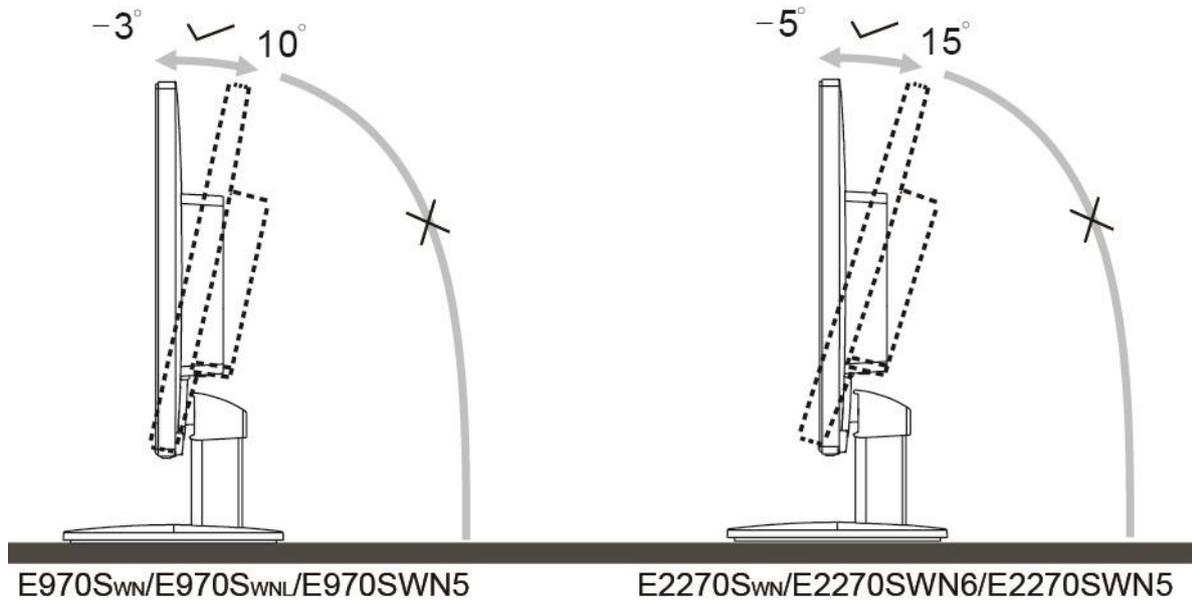
📝 NOTE:

Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen.

Do not put your hand close to the gap between the monitor and the base to avoid the injury when adjusting the viewing angle.

WARNING:

1. To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.

2. Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

Connecting the Monitor

Cable Connections In Back of Monitor and Computer:
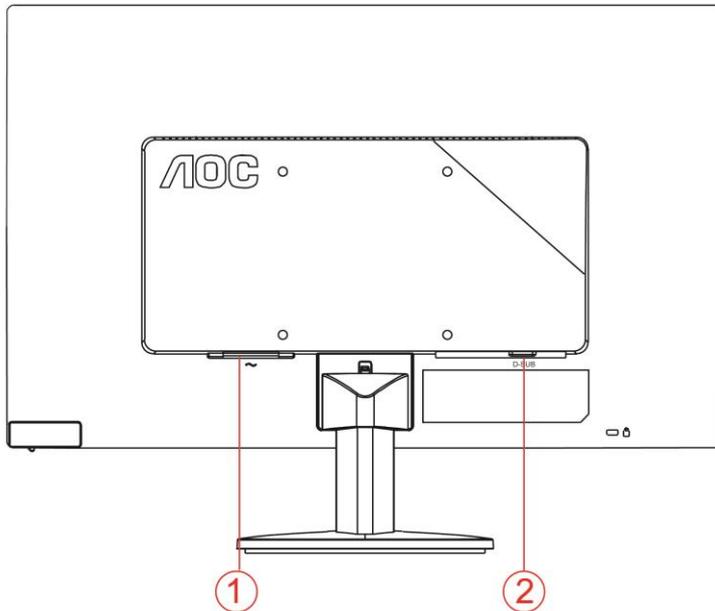
1. Power

2. Analog (D-Sub 15-Pin VGA cable)

To protect equipment, always turn off the PC and LCD monitor before connecting.

1   Connect the power cable to the AC port on the back of the monitor.

2   Connect one end of the 15-pin D-Sub cable to the back of the monitor and connect the other end to the computer's D-Sub port.

3Turn on your monitor and computer.

If your monitor displays an image, installation is complete. If it does not display an image, please refer Troubleshooting.

AOC Anti-Blue Light Feature Description(Optional)

Studies have shown that just as ultra-violet rays can cause eye damage, blue light rays from LED displays can cause damage to different parts of the eye and affect vision over time. AOC Anti-Blue Light feature uses a smart technology to reduce the harmful blue light waves without affecting the color or image of the display.

Adjusting

Hotkeys

⏻	Power/MENU

Power/ MENU

When Power off, press ⏻ button to turn on the monitor.

When Power on, press ⏻ button continuously about 3 seconds to turn off the monitor .

OSD Setting

Basic and simple instruction on the control keys.

1).Press the bottom key ⏻ to activate the OSD window.

2). You can now select any one of the functions by quickly repeat-pressing the bottom key ⏻. The blue box will navigate towards the right as you press the key. You can release ⏻ once the blue box highlights the option you want to choose. Note that the selection is one way loop always moving one direction and then returning at beginning of the menu. The blue box will remain on the selected function for about 3 seconds and the function icon will flash three times to confirm the choice visible on the 1st layer of the OSD and activate it.
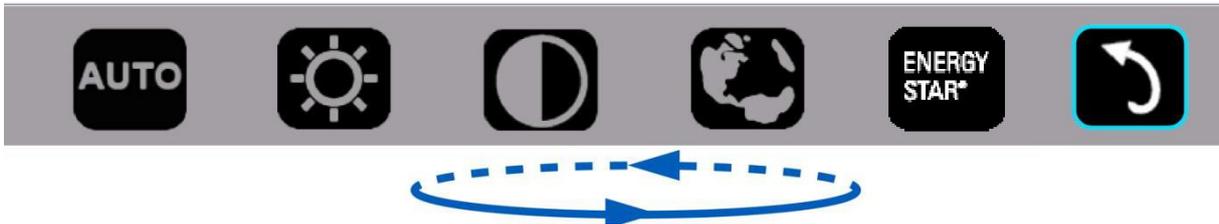
Auto	AUTO		Auto adjust the H/V position, focus and clock of picture
Brightness	☼	0-100	Adjust brightness from 0~100
Contrast	◑	0-100	Adjust contrast from 0~100
Language	🌍		Select the OSD language Default is English.
ENERGY STAR®	ENERGY STAR®		ENERGY STAR® available for selective models
Exit	↺		Exit the main OSD

1. Main menu will disappear if no action for about 3 seconds.
2. Sub menu will disappear if no action for about 3 seconds.
3. Before entering OSD menu,monitor will be powered off when continually pressing the bottom key for more than 3 seconds.

LED Indicator

Status	LED Color	
Full Power Mode	Green	
Active-off Mode	Flickering Green	

Driver

i-Menu

Welcome to "i-Menu" software by AOC. i-Menu makes it easy to adjust your monitor display setting by using on screen menus instead of the OSD button on the monitor. To complete installation, please follow the installation guide.

e-Saver

Welcome to use AOC e-Saver monitor power management software! The AOC e-Saver features Smart Shutdown functions for your monitors, allows your monitor to timely shutdown when PC unit is at any status (On, Off, Sleep/Standby mode or

Screen Saver); the actual shutdown time depends on your preferences (see example below).

Please click on "driver/e-Saver/setup.exe" to start installing the e-Saver software, follow the install wizard to complete software installation.

Under each of the four PC status, you may choose from the pull-down menu the desired time (in minutes) for your monitor to automatically shutdown. The example above illustrated:

1) The monitor will never shutdown when the PC is powered on.

2) The monitor will automatically shutdown 5 minutes after the PC is powered off.

3) The monitor will automatically shutdown 10 minutes after the PC is in sleep/standby mode.

4) The monitor will automatically shutdown 20 minutes after the screen saver appears.
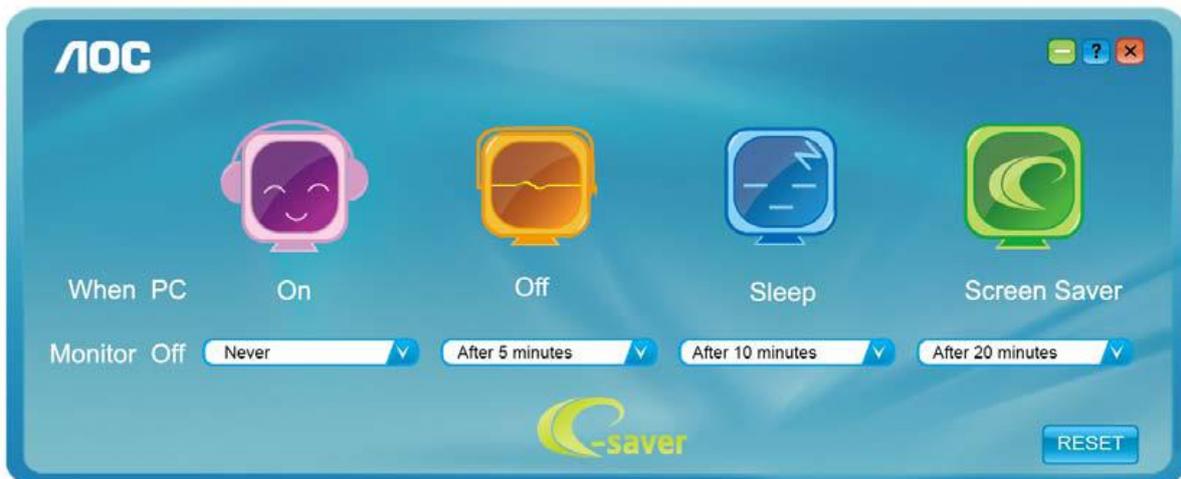
You can click "RESET" to set the e-Saver to its default settings like below.
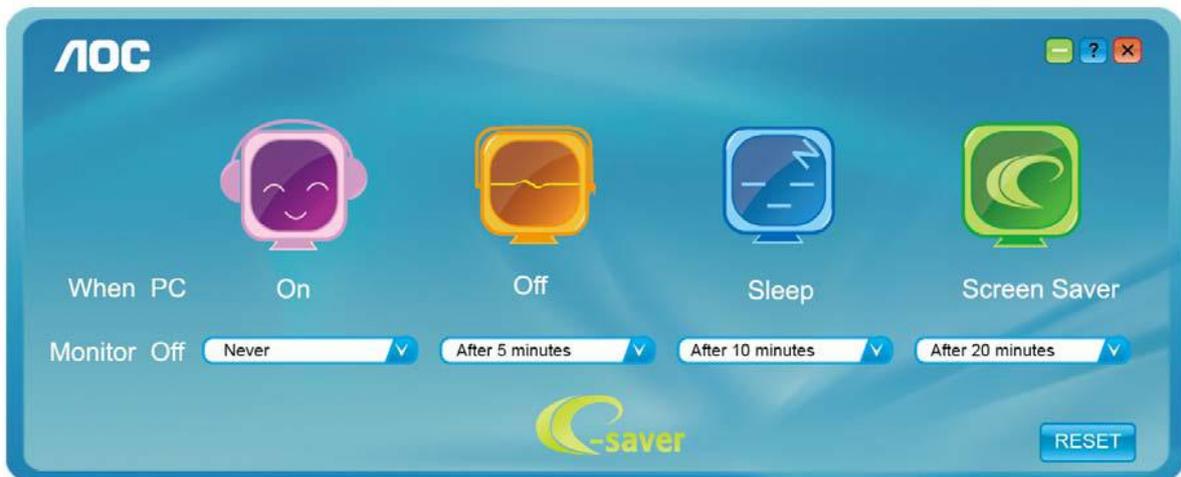
Screen+

Welcome to "Screen+" software by AOC, Screen+ software is a desktop screen splitting tool, it splits the desktop into different panes, each pane displays a different window. You only need to drag the window to a corresponding pane, when you want to access it. It supports multiple monitor display to make your task easier. Please follow the installation software to install it.
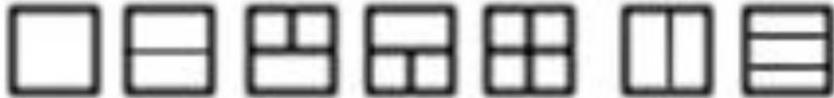
Troubleshoot

Problem & Question	Possible Solutions
Power LED Is Not ON	Make sure the power button is ON and the Power Cord is properly connected to a grounded power outlet and to the monitor.
No images on the screen	• Is the power cord connected properly? Check the power cord connection and power supply. • Is the cable connected correctly? (Connected using the D-sub cable) Check the DB-15 cable connection. • If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen. (Refer to the Setting the Optimal Resolution) If the initial screen (the login screen) does not appear, contact the Service Center or your dealer. • Can you see "Input Not Supported" on the screen? You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can handle properly. Adjust the maximum resolution and frequency that the monitor can handle properly. • Make sure the AOC Monitor Drivers are installed.
Picture Is Fuzzy & Has Ghosting Shadowing Problem	Adjust the Contrast and Brightness Controls. Pressto auto adjust. Make sure you are not using an extension cable or switch box. We recommend plugging the monitor directly to the video card output connector on the back .
Picture Bounces, Flickers Or Wave Pattern Appears In The Picture	Move electrical devices that may cause electrical interference as far away from the monitor as possible. Use the maximum refresh rate your monitor is capable of at the resolution your are using.
Monitor Is Stuck In Active Off-Mode"	The Computer Power Switch should be in the ON position. The Computer Video Card should be snugly fitted in its slot. Make sure the monitor's video cable is properly connected to the computer. Inspect the monitor's video cable and make sure no pin is bent. Make sure your computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn ON or OFF after hitting the CAPS LOCK key.

Missing one of the primary colors (RED, GREEN, or BLUE)	Inspect the monitor's video cable and make sure that no pin is damaged. Make sure the monitor's video cable is properly connected to the computer.
Screen image is not centered or sized properly	Adjust H-Position and V-Position or press hot-key (Power/AUTO).
Picture has color defects (white does not look white)	Adjust RGB color or select desired color temperature.
Display not on whole screen in default resolution ration	Use I-menu software from CD(or download from AOC official website), select "reset" option to adjust.
Regulation & Service	Please refer to Regulation & Service Information which is in the CD manual or www.aoc.com (to find the model you purchase in your country and to find Regulation & Service Information in Support page.

Specification

General Specification

Panel	Product name	E970SWN/E970SWNL/E970SWN5
	Driving system	TFT Color LCD
	Viewable Image Size	47.00cm diagonal
	Pixel pitch	0.3 mm(H) x 0.3 mm(V)
	Video	R, G, B Analog Interface
	Separate Sync.	H/V TTL
	Display Color	16.7M Colors
	Dot Clock	85.5MHz
Resolution	Horizontal scan range	30 kHz - 60 kHz
	Horizontal scan Size(Maximum)	409.8mm
	Vertical scan range	50 Hz - 76 Hz
	Vertical scan Size(Maximum)	230.4mm
	Optimal preset resolution	1366x768@60 Hz
	Plug & Play	VESA DDC2B/CI
	Input Connector	D-Sub 15pin
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM
	Power Source	100-240V~, 50/60Hz
	Typical power consumption	15W (Test condition: set Contrast = 50, Brightness = 90)
	Power Consumption	20W (Test condition:Set Brightness and Contrast to maximum)
	Power consumption @Standby mode	<0.5W
Physical Characteristics	Connector Type	15-pin D-Sub
	Signal Cable Type	Detachable
Environmental	Temperature:	Operating	0° to 40°
		Non-Operating	-25°to 55°
	Humidity:	Operating	10% to 85% (non-condensing)
		Non-Operating	5% to 93% (non-condensing)
	Altitude:	Operating	0~ 3658m (0~ 12000 ft)
		Non-Operating	0~ 12192m (0~ 40000 ft)

E970SWN

Panel	Product name	E2270Swn/E2270SWN6/E2270SWN5
	Driving system	TFT Color LCD
	Viewable Image Size	54.7cm diagonal
	Pixel pitch	0.2482mm(H)X0.2482mm(V)
	Video	R, G, B Analog Interface
	Separate Sync	H/V TTL
	Display Color	16.7M Colors
	Dot Clock	148.5 MHz
Resolution	Horizontal scan range	30 kHz - 83 kHz
	Horizontal scan Size(Maximum)	476.64mm
	Vertical scan range	50 Hz - 76 Hz
	Vertical scan Size(Maximum)	268.11mm
	Optimal preset resolution	1920x 1080@60 Hz
	Plug & Play	VESA DDC2B/CI
	Input Connector	D-Sub 15pin
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM
	Power Source	100-240V~, 50/60Hz
	Typical power consumption	E2270SWN:25W E2270SWN6/E2270SWN5:18W (Test condition: set Contrast = 50, Brightness = 90)
	Power Consumption	E2270SWN:30W E2270SWN6/E2270SWN5:23W (Test condition:Set Brightness and Contrast to maximum)
	Power consumption @Standby mode	<0.3W
Physical Characteristics	Connector Type	15-pin D-Sub
	Signal Cable Type	Detachable
Environmental	Temperature	Operating	0° to 40°
		Non-Operating	-25°to 55°
	Humidity	Operating	10% to 85% (non-condensing)
		Non-Operating	5% to 93% (non-condensing)
	Altitude	Operating	0~ 3658m (0~ 12000 ft)
		Non-Operating	0~ 12192m (0~ 40000 ft)

E2270SWN

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Preset Display Modes

Standard	Resolution	H. Frequency (kHz)	V. Frequency (Hz)	Inch							
				18.5"	19"	19.5"	20"	21.5"	22"	23"	23.6"
VGA	640 X 480@60Hz	31.469	59.940	√	√	√	√	√	√	√	√
	640 X 480@67Hz	35.000	66.667	√	√	√	√	√	√	√	√
	640 X 480@72Hz	37.861	72.809	√	√	√	√	√	√	√	√
	640 X 480@75Hz	37.500	75.000	√	√	√	√	√	√	√	√
DOS MODE	720 X 400@70Hz	31.469	70.087	√	√	√	√	√	√	√	√
SVGA	800 X 600@56Hz	35.156	56.250	√	√	√	√	√	√	√	√
	800 X 600@60Hz	37.879	60.317	√	√	√	√	√	√	√	√
	800 X 600@72Hz	48.077	72.188	√	√	√	√	√	√	√	√
	800 X 600@75Hz	46.875	75.000	√	√	√	√	√	√	√	√
MAC MODE	832 X 624@75Hz	49.725	74.551	√	√	√	√	√	√	√	√
XGA	1024 X 768@60Hz	48.363	60.004	√	√	√	√	√	√	√	√
	1024 X 768@70Hz	56.476	70.069	√	√	√	√	√	√	√	√
	1024 X 768@75Hz	60.023	75.029	√	√	√	√	√	√	√	√
VESA-MODE	1280 X 960@60Hz	60.000	60.000						√	√	
SXGA	1280 X 1024@60Hz	63.981	60.020		√	√		√	√	√	√
	1280 X 1024@75Hz	79.976	75.025		√	√		√	√	√	√
WXGA	1360 X 768@60Hz	47.712	60.015	√							
	1366 X 768@60Hz	47.712	59.790	√							
WXGA+	1440 X 900@60Hz	55.935	59.876		√			√	√	√	√
WSXGA	1600 X 900@60Hz	60.000	59.950			√	√				
WSXGA+	1680 X 1050@60Hz	65.290	59.950					√	√	√	√
FHD	1920 X 1080@60Hz	67.500	60.000					√		√	√

Pin Assignments
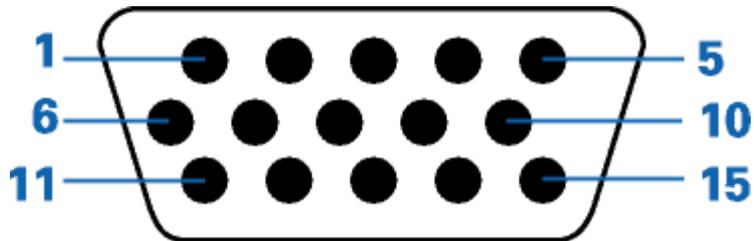
Pin Number	15-Pin Side of the Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
s	N.C.
5	Detect Cable
6	GND-R
7	GND-G
8	GND-B
9	+5V
10	Ground
11	N.C.
12	DDC-Serial data
13	H-sync
14	V-sync
15	DDC-Serial clock

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.