# About This Electronic User's Manual



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## About This Guide

*This electronic user's guide is intended for anyone who uses the* Philips 109S Color Monitor. It describes the monitor's features, setup, operation and all other information, which is the same exact information described in our printed version.

The sections are as follows:

- Safety and Troubleshooting Information provides tips and solutions for common problems, and other related information you may need.
- About This Electronic User's Manual gives overview of what information are included as well as notation icon descriptions and other documentation you can refer to.
- Product Information gives an overview of the monitor's features and as well as the technical specifications for this monitor.
- Installing Your Monitor describes the initial setup process and gives an overview of how to use the monitor.
- On Screen Display provides information on adjusting the settings on your monitor.
- Customer Care and Warranty is a list of worldwide Philips consumer information centers along with the help desk phone numbers and information on the applicable warranty of your product..
- Glossary provides more information for technical terms.
- Download Option allows you to consumer keep a copy of the entire manual in your hard drive.

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## Other Documents You May Need

In addition to this *Electronic User's Guide*, you may need to refer to the following documentation:

- *Philips Color Monitor Quick Start Guide* which summarizes the steps for setting up the monitor. This is included with this product.

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## Federal Communications Commission (FCC) Notice (U.S. Only)

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

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

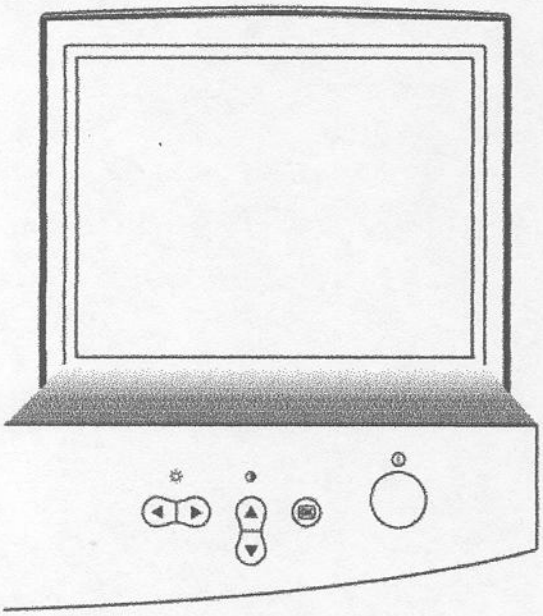
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Use only RF shielded cable that was supplied with the monitor when connecting this monitor to a computer device.

# Installing your Monitor

Front View • Rear View • 6G3B1X Multimedia Base (option) • PCUH411 USB Hub (option)

## Front View



Power button switches your monitor on.

OK button which when pressed will take you to the OSD controls

Contrast hotkey. When the UP arrow is pressed, the adjustment controls for the CONTRAST will show up.

UP and DOWN buttons are used when adjusting the OSD of your monitor

Brightness hotkey. When both the LEFT and RIGHT arrows are pressed at the same time, then the adjustment controls for BRIGHTNESS will show up.

LEFT and RIGHT buttons, like the UP and DOWN buttons, are also used in adjusting the OSD of your monitor.

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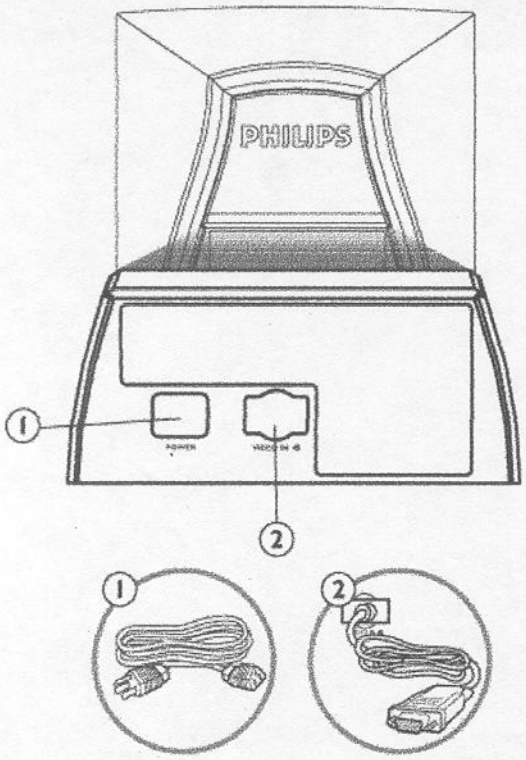


1. Power in - attach power cable here.

2. Video In - this is a cable which is already attached to your monitor. Connect the other end of the cable to your PC.

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# Product Information



## Product Features

***109S20:***

- 19-inch (18.0" VIS) color monitor with excellent front of screen performance for use with MACs and PCs
- Autoscan covers horizontal frequencies up to 92 kHz offering a maximum resolution of 1920 x 1440 with flicker free display of 1280 x 1024 up to 86 Hz
- Flat square High Contrast CRT with 0.27 mm pitch (0.23 hdp)
- LightFrame™ for brightest and sharpest display of movie and photo windows
- XSD-Xtra Space Design for large screen display in a small footprint: World's shortest 19-inch conventional monitor with maximum depth of only 440 mm/17.3"
- Multimedia Base and USB Hub option
- TCO99, E2000, NUTEK, EPA, FCC, CE and ISO9241,ISO14001 certified

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## LightFrame™ for Windows

### Introduction

Philips LightFrame™ feature enriches the experience of pictures and video on a Philips CRT (picture tube) monitor. This highlighting is done by boosting the brightness and sharpness on a selected region of the monitor screen. Since high brightness and sharpness are not preferred for most standard Windows applications, this special feature will only be active in certain circumstances. So that you can control these circumstances, a special program and icons will be installed in your Windows operating systems.

### Notes

Philips LightFrame™ will only work with monitors that have been built to use this software. Earlier Philips monitors or other manufacturers' monitors will not work with this special software. It is recommended that you install this software only on a Philips monitor designed to use it. These monitors can be identified by the LightFrame™ logo on the front of the monitor.

This software is not designed for use with LCD flat screen monitors.

LightFrame™ will work with true Windows-based programs and DOS-based programs that operate in a Window's environment. It will not work with DOS-

If the monitor is detached from the computer while a highlighted window or area is displayed and then another monitor is attached, the system will have to be rebooted so that Philips' LightFrame™ can detect the monitor's LightFrame™ capabilities and store the setup information about the new monitor. If the monitor is not LightFrame™ capable, an Error message appears. See Error Message 2 under the heading Error Messages. You can abort or continue the set up. However, if you continue, LightFrame™ may not work with the monitor.

## Error Messages

You may see this message when you install LightFrame™.

## Error Message 1 dialog box here

LightFrame™ cannot detect a monitor which supports this feature. You can still proceed with the software installation but LightFrame™ might not run on your system.
You may see this message when you try to switch monitors.

## Error Message 2 dialog box here

LightFrame™ cannot detect a monitor which supports this feature. You can still start the software but LightFrame™ may not work.

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## Technical Specifications*

### CRT

| | |
|---|---|
| • Size and deflection | 19 inch / 46 cm ; 90° deflection angle |
| • Dot pitch | 0.27 mm |
| • Horizontal pitch | 0.23 mm |
| • Tube type | Shadow mask, flat square, high contrast, anti-glare, anti-static, anti reflection, light transmission 46% |
| • Phosphor | P22 |
| • Recommended display area | 14.0" x 10.4" / 355 x 265 mm |
| • Maximum display area | 14.4" x 10.8" / 365 x 274 mm |

### SCANNING

| | |
|---|---|
| • Horizontal scanning | 30 - 92 KHz |
| • Vertical scanning | 50 - 160 Hz |

### VIDEO

| | |
|---|---|
| • Video dot rate | 234 MHz |
| • Input impedance | |

| | |
|---|---|
| - Video | 75 ohm |
| - Sync | 2.2 kOhm |
| • Input signal levels | 0.7 Vpp |
| • Sync input signal | Separate sync |
| | Composite sync |
| • Sync polarities | Positive and negative |

## WHITE COLOR TEMPERATURE

Chromaticity CIE coordinates:

| | |
|---|---|
| • at 9300 K degrees | x = 0.283 / y = 0.297 |
| • at 6500 K degrees | x = 0.313 / y = 0.329 |

** These information are subject to change without notice.*

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## Automatic Power Saving

If you have VESA's DPMS compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. And if an input from a keyboard, mouse or other input device is detected, the monitor will automatically "wake up". The following table shows the power consumption and signaling of this automatic power saving features:

| Power Management Definition | | | | | | |
|---|---|---|---|---|---|---|
| VESA's Mode | Video | H-sync | V-sync | Power Used | Power Saving (%) | LED color |
| ON | Active | Yes | Yes | Typical 95 W | 0 % | Green |
| Stand-by | Blanked | No | Yes | < 7W | 93% | Yellow |
| Suspend | Blanked | Yes | No | < 7W | 93% | Yellow |
| OFF | Blanked | No | No | < 3W | 97% | Amber |

This monitor is ENERGY STAR® compliant. As an ENERGY STAR® Partner, PHILIPS has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

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## Physical Specifications

| | |
|---|---|
| • Dimensions | 17.3" x 17.6" x 17.3" / 440 x 447 x 440 mm (including base) 17.3" x 15.7" x 17.3" / 440 x 399 x 440 mm (excluding base) |
| • Weight | 19.7 kg |
| • Power supply | 90 - 264 VAC, 50/60Hz |
| • Temperature (operating) | 0° to 40°C / 32° to 104°F |
| • Temperature (storage) | -25° to +65°C / -13° to -149°F |
| • Relative humidity | 5% to 95% |

** Resolution 1280 x 1024, standard size, contrast max., brightness 50%, 9300°, full white pattern.*

** These information are subject to change without notice.*

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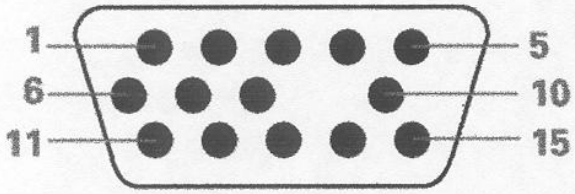
## Pin Assignment

The 15-pin D-sub connector (male) of the signal cable (IBM systems):




| Pin No. | Assignment | | Pin No. | Assignment |
|---|---|---|---|---|
| 1 | Red video input | | 9 | No pin |
| 2 | Green video input | | 10 | Logic ground |
| 3 | Blue video input | | 11 | Identical output - connected to pin 10 |
| 4 | Identical output - connected to pin 10 | | 12 | Serial data line (SDA) |
| 5 | Ground | | 13 | H. Sync / H+V |
| 6 | Red video ground | | 14 | V. Sync (VCLK for DDC) |
| 7 | Green video ground | | 15 | Data clock line (SCL) |
| 8 | Blue video ground | | | |