

## Exhibit 4

## Installation and Operating Instruction

### About This Electronic User's Manual

[About This Guide](#) • [Other Documents You May Need](#) • [Notational Descriptions](#)

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#### About This Guide

This electronic user's guide is intended for anyone who uses the Philips 109B 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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#### Notational Descriptions

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:** This icon indicates important information and tips that help you make better use of your computer system.



**CAUTION:** This icon indicates information that tells you how to avoid either potential damage to hardware or loss of data.



**WARNING:** This icon indicates the potential for bodily harm and tells you how to avoid the problem.



**SMART HELP:** This icon indicates helpful information when adjusting the On Screen Display of your monitor.

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.

## Product Information

Product Features • [LightFrame™ for Windows](#) • [Technical Specifications](#) • [Automatic Power Saving](#) • [Physical Specification](#) • [Pin Assignment](#) • [Product Views](#)

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### Product Features

#### 109B20:

- 19-inch (18.0" VIS) Real Flat color monitor with excellent front of screen performance for use with MACs and PCs
- Autoscans covers horizontal frequencies up to 97 kHz offering a maximum resolution of 1920 x 1440 with flicker free display of 1280 x 1024 at up to 91 Hz
- Real Flat High Contrast CRT with high-resolution 0.25 mm dot pitch (0.21 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" REal Flat shadow mask monitor with maximum depth of only 448 mm/17.6" that matches most of today's 19-inch monitors
- Multimedia Base and USB Hub option
- TCO99, E2000, NUTEK, EPA, FCC, CE ISO9241 and ISO 14001 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 Windows environment. It will not work with DOS-based programs operating only in a DOS environment.



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 / Grille pitch 0.25 mm
- Horizontal pitch 0.21 mm
- Tube type Shadow mask, Real Flat, high contrast, anti-glare, anti-static, anti reflection, light transmission 44%
- 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 - 97 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
	Separate sync
• Sync input signal	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	$x = 0.313 / y = 0.329$
• at 5500 K degrees	$x = 0.332 / y = 0.347$

\* 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	< 100W	0 %	Green
Stand-by	Blanked	No	Yes	< 10W	90%	Yellow
Suspend	Blanked	Yes	No	< 10W	90%	Yellow
OFF	Blanked	No	No	< 3W	97%	Amber

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

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## Physical Specifications

- Dimensions 17.3" x 17.5" x 17.6" / 440 x 446 x 448mm (including base)  
17.3" x 16.1" x 17.6" / 440 x 410 x 448 mm (excluding base)

- Weight 21.2 kg

- Power supply 90 - 264 VAC, 50/60Hz

- Temperature 0° to 40°C / 32° to 104°F (operating)

- Temperature -25° to +65°C / -13° to +149°F (storage)

- Relative humidity 5% to 95%

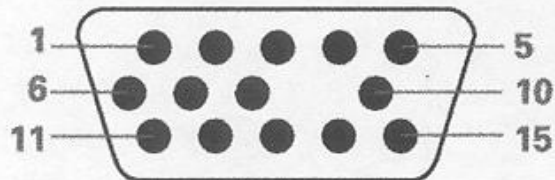
\* Resolution 1280 x 1024, standard size, contrast max., brightness 50%, 9300°, full white pattern.

\* 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		

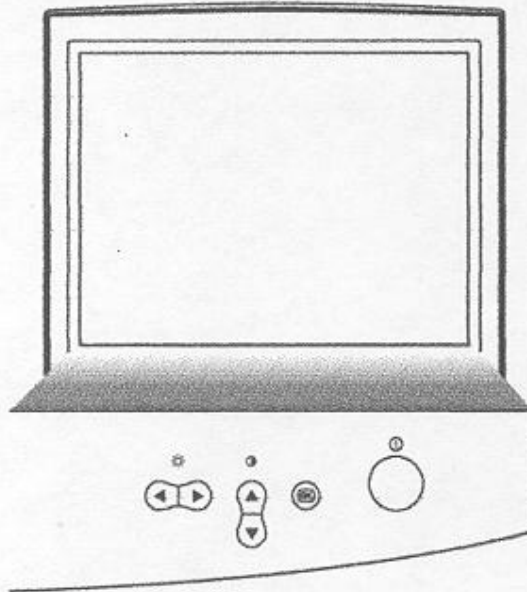








## Installing your Monitor

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

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### Front View

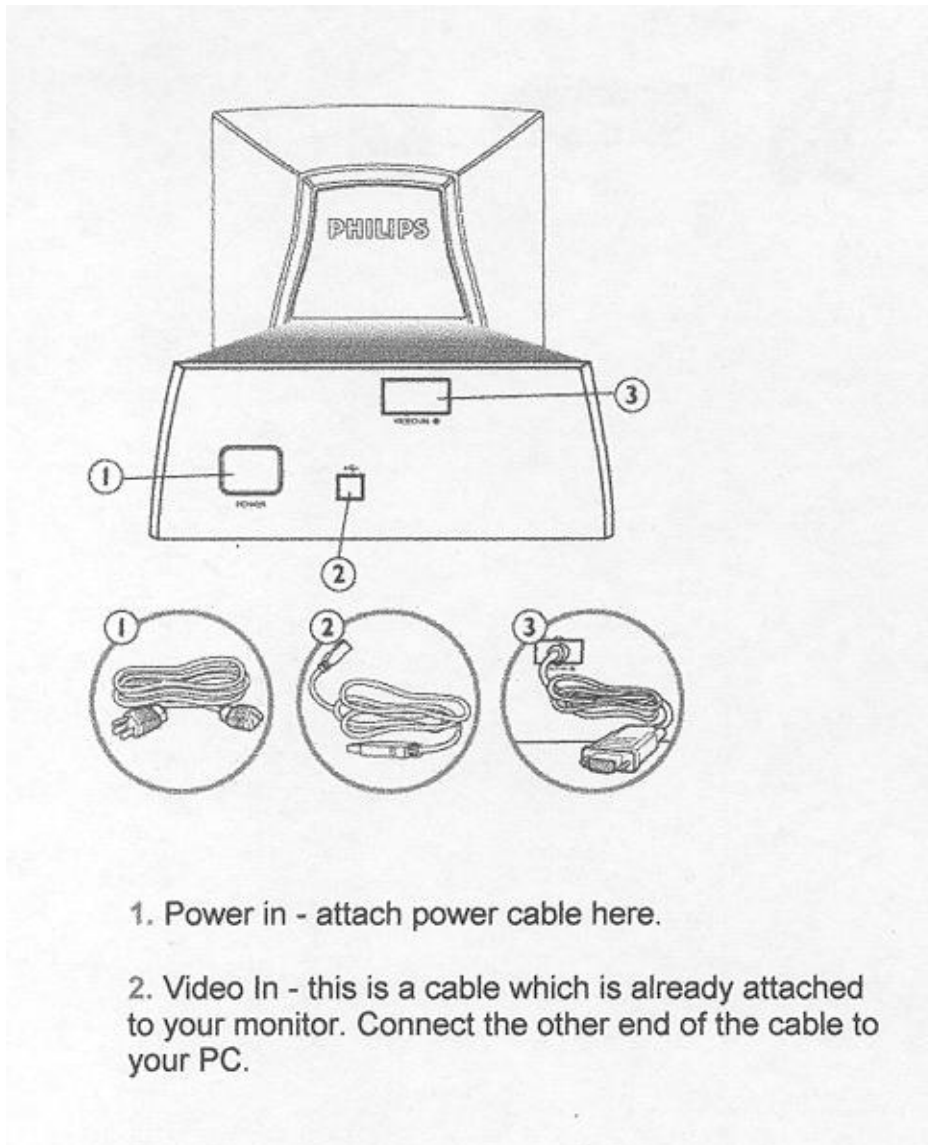


-  Power button switches your monitor on.
-  OK button which when pressed will take you to the OSD controls
-  Contrast hotkey. When the UP arrow is pressed, the adjustment controls for the CONTRAST will show up.
-  UP and DOWN buttons are used when adjusting the OSD of your monitor
-  Brightness hotkey. 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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### Rear View





# On-Screen Display

Description of the On-Screen Display • The OSD Tree • The OSD Controls






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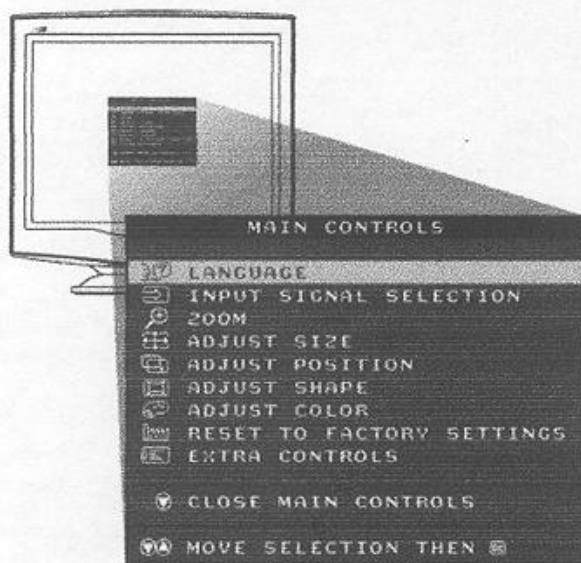
## Description of the On Screen Display

### *What is the On-Screen Display?*

This is a feature in all Philips monitors which allows an end-user to adjust screen performance of monitors directly through an on-screen instruction window. The user interface provides user-friendliness and ease-of-use when operating the monitor.

### *Basic and simple instruction on the control keys.*

On the front controls of your monitor, once you press the  button, the On Screen Display (OSD) Main Controls window will pop up and you can now start making adjustments to your monitor's various features. Use the   or the   keys to make your adjustments within.

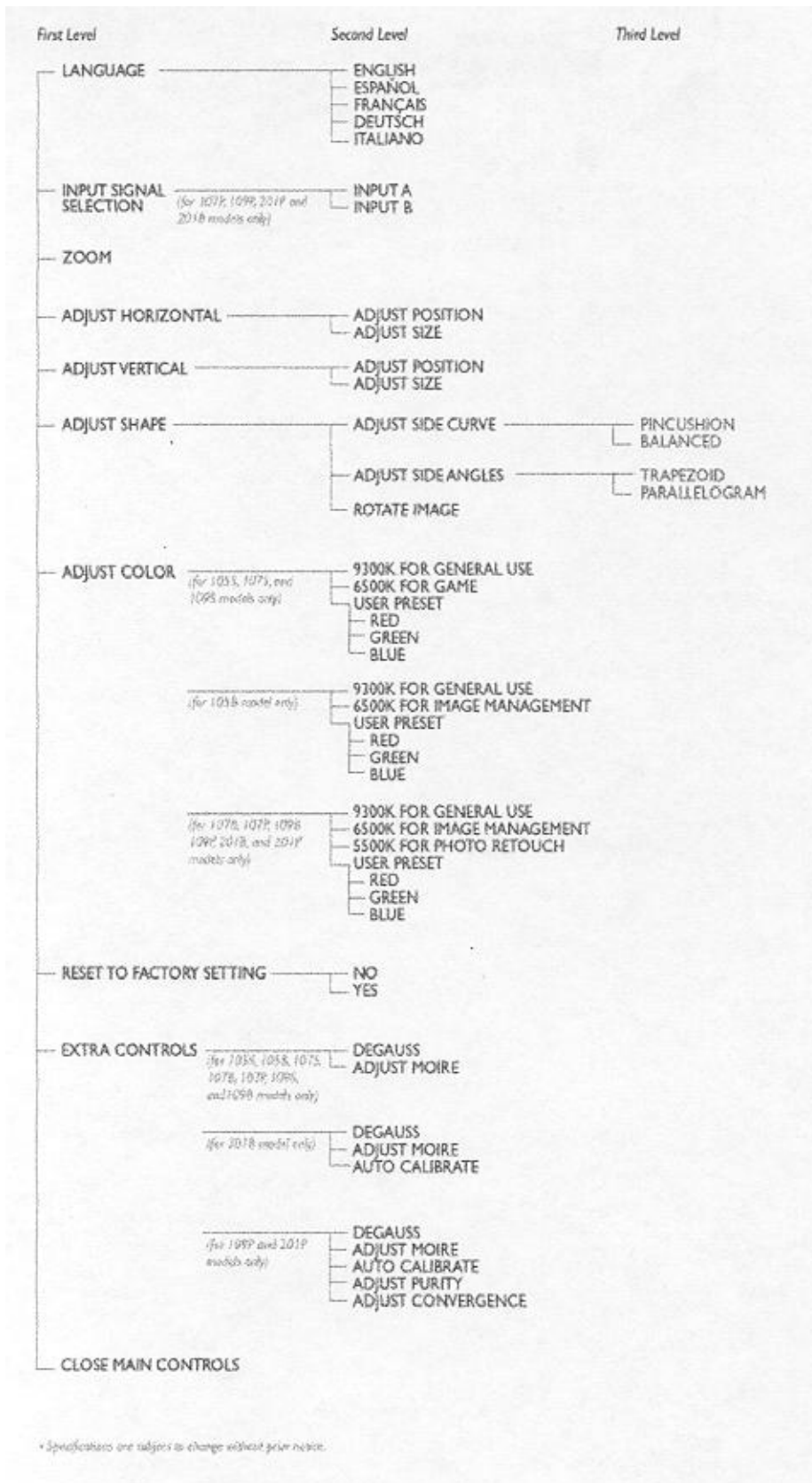


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## The OSD Tree

Below is an overall view of the structure of the On-Screen Display. You can use this as reference when you want to later on work your way around the different adjustments.



**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.



To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or excessive moisture.

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

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### Commission Federale de la Communication (FCC Declaration)



Cet équipement a été testé et déclaré conforme aux limites des appareils numériques de class B, aux termes de l'article 15 Des règles de la FCC. Ces limites sont conçues de façon à fournir une protection raisonnable contre les interférences nuisibles dans le cadre d'une installation résidentielle. CET appareil produit, utilise et peut émettre des hyperfréquences qui, si l'appareil n'est pas installé et utilisé selon les consignes données, peuvent causer des interférences nuisibles aux communications radio. Cependant, rien ne peut garantir l'absence d'interférences dans le cadre d'une installation particulière. Si cet appareil est la cause d'interférences nuisibles pour la réception des signaux de radio ou de télévision, ce qui peut être décelé en fermant l'équipement, puis en le remettant en fonction, l'utilisateur pourrait essayer de corriger la situation en prenant les mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance entre l'équipement et le récepteur.
- Brancher l'équipement sur un autre circuit que celui utilisé par le récepteur.
- Demander l'aide du marchand ou d'un technicien chevronné en radio/télévision.



Toutes modifications n'ayant pas reçu l'approbation des services compétents en matière de conformité est susceptible d'interdire à l'utilisateur l'usage du présent équipement.

N'utiliser que des câbles RF armés pour les connections avec des ordinateurs ou périphériques.

CET APPAREIL NUMERIQUE DE LA CLASSE B RESPECTE TOUTES LES EXIGENCES DU REGLEMENT SUR LE MATERIEL BROUILLEUR DU CANADA.