Installstion and Operating instructions

Product Information

Product Features • Technical Specifications • Resolution & Preset Modes • <u>Philips Pixel Defect Policy</u> • Automatic Power Saving • <u>Physical Specification</u> • <u>Pin Assignment</u> • <u>Product Views</u> • <u>Physical Function</u>

Product Features

150S4FG / 150S4FB

Embedded Power Supply

- 15-inch color LCD monitor with excellent display performance
- Ultra slim frame design
- Standard VGA analog input
- Embedded universal AC power supply
- AUTO adjustment optimizes picture quality
- User installable bezel for optional protective cover choice

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LCD PANEL TFT LCD Type 15" visual Screen size Pixel Pitch 0.297 x 0.297mm (15.0") 1024 x 768 pixels R.G.B. vertical stripe LCD Panel type Anti-glare polarizer hardness Effective viewing area 304.1 x 228.1mm (15.0") 16.7M colors Display Colors **SCANNING** Vertical refresh rate 56Hz-76Hz Horizontal frequency 30kHz-61kHz VIDEO Video dot rate 80 MHz Input impedance

Technical Specifications*

- Video	75 ohm			
- Sync	2K ohm			
 Input signal levels 	700m Vpp			
• Sync input signal	Separate sync Composite sync Sync on Green			
 Sync polarities 	Positive and negative			
Input Frequency	XGA Hsync 48- 61 kHz, Vsync 60 - 76 Hz (N.I.) SVGA Hsync 35- 50 kHz, Vsync 56 - 75 Hz (N.I.) VGA Hsync 31- 38 kHz, Vsync 60 - 76 Hz (N.I.)			
Video interface	Analog (D-Sub)			
OPTICAL CHARACTERI	STICS			
Contrast ratio	400 (typ.)			
Brightness	250 cd/m ² (typ.)			
 Peak contrast angle 	6 o'clock			
White Chromacity	x: 0.283 y: 0.297 (at 9300° K) x: 0.313 y: 0.329 (at 6500° K)			
• Viewing Angle (C/R >5)	Upper <u>></u> 50° (typ.) Lower <u>></u> 60° (typ.) Left <u>></u> 75 ° (typ.) Right <u>></u> 75 ° (typ.)			
Response time	<=30ms (typ.)			

* This data is subject to change without notice.

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Resolution & Preset Modes

- Maximum 1024 x 768 at 75Hz
- Recommended 1024 x 768 at 60Hz
- 14 user definable modes

14 factory preset modes:

H. freq (kHz)	Resolution	V. freq (Hz)
31.469	640*350	70.086
31.469	720*400	70.087
31.469	640*480	59.940
35.000	640*480	67.000

37.861	640*480	72.809
37.500	640*480	75.000
35.156	800*600	56.250
37.879	800*600	60.317
48.077	800*600	72.188
46.875	800*600	75.000
49.700	832*624	75.000
48.363	1024*768	60.004
56.476	1024*768	70.069
60.023	1024*768	75.029

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Automatic Power Saving

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

Power Management Definition					
VESA Mode	Video	H-sync	V-sync	Power Used	LED color
ON	Active	Yes	Yes	< 30W	Green
Stand-by	Blanked	No	Yes	< 1W	Amber
Suspend	Blanked	Yes	No	< 1W	Amber
OFF	Blanked	No	No	< 1W	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

Dimension (WxHxD) *	343 x 310 x 170 mm (incl. Pedestal)	
Weight *	3.7 kg	

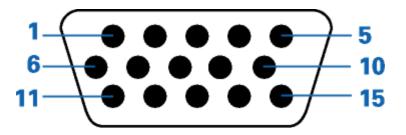
 Tilt (Forward / Backward) 	- 5° / 25°
Power supply	100 — 240 VAC, 50/60 Hz
Power consumption	23 W (typ.)
Temperature (operating)	5° C to 40° C
 Relative humidity 	20% to 80%
System MTBF	50K hrs (CCFL 30Khrs)
Cabinet color	150S4FG: Light Gray 150S4FB: Black

* This data is subject to change without notice.

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Pin Assignment

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



Pin No.	Assignment	Pin No.	Assignment
1	Red video input	9	DDC +5V
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	Cable detect	13	H. Sync / H+V
6	Red video ground	14	V. Sync
7	Green video ground	15	Data clock line (SCL)
8	Blue video ground		

Product Views

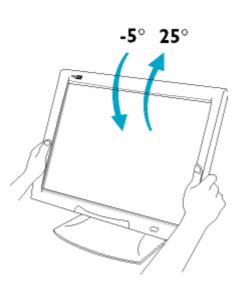
Follow the links to see various views of the monitor and its components.

Front View Product Description

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Physical Function

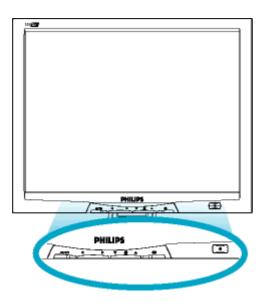
Tilt

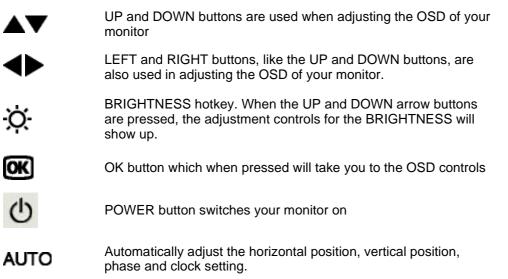


Installing your LCD Monitor

Your LCD Monitor : Front View Product Description • Connecting to Your PC • The Base • Getting Started • Optimizing Performance

Front View Product Description





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Optimizing Performance

• For best performance, ensure that your display settings are set at 1024x768@60Hz (for14"/15") or 1280x1024, 60Hz (for17"/18").



Note: You can check the current display settings by pressing the 'OK' button once. Go into the Product Information. The current display mode is shown on the item called RESOLUTION.

• You can also install the Flat Panel Adjust (FP Adjust) program, a program for getting the best performance out of your monitor. This included on this CD. Step-by-step instructions are provided to guide you through the installtion process. Click on the link to know more about this program.

More about FP_setup01.exe

Connecting to Your PC

Your LCD Monitor : Front View Product Description • Accessory Pack • Connecting to Your PC • The Base • Getting Started • Optimizing Performance

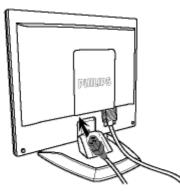
Accessory Pack

Unpack all the parts.

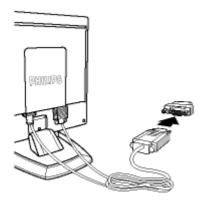
ltem	Description		
	 Audio in Cable (Option only available for Multimedia version) (color lime) 		
	2) Microphone out Cable (Option only available for Multimedia version)(color pink)		
	3) Power Cable (socket may differ for different countries)		
	4) Macintosh Adapter (optional)		
	5) VGA Signal Cable		
	6) E-DFU package with Quick Setup Guide, Using Your Monitor Manual, and CD-ROM.		
ann I	7) Pivot CD-ROM (optional)		

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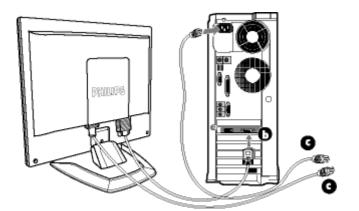
Connecting to Your PC



1) Plug the power cord into monitor firmly.



Note: If you use an Apple Macintosh, you need to connect the special Mac adapter to one end of the monitor signal cable



2) Connect to PC

- (a) Turn off your computer and unplug its power cable.
- (b) Connect the monitor signal cable to the video connector on the back of your computer.
- (c) Plug the power cord of your computer and your monitor into a nearby outlet.
- (d) Turn on your computer and monitor. If the monitor displays an image, installation is complete.

The Base

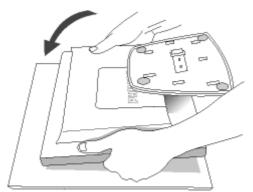
Your LCD Monitor : Front View Product Description • Accessory Pack • Connecting to Your PC • Getting Started • Optimizing Performance

Unfold and Fold the Base : Unfold the base • Fold the base

Remove the Base : Remove the base

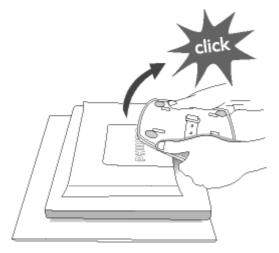
Unfold and Fold the Base

Unfold the Base



1) Put monitor face down on the safe surface

Safe surface

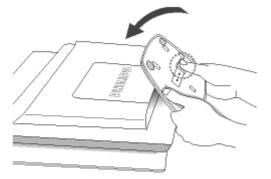


2) Pull up the base

Fold the Base

1) Put monitor face down on the safe surface





2) Push down the button and fold the base

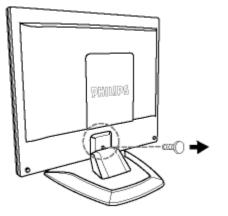
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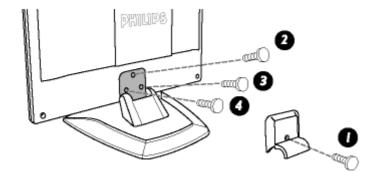
Remove the Base

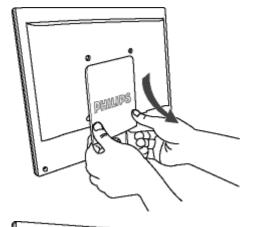
Condition:

- for VESA standard mounting applicationsfor optional bases replacement

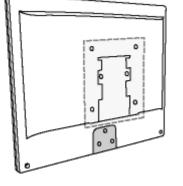
1) Remove the four screws and then remove the stand from the LCD monitor.







2) Remove the back cover



Note: This monitor accepts a 100mmx100mm VESA-Compliant mounting interface.

Regulatory Information

<u>TCO '95 Information</u> • <u>TCO '95 Environmental Requirements</u> • <u>TCO '99</u> <u>Information</u> • <u>TCO '99 Environmental Requirements</u> • <u>CE Declaration of</u> <u>Conformity</u> • <u>Energy Star Declaration</u> • <u>Federal Communications Commission</u> (FCC) Notice (U.S. Only) • Commission Federale de la Communication (FCC Declaration) • <u>EN 55022 Compliance (Czech Republic Only</u>) • <u>VCCI Class 2</u> <u>Notice (Japan Only) • MIC Notice (South Korea Only) • Polish Center for Testing</u> <u>and Certification Notice</u> • <u>North Europe Information</u> • <u>BSMI Notice (Taiwan Only)</u> • <u>Ergonomie Hinweis (nur Deutschland)</u> • <u>Philips End-of-Life Disposal</u> • <u>Information</u> for UK only

<u>Safety and Troubleshooting</u> • <u>Troubleshooting</u> • <u>Other Related Information</u> • <u>Frequently Asked Questions (FAQs)</u>

TCO '95 Information

(For 150S4FB)



Congratulations!

You have just purchased a TCO'95 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also, to the further development of environmentally adapted electronics products.

Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during the manufacturing. Since it has not been possible for the majority of electronics equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature. There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of conventional electricity generation have a negative effect on the environment (acidic and climate-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronics equipment in offices consume an enormous amount of energy since they are often left running continuously.

What does labelling involve?

This product meets the requirements for the TCO'95 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint

- EN55022:1998 (Radio Disturbance requirement of Information Technology Equipment)

- EN55024:1998 (Immunity requirement of Information Technology Equipment)
- EN61000-3-2:1995 (Limits for Harmonic Current Emission)
- EN61000-3-3:1995 (Limitation of Voltage Fluctuation and Flicker)
- following provisions of directives applicable
- 73/23/EEC (Low Voltage Directive)
- 89/336/EEC (EMC Directive)
- 93/68/EEC (Amendment of EMC and Low Voltage Directive)

and is produced by a manufacturing organization on ISO9000 level.

The product also comply with the following standards

- ISO9241-3, ISO9241-7, ISO9241-8 (Ergonomic requirement for Visual Display)
- ISO13406-2 (Ergonomic requirement for Flat panels)
- GS EK1-2000 (GS specification)
- prEN50279:1998 (Low Frequency Electric and Magnetic fields for Visual Display)
- MPR-II (MPR:1990:8/1990:10 Low Frequency Electric and Magnetic fields)
- TCO95, TCO99 (Requirement for Environment Labelling of Ergonomics, Energy, Ecology and Emission,

TCO: Swedish Confederation of Professional Employees) for TCO versions

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Energy Star Declaration

PHILIPS 150S4FG/150S4FB

This monitor is equipped with a function for saving energy which supports the VESA Display Power Management Signaling (DPMS) standard. This means that the monitor must be connected to a computer which supports VESA DPMS to fulfill the requirements in the NUTEK specification 803299/94. Time settings are adjusted from the system unit by software. From indicated inactivity to Power Saving Position A2, the total time must not be set to more than 70 minutes.

NUTEK	VESA State	LED Indicator	Power Consumption
Normal operation	ON	Green	< 30 W
Power Saving Position A1	Suspend	Amber	< 1 W
Power Saving Position A2	OFF	Amber	< 1W



As an ENERGY STAR[®] Partner, PHILIPS has determined that this product meets the ENERGY STAR[®] guidelines for energy efficiency.



We recommend you switch off the monitor when it is not in use for quite a long time.

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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.

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 auxlimites des appareils numériques de class B,aux termes de l'article 15 Des règles de la FCC. Ces limites sont conçues de façon à fourir 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.

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EN 55022 Compliance (Czech Republic Only)

This device belongs to category B devices as described in EN 55022, unless it is specifically stated that it is a Class A device on the specification label. The following applies to devices in Class A of EN 55022 (radius of protection up to 30 meters). The user of the device is obliged to take all steps necessary to remove sources of interference to telecommunication or other devices.

Pokud není na typovém štitku počítače uvedeno, že spadá do do třídy A podle EN 55022, spadá automaticky do třídy B podle EN 55022. Pro zařizení zařazená do třídy A (chranné pásmo 30m) podle EN 55022 platí následující. Dojde-li k rušení telekomunikačních nebo jiných zařízení je užívatel povinnen provést taková opatřgní, aby rušení odstranil.

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VCCI Notice (Japan Only)

This is a Class B product based on the standard of the Voluntary Control Council for Interference (VCCI) for Information technology equipment. If this equipment is used near a radio or television receiver in a domestic environment, it may cause radio Interference. Install and use the equipment according to the instruction manual.

