Installstion and Operating Instructions

Product Information

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

Product Features

150T4

- 15-inch XGA LCD all-in-one Monitor TV with excellent display performance
- Multiple video input allowing display of PC, TV, HD (the US/Canada/Korea/Taiwan), VCD, DVD, Progressive DVD and CamCorder
- Digital High Definition Picture (1080i / 720P / 576P / 480P)
- D-Sub to YPbPr component Video input adapter cable for DVD & HD
- MultiSystem TV tuner-PAL/NTSC (available in most of the Asia Pacific area)

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Technical Specifications*

LCD PANEL		
• Type	TFT LCD	
Screen size	15 inch	
Pixel Pitch	0.297 x 0.297mm	
LCD Panel type	1024 x 768 pixels R.G.B. vertical stripe Anti-glare polarizer	
Effective viewing area	(H) 304.1 x (V) 228.1mm	
Display Colors	8 bits interface (16.7M colors)	
PC SCANNING		
Vertical refresh rate	rate 56Hz-76Hz	
Horizontal frequency	30kHz-63kHz	
PC VIDEO		
Video dot rate 80 MHz		
Input impedance		
- Video	75 ohm	
- Sync	2K ohm	
Input signal levels	0.7 Vpp	
Sync input signal	Separate sync	
Sync polarities Positive and negative		

• Input Frequency	XGA Hsync 48- 63 kHz, Vsync 60 - 75 Hz (N.I.) SVGA Hsync 35- 50 kHz, Vsync 56 - 75 Hz (N.I.) VGA Hsync 31- 38 kHz, Vsync 60 - 75 Hz (N.I.)		
Video interface	D-sub, S-Video, TV-RF and composite video		
AUDIO			
Input level for PC/SVHS	500 mV nominal		
Headphone out signal level	4mW max.		
Loudspeaker	2W Stereo Audio (1W/channel RMS x2, 200Hz~10kHz, 16 ohm, 10% THD)		
OPTICAL CHARACTERISTICS			
Contrast ratio	350:1 (typ.)		
Brightness	250 cd/m ² (typ.)		
Peak contrast angle	6 o'clock		
White Chromaticity	x: 0.283 y: 0.297 (at 9300° K) x: 0.313 y: 0.329 (at 6500° K) x: 0.313 y: 0.329 (sRGB)		
• Viewing Angle (C/R ≥5)	Upper $\geq 50^{\circ}$ (typ.) Lower $\geq 60^{\circ}$ (typ.) Left $\geq 75^{\circ}$ (typ.) Right $\geq 75^{\circ}$ (typ.)		
Response time	<=25ms (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

11 factory preset modes:

Resolution	Mode	H. freq (kHz)	V. freq (Hz)
PC			
640*350	VGA-1	31.469	70.086
640*480	VGA VESA 60	31.469	59.940
640*480	Mac 13	35.000	66.667
640*480	VGA VESA 75	37.500	75.000
720*400	IBM VGA 3H	31.468	70.087

800*600	SVGA VESA 56	35.156	56.250		
800*600	SVGA VESA 60	37.879	60.317		
800*600	SVGA VESA 75	46.875	75.000		
832*624	Mac 16	49.724	74.550		
1024*768	XGA VESA 60	48.363	60.004		
1024*768	XGA VESA 75	60.023	75.029		
Video					
Video	60Hz	15.734	59.940		
Video	50Hz	15.625	50.000		
Progressive Video					
HD	480P	31.470	60.000		
Pr. Component	576P	31.250	50.000		
HD	1080i	33.750	60.000		
HD	1080i	28.125	50.000		
HD	720P	45.000	60.000		
HD	720P	37.500	50.000		

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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 then '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	25W (typ.)	Blue
OFF	Blanked	No	No	110VAC < 1W 230VAC < 2W	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.

Physical Specifications

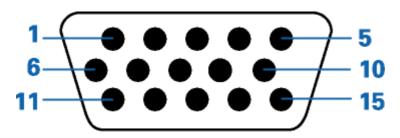
Dimension (WxHxD)	360 x 358 x 177 mm (incl. Pedestal)	
Weight	4.1 kg	
Tilt (Forward / Backward)	- 5° / 20°	
Power supply	100 — 240 VAC, 50/60 Hz	
Power consumption	25 W (typ.)	
Temperature (operating)	5° C to 40° C	
Relative humidity	ive humidity 20% to 80%	
System MTBF	50K hrs (excluding CCFL 40Khrs)	

^{*} 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	Ground
4	Ground	12	Serial data line (SDA)
5	Ground	13	H. Sync
6	Red video ground	14	V. Sync
7	Green video ground	15	Data clock line (SCL)
8	Blue video ground		

Product Views

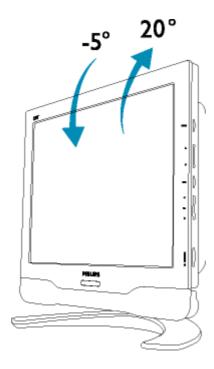
Follow the links to see various views of the monitor and its components.

Front View Product Description

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Physical Function

Tilt

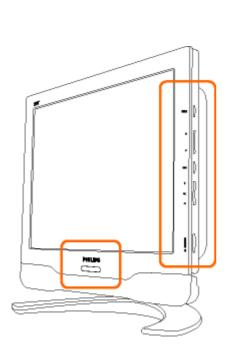


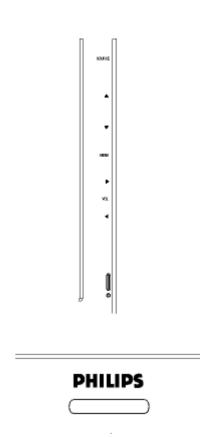
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Installing your LCD Monitor/TV

Front View Product Description • Connecting to Your PC, TV antenna, DVD/VCR etc. • VES/Wall Mounting • Installing the Optional TV/AV Module • Getting Started • Optimising Performation

Front View Product Description





Increase or decrease the channel number or up or down the highlighted function in OSD

MENU Open the OSD and select the highlighted function

Increase or decrease the level of audio volume or move up or down the highlighted function in OSD

Power indicator

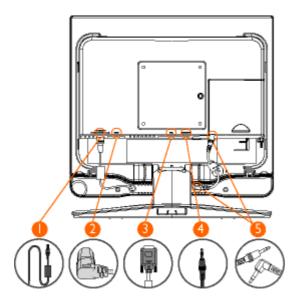
TV/Video source selection

6 Power switch On/Off
7 Receiver for 'remote control'

1

SOURCE

Rear View



1	DC 12V out	For connect to "Audio Chin" only
2	AC in	AC power in
3	VGA	D-Sub input
4	PC - Audio in	For connect to PC Audio output

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For connect to Audio out

Optimizing Performance

5

Audio out

• For best performance, ensure that your display settings are set at 1024x768@60Hz (for 15").



Note: You can check the current display settings by pressing the 'MENU' button once.

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

More about



Regulatory Information

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

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

TCO '99 Information



Congratulations! You have just purchased a TCO '99 approved and labeled 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 labeled computers?

In many countries, environmental labeling 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 their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, 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 electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

What does labeling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labeling of personal computers. The labeling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

Approval requirements cover a wide range of issues: environment, ergonomics, usability, emission of electric and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

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.

NUTEK VESA State LED Indicator Power Consumption

Normal operation ON Blue 25 W (typical)

Power Saving
Alternative 2 OFF Amber 110VAC < 1W
230VAC < 2W



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.

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 štítku počítače uvedeno, že spadá do do třídy A podle EN 55022, spadá automaticky do třídy B podle EN 55022. Pro zařízení 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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