

invent

# HP VP6100 Series Digital Projector

# **User's Guide**

## Notice

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# INTRODUCTION

# \land Warning

TO PREVENT SHOCK, DO NOT OPEN THE CABINET. NO USER –SER-VICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. PLEASE READ THIS USER'S GUIDE BEFORE YOU OPER-ATE YOUR PROJECTOR. SAVE THIS USER'S GUIDE FOR FUTURE REF-ERENCE.

## Safety Instructions

- 1. Read this user's guide before you operate your projector and save it for future reference.
- The lamp becomes extremely hot during operation. Allow the projector to cool for approximately 45 minutes prior to removing the lamp assembly for replacement. Do not operate lamps beyond the rated lamp life. Excessive operation of lamps beyond the rated life could cause them to explode on rare occasions.
- 3. Never replace the lamp assembly or any electronic components unless the projector is unplugged.
- 4. To reduce the risk of electric shock, do not disassemble this appliance. Take it to a qualified technician when service or repair is required. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
- 5. Do not place this product on an unstable cart, stand, or table. The product may fall, sustaining serious damage.
- 6. This product is capable of displaying inverted images for ceiling mount installation. Please use suitable equipment for mounting the unit and ensure it is securely installed.

# ▲ Caution

- Always remove the lens cap when the projector lamp is on.
- Do not look straight at the projector lens during operation. The intense light beam may damage your eyes.
- In some countries, the line voltage is NOT stable. This projector is designed to operate safely within a bandwidth of 110 to 230 volts, but could fail if power cuts or surges of more than 10 volts occur. In these high-risk areas, it is recommended that a power stabilizer unit be used in conjuction with this projector.

**Save this user's guide**: The information contained in this manual will assist you in operating and maintaining your personal projector.

## **Shipping Contents**

The projector is shipped with the cables required for connection to standard PC or laptop computers. Carefully unpack and verify that you have all the items shown below. If any of these items are missing, please contact personnel at the place of purchase.



Power Cord

VGA Cable

User's Guide CD

# **Projector Description**

#### Projector







#### **External Control Panel**



#### Power

Turns the projector on or off.

#### Auto Sync

Automatically determines the best picture settings for current received signals.

#### € < 4 > 5 ∧ 6 v

## Menu

Menu displays the menu system and closes the menu system. < and > navigate among menus and change settings. ^ and v select individual parameters for making changes.

#### 6 Lamp Indicator

The Lamp Indicator will light up when the lamp needs service, cooling or replacement. See "Lamp Information" on page 25 for more detailed information.

#### Temp indicator

The Temp indicator will light up when the system temperature is too high, which may occur if the projector is operated improperly. See "Temperature Warning Indicator" on page 27 for more detailed information.

#### Adjuster

The projector is equipped with 2 quick-release adjuster feet. Push the buttons to adjust its tilt angle.

- I. Lift the projector up and press the adjuster button to release the adjuster.
- 2. The adjuster will drop into position and be locked.



#### **Projector Features**

The projector integrates high-performance optical engine projection and a user-friendly design to deliver high reliability and ease of use.

The projector offers the following features:

- Small and light for portability
- Compact remote control
- High quality manual zoom lens
- One-key auto-adjustment to display the best picture quality
- Digital keystone correction to correct distorted images
- Adjustable color balance control for data/video display
- Ultra-high brightness projection lamp
- Ability to display 16.7 million colors
- On-screen menus in 11 languages
- Switchable Presentation/ Video mode for data/ video display
- Powerful AV function to provide high quality AV picture
- HDTV compatibility (YPBPR)

Note: The brightness of the projected image will vary depending on the ambient lighting conditions and contrast/brightness settings.



## **Remote Control Description**

#### **Remote Control Effective Range**

The remote sensors are located on the front and the back of the projector. It can function in a range of 30 degrees horizontally and 30 degrees vertically relative to a line that is a right angle to the remote sensors. The distance between the remote control and the remote sensors must be shorter than 6 meters (19.5 feet).

#### **Removing the Battery Protector**

The remote control will not operate until you remove the battery protector. Pull the plastic tab until it comes out of the remote control.





# \land Caution

Avoid excessive heat and humidity. There may be danger of an explosion if batteries are incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

# INSTALLATION

## **Screen Size**

Place the projector at the required distance from the screen according to the desired picture size (see the table below).



• VP6120, VP6121 (XGA) screen size chart

Distan	ce from	m Diagonal measurement			Distance from			Diagonal measurement				
scr	reen	Mini zo	mum om	Maxi zo	mum om		screen		Minimum zoom		Maximum zoom	
feet	inches	feet	inches	feet	inches		meters	cm	meters	cm	meters	cm
4	48	2.49	29.9	3.05	36.6		Ι	100	0.62	62.2	0.76	76.2
6	72	3.73	44.8	4.57	54.9		1.5	150	0.93	93.3	1.14	114.3
8	96	4.98	59.7	6.10	73.2		2	200	1.24	124.5	1.52	152.4
10	120	6.22	74.7	7.62	91.4		2.5	250	1.56	155.6	1.91	190.5
12	144	7.47	89.6	9.14	109.7		3	300	1.87	186.7	2.29	228.6
14	168	8.71	104.5	10.67	128.0		3.5	350	2.18	217.8	2.67	266.7
16	192	9.96	119.5	12.19	146.3		4	400	2.49	248.9	3.05	304.8
18	216	11.20	134.4	13.72	164.6		4.5	450	2.80	280.0	3.43	342.9
20	240	12.45	149.4	15.24	182.9		5	500	3.11	311.2	3.81	381.0
22	264	13.69	164.3	16.76	201.2		5.5	550	3.42	342.3	4.19	419.1
24	288	14.94	179.2	18.29	219.5		6	600	3.73	373.4	4.57	457.2
26	312	16.18	194.2	19.81	237.7		6.5	650	4.04	404.5	4.95	495.3
28	336	17.42	209.1	21.34	256.0		7	700	4.36	435.6	5.33	533.4
30	360	18.67	224.0	22.86	274.3		7.5	750	4.67	466.7	5.72	571.5
32	384	19.91	239.0	24.38	292.6		8	800	4.98	497.8	6.10	609.6

Distan	ce from	Diagonal measurement			nent	Distance from			Diagonal measurement			
scr	reen	Mini zo	mum om	Maxi zo	mum om		screen		Minimum zoom		Maximum zoom	
feet	inches	feet	inches	feet	inches		meters	cm	meters	cm	meters	cm
4	48	1.96	23.5	2.40	28.7		Ι	100	0.49	48.9	0.60	59.9
6	72	2.93	35.2	3.59	43.1		1.5	150	0.73	73.4	0.90	89.8
8	96	3.91	47.0	4.79	57.5		2	200	0.98	97.8	1.20	119.8
10	120	4.89	58.7	5.99	71.9		2.5	250	1.22	122.3	1.50	149.7
12	144	5.87	70.4	7.19	86.2		3	300	1.47	146.7	1.80	179.7
14	168	6.85	82.2	8.39	100.6		3.5	350	1.71	171.2	2.10	209.6
16	192	7.83	93.9	9.58	115.0		4	400	1.96	195.7	2.40	239.6
18	216	8.80	105.7	10.78	129.4		4.5	450	2.20	220.1	2.70	269.5
20	240	9.78	117.4	11.98	143.7		5	500	2.45	244.6	2.99	299.5
22	264	10.76	129.1	13.18	158.1		5.5	550	2.69	269.0	3.29	329.4
24	288	11.74	140.9	14.37	172.5		6	600	2.93	293.5	3.59	359.4
26	312	12.72	152.6	15.57	186.9		6.5	650	3.18	317.9	3.89	389.3
28	336	13.70	164.3	16.77	201.2		7	700	3.42	342.4	4.19	419.3
30	360	14.67	176.1	17.97	215.6		7.5	750	3.67	366.8	4.49	449.2
32	384	15.65	187.8	19.17	230.0		8	800	3.91	391.3	4.79	479.1

• VP6110, VP6111 (SVGA) screen size chart

# **Connecting to Various Equipment**

The internal speaker is good for a small audience. If you have a larger audience, you may want to connect the audio source directly to a separate sound system instead of the projector.

#### **HDTV Equipment**

The projector is capable of displaying various High Definition TV display modes. Some of these sources are:

- Digital-VHS (D-VHS) player
   DVD player
- Satellite Dish HDTV receiver
   DTV tuners

Most of these sources will provide an analog component video output, a standard VGA output, or a YPBPR (default) format.

The projector is capable of accepting HDTV data through a YPBPR connector. Use a standard HDTV cable to display HDTV images.

The following standards are supported in the HDTV function:

- 480i 480p
- 720p 1080i

Please refer to "Video and Audio Adjustments -- the Menu System" on page 18 for information on the HDTV OSD selections.

#### **Connecting to Various Equipment**

It only takes a few seconds to connect your projector to your desktop or notebook computer, VCR, or other systems. However, a Mac adapter is needed for connection to Macintosh computers.

I. Computer



The USB cable is not needed unless you have a remote control with mouse functions.

2. DVD player or HDTV



3. S-video device



4. Video device or VCR



5. Output monitor



# **OPERATION**

# Start Up

١. Plug the power cord into the projector and into a wall socket.



2. Turn on the main power switch.



3. Press and hold **POWER** to start the unit. The back-lit POWER key flashes blue and stays blue when the power is turned on.



- (When the power is turned off, there is a 120-second cooling period before the projector can be re-started.)
- 4. Switch on all connected equipment.

# **Digital Keystone Correction**

Keystoning refers to the situation where the projected image is noticeably wider at

either the top or bottom. To correct this, press KEYSTONE  $\blacktriangle$  /  $\blacktriangledown$  (hot key) on the control panel of the projector or on the remote control, and then adjust the sliding

bar labeled Keystone, as needed. Press 📥 if the top of the image is too wide. Press



if the bottom of the image is too wide.



## **Auto Adjustment**

In some cases, you may need to optimize the picture quality. To do this, press the AUTO key on the control panel of the projector or on the remote control. Within 3 seconds, the built-in Intelligent Auto Adjustment function will re-adjust settings to provide the best picture quality.



# **Source Selection**

When several input sources are available, press the SOURCE key to make a selection from the remote control or from the menu system.



## Video and Audio Adjustments -- the Menu System

- I. On the projector or remote control, press the **Menu** button.
- 2. Press < or > to select the desired menu.
- 3. Press v or ^ to select the desired parameter.
- Press < or > to change the setting or open a sub-menu.
- 5. To change another parameter, press **v** or **^** to select the parameter.
- To go to another menu, press the Menu button, then press < or > to select the menu.
- 7. To close the menu system, press the **Menu** button one or more times.



## Quick Tab

FUNCTION	DESCRIPTION						
Sourco	Selects picture source.						
Jource	*The operation of this function depends on the Source Scan setting.						
	Corrects slanted edges of the image.						
Keystone							
Picture mode	Adjusts picture for type of input.						
Auto-sync	Synchronizes with input signal.						
Aspect ratio	Selects proportions of the image.						

## Adjust Tab

FUNCTION	DESCRIPTION					
	Brightens or darkens the image.					
Brightness						
	Sets difference between light and dark areas.					
Contrast						
Frequency	Adjusts timing relative to input signal.					
Trequency	*This function is available only when the input source is PC.					
Tracking	Adjusts synchronization to input signal.					
	*This function is available only when the input source is PC.					
	Shifts image up or down.					
<b>V</b> position						
	*This function is available only when the input source is PC.					
Saturation	Adjusts intensity of colors.					
Saturation	*This function is available only when the input source is Video.					
Tint	Shifts colors toward red or toward green.					
	*This function is available only when the input source is Video.					
Sharpness	Sharpens or softens the image.					
	*This function is available only when the input source is Video.					
Color temp	Shifts colors toward red or toward blue.					

#### Audio Tab

FUNCTION	DESCRIPTION
Mute	Stops audio output.
Volume	Changes loudness of audio
Treble	Changes loudness of higher frequencies.
Bass	Changes loudness of lower frequencies.

## Setup Tab

DESCRIPTION					
Selects language for menus. Use < / > key to select the desired lan- guage.					
Adjusts the image to match the projector placement.					
I. Default	2. Ceiling mounted projection				
3. Rear screen projection	4. Ceiling mounted and rear- screen projection				
Sets whether projector searches	for input signal.				
a contraction projector scarcines for input signal.					
Selects position of on-screen menu.					
Sets how quickly on-screen menu closes.					
<b>Auto-off</b> Sets shutdown delay for no input signal.					
Lamp saver Sets lower light output for longer life.					
Lamp reset					
For new lamp, resets nours of us	se.				
Reset menu Returns all settings to factory preset values.					
	Selects language for menus. Use guage. Adjusts the image to match the point of the				

#### PIP Tab

These functions are available only when the input source is PC and a video or S-video source is also connected.

FUNCTION	DESCRIPTION				
Source	Selects an input source for the picture-in-picture.				
Size	Selects the size of the pic- ture-in-picture. Use < / > key to select small, medium or large PIP size.				
Position	Selects a desired position for the PIP.				
	<b>Brightness</b> Brightens or darkens the image.				
	<b>Contrast</b> Sets difference between light and dark areas.				
PIP Adjust	<b>Saturation</b> Adjusts intensity of colors.				
	<b>Tint</b> Shifts colors toward red or toward green.				
	Sharpness Sharpens or softens the image.				

## Shutdown

1. Press and hold **POWER** and a warning message will appear. To turn off the projector, press **POWER** again.



- 2. The fan will continue to run for approximately two minutes.
- 3. Turn off the main power switch.



4. Disconnect the power cord from the wall socket.



# ▲ Caution

Please do not unplug the power cord before POWER is shut down or during the two-minute cooling process.

If the projector is not properly shut down, to protect the lamp, the system will detect this and cool the lamp for two minutes automatically before turning on again.

# MAINTENANCE

# Lamp Information

#### Lamp LED Indicator

Lamp LED is off	Lamp is operating normally.
Lamp LED is on	Lamp is burned out or not properly installed. Repace the lamp.

#### Lamp Replacement

When the Lamp Indicator lights up red or a message appears suggesting the time of lamp replacement, please install a new lamp or consult your dealer. An old lamp could cause a malfunction in the projector and in rare instances may even break.

# \land Warning

To reduce the risk of electrical shock, always turn off the projector and disconnect the power cord before changing the lamp.

To reduce the risk of severe burns, allow the projector to cool for at least 45 minutes before replacing the lamp.

To reduce the risk of injuries to fingers and damage to internal components, use caution when removing lamp glass that has shattered into sharp pieces.

To reduce the risk of injuries to fingers and/or compromising image quality by touching the lens, do not touch the empty lamp compartment when the lamp is removed.

This lamp contains mercury. Consult your local hazardous waste regulations to dispose of this lamp in a proper manner.

- Turn off the projector. Disconnect the power cord from the outlet and the projector.
- Loosen the screw and remove the lamp cover. If the lamp is hot, avoid burns by waiting 45 minutes until the lamp has cooled.
- Loosen the 3 screws. (It is strongly 3. recommended that you use а magnetic-head screwdriver.) Pull the handle to remove the lamp housing. If the screws are not loosened completely, they could injure your fingers. Do not insert your hand into the box after the lamp is removed. If you touch the optical components this could cause color inside. unevenness in projected images.
- Replace the lamp with a new one. Insert it into the projector, and tighten the screws firmly. Loose screws may cause a bad connection, which may result in malfunction.
- 5. Re-install the lamp cover and tighten the screw. Do not turn on the power with the lamp cover removed.
- 6. After the lamp is replaced, turn on the projector and reset the total lamp operation time. To do this, use the on-screen menu system and go to Setup > Advanced > Lamp Reset. Do not reset if the lamp is not replaced as this could cause damage.



# **Temperature Warning Indicator**

Status	Description
Temperature LED is off	Temperature is normal.
Temperature LED is blinking	Internal fan is not working properly. Turn off the projector and contact HP for assistance.
Temperature LED is on	Internal temperature is too high. Turn off the projector and check the vents for blockage. If this continues to occur, contact HP for assistance.

## Accessories

You can buy HP accessories for your projector, such as the following:

- Carrying case
- Premium remote control (plus USB cable)
- Ceiling mount
- 60-inch mobile screen
- Replacement lamp module
- Video and power cables

# TROUBLESHOOTING

# **Common Problems & Solutions**

PROBLEMS	TRY THESE SOLUTIONS
NO POWER	<ul> <li>Make sure the power cord is inserted fully into the power cord socket.</li> <li>Make sure the power cord is inserted fully into the power outlet.</li> <li>Toggle the power switch to the position "1".</li> <li>Wait two minutes after the projector is turned off before turning the projector back on.</li> </ul>
NO PICTURE	<ul> <li>Check for the proper input source.</li> <li>Ensure all cables are connected properly.</li> <li>Adjust the brightness and contrast.</li> <li>Remove the lens cap.</li> </ul>
TRAPEZOID IMAGE ON THE SCREEN	<ul> <li>Reposition the unit to improve its angle on the screen.</li> <li>Use the <b>Keystone</b> correction key on the control panel of the projector or the remote control unit.</li> </ul>
POOR COLOR	<ul> <li>In the menu system, set the picture mode according to the type of image you are displaying: computer data presentation or video image.</li> <li>Adjust brightness, contrast, or saturation.</li> </ul>
BLURRED IMAGE	<ul> <li>Press Auto Sync on the control panel of the projector or the remote control unit to get better picture quality.</li> <li>Adjust the focus.</li> <li>Reposition the unit to improve its projection angle.</li> <li>Ensure the distance between the unit and screen is within the adjustment range of the lens.</li> </ul>
REMOTE CONTROL DOES NOT WORK	<ul> <li>Replace the batteries with new ones.</li> <li>Make sure there is no obstacle between the remote control and the projector.</li> <li>Stand within 6 meters (19.5 feet) of the projector.</li> <li>Make sure nothing is blocking the front and rear receivers.</li> <li>If you are using a remote control with mouse and page up/ down functions, make sure you have a USB connection between the projector and computer. Certain computer models may not be compatible with the mouse and page up/ down functions of the projector try using a different computer.</li> </ul>
USB CONNECTION DOES NOT WORK	<ul> <li>The remote control shipped with the projector does not include any features that use a USB connection.</li> <li>A USB connection supports only certain remote control features. See the remote control section of this table.</li> </ul>

# **Status Messages**

On-Screen Messages	Description
SEARCHING	Projector is searching for input.
ACQUIRING SIGNAL	Projector has identified the input signal and is running the auto image adjustment function.
OUT OF RANGE	Input signal frequency exceeds the projector's range.
LAMP WARNING - CHANGE LAMP AND RESET LAMP TIMER!	The lamp has been in operation for 1900 hours. Install a new lamp for optimal performance.
END OF LAMP LIFE. YOU MUST CHANGE THE LAMP SOON.	The lamp has been in operation for 1980 hours.
END OF LAMP LIFE. YOU MUST CHANGE THE LAMP NOW.	The lamp has been in operation for over 2000 hours. The warning message will display for 15 seconds every time you turn on the projector.

# SPECIFICATIONS

# **Projector Specifications**

## **Technical Specifications**

Note: All specifications are subject to change without notice.

General		
Model name	VP6120, VP6121 (XGA)	
	VP6110, VP6111 (SVGA)	
Optical		
Display system	I-CHIP DMD	
Lens F/Number	F/2.6	
Lamp	200W ~ 250W lamp	
Electrical		
Power supply	AC100 ~ 240V, 4.0A, 50/60 Hz (Automatic)	
Power consumption	330W (Max)	
Mechanical		
Dimensions	308 mm (W) x 95 mm (H) x 238 mm (D)	
Operating temperature	10°C ~ 35°C	
range		
Weight	6.9 lbs (3.1 Kg)	
Input terminal		
Computer input		
VGA input	D-sub 15-pin (female)	
Video signal input		
S-VIDEO	Mini DIN 4-pin port x1	
VIDEO	RCA jack x I	
HDTV signal input	YPBPR RCA jack x3	
Audio signal input		
Audio I	Mini jack stereo port	
Audio 2	RCA jack L, R x2	
Output		
USB mouse connector	A/B series xI	
Speaker	2 watt x I	
Control		
RS-232C	9-pin x l	

# **Timing Chart**

Resolution	H Sync (kHz)	V Sync (Hz)	Remark
640x350	31.5	70.1	
640x400	37.9	85.1	VESA
720x400	31.5	70.0	
720x400	37.9	85.1	VESA
640x480	31.5	60.0	VESA
640x480	37.9	72.8	VESA
640x480	35	66.7	Macintosh
640x480	43.3	85.0	VESA
800×600	35.2	56.3	VESA
800×600	37.9	60.3	VESA
800×600	46.9	75.0	VESA
800×600	48.1	72.2	VESA
800×600	53.7	85.1	VESA
832x624	49.7	74.5	Macintosh
1024x768	48.4	60.0	VESA
1024x768	56.5	70.1	VESA
1024x768	60.0	75.0	VESA
1024x768	68.7	85.0	VESA
1280×1024	64.0	60.0	VESA

# DIMENSIONS













Unit: mm

# **REGULATORY AND SAFETY**

This section presents information that shows how your digital projector complies with regulations in certain regions. Any modifications to your digital projector not expressly approved by Hewlett-Packard could void the authority to operate the digital projector in these regions.

# LED Safety

The infrared ports located on the digital projector are classified as Class I LED (lightemitting diode) devices according to International Standard IEC 825-1 (En 60825-1). This device is not considered harmful, but the following precautions are recommended:

- If the unit requires service, contact an authorized HP service center.
- Do not attempt to make any adjustment to the unit.
- Avoid direct eye exposure to the infrared LED beam. Be aware that the beam is invisible light and cannot be seen.
- Do not attempt to view the infrared LED beam with any type of optical device.

# **Mercury Safety**

**Warning:** This digital projector lamp contains a small amount of mercury. If the lamp breaks, adequately ventilate the area where the breakage occurred. Disposal of this lamp may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance (www.eiae.org)

# U.S.A.

This digital projector 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 digital projector generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this digital projector does cause harmful interference to radio or television reception (which can be determined by unplugging the unit), try the following:

- Reorienting or relocating the receiving antenna.
- Relocating the digital projector with respect to the receiver.
- · Connecting the digital projector's power cord to another power outlet.

**Connections to Peripheral Devices.** To maintain compliance with FCC Rules and Regulations, use properly shielded cables with this device.

For more information, consult your dealer, an experienced radio/television technician, or the following booklet, prepared by the Federal Communications Commission: *How* 

to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4. At the first printing of this manual, the telephone number was (202) 512-1800.

#### Canada

This Class B digital apparatus complies with Canadian ICES-003.

#### Japan

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準 に基づくクラスB情報技術装置です。この装置は、家庭環境で使用すること を目的としていますが、この装置がラジオやテレビジョン受信機に近接して 使用されると受信障害を引き起こすことがあります。 取り扱い説明書に従って正しい取り扱いをして下さい。

#### Korea

사용자 안내문 :B 급 기기

이 기기는 비업무용으로 전자파적합등록을 받은 기기이오니, 주거지역 에서는 물론, 모든 지역에서 사용 하실 수 있습니다.

# **European Union**

**NOTE**: For regulatory identification purposes, your product is assigned a Regulatory Model Number. The Regulatory Model Number for your product is listed in the declaration below. This regulatory number is different from the marketing name and product number.

DECLARATION OF CONFORMITY				
According to ISO/IEC Guide 22 and EN 45014				
Manufacturer's Name:	Hewlett Packard Company			
Manufacturer's Address:	Hewlett Packard Company			
	Digital Projection & Imaging			
	1000 NE Circle Blvd.			
	Corvallis, OR 97330-4239			
Declares, that the product(s):				
Product Name:	HP Digital Projector			
Model Number(s):	VP6120, VP6121, VP6110, VP6111			
Regulatory Model Number(s):	CRVSB-03HE			
Conforms to the following proc	luct specifications:			
Safety: IEC 60950:1991 +A1.A2.	A3.A4 / EN 60950:1992+A1.A2.A3.A4.A11			
IEC 60825-1:1993 +A1 / I	EN 60825-1:1994 +A11 Class 1 LED			
GB4943-1995				
EMC: EN 55022: 1998 Class B	[1]			
CISPR 24:1997 / EN 550	24: 1998			
IEC 61000-3-2-1995 / EN	61000-3-2·1995 +A1·1998 +A2·1998 +A14·2000			
IEC 61000-3-3-1994 / EN	61000-3-3 <sup>.</sup> 1995			
GB9254-1998				
ECC Title 47 CER Part 15 Class B/ANSI C63 4:1992				
AS/NZS 35/8:1005 Pules and Regulations of Class B				
Supplementary information:				
The product berewith complies w	ith the requirements of following Directives and carries the			
CE marking accordingly:	an the requirements of following Directives and surfice the			
-I ow Voltage Directive: 73/23/EF	i C			
-EMC Directive: 89/336/EEC				
[1] The product was tested in a tw	nical configuration with Hewlett Packard Personal Computer			
This device complies with Part 15	of the ECC Rules. Operation is subject to the following two			
conditione: (1) this device may not cause harmful interference, and (2) this device must accent				
any interference received including interference that may cause undesired operation				
Convollie, Orogon, March 7, 2004				
~ ~				
European Contact for regulatory topics only: Hewlett Packard GmbH, HQ-TRE, Herrenberger				

Straße 140, 71034 Boeblingen, Germany. (FAX:+49-7031-143143).

USA Contact: Hewlett Packard Co., Corporate Product Regulations Manager, 3000 Hanover Street, Palo Alto, CA 94304. Phone: (650) 857-1501.