

Important Safety Instructions

What Your New Monitor Offers

 Unpacking Your Monitor

 Setting Up Your Monitor

How To Install The Drivers

 Adjusting Your Monitor

 Using Your Monitor

 Troubleshooting

Technical Specifications

 Care and Cleaning

Environmental Information

 Regulatory Information



hp pavilion fx50
P3901

15-inch lcd monitor
(15-inch Viewable image)

English

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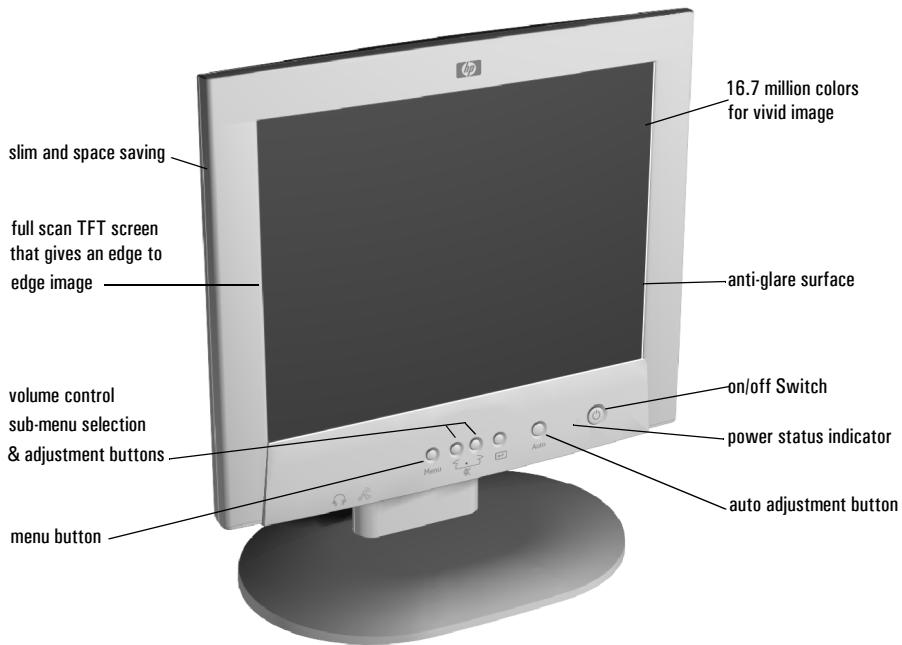
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hp pavilion fx50
P3901
15-inch lcd monitor
(15-inch Viewable Image)

User's Guide

Important Safety Instructions

WARNING

For your safety always connect equipment to a grounded wall outlet. Always use a power cord with a properly grounded plug, such as the one provided with the equipment, or one in compliance with your national safety standards. This equipment can be disconnected from the power by removing the power cord from the power outlet. This means the equipment must be located close to an easily accessible power outlet.

To avoid electrical shock, do not open the monitor's cover. There are no user-serviceable parts inside. Only qualified service personnel should service these parts.

Make sure your PC is powered off before connecting or disconnecting a display peripheral.

Working in Comfort

Thank you for selecting HP monitor equipment.

To optimize your comfort and productivity, it's important that you set up your work area correctly and use your HP equipment properly. With that in mind, we have developed some setup and use recommendations for you to follow based on established ergonomic principles.

You can consult the online version of Working in Comfort preloaded on the hard disk of HP computers, or visit HP's Working in Comfort web site at: <http://www.hp.com/ergo/>

CAUTION



The lightning flash with arrowhead symbol, situated within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" which may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

WARNING

Before you connect any cables or install your HP monitor, refer to the above safety instructions. Refer also to the user's manual that accompanies your PC and the video adapter to ensure this equipment is correctly installed.

What Your New Monitor Offers

Your HP monitor is an LCD 15-inch, high resolution, multi-synchronous color monitor. Multi-synchronous means that the monitor supports a range of video modes. It is optimized for use with all Hewlett-Packard computers.

Your HP color monitor has the following features:

- A 15-inch Thin Film Transistor (TFT) liquid crystal display.
- Support of video modes up to 1024 x 768 at a 75 Hz refresh rate.
- Auto-configuration of display position, clock and phase.
- Integrated 2 x 8W PMPO speaker plus microphone.
2 upstream (PC to monitor), 2 downstream (microphone and headphone connector)
- An On-Screen Display (OSD) allows you to adjust all settings with on-screen menus.
- A power management system (VESA¹ standard) controlled from suitably equipped HP computers to automatically reduce the power consumption of the monitor. This system complies with the Energy Star Computers Program initiated by the US EPA² specification for energy efficient monitors. As an Energy Star Partner, Hewlett-Packard has determined that this product meets the Energy Star guidelines for energy efficiency.³
- Plug and Play capability (compliant with VESA DDC1, DDC2B standards) that enables the monitor to identify itself to suitably equipped HP computers.
- Your HP monitor complies with TCO 99 requirements.
- Your monitor complies with MPRII guidelines for upper limits of electrical and electrostatic emissions, from the Swedish National Board of Measurement and Testing.
- Slot for security lock.

1. VESA is the Video Electronics Standards Association.
2. The US EPA is the United States Environmental Protection Agency.
3. ENERGY STAR is a US registered service mark of the US EPA.

Unpacking Your Monitor

Check for the following items. If they are missing or damaged, consult your place of purchase immediately.

- 1 LCD
- 1 power cord and adapter
- 2 audio cables
- 1 video cable
- 1 quick set-up card
- 1 warranty booklet
- 1 CD-ROM

Setting Up Your Monitor

Where to Place the Monitor

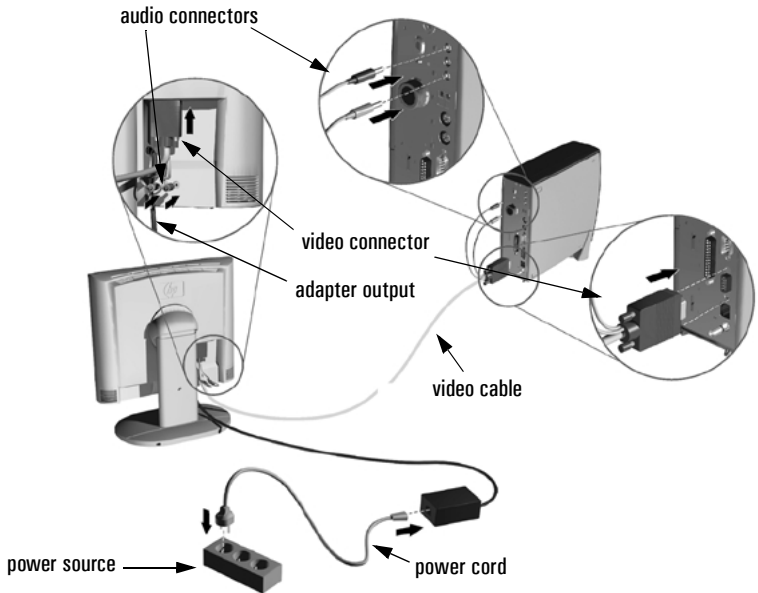
Place your monitor on a flat sturdy surface. Ensure the operating site is free from excessive heat and moisture.

WARNING

Before you connect any cables, or install your HP monitor, refer to the safety instructions at the beginning of this manual. Refer also to the user's manual that accompanies your PC and video adapter to ensure this equipment is correctly installed.

Connecting the Cables

This monitor is equipped with an auto-sensing power supply for voltage ranges 100 ~ 240V AC, 50 ~ 60 Hz. Only use with the supplied adapter.



- 1 Make sure the system power is turned off.
- 2 Plug the signal cable into the signal connector at the rear of the PC.
- 3 Plug the adapter output cable into the jack at the rear of the monitor and the power cord to the adapter.

- 4 Plug the video cable into the video connector at the rear of the monitor.
Secure the cable by tightening the thumb screws on the video connector.
- 5 Connect the audio cables to the connectors according to the following color definitions:
Red + Green end → PC
Red + Blue end → rear of LCD monitor
- 6 Connect the power cord to the power source.
- 7 Turn on the computer and the monitor.

Connecting the Speakers

Your monitor comes with built-in speakers. If you bought your monitor with a Hewlett-Packard™ Pavilion home PC, you will have two sets of speakers: an external set shipped with the PC, and the built-in monitor speakers.

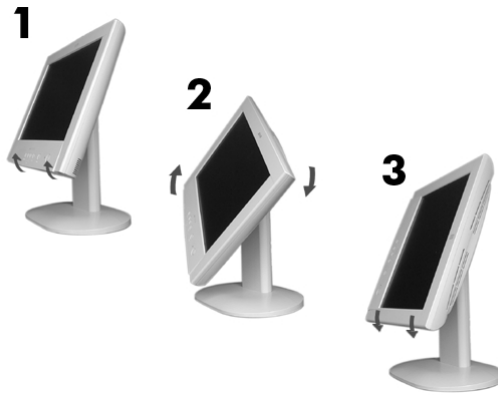
The PC's external speakers connect to a Speaker Out port identified on your PC's setting up poster, and will provide the best sound with most Pavilion PCs.

If you want to use the monitor's built-in speakers, you must connect them to the Line Out port on the back of your PC. Use the two audio cables provided for connecting the speakers and the microphone to the PC; refer to Step 5 of "Connecting the Cables" on page 6.

If your computer does not have a Line Out port, you can purchase a sound card with a Line Out port to use the internal monitor speakers.

If you are not sure which port you have and your sound quality is poor, try connecting your external speakers to the Speaker Out port.

Changing the Monitor Viewing Position



Your monitor can be rotated to either a landscape or portrait position.

- 1 Tilt the lower part of the monitor upwards.
- 2 Rotate the monitor clockwise until the monitor controls are on the left side.
- 3 Firmly push the lower part of the monitor downwards to secure it in the new position.

To rotate your display, you need to install specific software.

How To Install The Drivers

In order to take advantage of the Plug & Play functionality of your Windows 95/98/2000 operating system, HP Monitors come with a driver.

To install this driver:

Windows
95 and
98 Users

- 1 Click on **Start**, select **Settings**, then click **Control Panel**.
- 2 Double click on **Display**.
- 3 Click on the **Settings** tab.
- 4 Click on **Advanced Properties** or **Advanced...** and select the **Monitor** tab.
- 5 Click on **Change...** to select the model of the HP Monitor you are using.
- 6 Click on **Have Disk...**
- 7 Click on **Browse...** to find the **P3901.INF** file on your CD-ROM under the **\Drivers** directory and click on **OK**.
- 8 Select your monitor type from the **Models** box and click on **OK** to install the selected monitor.

Windows
2000
Users only

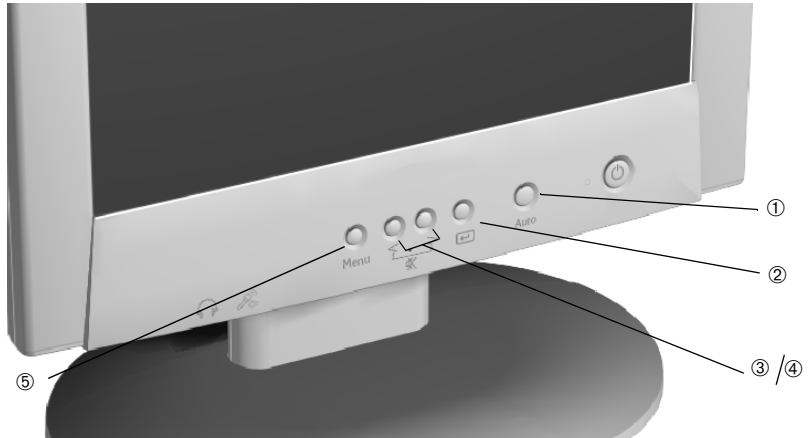
- 1 Click on **Start**, select **Settings**, then click **Control Panel**.
- 2 Double click on **Display**.
- 3 Click on the **Settings** tab.
- 4 Click on **Advanced Properties** or **Advanced...** and select the **Monitor** tab.
- 5 Click on **Properties**.
- 6 Click on the **Driver** tab.
- 7 Click on **Update Driver...** and click on **Next**.
- 8 Select the **Recommended** option and click on **Next**.
- 9 Check the **Specify a Location** box.
- 10 Find and open the **P3901.INF** file on your CD-ROM under the **\Drivers** directory and click on **OK**.
- 11 Click on **Next** to install the selected monitor.

Your operating system and your HP Monitor are now set up to work in optimum conditions.

If the installation procedure of your monitor driver on your Windows 95/98/2000 version is different or you need more detailed installation information, please refer to Windows 95/98/2000 user's manual.

Adjusting Your Monitor

A Look at the Control Panel



There are 5 buttons which perform the following operations:

- ① **Auto Adjustment button:** automatically adjusts the main settings.
- ② **Validation (Enter Sub-Menu) button:** acts as an enter button, selects sub-menus.
- ③ ④ **Volume Control/Select and Adjustment buttons:** **mute** and **unmute** the speaker when pressed simultaneously.
- ⑤ **Menu** button.

When to Adjust the Monitor

- When the monitor is installed for the first time
- If the resolution or frequency has been changed
- If the graphic card has been changed
- If the monitor is connected to a different computer
- After using the **Recall** function, (refer to "Miscellaneous" on page 17).

NOTE

It is recommended that you select a video mode of 1024 x 768 at 60Hz on your computer for optimum performance.

Automatic Setup






Using the **Auto** button and the test pattern on the CD-ROM provided, you can easily optimize your screen performance.

- 1 Insert the CD-ROM provided into the PC. Run the program **D:\auto.exe** to display a pattern used for setup.
- 2 Press the **Auto** button. Normally, this should produce a stable, centered image.

Your optimizer utility also contains driver for Windows 95, Windows 98 or Windows 2000 **D:\Drivers\P3901.INF**.

Manual Setup

Follow these steps only if further adjustments are needed. For further information, refer to "Using Your Monitor" on page 11.

- 1 Display the pattern using the CD-ROM as described above.
- 2 Press **Enter** to display the OSD menu.
- 3 Select the **Geometry**  icon.
- 4 Select **Pixel Clock**  and adjust the value to minimize vertical bars.
- 5 Select **Phase**  and adjust the value to minimize horizontal bars.
- 6 Select **Horizontal Position**  and **Vertical Position**  to adjust screen position.
- 7 Press the **Exit** button to save the values.

Using Your Monitor

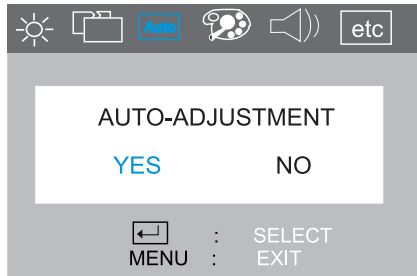
Setting the Language


The OSD menus can be displayed in several different languages. To change your language setting, refer to "Miscellaneous" on page 17.

The Auto Button

The **Auto** button automatically adjusts **V-Position**, **H-Position**, **Pixel Clock** and **Phase** for an optimal image.

- 1 Press the **Auto** button and the following on-screen menu is displayed:



- 2 Press the **Auto** button again to activate the auto-adjustment feature. You are then prompted to save the auto settings by pressing the  button.

NOTE

For best results, it is recommended to use the CD-ROM supplied with the monitor to display a pattern before using the **Auto** button.

The On-Screen Display (OSD) Main Menu

The Main Menu of the On-Screen Display (OSD) is divided into six groups of features (or sub-menus) for making adjustments .

- ① **Luminance**
- ② **Geometry**
- ③ **Auto Adjustment**
- ④ **Color adjustment**
- ⑤ **Audio**
- ⑥ **Miscellaneous**

Each of these functions is described in turn in this section.



Making Adjustments

- 1 Press the **Menu** button to access the main OSD.
- 2 Use the < or > buttons to move through the sub-menus, and press to enter the sub-menu.
- 3 Use the < or > buttons to move through the various choices within the sub-menu, and validate your choice by pressing the button.
- 4 Press the < or > buttons to adjust the settings, then press the **Menu** button to exit the sub-menu.
- 5 Press the **Menu** button to exit the respective sub-menus, and press the **Menu** button to exit the OSD.

NOTE

Before exiting the OSD, you are prompted to save your settings.

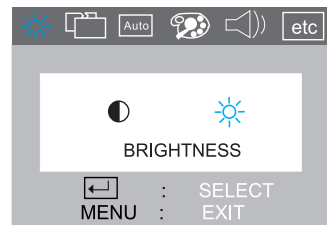
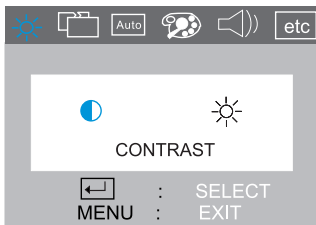
The Sub-Menus

Luminance







Contrast adjusts the difference between the light and dark areas.

Brightness adjusts the brightness of the display.



To make adjustments in the **Luminance** sub-menu:

- 1 Press the **Menu** button and use the < or > buttons to highlight the **Luminance** icon.
- 2 Press the  button to select the feature.
- 3 Use the < or > buttons to choose either  **Contrast** or  **Brightness**, then press  to select it.
- 4 Press < or > buttons to adjust the settings (the settings are automatically saved).
- 5 Press the **Menu** button to exit the sub-menu, then press the **Menu** button to exit the respective sub-menus.
- 6 Press the **Menu** button to exit the OSD.

Geometry



Hor. (horizontal) Position: adjusts the horizontal position of the display.



Ver. (vertical) Position: adjusts the vertical position of the display.



Language Select: Deutsch, English, Español, Français, Italiano, Japanese.





Phase: adjusts the phase of pixel clock. It can improve the focus of your screen as well.



Pixel Clock: adjusts the frequency of the pixel.

To make adjustments in the **Geometry** sub-menu:

- 1 Press the **Menu** button and use the < or > buttons to highlight the **Geometry** icon.
- 2 Press the  button to select the feature.
- 3 Use the < or > buttons to choose one of the menu items listed above, then press the  button to select it.
- 4 Press < or > buttons to adjust the settings (the settings are automatically saved).

- 5 Press the **Menu** button to exit the sub-menu, then press the **Menu** button to exit the respective sub-menus.
- 6 Press the **Menu** button to exit the OSD.

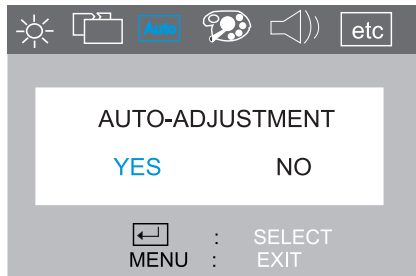
Auto Adjustment



The **Auto** button automatically adjusts **V-Position**, **H-Position**, **Pixel Clock** and **Phase** for an optimal image.

To use the Auto Adjustment sub-menu:

- 1 Press the **Auto** button and the following on-screen menu is displayed:



- 2 Press the **Auto** button again to activate the auto-adjustment feature. You are then prompted to save the auto settings by pressing the button.

NOTE

For optimum results, it is recommended that you display the pattern provided on the CD-ROM supplied with your monitor, before using the **Auto** button.



Color Adjustment

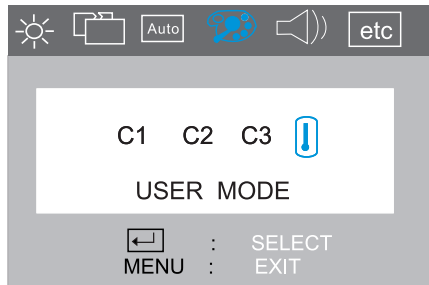



This function is defined as color temperature adjustment. There are three preset modes. The following is the value of each preset mode.

Color mode	Color Temperature (Preset Mode)
C1	9300k
C2	6500k
C3	5800k

To make adjustments in the **Color Temperature** sub-menu:

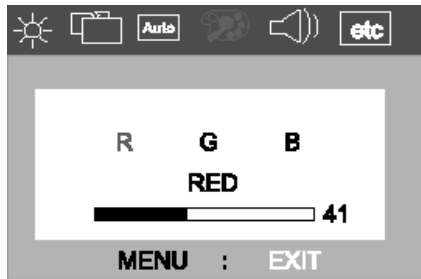
- 1 Press the **Menu** button and use the < or > buttons to highlight the **Color** icon.
- 2 Use the < or > to choose one of the options listed above.
- 3 To validate your choice, use the **Menu** button to exit the sub-menu until you are prompted to save your changes. Press the  button to select **Yes**.
- 4 To make changes in **User Mode**, use the < or > buttons to highlight the **User Mode** icon then press the  button.



- 5 Use the < or > buttons to choose **R**, **G** or **B** (Red, Green or Blue), then press  the button to enter the chosen menu item.



- 6 Use the < or > buttons to make the required adjustments (the settings are automatically saved).




Audio




This feature allows you to adjust the volume and mute/unmute the speaker.

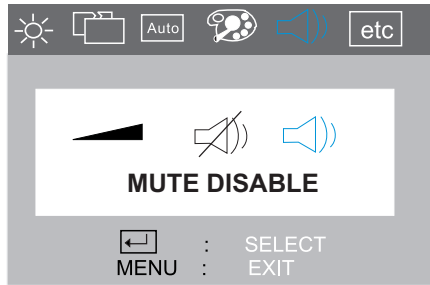
To make adjustments in the **Volume** sub-menu:

- 1 Press the **Menu** button and then use the < or > buttons to locate the **Volume** sub-menu, then press the  button.

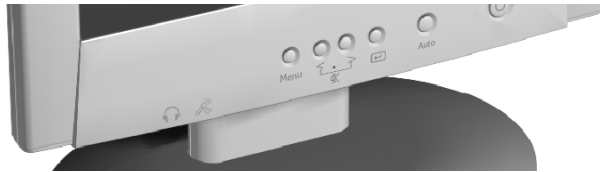


- 2 Press the  button to choose the required menu item.
- 3 Use the < or > buttons to adjust the setting (the settings are automatically saved).
- 4 Press the **Menu** button to exit the sub-menu, then press the **Menu** button to exit the respective sub-menus.
- 5 Press the **Menu** button to exit the OSD.

To mute/unmute the speaker you can adjust the settings in the sub-menu, using the < or > buttons. Use **Menu** to exit the OSD.



You can press the buttons to simultaneously mute/unmute the speaker.



Miscellaneous



This functions contains the following menu items:



Hor. (horizontal) Position: adjusts the horizontal position of the OSD.



Ver. (vertical) Position: adjusts the vertical position of the OSD.



Language Select: Deutsch, English, Español, Français, Italiano, Japanese.




OSD Time: shows you how many seconds the OSD is displayed on-screen.



Information: displays current settings: Resolution, Horizontal and Vertical frequency.


To access the **Recall** function, first select **Information**, then select **Recall** from the sub-menu.



Recall: If you press , factory preset settings will be recalled. The settings that are affected by the **Recall** function are

- **Screen Geometry**
- **Horizontal Frequency**
- **Vertical Frequency**
- **Brightness / Contrast**

WARNING

By pressing the  button all previous adjustments are lost (refer to "Adjusting Your Monitor" on page 9 to adjust the monitor again).

Setting the Amount of Displayed Information

To set the amount of displayed information, change the screen resolution of your computer. The higher the screen resolution, the more information you can see on the screen. It is recommended that you use a resolution of 1024 x 768. It is recommended that you use a refresh rate of 60 Hz. The image refresh rate is the number of times per second that the image is redrawn.

NOTE

LCD technology does not cause any flicker at low refresh rates.

Minimizing Energy Consumption

If your computer supports VESA monitor power management (available on many HP computers), you can minimize the power consumed by the monitor. There are two power saving modes:

- Suspend mode (uses less than 5W)
- Sleep mode (uses less than 5W)

When the monitor enters power saving mode, the message **No Signal** is displayed for a few seconds before the screen blanks. In power saving mode the front panel indicator light is amber.

To set these power saving modes, refer to the manual that came with your computer.

Supported Video Modes

Your monitor comes with the standard modes shown in the table below. It also supports intermediate video modes. With the intermediate modes, the displayed image may need to be optimized using the buttons on the front panel. All modes are non-interlaced.

Screen Resolution	Image Refresh Rate
640 x 350	70Hz
640 x 480	60Hz, 75Hz
720 x 400	70Hz
800 x 600	60Hz, 75Hz
1024 x 768	60Hz, 75Hz

NOTE

Selecting a combination of screen resolution/image refresh rate higher than 1024 x 768 at 75Hz will effect display performance.

If you select a video mode not supported by your monitor, the following message will be displayed:



Troubleshooting

Before calling HP check the following:

There is no picture and LED is off:

- Check that the monitor is switched **on**.
- Check that the power cord is properly connected.
- Check the electrical outlet.
- Test and see if monitor works on another PC previously set to another monitor's supported resolution.

There is no picture and the LED is on:

- Check that the monitor is not in power saving mode.
- Adjust the **Contrast** and **Brightness** through OSD or control buttons.
- Check that the PC is switched on.
- Check that the video cable has no bent pins.
- Test that the monitor works on another PC previously set to another monitor's supported resolution.

The picture is fuzzy:

- Adjust your monitor, using the **Automatic Adjustment** function (refer to "Auto Adjustment" on page 14).
- If you are running a Windows 95/98/2000 Operating System then install the **INF** file - Plug and Play driver (refer to "How To Install The Drivers" on page 8).
- Change the resolution to the recommended resolution 1024 x 768 at 60Hz.

Pixels are missing:

- Refer to "LCD Monitor Quality and Pixel Policy" on page 21.

Colors are not pure:

- Check that the video cable has no bent pins and is firmly attached to both the PC and monitor Video Connectors.
- Recall the colors default factory settings (refer to "Miscellaneous" on page 17).
- Adjust the **RGB** (Red, Green and Blue) colors to as required (refer to "Color Adjustment" on page 14).

The picture is not centered:

- Adjust your monitor using the **Automatic Adjustment** function (refer to "Auto Adjustment" on page 14).

LCD Monitor Quality and Pixel Policy

Your Hewlett-Packard TFT display uses high precision technology, manufactured according to HP standards, to guarantee trouble-free personal computing. Nevertheless, your display may have cosmetic imperfections that appear as small bright or dark spots. This is common to all LCD displays used in products supplied by all vendors and is not specific to the HP P3901 displays. These imperfections are caused by one or more defective pixels or sub-pixels.

A pixel consists of one red, one green and one blue sub-pixel.

Defective sub-pixels are less visible than defective whole pixels.

Defective sub-pixels are small and only visible on a specific background.

Defective means either the pixel or sub-pixel is stuck always ON, a bright spot on a dark background, or it is stuck always OFF, a dark spot on a bright background. The first is the more visible of the two.

A dot defect is a stuck sub-pixel.

Your HP P3901 will not have more than:

- 10 total dot defects
- 8 stuck full pixels
- 8 stuck red sub-pixels
- 5 stuck green sub-pixels (green is most visible)
- 8 stuck blue sub-pixels
- No more than two **adjacent** pixels may be stuck
Adjacent is defined as less than 15mm edge to edge
- No more than two pairs of two-adjacent stuck pixels per display

To locate defective pixels, the unit should be viewed under normal operating conditions and in normal operating mode at a supported resolution and refresh rate, from a distance of approximately 50 cm (16 in.).

HP expects that over time, the industry will continue to improve its ability to produce displays with fewer cosmetic imperfections and HP will adjust our guidelines as improvements are made.

Technical Specifications

LIQUID CRYSTAL MONITOR	Size	15 inch diagonal and viewable image
	Type	TFT liquid crystal display
INPUT SIGNAL	Video	0.7 Vp-p analog RGB
	Synchronization	Separated H/V (TTL level)
INTERFACE	Input Connector	15-pin D-SUB
SCANNING FREQUENCY	Horizontal	31–60 kHz
	Vertical	56–75 Hz
MAX. RESOLUTION (H x V)	1024 x 768 (75 Hz)	
RECOMMENDED RESOLUTION (H x V)	1024 x 768 (60Hz)	
POWER SOURCE	AC/DC ADAPTER	Input Rating: 100–240v, 1.5 Output: 12V, 3A Frequency: 50/60 Hz
		Power Consumption: less than 36W in operating mode
OPERATING ENVIRONMENT	Temperature	15 °C to 40 °C
	Humidity	10% RH through 80% RH (without condensation)
STORAGE ENVIRONMENT	Temperature	–20 °C to 60 °C
	Humidity	10% RH through 85% RH (without condensation)
DIMENSIONS	379.6 (H) 417.4 (W) 205 (D) mm	
WEIGHT	6 Kg	
TILT STAND	Tilt Angle	–5 ° to 25 °

Care and Cleaning

To maximize the screen life-span of this product and prevent damage to the liquid crystal display, it is recommended that you:

- Do not let liquid get on or into the monitor.
- Do not store or use the monitor in locations exposed to heat, direct sunlight, or extreme cold.
- Do not store or use the monitor in locations exposed to high humidity or in a dusty environment.
- Do not press sharp or pointed objects against the monitor.
- Avoid touching or pressing the screen of the monitor.
- Avoid setting contrast and brightness to their maximum levels for prolonged periods.
- Switch the monitor off when it is not in use.

Your monitor is anti-glare. To prevent damage to the monitor screen's coating, use a regular household glass cleaner when cleaning the screen.

To clean the screen:

- 1 Switch the monitor off and remove the power plug (pull the plug, not the cable).
- 2 Soak a soft gauze cloth with isopropyl alcohol or ethyl alcohol and gently wipe the surface of the monitor. Avoid dusting it or wiping it with a cloth dampened with water.
- 3 Dry with a clean, soft cotton cloth.

Do not use cleaning solutions containing fluoride, acids, or alkalis. Do not use ketone substances such as acetone or solvents such as xylene or toluene to clean the monitor. Do not use benzene, thinner, ammonia, or any volatile substance to clean the monitor's screen or cabinet. These chemicals may damage the monitor. Never use water to clean a LCD screen.

Environmental Information

HP has a strong commitment toward the environment. Your HP monitor has been designed to respect the environment as much as possible.

HP can also take back your old monitor for recycling when it reaches the end of its useful life.

HP has a product take-back program in several countries. The collected equipment is sent to one of HP's recycling facilities in Europe or the USA. As many parts as possible are reused. The remainder is recycled. Special care is taken for batteries and other potentially toxic substances, which are reduced to non-harmful components through a special chemical process. If you require more details about HP's product take-back program, contact your dealer or your nearest HP Sales Office.

Regulatory Information

DECLARATION OF CONFORMITY

according to ISO/IEC Guide 22 and CEN/CENELEC 45014

Manufacturer's Name: Hewlett-Packard Company

Manufacturer's Address: 10500 Ridgeview Court
Cupertino, CA 95015-4101, USA

Declares, that the products:

Product Name: hp pavilion fx50 15 inch LCD Color Monitor

Model Number: P3901X "X" = A...Z

Conforms to the following Product Specifications:

SAFETY

-International: IEC 60950:1991 + A1 + A2 +A3 +A4

-Europe: EN 60950:1992 + A1 + A2 +A3 +A4+A11

ELECTRO MAGNETIC COMPATIBILITY

-CISPR 22:1993+A1+A2 / EN 55022:1994 +A1+A2 Class B

-EN 50082-1:1992

IEC 801-2:1991 / prEN 55024-2:1992 - 4kV CD, 8 kV AD

IEC 801-3:1984 - 3V/m

IEC 801-4:1988 / prEN 55024-4:1993 - 1 kV Power Lines

- IEC 61000-3-3:1994 / EN 61000-3-3:1995

- FCC Title 47 CFR, Part 15 class B¹⁾

- ICES-003, Issue 3

- VCCI-B

- AS/NZ 3548:1995

Products bearing the CE marking ²⁾ also comply with:

- IEC 61000-3-2:1995 / EN 61000-3-2:1995.

Supplementary information:

Those products comply with the requirements of the following Directives and carry the CE-marking accordingly:

the EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC, both amended by the Directive 93/68/EEC.

¹⁾ This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

²⁾ All products sold in the European Economic Area (EEA) bear the CE marking.

United States, January 2001

Quality Manager

For Compliance Information ONLY, contact:

USA contact: Hewlett-Packard Company, Corporate Product Regulations Manager, 3000 Hanover Street, Palo Alto, CA 94304. Phone: (+1) (650) 857-1501.

Notice for the USA: FCC Class B Statement

Federal Communications Commission Radio Frequency Interference Statement Warning:

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 correct the interference by one or more of the following measures:

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

Hewlett-Packard's FCC Compliance Tests were conducted using HP-supported peripheral devices and HP shielded cables, such as those you receive with your system. Changes or modifications not expressly approved by Hewlett-Packard could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Safety Warning for USA

If the power cord is not supplied with your monitor, select the proper power cord according to your national electric specifications.

- USA: use a UL listed type SVT detachable power cord

Notice for Canada

This Class "B" digital apparatus complies with all requirements of the Canadian Interference-Causing Equipment Regulations (ICES.003).

Cet appareil numérique de la Classe B est conforme à la norme MB-003 du Canada.

X-Ray Radiation Notice

If you must replace the cathode ray tube, replace it only with a CRT.

Notice for Korea

사용자 안내문 (B급기기)
이 기기는 비업무용으로 전자파장해 검정을 받은
기기로서, 주거지역에서는 물론 모든 지역에서
사용할 수 있습니다.

Notice for Germany

Hinweis für Deutschland: Geräuschemission
Lärmangabe nach Maschinenlärmverordnung - 3 GSGV
(Deutschland)
LpA < 70db am Arbeitsplatz normaler Betrieb nach
EN27779:
11.92

Notice for Japan (Class B)

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。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。



TCO 99

Congratulations! You have just purchased a TCO'99 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 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.

hp pavilion fx50 15" lcd monitor

Regulatory Information

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 labelling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers. The labelling 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.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

TCO Development

SE-114 94 Stockholm, Sweden

Fax: +46 8 782 92 07

Email (Internet): development@tco.se

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: <http://www.tco-info.com/>

Environmental requirements

Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative¹ processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Cadmium²

1. Bio-accumulative is defined as substances which accumulate within living organisms

Cadmium is present in rechargeable batteries and in the color-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the color-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

Mercury²

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit.

CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

Lead²

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

2. Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.