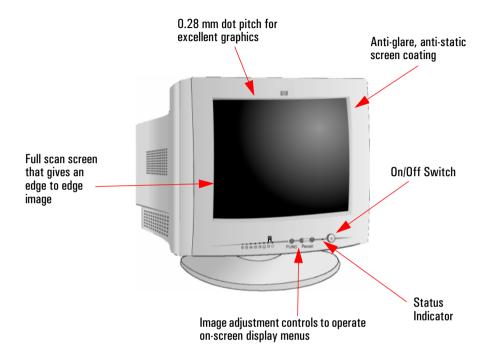




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hp 55 D8897 15-inch Color Monitor (13.8-inch Viewable Image)

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 computer 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 monitor is quite heavy (the weight is shown in the technical specifications). We recommend you ask the assistance of a second person when lifting or moving it.



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 point 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.

English

### What Your New Monitor Offers

Your HP monitor is a 15-inch (13.8-inch viewable image), 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 flat square tube with a 13.8-inch viewable image.
   0.28mm dot pitch for excellent graphics and anti-static and anti-glare coating to minimize reflection.
- Support for Ultra VGA 1024 x 768 at 60 Hz refresh rate.
- Image adjustment using digital controls.
- Monitor power management system (VESA<sup>1</sup> standard) controlled from suitably equipped HP computers to automatically reduce the power consumption of the monitor. Complies with the Energy Star Computers Program initiated by US EPA<sup>2</sup>. As an ENERGY partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency<sup>3</sup>.
- Monitor Plug and Play capability (VESA DDC1/2B standard) that enables the monitor to identify itself to suitably equipped HP computers.
- Compliance with ISO 9241-3, ISO 9241-3/-7/-8 ergonomic standards.
- Complies with MPRII guidelines for upper limits of electrostatic and magnetic field emissions from the Swedish National Board for Measurement and Testing.

VESA is the Video Electronics Standards Association

<sup>2)</sup> The US EPA is the United States Environmental Protection Agency

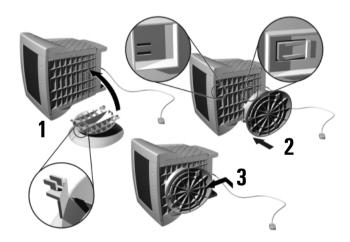
<sup>3)</sup> ENERGY STAR is a US-registered service mark of the USEPA.

# Setting Up Your Monitor

# Attaching the Tilt and Swivel Base

Your display has a tilt and swivel base. To fit the swivel base:

- 1 Turn the monitor on its side (never on the screen). Identify the front of the base.
- 2 Locate the slots in the underside of the monitor.
- 3 Slide the base towards the front of the monitor until the locking tab on the base clicks into place.



## Where to Place the Monitor

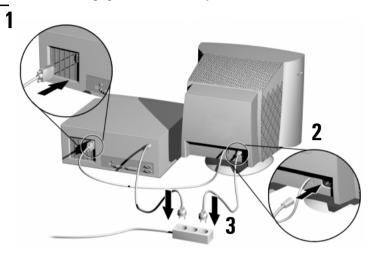
Place your monitor on a flat sturdy surface. To achieve best image quality ensure the screen is facing east.

Ensure the operating site is free from excessive heat, moisture, dust and sources of electromagnetic fields. Sources of electromagnetic fields include transformers, motors, and other monitors. Avoid exposing the monitor to direct sunlight.

# Connecting the Cables

### CALITION

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

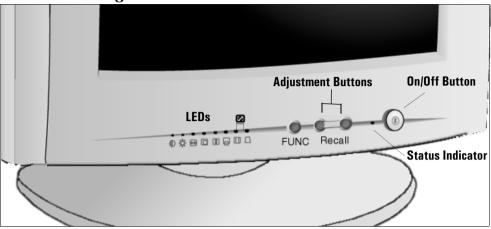


- 1 Before you connect any cables, refer to the safety instructions at the beginning of this manual. Make sure your computer and monitor are switched off.
- 2 Connect the video cable (it has a 15-pin plug) to the video outlet on your computer. Tighten the thumbscrews on the plug.
- 3 Connect the power cord to the monitor.
- 4 Plug the power cord into the power outlet.

### NOTE

The location of your computer's video cable connector may be different to the one shown. Refer to the manual that came with your computer, if necessary.

**Using Your Monitor** 



- 1 Press **FUNC** to select the type of adjustment you require.
- 2 Use the adjustment buttons + to make the required adjustments. The LEDs indicate the adjustment control you have selected.

Press + and — simultaneously to return to the factory preset setting.

NOTE

Your monitor is automatically demagnetized each time it is switched ON. This ensures color purity. To maintain color purity, we recommend that each week you switch the monitor off for at least 30 minutes before switching it on again.

Use the table below to determine which menu item you require:

Menu Item	Use to Adjust	
-X: Brightness	the brightness (image black level).	
<b>●</b> Contrast	the contrast (image white level).	
H-Center	the horizontal position of the displayed image.	
→ H-Size	the horizontal size of the displayed image.	
V-Center	the vertical position of the displayed image.	
↑ V-Size	the vertical size of the displayed image.	
Pincushion	the vertical edges if they appear to curl inwards or outwards.	
Trapezoid	the vertical edges if they do not appear to be parallel.	
Tilt	and rotate the left and right edges of the image.	

# Setting the Amount of Displayed Information

It is recommended that you use a resolution of 800 x 600 at 85 Hz. This gives easy-to-read characters, a large amount of displayed information and a flicker-free image.

You can make adjustments to the displayed image which are automatically saved for the resolution you are using. For example, if you adjust your monitor when working in SVGA, those settings are saved for SVGA. If you then work in VGA and change the image settings, they are saved for VGA. The next time you switch back to SVGA your previous settings are used automatically.

To find out which resolutions are supported by your monitor, refer to "What Video Modes are Supported" on page 8. To change the screen resolution, please refer to the manual that came with your computer or your operating system documentation.

Your monitor has a Plug and Play capability (VESA DDC1/2B standard) which enables it to identify itself to suitably equipped HP computers. This will automatically give you the best refresh rate for the resolution that you have set. Also, by using the appropriate software (when available) you can adjust the monitor settings directly from your computer

# **Supported Video Modes**

Your monitor supports the video modes shown in the table below.

Screen Resolution	Image Refresh Rate
640 × 350	70 Hz
640 × 400	70 Hz
640 × 480	60, 75, 85 Hz
800 × 600	60, 75, 85 Hz
1024 × 768	60 Hz,

### CAUTION

Selecting a video mode on your computer with a screen resolution/image refresh rate combination higher than  $1024 \times 768$  at 60 Hz can damage your monitor. Selecting a video mode not supported by your monitor will cause your monitor screen to blank.

# Minimizing Eye Strain

To avoid screen flicker and minimize eye strain, use the highest supported image refresh rate for the chosen resolution. It is recommended that you use a refresh rate of 85 Hz. The image refresh rate is the number of times per second that the image is refreshed.

# 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  $\operatorname{mode}^1$  (uses less than 15W). In this mode, the monitor's front panel indicator light is amber.
- Active off mode<sup>2</sup> (uses less than 8W). In this mode, the monitor's front panel indicator light is amber.

To set these power saving modes, refer to the manual that came with your computer. If your screen is not displaying an image, check the front panel indicator light first as your monitor may be in a power saving mode.

<sup>1.</sup> Suspend mode is activated when vertical sync is cut by the video controller.

Active off mode is activated when both vertical and horizontal sync are cut by the video controller.

# **Troubleshooting**

Before calling Hewlett-Packard check the following items:

No picture and LED is off.

- Check if monitor is switched ON.
- Check if power cord is properly connected.
- Check if electrical outlet is connected.
- Test if monitor works on another computer previously set to monitor's supported resolution.

### No picture and LED is on.

- Check if monitor is not in power saving mode.
- Adjust contrast and brightness using the adjustment buttons.
- · Check if computer is switched on.
- Check if video cable has no bent pins.
- Test if monitor works on another computer previously set to monitor's supported resolution.

# Colors are not pure.

• Shut down your monitor and switch it on after 30 minutes.

### Picture is not centered.

• Adjust picture using the adjustment buttons.

# Picture is fuzzy.

- Use the Recall function.
- Reduce contrast using the adjustment buttons.

# **Technical Specifications**

PICTURE TUBE	Size	15-inch flat square tube 13.8-inch viewable image (353mm)	
	Phosphorous	Red, Green, Blue P22 (medium short persistence)	
	Dot pitch	0.28mm (0,28mm)	
	Face Plate	Anti-glare, anti-static, screen coating	
INPUT SIGNAL	Video	0.7V p p analog RGB	
	Synchronization	TTL level separate synchronization (negative/positive)	
INTERFACE	Input Connector	15-pin mini D-SUB	
SCANNING FREQUENCY	Horizontal	30 to 54 kHz	
SCAMMING FREQUENCY	Vertical	50 to 120 Hz	
MAX RESOLUTION	1024 x 768 (60 Hz)		
RECOMMENDED RESOLUTION	800 x 600 (85 Hz)		
DISPLAY SIZE	284 x 212 mm ±1mm maximum viewable size		
WARM-UP TIME	30 minutes to reach optimum performance level		
PIXEL CLOCK	66 MHz		
POWER SOURCE	AC 100 to 240 V, 50 to 60Hz Current 1.5 A (1,5A)		
OPERATING ENVIRONMENT	Temperature	0°C to 40°C	
	Humidity	10% RH through 80% RH (without condensation)	
CABINET DIMENSIONS	$362 \text{ (H)} \times 360 \text{(W)} \times 387 \text{(D)} \text{ mm (including pedestal)}$		
WEIGHT	11.5Kg		
TILT/SWIVEL STAND	Tilt Angle	- 5° to +12.5°	
	Swivel Angle	±45°	

# **Care and Cleaning**

Do not place anything on top of the monitor. Doing so may block the monitor vents and cause damage to the monitor due to overheating. Do not let liquid get on or into the monitor. To maximize screen life and prevent damage to the picture tube (such as burned phosphor due to leaving the same image on the screen for a long time), it is recommended that you:

- Use the monitor power management system (on HP computers) or a screen saver program.
- Avoid setting contrast and brightness to their maximum levels for prolonged periods.
- If you do not have a power management system or a screen saver program, switch the monitor off or reduce the brightness and contrast to minimum levels when the monitor is not in use.

Your monitor has an anti-glare, anti-static screen coating. 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 Wet a soft cotton cloth with the cleaning solution and gently wipe the screen. Do not spray cleaner onto the screen because the cleaner may drip inside the monitor.
- 3 Dry with a clean, soft cotton cloth. Do not use cleaning solutions containing fluoride, acids, or alkalis.

### **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. In fact, 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.

# **Hardware Warranty**

### PART I - HP General Hardware Warranty

### General

This HP Monitor Hardware Warranty Statement gives you, the customer, express warranty rights from HP, the manufacturer.

FOR CONSUMER TRANSACTIONS IN AUSTRALIA AND NEW ZEALAND: THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

THE LAWS OF YOUR COUNTRY MAY PROVIDE FOR DIFFERENT WARRANTY RIGHTS. IF SO, YOUR AUTHORIZED HP DEALER OR HP SALES AND SERVICE OFFICE CAN PROVIDE YOU WITH DETAILS.

### Warranty repair or replacement.

Model	Warranty Period	Service Provided	
D8897	1 year:	Worldwide except Japan. On-site service.	С
	1 year.	Japan: Return to HP or a repair authorized service center for one year.	D

Hewlett-Packard (HP) warrants this monitor hardware product, or accessory against defects in materials and workmanship for the applicable warranty period stated above, commencing from the date of delivery of the product to the enduser customer.

HP does not warrant that the HP hardware will operate uninterrupted or error free.

If, during the product warranty period, HP is unable, within a reasonable time, to repair or replace your product to the condition as warranted, you will be entitled to a refund (in the amount of the product purchase price) upon prompt return of the product to your authorized HP dealer or other HP designate. Unless otherwise stated or agreed upon in writing with HP, all hardware components must be returned for refund with the entire system process unit. HP software is covered by the HP Software Product Limited Warranty located in your HP product manual. Unless otherwise stated, and to the extent permitted by local law, hardware products may contain remanufactured parts (equivalent to new in performance) or parts which may have been subject to prior incidental use. HP may repair or replace hardware products (i) with products which are equivalent in performance to the products being repaired or replaced but which may have been subject to prior use, or (ii) with products which may contain remanufactured parts equivalent to new in performance or parts which may have been subject to prior incidental use.

### **Proof of Purchase and Warranty Period**

In order to receive service or support for your hardware product for the warranty period, proof of the original purchase date of the product may be required in order to establish the delivery date of your product. If the delivery date is not available, either the purchase date or the manufacturer's date (located on the product) becomes the beginning of the warranty period.

# Limitation of Warranty

Warranty does not apply to defects resulting from: (a) improper or inadequate maintenance or calibration; (b) software, interfacing, parts or supplies not supplied by HP; (c) unauthorized repair, maintenance, modification or misuse; (d) operation outside of the published operating specifications for the product; (e) improper site preparation or maintenance; or (f) such other exclusions as may be expressly set forth in this Warranty Statement.

HP MAKES NO OTHER EXPRESS WARRANTY, WHETHER WRITTEN OR ORAL, WITH RESPECT TO THIS PRODUCT.

TO THE EXTENT ALLOWED BY APPLICABLE LOCAL LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY SET FORTH ABOVE.

### Limitation of Liability and Remedies

TO THE EXTENT ALLOWED BY APPLICABLE LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL HP BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGE, WHETHER BASED ON WARRANTY CONTRACT, TORT, OR ANY OTHER LEGAL THEORY.

The foregoing limitation of liability shall not apply in the event that any HP product sold hereunder is determined by a court of competent jurisdiction to be defective and to have directly caused bodily injury, death, or property damage. To the extent allowed by applicable local law, HP's liability for property damage does not exceed the greater of \$50,000 or the purchase price of the specific product that caused such damage.

### PART II - Year 2000 Warranty

Subject to all of the terms and limitations of the HP Limited Warranty Statement provided with this HP Product, HP warrants that this HP Product will be able to accurately process date data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000, including leap year calculations, when used in accordance with the Product documentation provided by HP (including any instructions for installing patches or upgrades), provided that all other products (e.g. hardware, software, firmware) used in combination with such HP Product(s) properly exchange date data with it. The duration of the Year 2000 warranty extends through January 31, 2001.

# DECLARATION OF CONFORMITY

According to ISO/IEC Guide 22 and CEN/CENELEC EN 45014

Manufacturer's name:

**HEWLETT-PACKARD France** 

Manufacturer's address: 5 Avenue Raymond Chanas-Eybens

38053 GRENOBLE Cedex 09 - FRANCE

Declares that the product(s):

Product Name

: HP 15" Color Monitor

Model Number(s)

: D8897\* (the "\*" can be any alphanumeric character)

# Conform(s) to the following Product Specifications:

SAFETY - International: IEC 60950:1991 +A1 +A2 +A3 +A4 / GB4943-1995.

Europe

: EN 60950:1992 +A1 +A2 +A3 +A4 +A11.

ELECTRO-MAGNETIC COMPATIBILITY

CISPR 22:1993 +A1 +A2 / EN 55022:1994 +A1 +A2 Class B<sup>1)</sup>

- EN 50082-1:1992

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

IEC 801-3:1984

- 3V/m

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

- IEC 61000-3-3:1994 / EN61000-3-3:1995
- GB9254-1998
- FCC Title 47 CFR, Part 15 Class B 1)
- ICES-003, Issue 3
- VCCI-B
- AS/NZS 3548:1995

# Products bearing the CE marking(2) also comply with:

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

Those products comply with the requirements of the following Directives and carry the CE-marking accordingly: EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC, both amended by the Directive 93/68/EEC.

- 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.

Grenoble August 2000

Didier CABARET 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.

### 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 SVT detachable power cord.

Hewlett-Packard's system certification tests were conducted with HP-supported peripheral devices and HP shielded cables, such as those you received with your system. Cables used with this computer must be properly shielded to comply with the requirements of the FCC.

Changes or modifications not expressly approved by Hewlett-Packard could void the user's authority to operate the equipment.

### Notice for MPR

Your HP 15.0-inch Color Monitor has been tested according to MPR 1990:8 for Emission properties and meets the guidelines as given by MPR 1990:10 (2.01 - 2.04).

### Notice for Japan

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