

COMPAQ

User's Guide

Compaq P700 Color Monitor

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User's Guide

Compaq P700 Color Monitor

First Edition (July 1999)
Part Number 380213-291
CD-ROM Part Number 387841-002

Compaq Computer Corporation

English

Product Features

The Compaq P700 Color Monitor is a microprocessor-based, high-resolution monitor with auto-scanning. The monitor features include the following:

- 17-inch (16.0-in/40.6 cm viewable) FD Trinitron® CRT
- 1600 × 1200 resolution, plus full-screen support for lower resolutions
- On-Screen Display (OSD) adjustments in nine different languages: English, Dutch, French, German, Italian, Spanish, Russian, Swedish, and Japanese for ease of set-up and screen optimization
- Plug and Play capability if supported by your system
- Tilt and swivel functionality
- Kodak Color Profile (included on CD-ROM)
- CD-ROM includes an information file (INF), Image Color Matching file (ICM), and product documentation
- Automatic scanning of all horizontal frequencies between 30 and 92 kHz, and vertical frequencies between 48 and 120 Hz
- Asset Control
- Energy Saver feature for Energy Star® compliance
- Macintosh-compatible timing with optional connector*
- Compliance with the following regulated specifications:
 - Swedish MPR II 1990
 - EPA ENERGY STAR®
 - European Union CE Directives
 - Swedish TCO 1999 for all models

* A Macintosh-compatible connector is not supplied with this monitor.

✍ Depending on the content of the screen, at times the shadows of two small horizontal lines may appear on the screen. This is not a defect and is normal for all aperture grille type displays. The shadows are two damper wires that reduce the monitor's susceptibility to vibration.

Universal Driver Manager

This monitor may require a graphics driver (and/or .INF file) that is compatible with your computer's graphics adapter. A CD-ROM containing an .INF file is included with this monitor (see the section on *Information Files*). Compaq has also created a Universal Driver Manager (UDM) release that supports all graphics adapters found on Compaq Deskpro and Compaq Workstation products. The UDM eases graphics driver deployment across Compaq platforms ensuring cross-compatibility and backward-compatibility. The resulting solution enables customers to manage and control ongoing software maintenance costs. The UDM is available on the *Compaq Support Software CD* for Compaq Desktop, Portable, and Workstation Products and the Compaq web site (www.compaq.com).

Information Files

This monitor includes a CD-ROM with two information files that should be installed onto your computer—an .INF file and an .ICM file. The .INF file defines monitor resources and provides specifications used by Microsoft Windows 95/98 to install support software for certain hardware devices. The .INF file ensures monitor compatibility and optimization with your computer's graphics adapter.


The .ICM file provides color matching consistency from monitor screen to printer and is activated from within the graphics programs that have this feature. To install these files on your computer, insert the Compaq CD-ROM into the computer's CD tray and follow the instructions from the menu that appears on the monitor screen. The CD-ROM is located in the Program License Agreement packet. INF file updates are downloadable by clicking on:

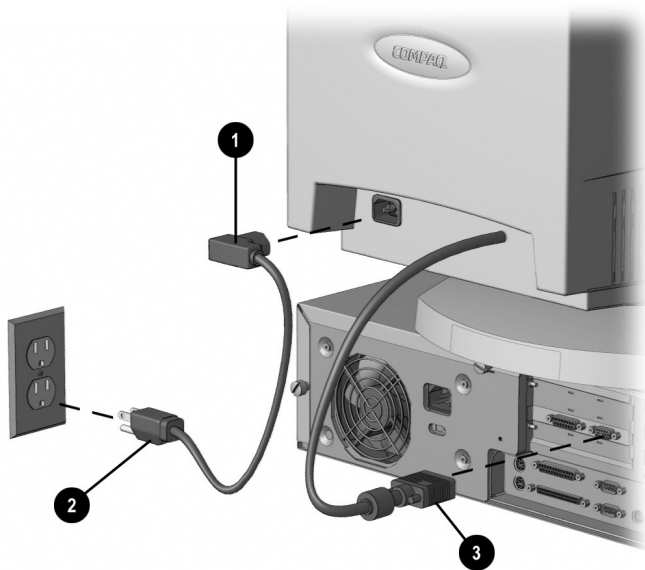
www.compaq.com/products/monitors/index.html

Setting Up the Monitor

To set up the monitor, ensure that the power is turned off to the monitor, computer system, and other attached devices, then follow these steps:

1. Place the monitor in a convenient, well-ventilated location near your computer.
2. Connect the monitor signal cable **3** to the 15-pin connector on the rear panel of the computer and tighten the screws.

 Be sure the signal cable aligns with the 15-pin connector. Do not force the cable onto the connector or you may damage the signal cable.



3. Connect one end of the monitor power cord **1** to the connector on the back of the monitor and the other end **2** to an electrical outlet that is easily accessible and close to the monitor.

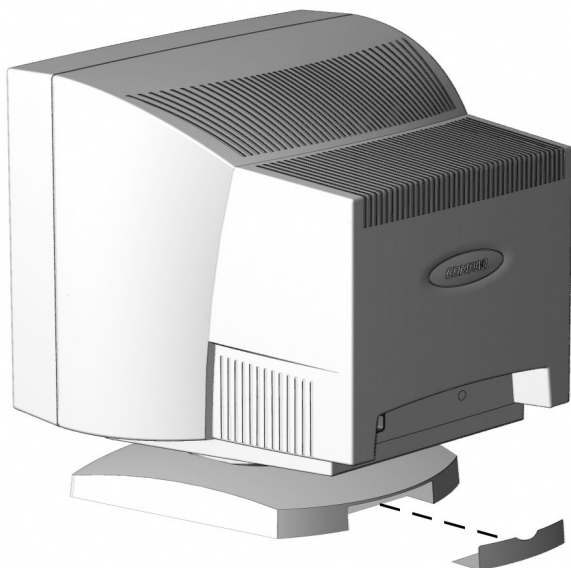


WARNING: To reduce the risk of electric shock or damage to your equipment:

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
 - Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
 - Disconnect power from the monitor by unplugging the power cord from the electrical outlet.
 - Do not place anything on power cords or cables. Arrange them so that no one may accidentally step on or trip over them. Do not pull on a cord or cable. When unplugging from the electrical outlet, grasp the cord by the plug.
-

Adding a Compaq Powered USB Hub

The monitor base is designed to house an optional Compaq Powered USB Hub. The Compaq Powered USB Hub is not included with the monitor. It is sold separately. For information on purchasing the Compaq Powered USB Hub (part. No. 138638-xxx), call your Compaq authorized dealer, or reseller. To locate a reseller near you, call Compaq at 1-800-AT-COMPAQ or visit the Compaq web site at <http://www.compaq.com>.

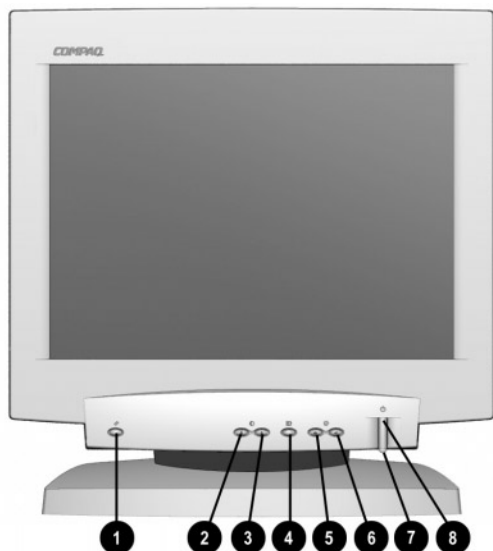


The following are required to operate the USB hub:

- Your computer must be fitted with a USB port.
- Your computer must have Microsoft Windows 95 OSR2.1 or later, or Microsoft Windows 98 as the operating system.

USB connectors are used to connect USB-compatible devices such as a keyboard, mouse or joystick to the hub.

Operating the Monitor



Front Panel Controls

No./Icon	Control	Function
① //	Reset Button	Pressing this button resets the following items: Contrast, brightness, size/center, geometry, screen, zoom, and color. OSD Position and Language can not be reset.
② ↓	Brightness or OSD Select Button	Down arrow decreases brightness or is used to select menu adjustment.
③ ↑	Brightness or OSD Select Button	Up arrow increases brightness or is used to select OSD menu adjustment.
④ ☰	Menu and Select button	Launches on-screen menus and selects the functions. Also, exits menus and on-screen display.
⑤ ←	Contrast button	Left arrow decreases contrast or is used to adjust selected OSD adjustment item.
⑥ →	Contrast button	Right arrow increases contrast or is used to adjust selected OSD adjustment item.
⑦ ⏻	Power Switch	Turns the monitor on and off.
⑧ ◻	LED	Indicates monitor mode. 1. Green LED indicates monitor is turned on. 2. Alternating Amber/Green LED indicates Standby/Suspend. 3. Amber LED Indicates Sleep Mode.

On-Screen Display Settings

To adjust screen settings, press the Menu button to launch the on-screen display (OSD). The OSD can be viewed in nine available languages. The following menu shows the functions at each level:

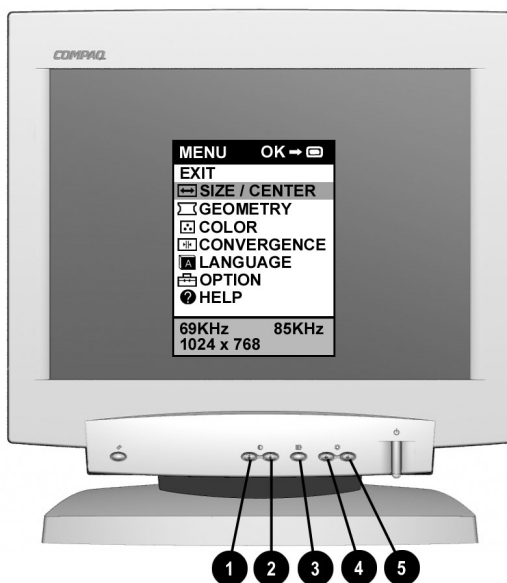
Menu Level 1	Menu Level 2
Size/Center	Horizontal Centering Vertical Centering Horizontal Sizing Vertical Sizing Zoom
Geometry	Rotation Pincushion Pin Balance Keystone Key Balance
Color	9300 K 5000 K Variable Color
Convergence	Horizontal Convergence Vertical Convergence
Language	English Francais Deutsche Espanol Italiano Nederlands Svenska Дóññèèè (Russian) 日本語 (Japanese)
Option	Degauss Cancel Moire OSD Horizontal Position OSD Vertical Position Control Lock
Help	Return to Main Menu Recommended Resolution Flicker Thin Horizontal Line Distorted Shape Out of Focus Discoloration
Information*	Model Serial Number Date of Manufacture

* To get this data, press the Menu button for 5 seconds while the monitor picture is stable.

How to Adjust Settings

To launch the on-screen display Main Menu:

1. Press the Menu button **③** on the monitor front panel. The Main Menu will display on the monitor screen.
2. To select an item from the Main Menu, scroll down by pressing the down arrow button **①** located on the monitor front panel. To reverse or back up, press the up arrow button **②**.
3. The item to be selected will be highlighted in yellow. Press the Menu button **③** again.



Monitor with On-Screen Display



The bar on the bottom of the OSD menu shows the current operating frequency (and resolution if VESA standard).

4. A second-level menu displays with an adjustment scale. Use the arrow keys to make a selection on the adjustment scale.
5. Press the Menu **Ⓜ** button to exit from that adjustment.

To exit from the on-screen menu, press the Menu button again.

Press Reset to restore the adjustment to its original value.

The on-screen display is easy to use, just follow the instructions on the screen.

Special OSD Messages

Special OSD messages will appear on the monitor screen when identifying the following monitor conditions:

- **Monitor is Working out of Scan Range, Change PC Settings**
Indicates the monitor is unable to operate with the selected video signal. Readjust your video settings to a lower resolution.
- **Monitor in Power Save Mode, Activate Using PC**
Indicates the monitor is in one of the power saving modes.
- **Monitor is Working, Check Signal Cable**
Indicates the video cable may not be plugged into the computer.

Adjusting Screen Quality

The optimum screen settings are factory preset. However, to change the settings to your personal preference, allow the monitor to warm up for 30 minutes before performing the following procedures. The screen image stabilizes after a warm-up period.

Optimizing Contrast

For best results, set your screen to a light background (such as the Windows Desktop) before adjusting the following settings:

1. Set the brightness control to its maximum setting, then reduce the brightness to your preference.
2. Adjust the contrast setting to your preference.

Optimizing Focus

The default image size is preset at the factory. The front panel controls can be used to increase the screen size beyond the default setting. However, expanding the screen image beyond the default settings may degrade the focus at the outer edge of the screen.

To enhance focus, use the lowest brightness and contrast levels that provide satisfactory results in your viewing environment.

- ✎ Settings that maximize contrast may not offer optimum focus, and settings that maximize focus may not offer optimum contrast.

Display Resolutions

The display resolutions listed below are the most commonly used modes and are set as factory defaults. This monitor automatically recognizes these preset modes and they will appear properly sized and centered on the screen.

Display Resolutions	
Preset Modes	Resolutions
1. Industry Standard	640 × 480 at 60 Hz/31.5 kHz
2. VESA	640 × 480 at 85 Hz/43.3 kHz
3. VESA	720 × 400 at 70 Hz/31.5 kHz
4. VESA	800 × 600 at 85 Hz/53.7 kHz
5. VESA	1024 × 768 at 85 Hz/68.7 kHz
6. VESA	1280 × 1024 at 60 Hz/63.9 kHz
7. VESA	1280 × 1024 at 85 Hz/91.1 kHz
8. VESA	1600 × 1200 at 70 Hz/87.5 kHz

When “*Factory Reset*” is selected by pressing the reset button. The factory reset values will replace user changes that were made for only the current operating preset mode.

Maximum Refresh Rates

This monitor is capable of the maximum refresh rates listed in the following table. However, the video adapter installed in your computer must also be capable of supporting these refresh rates in order for them to operate. Most of the new video adapters being shipped and sold in computers today are capable of supporting these calculated refresh rates. Certain video adapters may provide different timing parameters that could result in slightly different maximum refresh rates.

Maximum Refresh Resolutions
640 × 480 at 120 Hz
800 × 600 at 120 Hz
1024 × 768 at 110 Hz
1280 × 1024 at 85 Hz
1600 × 1200 at 70 Hz

User Modes

The video controller signal may occasionally call for a mode that is not preset if:

- You are not using a Compaq standard graphics adapter.
- You are not using a preset mode.

If this occurs, you may need to readjust the parameters of the monitor screen by using the on-screen display. User changes can be made to any or all of these modes and saved in memory. The monitor automatically stores the new setting, then recognizes the new mode just as it does a preset mode. In addition to the 8 factory preset modes, there are twenty user modes that can be entered and stored.

Energy Saver Feature

The energy saver feature has three different modes of operation:

- Full Power
- Standby/Suspend
- Sleep

By selecting settings in the computer's Energy Saver utility, you are able to determine the length of the inactivity period before the monitor goes into sleep mode.

The following table describes the monitor energy saver levels available during the different modes of operation.

Energy Saver Levels*		
Mode	Power Usage	Description
Full Power	Less than 145 Watts	ON = Normal operation Power LED is green.
Standby/Suspend	Less than 15 Watts	Monitor screen is blank. LED blinks amber and green. There is a brief warm-up period before returning to full power mode.
Sleep	Less than 3 Watts	Monitor screen is blank. LED turns amber. There is a brief warm-up period before returning to full power mode.
Off	0 Watts	Monitor screen is blank. LED is OFF. There is a brief warm-up period before returning to full power mode.

*Refer to your computer manual for instructions on setting energy saver features (sometimes referred to as power management features).



The energy saver features for monitors only work when connected to computers that have energy saver features.

Care and Maintenance

This section explains how to care for and maintain your Compaq monitor during normal everyday use.

Protecting the Monitor

To protect your monitor from overheating and other types of damage, follow these suggestions:

- Use only a power source and connection appropriate for this monitor, as indicated on the marking label/back plate.
- If an extension cord or power strip is used, make sure that the cord or strip is rated for the product and that the total ampere ratings of all products plugged into the extension cord or power strip do not exceed 80% of the extension cord or strip ampere ratings limit.
- Do not overload an electrical outlet, power strip, or convenience receptacle. The overall system load must not exceed 80% of the branch circuit rating. If power strips are used, the load should not exceed 80% of the power strip input rating.
- Install the monitor near an outlet that you can easily reach. Disconnect the product by grasping the plug firmly and pulling it from the outlet. Never disconnect it by pulling the cord.
- Unplug the monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
- Slots and openings in the cabinet are provided for ventilation. These openings must not be blocked or covered. Never push objects of any kind into cabinet slots or other openings.
- Do not place plants on top of the monitor. Water or dirt from the plant may fall into the vents.
- Do not drop the monitor or place it on an unstable surface.
- Do not allow anything to rest on the power cord. Do not walk on the cord.

- Keep the monitor in a well-ventilated area, away from excessive light, heat, and moisture.
- In a two-monitor system, place the monitors as far apart from each other as possible to lessen interference between them.
- Do not open the monitor cabinet or attempt to service this product yourself. Adjust only those controls that are covered by the operating instructions. If the monitor is not operating properly or has been dropped or damaged, contact your Compaq authorized dealer, reseller, or service provider.

Cleaning the Monitor

To clean the monitor, follow these steps:

1. Turn off the monitor and the computer.
2. Dust the monitor by wiping the screen and the cabinet with a soft, clean cloth.

If the screen requires additional cleaning, use any antistatic CRT screen cleaner.



CAUTION: Do not use benzene, thinner, ammonia, or any volatile substance to clean the monitor screen or cabinet. These chemicals may damage the monitor.

Shipping the Monitor

Keep the original packing box in a storage area. You may need it later if you move or ship your monitor.

Agency Regulatory Notices

Federal Communications Commission Notice

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 the receiver.
- Connect the equipment into an outlet on a circuit different from the circuit that the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that if any changes or modifications are made to this device, not expressly approved by Compaq Computer Corporation, this may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Declaration of Conformity for products marked with the FCC logo - United States only

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.

For questions regarding your product, contact:

Compaq Computer Corporation
P.O. Box 692000, Mail Stop 530113
Houston, Texas 77269-2000

Or, call 1-800-652-6672 (1-800-OK COMPAQ)

For questions regarding this FCC declaration, contact:

Compaq Computer Corporation
P.O. Box 692000, Mail Stop 510101
Houston, Texas 77269-2000

Or, call (281) 514-3333

To identify this product, refer to the Part, Series, or Model number found on the product.

Canadian Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Avis Canadien

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European norms:

- EN55022 (CISPR 22) - Radio Frequency Interference
- EN50082-1 (IEC801-2, IEC801-3, IEC801-4) - Electromagnetic Immunity
- EN60950 (IEC950) - Product Safety

Japanese Notice

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取扱説明書に従って正しい取り扱いをして下さい。

German Ergonomics Notice

Compaq Computers, when tested with the Compaq PE1020 Series monitors, were evaluated and found compliant to the requirements of ZH 1/618 (German Safety Regulations for Display Work Places in the Office Sector).

EPA ENERGY STAR Compliance

Monitors that are marked with the ENERGY STAR Logo meet the requirements of the EPA ENERGY STAR program. As an ENERGY STAR Partner, Compaq Computer Corporation has determined that this product meets the ENERGY STAR guidelines for energy efficiency. Specific details on using the Energy Saving features can be found in the energy saver or power management section of the computer manual.

Specifications

Compaq P700 Color Monitor

Display	17-in	43.18-cm
Type	Color, FD Trinitron®	
Viewable Image Size (diagonal)	16-in	40.64-cm
Face Treatment	Antireflective anti-static coating compliant with TCO '99 requirements	
Maximum Weight (Unpacked)	42.24-lb	19.2-kg
Maximum Dimensions		
Height	16.8-in	42.8-cm
Depth	15.9-in	40.4-cm
Width	16.7-in	42.4-cm
Maximum Graphics Resolution	1600 × 1200 at 70 Hz Refresh Rate	
Aperture Grille Pitch	P22, 0.24 mm to .25 mm variable	
Text Mode	720 × 400	
Horizontal Frequency	30 to 92 kHz	
Vertical Frequency	50 to 120 Hz	
Environmental Requirements Temperature		
Operating Temperature	50 to 95°F	5 to 35°C
Storage Temperature	-22 to 140°F	-20 to 60°C
Humidity (Noncondensing)		
Operating	20 to 80%	
Nonoperating	10 to 90%	
Power Source	90 - 145/195 - 255 VAC, 50-60 Hz	
Power Consumption	< 130 Watts	
Input Terminal	One 15-pin D-type connector with cable	

Color Display Values

CIE* Chromaticity Coordinates

	x (+/- 0.030)	y (+/- 0.030)
Red	0.625	0.340
Blue	0.155	0.070
Green	0.280	0.605
White Point (9300 K)	0.281	0.311

Gamma: 2.6

*Commission International d'Éclairage, 1931 Standard.

Power Cord

If you were not provided with a power cord for your computer, you should purchase a power cord that is approved for use in your country.

The power cord must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product. In addition, the diameter of the wire must be a minimum of 0.75mm² or 18AWG, and the length of the cord must be between 6 feet (1.8 m) and 12 feet (3.6 m). If you have questions about the type of power cord to use, contact your Compaq authorized service provider.

A power cord should be routed so that it is not likely to be walked on or pinched by items placed upon it or against it. Particular attention should be paid to the plug, electrical outlet, and the point where the cord exists from the product.