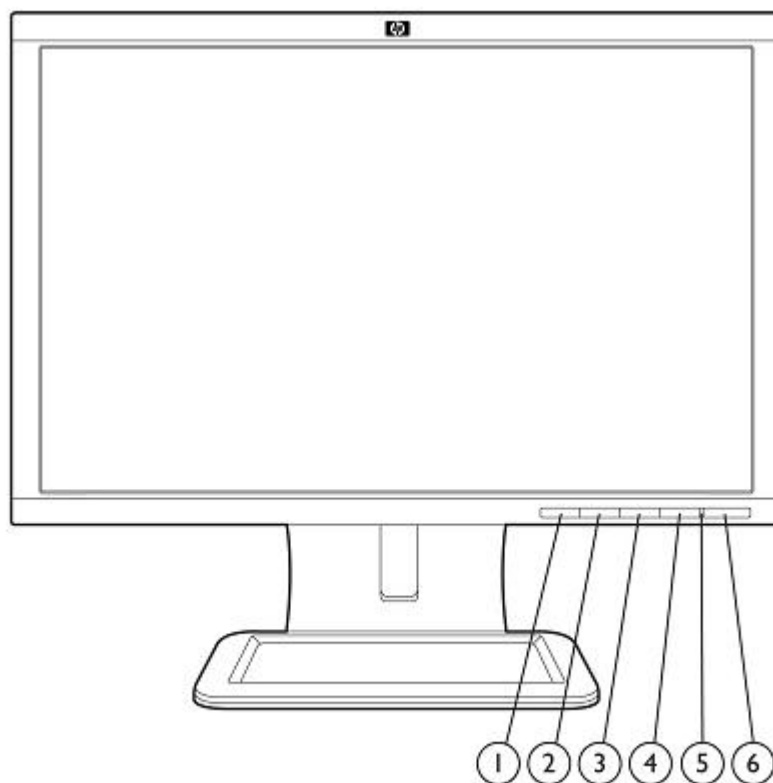


Overview



1. **Menu/select:** Opens, selects or exits the OSD menu.
2. **"-":** If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels.
3. **"+"/source:** Select input source. If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels.
4. **OK/auto:** If the OSD menu is on, press to select the highlighted menu item. If the OSD menu is inactive, press to activate the auto adjustment feature to optimize the screen image.
5. **Power LED:** fully powered = green; sleep mode = amber; sleep timer mode = flashing amber.
6. **Power:** Turns the monitor on or off.

Part number
A9P21AA

Technical Specifications

Panel	Type	TN (Twisted Nematic) LED Backlit LCD
	Viewable Image Area	61 cm (24 in) widescreen; diagonally measured
	Screen Opening (W x H)	51,84 x 32,4 cm (20.4 x 12.7 in)
	Aspect Ratio	16:10
	Viewing Angle (typical)	Up to 170° horizontal/160° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	250 nits (cd/m ²)
	Contrast Ratio (typical)*	1000:1
	Dynamic Contrast Ratio (typical)*	3,000,000:1
	Response Rate (typical)*	5 ms (on/off)
	Pixel Pitch	0.270 mm
	Backlight Lamp Life* (to half brightness)	30K hours
	Color Gamut*	72% color gamut (NTSC)
	Color Support**	Can display up to 16 million colors
	*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
	** With the use of FRC technology.	
On Screen Display (OSD) Controls	Buttons or Switches	OSD menu, OSD down, Source select/OSD up, Auto adjust/OK, Power. (from left to right)
	Languages	English, French, German, Spanish, Italian, Netherlands, Japanese, S. Chinese, T. Chinese and Brazilian Portuguese
	User Controls	Brightness, Contrast, Color (5000k, 6500k, 9300k, Custom), Image Control, OSD Control, Management, Language, Information, Factory Reset, Source Control, Exit
Signal Interface/ Performance	Horizontal Frequency	24 to 76 kHz
	Vertical Frequency	50 to 63 Hz
	Native Resolution	1920 x 1200 @ 60 Hz (Full HD), 16.7 Million pixels
	Preset VESA Graphic Modes (non-interlaced)	1920 x 1200 @ 60 Hz
		1920 x 1080 @ 60 Hz
		1680 x 1050 @ 60 Hz
		1600 x 1200 @ 60 Hz
		1440 x 900 @ 60 Hz
		1280 x 1024 @ 60 Hz
		1280 x 960 @ 60 Hz
		1024 x 768 @ 60 Hz
		800 x 600 @ 60 Hz
		640 x 480 @ 60 Hz
	Text Mode	Not supported
	Maximum Pixel Clock Speed	200 MHz (analog input); 170 MHz (DVI and DP input)
	User Programmable Modes	Yes, 25
	Anti-Glare	Yes
	Anti-Static	No
	Default Color Temperature	6500 K

Technical Specifications

Video/Other Inputs	Plug and Play	Yes
	Self Powered USB 2.0 Hub	One upstream, two downstream ports (cable included)
	Input Signal	VGA, DVI-D, and DisplayPort connectors; HDCP support
	Input Impedance	75 ohms \pm 10%
	Sync Input	TTL separate synch
	Video Cable	(1) DVI-D to DVI-D, (1) 15-pin D-sub (VGA), (1) DisplayPort* *Available in select regions only.
	Video Cable Lengths	1,8 m (5.9 ft)
	USB Cable	(1) USB
	USB Cable Length	1,8 m (5.9 ft)
	Power	
Power	Input Power	Auto-Sensing, 95 to 265 VAC
	Frequency	45 to 63 Hz
	Typical Power Consumption	29 watts (with USB 25% load)
	Maximum	39 watts
	Power Saving	< 0.5 watts standby; <0.5 watt off
Mechanical	Power Cable Length	1,9 m (6.2 ft)
	Dimensions (H x W x D)	Unpacked w/stand 55,68 x 27,84 x 38,05 to 48,75 cm (21.9 x 11.0 x 15.0 to 19.2 in)
		Unpacked w/o stand 55,68 x 6,4 x 36,26 cm (21.9 x 2.5 x 14.3 in)
		Packaged 65,9 x 23,0 x 55,1 cm (25.9 x 9.1 x 21.7 in)
	Weight	Head Only 4,1 kg (9 lb)
		Unpacked 6,8 kg (15 lb)
		Packaged 10,1 kg (22.3 lb)
	Tilt Range	-5° to + 30° vertical
	Swivel Range	-170° to + 170°
	Height Adjustable	Yes, up to 12 cm (4.72 in)
Environmental	Pivot Rotation	Yes, 90° to portrait
	Base	Attachable, ships attached
	Temperature – Operating	5° to 35° C (41° to 95° F)
	Temperature – Non-operating	-20° to 60° C (-29° to 140° F)
	Humidity – Operating	20% to 80% non-condensing
	Humidity – Non-operating	5% to 95%, 38.7° C max wet-bulb
	Altitude – Operating	0 to 5,000 m (0 to 16, 404 ft)
	Altitude – Non-operating	0 to 12,192 m (0 to 40,000 ft)
	White LED Backlights	Yes
	CCFL Panel	No
Environmental Data	Arsenic-Free Glass ⁴	Yes
	BFR/PVC Free ⁵	Yes, except external cables
	Mercury Free	Yes
	Eco-Label Certifications &	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

Technical Specifications

declarations

- US ENERGY STAR®
- IT ECO declaration
- TCO 05
- EPEAT® Gold where HP registers commercial desktop products. See <http://www.epeat.net> for registration status in your country.

Energy Consumption
(in accordance with
US ENERGY STAR®
test method)

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	24.47 W	24.34 W	24.62 W
Sleep	0.40 W	0.46 W	0.40 W
Off	0.27 W	0.32 W	0.25 W

Heat Dissipation*

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	83.6 BTU/hr	83.2 BTU/hr	84.2 BTU/hr
Sleep	1.4 BTU/hr	1.6 BTU/hr	1.4 BTU/hr
Off	1 BTU/hr	1.1 BTU/hr	0.8 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Additional
Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 20% post-consumer recycled plastic (by wt.)
- This product is 98.5% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	3030 g
Internal:	PLASTIC/Polystyrene High Impact	43 g

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium



Technical Specifications

- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/go/reuse-recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/recyclers>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

For more information about HP's commitment to the environment:

Hewlett-Packard Corporate Environmental Information

Global Citizenship Report
<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>
 Eco-label certifications
<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>
 ISO 14001 certificates:
<http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html>

Technical Specifications

Options	HP LCD Speaker Bar - Part number NQ576AA	Powered directly by the connected PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP LCD monitors. Features include dual speakers with full sound range and dual external headphone jacks. Sold separately. For more information, refer to the product's QuickSpecs.
	HP LCD Monitor Quick Release-Part number EM870AA¹	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach an LCD monitor to a variety of stands, brackets, arms or wall mounts. For more information, refer to this product's QuickSpecs document.
	HP Business PC Security Lock Kit-Part number PV606AA	Attaches to the rear of the PC with a six-foot steel cable that can be used to secure a PC or peripherals such as mice, keyboards, monitors or USB security devices to protect them against unauthorized removal by physically connecting the system to an anchor point.
	HP Integrated Work Center Stand - USDT and Thin Clients)-Part number LH526AA	Allows mounting of a 17 - 24 inch diagonal HP LCD monitor and an HP Compaq dc8000 series Ultra-slim Desktop PC as well as select HP Thin Clients on a single stand for the convenience of an "all-in-one" form factor. For more information, refer to this product's QuickSpecs document.
	HP Integrated Work Center for Small Form Factor-Part number QK549AT	Allows mounting of a 17- to 24-inch (43.18 to 60.96 cm) diagonal HP LCD monitor with an HP Compaq Small Form Factor Desktop PC. This compact system configuration saves you valuable desktop room to make the most of a space-constrained office environment.
What's in the box?	Monitor and accessories	HP Compaq LA2405x 24-inch LED Backlit LCD Monitor; VGA cable; DVI-D cable; DisplayPort cable *; USB cable; Power cable *Available in select regions only.
	Documentation	Printed documentation and DVD
	Software	HP Display Assistant is a software utility that enables theft deterrence and allows monitor adjustment, color calibration, and security/asset management using the Display Data Channel Command Interface (DDC/CI) protocol of the connected PC.
Other	User Guide Languages	English, B. Portuguese, French, LA Spanish, Korean, S. Chinese, T. Chinese, Bahasa, Japanese, Danish, Finnish, German, Norwegian, Spanish, Swedish, Greek, Polish, Russian, Slovenian, Turkish
	Warranty Languages	English, Canadian French, LA Spanish, Brazilian Portuguese, Danish, German, Castilian Spanish, French, Italian, Dutch, Norwegian, Finnish, Swedish, Bahasa Indonesian, Korean, T. Chinese, S. Chinese
	Bezel Color	Brushed Aluminum and Black
	VESA External Mounting	Yes, one set of standard 4-hole pattern, 100 mm.
Certifications and Compliance	Security Lock-Ready	Yes, one security lock slot available
	TCO Displays, EPEAT® Gold (select regions) ³ , ENERGY STAR® qualified, CECP eco label (China Energy Conservation Program), SEPA eco label (China), TGM eco label(Taiwan Green Mark), EuP lot6 Tier2, China Energy Label (CEL), China MEPS, Korea MEPS (E-standby), ISO 9241-307, Requirements, CSA 60950-1, UL 60950-1, EN55022 Class B, EN60950 -1, CNS 13438 Class B, IEC 60950-1, "GS" Mark, TUV Approvals, VCCI Approvals, KC and KCC (Korean) Requirements, CE Marking, FCC Part 15 class B Approval, CCC, IT ECO (EDS), EN55024 Class B, CISPR Requirements, SmartWay - NA only - Energy logistics	
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.	
Service and Warranty	Protected by HP, including a 3 years parts, 3 years labor, and 3 years onsite service (3/3/3) standard limited warranty. Certain restrictions and exclusions apply. ²	



Technical Specifications

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¹ The HP Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) for all devices mounted. Because mounting surfaces vary widely and the final mounting method and configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.

² HP Care Pack Services extend service contracts beyond the standard warranties. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at:

<http://www.hp.com/go/lookuptool>. Additional HP Care Pack Services information by product is available at:

<http://www.hp.com/hps/carepack>.

³ EPEAT® Gold where HP registers commercial display products. See www.epeat.net for registration status in your country.

⁴ Arsenic and its compounds were not detected using US EPA Test Methods 3052 & 3052/6010b by ICP or ICP-AES.

⁵ Meets the evolving definition of 'BFR/PVC-free' as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen' Electronics (BFR/CFR/PVC-Free)". Plastic parts contain < 1000 ppm (0.1%) of bromine [if the Br source is from BFRs] and < 1000 ppm (0.1%) of chlorine [if the Cl source is from CFRs or PVC or PVC copolymers]. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total < 1500 ppm (.15%) with a maximum chlorine of 900 ppm (.09%) and maximum bromine being 900 ppm (.09%). External cables (power, video and USB) are not BFR/PVC-free. Service parts after purchase may not be BFR/PVC-free.

All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.