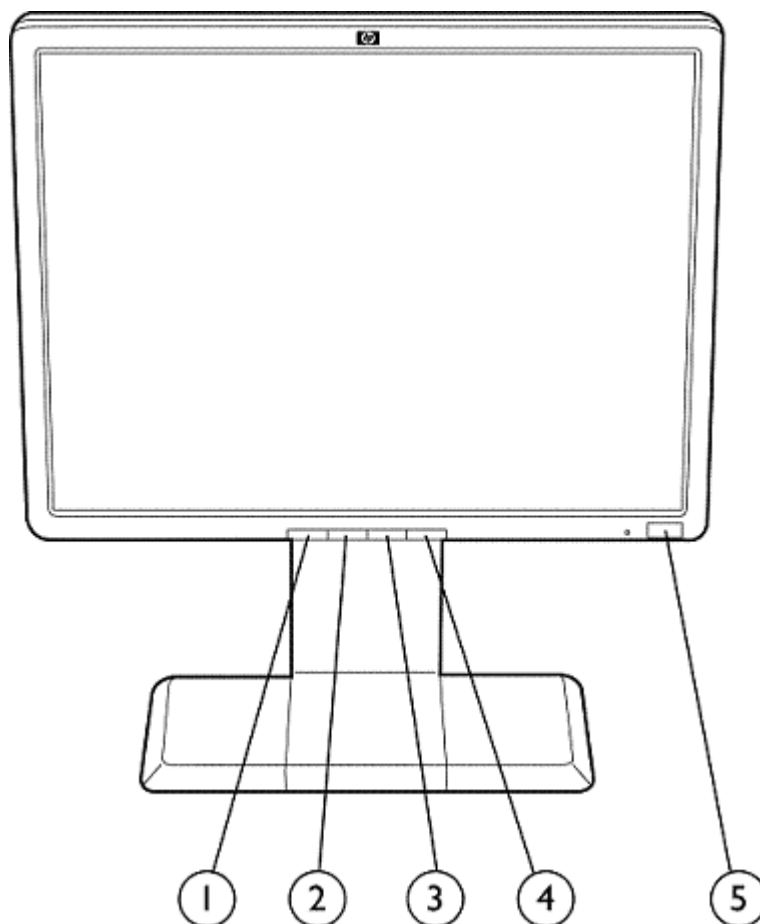# QuickSpecs

Overview

1. Opens, selects or exits the OSD menu.
2. Navigates backward through the OSD menu and decreases adjustment levels. When the OSD menu is inactive, activates the auto-adjustment feature to optimize the screen image.
3. Navigates forward through the OSD menu and increases adjustment levels.

4. Selects video input, DVI-I#1 or DVI-I#2.
5. Turns the monitor on or off.

Models

Workstation Volume Channel   EF227A4-#ABA

QuickSpecs

HP LP2065 20-inch LCD Monitor

Technical Specifications

Panel	Type	20-inch Active Matrix TFT (thin film transistor)
	Viewable Image Area (diagonal)	20.1 in (51 cm)
	Screen Opening (WxH)	16.2 x 12.17 in (40.8 x 30.6 cm)
	Panel Type	IPS
	Aspect Ratio	4:3
	Viewing Angle (typical)[1]	178° horizontal/178° vertical (10:1 minimum contrast ratio)
	Brightness (typical)[1]	300 nits (cd/m^2)
	Contrast Ratio (typical)[1]	800:1
	Response Time (typical)[1]	8 ms[2]
	Pixel Pitch	0.255 mm
	Color Gamut	72%
	Backlight Lamp Life (to half brightness)	45K hours
	Bezel Width	16 mm
On Screen Display (OSD) Controls	Buttons or Switches	OSD menu select, auto adjust/OSD up, OSD down Input select, power
	Languages	English, French, German, Spanish, Italian, Dutch, and Japanese
	User Controls	Brightness, contrast, positioning, color temperature, individual color control, serial number display, full screen resolutions, clock, clock phase, input selection, image control (including scaling), and factory reset
Signal Interface/ Performance	Horizontal Frequency	30 to 94 kHz (VGA input); 30 to 92 KHz (DVI input for modes with pixel clock less than 162 MHz)
	Vertical Frequency	48 to 85 Hz (VGA input); 48 to 85 Hz (DVI input for modes with pixel clock less than 162 MHz)
	Native Resolution	1600 x 1200 @ 60 Hz (recommended)
	Preset VESA Graphic Modes (non-interlaced)	1600 x 1200 @ 60 Hz, 75 Hz (analog input)
		1280 x 1024 @ 60 Hz, 75 Hz, and 85 Hz
		1280 x 960 @ 60 Hz
		1152 x 900 @ 66 Hz
		1024 x 768 @ 60 Hz, 75 Hz, and 85 Hz
		800 x 600 @ 60 Hz, 85 Hz
		640 x 480 @ 60 Hz, 75 Hz, and 85 Hz
	Text Mode	720 x 400 @ 70 Hz
	Mac Mode	1152 x 870 @ 75 Hz and 832 x 624 @ 75 Hz
	Sun Mode	1152 x 900 @ 66 Hz
	Maximum Pixel Clock Speed	202 MHz (analog input); 162 MHz (DVI input)

Technical Specifications

	User Programmable Modes	Yes, 10	
	Anti-Glare	Yes	
	Anti-Static	Yes	
	Default Color Temperature	6500 K	
Video/Other Inputs	Plug and Play	Yes	
	Self Powered USB 2.0 Hub	One upstream, four downstream ports (cable included)	
	Input Signal	Two DVI-I connectors (dual VGA analog or dual digital input possible)	
	Input Impedance	75 ohms ± 10%	
	Sync Input	Separate sync (HSYNC/VSYNC); composite sync, Sync on Green	
	Video Cable	Two VGA to DVI-I; two DVI-D to DVI-I	
	Video Cable Length	6.5 ft (1.98 m)	
Power	Input Power	Auto-Ranging, 90 ~ 265 VAC; internal power supply, 50 Hz/60 Hz	
	Frequency	47.5 to 63 Hz	
	Typical Power Consumption	55 watts (without USB ports); 70 watts (USB ports fully loaded)	
	Maximum	< 75 watts	
	Power Saving	< 2 watts	
	Power Cable Length	5.9 ft (1.8 m)	
Mechanical	Dimensions (H x W x D)	**Unpacked w/ stand**	16.7 to 21.8 x 17.4 x 8.67 in (42.5 to 55.5 x 44.3 x 22.0 cm)
		Unpacked w/o stand (head only)	13.58 x 17.4 x 3.42 in (34.5 x 44.3 x 8.7 cm)
		Packaged	11.77 x 22.2 x 16.77 in (29.9 x 56.4 x 42.6 cm)
	Weight	**Unpacked**	With stand: 20.28 lb (9.2 kg); Without stand: 12.65 lb (5.75 kg)
		Packaged	26.3 lb (11.95 kg)
	Tilt Range	-5° to + 25° vertical tilt	
	Swivel Range	-45° to + 45°	
	Height Adjustable	Yes, range 5.1 in (13.0 cm)	
	Pivot Rotation	Yes	
	Base	Detachable, ships detached	
Environmental	Temperature – Operating	41° to 95° F (5° to 35° C)	
	Temperature – Non-operating	6° to 140° F (-10° to 60° C)	
	Humidity – Operating	20% to 80% non-condensing	
	Humidity – Non-operating	20% to 80%	
	Altitude – Operating	+12,000 ft (3657.6 m)	

Technical Specifications

	Altitude – Non-operating	+40,000 ft (12,192 m)		
Environmental Data	Eco-Label Certifications and Declarations	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:		

- IT ECO declaration
- TCO Displays
- EPEAT™ Silver

		AC Input Voltage at 100 VAC +/- 5 VAC, 50 Hz +/- 3 Hz	AC Input Voltage at 115 VAC +/- 5 VAC, 60 Hz +/- 3 Hz	AC Input Voltage at 230 VAC +/- 5 VAC, 50 Hz +/- 3 Hz
	Energy Consumption (in accordance with ENERGY STAR test method)			
	Normal Operation	39.5 watts	39.2 watts	38.8 watts
	Sleep	0.9 watts	0.9 watts	1.1 watts
	Off	0.9 watts	0.9 watts	1.1 watts
	Heat Dissipation*	100 VAC, 50 Hz	115 VAC, 60 Hz	230 VAC, 50 Hz
	Normal Operation	135 BTU/hr	134 BTU/hr	132 BTU/hr
	Sleep	3.07 BTU/hr	3.07 BTU/hr	3.75 BTU/hr
	Off	1.70 BTU/hr	1.70 BTU/hr	2.38 BTU/hr

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

	Longevity and Upgrading	Upgradeability features contained in the product include: One upstream and four downstream USB ports
	Ergonomics	The monitor meets the ergonomic requirement of EN-ISO 13406-2 for flat panel displays.
	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 Silver level, see www.epeat.net.

Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.

Display meets the requirement for low frequency electromagnetic fields per TCO and prEN50279 A/B/C.

This product contains 0% recycled materials (by wt.)

This product is 97.8% recyclable when properly disposed of at end of life (8020/7801).

Packaging Materials

Technical Specifications

●	Corrugated Carton	11 kg
●	HDPE Bag	0.065 kg
●	Polystyrene	0.535 kg

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 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
- 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.

Technical Specifications

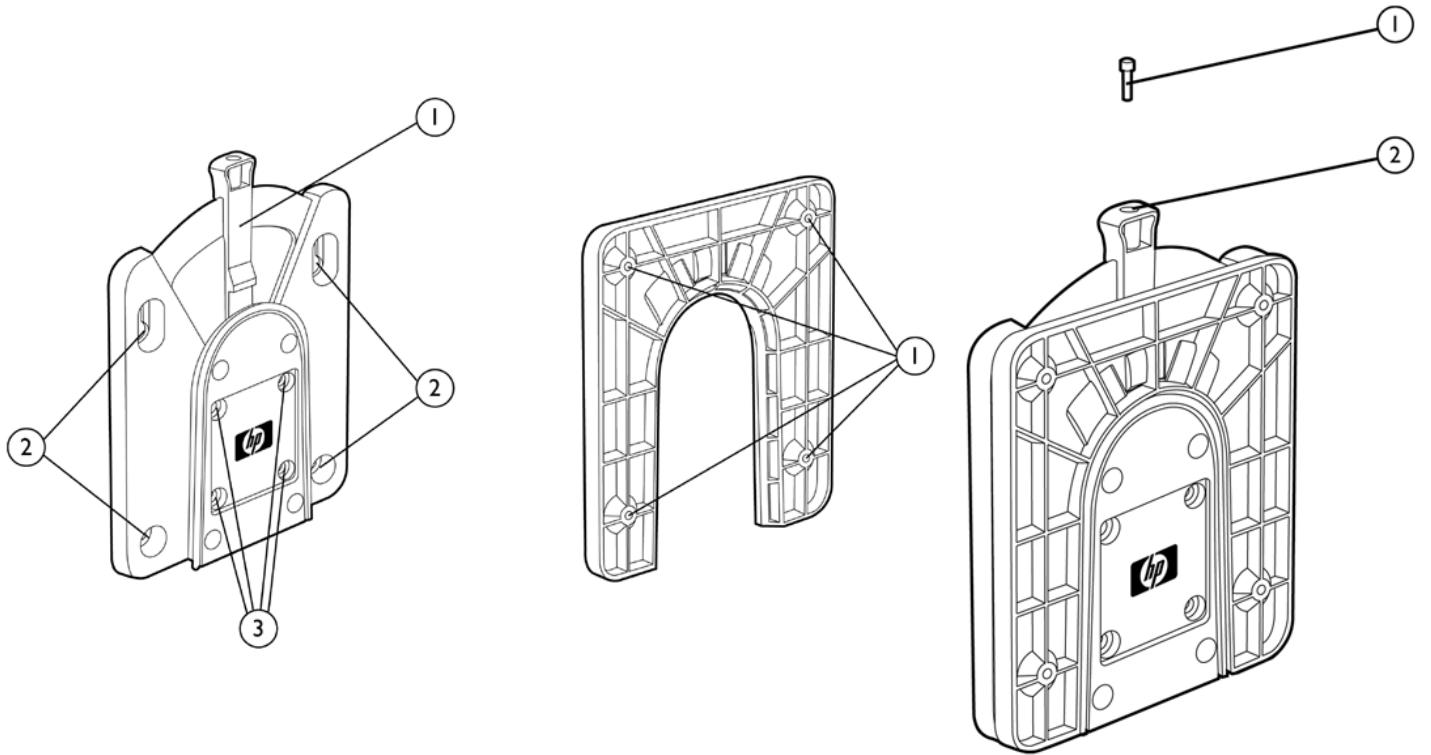|		
	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: www.hp.com/recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
	Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications www.hp.com/hpinfo/globalcitizenship/ environment/productdesign/ecolabels.html ISO 14001 certificates: www.hp.com/hpinfo/globalcitizenship/ environment/operations/envmanagement.html
Options	HP LCD Speaker Bar-Part number NQ576AA	Powered directly by the monitor or the PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP flat panel monitors. Features include dual speakers with full sound range and external jack for headphones. Sold separately. For more information, refer to the product's QuickSpec.
	HP USB Graphics Adapter-Part number NL571AA	Enables connection of up to six simultaneous displays to help you boost productivity and multi-task across several open applications. Use one Adapter to bridge between a notebook or desktop PC and second monitor or use multiple Adapters to connect several displays to each other.
	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.
Other	Accessories Included	VGA to DVI-I cable – connects the graphic card's VGA connector to the monitor's input #1 or 2 (DVI-I analog) connector.
		DVI-D to DVI-D cable – connects the graphic card's DVI-D digital connector to the monitor's input #1 or #2 (DVI-I digital) connector.
	Software	HP Display Assistant Utility makes it possible to adjust displays settings through the PC using two-way communication via DDCI.
		HP Display Lite Saver allows ability to power up and down display at predetermined hours of the day to safe power and backlight life.
		Pivot Pro software from Portrait Displays, Inc. interacts with your PC's native graphics driver to enable seamless portrait screen redraws with a simple mouse-click or keyboard command. Pivot Pro supports 90-degree portrait and landscape views. Language support is available in English, Japanese, French, German, Spanish, Italian, and Traditional and Simplified Chinese.
	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
	Color	Carbonite/silver
	VESA External Mounting	Yes (Standard 4 hole pattern, 100 mm)

Technical Specifications

	Security Lock-Ready	Yes
Certification and Compliance	Australian ACA Approval, Canadian Requirements/CSA, CE Marking, China CCC Approval, CISPR Requirements, Eastern European Approvals, FCC Approval, German Ergonomic (TUV and GS Mark), ISO 13406-2 Pixel Defect Guidelines, Mexican NOM Approval, MIC Requirements (New Zealand), PC99 Certified, S. Korean MIC Approval, Taiwan BSMI Approval, TCO 5.0 Displays, TUV-Ergo, UL Listed, VCCI Approvals, Microsoft® Windows® Certification (Microsoft® Windows® 98, Microsoft Windows 2000, Microsoft Windows XP, and Windows® Vista), EPEAT™ Silver	
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.	
Service and Warranty	Three years parts, labor, and on-site service. 24-hour, 90-day, toll-free technical support. Replacement options may include second business day on-site service, or next business day direct replacement, at HP's sole discretion.[3] With direct replacement, HP will ship a replacement display product directly to you. Using the prepaid shipping labels provided, return your failed display to HP in the same packaging as the replacement. Certain restrictions and exclusions apply. For details see your product warranty or contact HP Customer Support.	

[1] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

[2] Response time: 8 ms (gray to gray); 16 ms (rise and fall).

[3] Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Service starts from date of hardware purchase. Restrictions and limitations apply. HP Care Pack Services extend service contracts beyond the standard warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at: www.hp.com/hps/carepack.

Overview - HP LCD Monitor Quick Release

1. Release/locking
2. Four 100 mm VESA mount screw holes
3. Mounting holes for attachment to back of HP LP1965, LP2065, and HP LP2465 monitor stands

1. Four 100 mm VESA mount screw holes

1. Locking pin screw
2. Locking pin hole on release/locking arm

Introduction

The HP Quick Release, which ships standard with the HP LP2065 20-inch LCD Monitor, is an easy to use, 100 mm VESA-compliant, flat panel monitor mounting solution that allows you to quickly and securely attach a flat panel monitor to a variety of stands, brackets, arms or wall mounts. HP Quick Release can also be used for mounting any combination of devices that are compatible with the 100 mm VESA Flat Display Mounting Interface Standard. The failsafe "Sure-Lock" mechanism snaps the monitor (or mounted device) securely in place, and can be further secured with a theft-deterrent security screw.

Uniquely flexible product configurations

HP Quick Release enables uniquely flexible product configuration alternatives in a variety of settings, such as:

- Storefronts/kiosks: Mount flat panel monitors for easy viewing and add touchscreens for interactivity.
- Trade shows: Securely mount LCD TVs or monitors in common areas and quickly remove them for safekeeping at the end of the day.
- Front office environments: Minimize desk space requirements with wall or swing-arm mounting of monitors in reception areas.
- Training labs: Mount a monitor directly on a 100 mm VESA-compatible PC or an HP Thin Client for all-in-one convenience.
- Medical/institutional settings: Securely mount monitors in nursing stations and public areas.
- Conference rooms: Mount projectors (with 100 mm VESA-compliant pre-drilled holes) on ceilings, and monitors on walls or tables.

Technical Specifications - HP LCD Monitor Quick Release

Mechanical	Dimensions (H x W x D)	Packaged	7.8 x 6.25 x 1.5 in (19.8 x 15.9 x 3.8 cm)
		Unpackaged	6.3 x 5.2 x 0.65 in (16 x 13.2 x 1.65 cm)
	Weight	Packaged	1.1 lb (0.49 kg)
		Unpackaged	0.82 lb (0.37 kg)

Additional components	
	• Eight 10 mm mounting screws (for attachment to VESA compliant monitor mounts)
	• Eight 15.5 mm mounting screws (for attachment to HP Compaq t5000 Thin Client products)
	• Four 20 mm mounting screws (for attachment to back of select HP flat panel monitor stands)
	• One Quick Release "locking" screw

Color   Carbonite

Notes

1. No HP monitors allow positioning of a thin client product between a monitor screen and its stand.
2. The Quick Release device is not to be used between a monitor screen and its stand unless provided that way from the factory.
3. Under no circumstances is the Quick Release device intended to be used in an orientation where the Release/Lock lever is oriented downward.

Supported weight capacity The HP Flat Panel Monitor Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) depending upon the mounting configuration used. Please note this is a total weight limit for all devices mounted, i.e. the combined weight of the monitor and a second device such as an HP Thin Client cannot exceed 24 pounds. 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.