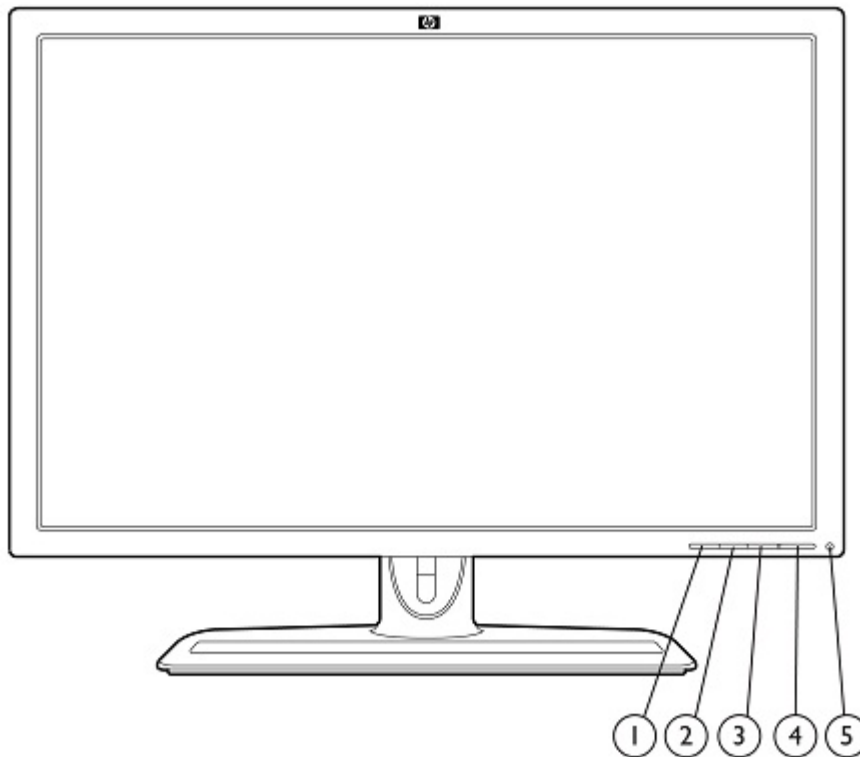


### Overview



- |                     |  |                     |   |
|---------------------|--|---------------------|---|
| <b>1. Source</b>    | Selects the video input (DisplayPort or DVI-D) | <b>4. Power</b>     | Turns the monitor on or off   |
| <b>2. - (Minus)</b> | Reduces the brightness setting                 | <b>5. Power LED</b> | Sleep mode - amber; Continuous flashing blue - non-supported video mode; Three flashes of blue - upper or lower limit of brightness control; Four flashes of blue - DCR is enabled; One flash of blue - DCR is disabled; Steady blue - full power and monitor is displaying a supported mode (LED automatically turns off after 30 seconds) |
| <b>3. + (Plus)</b>  | Increases the brightness setting               |                     |   |
- NOTE:** Pressing the + (Plus) and - (Minus) buttons at the same time enables or disables the Dynamic Contrast Ratio (DCR) function. When enabling the DCR function, the power LED will flash four times. When disabling the DCR function, the power LED will flash one time.

### Model

VM617A4

### Technical Specifications

**Note:**

To drive the ZR30w monitor, the system must meet the following requirements:

1. Host Graphics Card: Must be able to provide a resolution of 2560 x 1600 @ 60Hz (check host QuickSpecs)
  - a. Note for graphics cards with DMS-59 interface - to drive the ZR30w with DMS-59:
    - Graphics card DMS-59 output must have DisplayPort support (check QuickSpecs)
      - Examples of cards that do not have DisplayPort support: Radeon 6350
      - Examples of cards that do have DisplayPort support: FirePro 2270, NVS 300
    - DMS-59 to DisplayPort Adapter Cable
      - Customer must order XP688AA DMS-59 to Dual DisplayPort adapter cable
    - Use DisplayPort cable from adapter to ZR30w
2. Interface Cable: Must be DisplayPort or Dual-Link DVI cable (HP Dual-Link DVI cable has green colored connector shrouds on both ends).

<b>Panel</b>	<b>Type</b>	30-inch Wide-Aspect Active Matrix TFT (thin film transistor)
	<b>Viewable Image Area</b> (diagonal)	<b>76,2 cm</b> (30.0 in.) widescreen; diagonally measured
	<b>Screen Opening</b> (W x H)	<b>64,4 x 40,3 cm</b> (25.4 x 15.9 in.)
	<b>Panel Type</b>	S-IPS (H2-IPS technology for improved energy efficiency)
	<b>Resolution</b>	2560 x 1600
	<b>Aspect Ratio</b>	16:10
	<b>Viewing Angle</b> (typical)	Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
	<b>Brightness</b> (typical)*	370 nits (cd/m <sup>2</sup> )
	<b>Contrast Ratio</b> (typical)*	1000:1
	<b>Dynamic Contrast Ratio</b> (typical)*	3,000:1
	<b>Response Time</b> (typical)*	7 ms (gray to gray); 12 ms (on/off)
	<b>Pixel Pitch</b>	0.2505 mm
	<b>Backlight Lamp Life</b> (to half brightness)	40,000 hours
	<b>Color Support</b>	1.07 billion colors
	<b>Color Gamut</b>	102% (CIE 1931)
	Size vs. NTSC	100% (CIE 1976)
	Coverage of sRGB	99% (CIE 1976)
	Coverage of Adobe RGB	

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

**User Controls**

**Buttons or Switches** Input select, brightness up, brightness down, power.

**User Controls** Brightness, input selection, power.

**Signal Interface/**

**Horizontal Frequency** 100 kHz

### Technical Specifications

<b>Performance</b>	<b>Vertical Frequency</b>	60 Hz	
	<b>Native Resolution</b>	2560 x 1600 @ 60 Hz	
	<b>Preset VESA Graphic Modes (non-interlaced)</b>	2560 x 1600 @ 60 Hz	
	<b>Text Mode</b>	Not Supported	
	<b>Maximum Pixel Clock Speed</b>	275 MHz	
	<b>User Programmable Modes</b>	No	
	<b>Anti-Glare</b>	Yes	
	<b>Anti-Static</b>	Yes	
	<b>Default Color Temperature</b>	6500 K	
	<b>Video/Other Inputs</b>	<b>Plug and Play</b>	Yes
<b>Self Powered USB 2.0 Hub</b>		One upstream, four downstream ports (cable included)	
<b>Input Connectors</b>		1 DisplayPort in, 1 Dual-Link DVI-D; HDCP support on DisplayPort and DVI	
<b>Input Impedance</b>		Not Applicable	
<b>Sync Input</b>		Separate synch	
<b>Video Cable</b>		(1) Dual-Link DVI-D to DVI-D, (1) DisplayPort	
<b>Video Cable Lengths</b>		<b>1,8 m</b> (5.9 ft)	
<b>Power</b>	<b>Input Power</b>	100 - 240 VAC, 50 or 60 Hz	
	<b>Typical Power Consumption</b>	130W	
	<b>Maximum</b>	185 W	
	<b>Power Saving</b>	< 2 W	
	<b>Power Cable Length</b>	<b>1,8 m</b> (5.9 ft)	
<b>Mechanical</b>	<b>Dimensions (H x W x D)</b>	<b>Unpacked w/stand</b>	<b>48,9-58,9 x 69,4 x 27,6 cm</b> (19.3 - 23.3 x 27.3 x 10.9 in.)
		<b>Unpacked w/o stand (head only)</b>	<b>45,4 x 69,4 x 8,7 cm</b> (17.9 x 27.3 x 3.4 in.)
		<b>Packaged</b>	<b>38,3 x 56,0 x 78,8 cm</b> (15.1 x 22.0 x 31.0 in.)
	<b>Weight</b>	<b>Head Only</b>	<b>9.5 kg</b> (20.9 lbs)
		<b>Unpacked</b>	<b>13 kg</b> (28.6 lbs)
		<b>Packaged</b>	<b>17 kg</b> (37.5 lbs)
<b>Ergonomic Features</b>	<b>6-Way Comfort Adjust</b>	Easily adjust the display in height, tilt, and swivel for maximum comfort. Six degrees of adjustment freedom including height up/down, tilt forward/back, swivel left/right	
	<b>HP Quick Release</b>	Ultra convenient set up. Easily mount and detach the display head from the stand.	

### Technical Specifications

**Cable Management** Enhanced cable management for easy concealment of power, video and USB cables. Effortless routing of cables through the base of the column with removable cover plate.

**Detachable Stand** Stand ships detached and easily attaches with the HP Quick Release.

**Tilt Range** -5° to + 35° vertical

**Swivel Range** 45°L / 45°R

**Height Adjustable** Yes, 100 mm

#### Environmental

**Temperature – Operating** 5° to 35° C (41° to 95° F)

**Temperature – Non-operating** -20° to 60° C (-4° to 140° F)

**Humidity – Operating** 10% to 80% non-condensing

**Humidity – Non-operating** 5% to 95%

**Altitude – Operating** +0 to 5,000 m (16,404 ft)

**Altitude – Non-operating** +0 to 12,192 m (40,000 ft)

#### Environmental Data

**Eco-Label Certifications & 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

#### Energy Consumption (in accordance with US Energy Star test method)

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	119.8W	117.5W	120.7W
Sleep	0.75W	0.85W	0.74W
Off	0.55W	0.65W	0.56W

#### Heat Dissipation\*

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	410 BTU/hr	402 BTU/hr	413 BTU/hr
Sleep	3 BTU/hr	3 BTU/hr	3 BTU/hr
Off	2 BTU/hr	2 BTU/hr	2 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).
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 20.4% post-consumer recycled plastic (by wt.)
- This product is 99.2% recycle-able when properly disposed of at end of life.

### Technical Specifications

<b>Packaging Materials</b>	<b>External:</b>	Corrugated carton	2450g
		CANON bags - several layers	27g
	<b>Internal:</b>	EPS (Expanded Polystyrene)	725g
<b>RoHS Compliance</b>	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).		
<b>Material Usage</b>	<p>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: <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html">http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html</a>):</p> <ul style="list-style-type: none"> <li>● Asbestos</li> <li>● Certain Azo Colorants</li> <li>● Certain Brominated Flame Retardants – may not be used as flame retardants in plastics</li> <li>● Cadmium</li> <li>● Chlorinated Hydrocarbons</li> <li>● Chlorinated Paraffins</li> <li>● Formaldehyde</li> <li>● Halogenated Diphenyl Methanes</li> <li>● Lead carbonates and sulfates</li> <li>● Lead and Lead compounds</li> <li>● Mercuric Oxide Batteries</li> <li>● Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.</li> <li>● Ozone Depleting Substances</li> <li>● Polybrominated Biphenyls (PBBs)</li> <li>● Polybrominated Biphenyl Ethers (PBBEs)</li> <li>● Polybrominated Biphenyl Oxides (PBBOs)</li> <li>● Polychlorinated Biphenyl (PCB)</li> <li>● Polychlorinated Terphenyls (PCT)</li> <li>● Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.</li> <li>● Radioactive Substances</li> <li>● Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)</li> </ul>		
<b>Packaging</b>	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> <li>● Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.</li> <li>● Eliminate the use of ozone-depleting substances (ODS) in packaging materials.</li> <li>● Design packaging materials for ease of disassembly.</li> <li>● Maximize the use of post-consumer recycled content materials in packaging materials.</li> </ul>		

### Technical Specifications

- 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.

#### Hewlett-Packard Corporate Environmental Information

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

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>

#### Options

##### HP LCD Monitor Quick Release—Part number EM870AA\* (included)

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.

\* 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.

##### 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 LCD monitors. Features include dual speakers with full sound range and external jack for headphones. Sold separately. For more information, refer to the product's QuickSpecs.

##### 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.

### Technical Specifications

	<b>HP Business PC Security Lock Kit—Part number PV606AA</b>	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.
<b>Other</b>	<b>Accessories Included</b>	DVI cable, DisplayPort cable, USB cable, power cable (single unit), HP Quick Release
	<b>Software</b>	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 or workstation.
	<b>User Guide Languages</b>	English, B. Portuguese, French, LA Spanish, Korean, S. Chinese, T. Chinese, Bahasa, Japanese, Danish, Finnish, German, Norwegian, Spanish, Swedish, Greek, Polish, Russian, Slovenian, Turkish
	<b>Warranty Languages</b>	English, Canadian French, LA Spanish, Brazilian Portuguese, Danish, German, Castilian Spanish, French, Italian, Dutch, Norwegian, Finnish, Swedish, Bahasa Indonesian, Korean, T. Chinese, S. Chinese
	<b>Color</b>	Black
	<b>VESA External Mounting</b>	Yes (one set of standard 4-hole pattern, 100 mm). Use of the top VESA 4-hole pattern will allow the user to set monitor head lower to the desk surface.
	<b>Security Lock-Ready</b>	Yes
<b>Certification and Compliance</b>		ISO 9241-307 VDT Guidelines Approval, CISPR Requirements, VCCI Approvals, MIC (Korean) Requirements, CSA, Australian ACA Approval, "GS" Mark, TUV Approvals, CE Marking, FCC Approval, Microsoft® Windows® Certification (Microsoft® Windows® 98, Microsoft Windows 2000, Microsoft Windows XP, Windows Vista® Premium, and Windows 7).
<b>Compatibility</b>		Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
<b>Service and Warranty</b>		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.** <b>** 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: <a href="http://www.hp.com/go/lookuptool">http://www.hp.com/go/lookuptool</a>. Additional HP Care Pack Services information by product is available at: <a href="http://www.hp.com/hps/carepack">http://www.hp.com/hps/carepack</a>.</b>

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