QuickSpecs
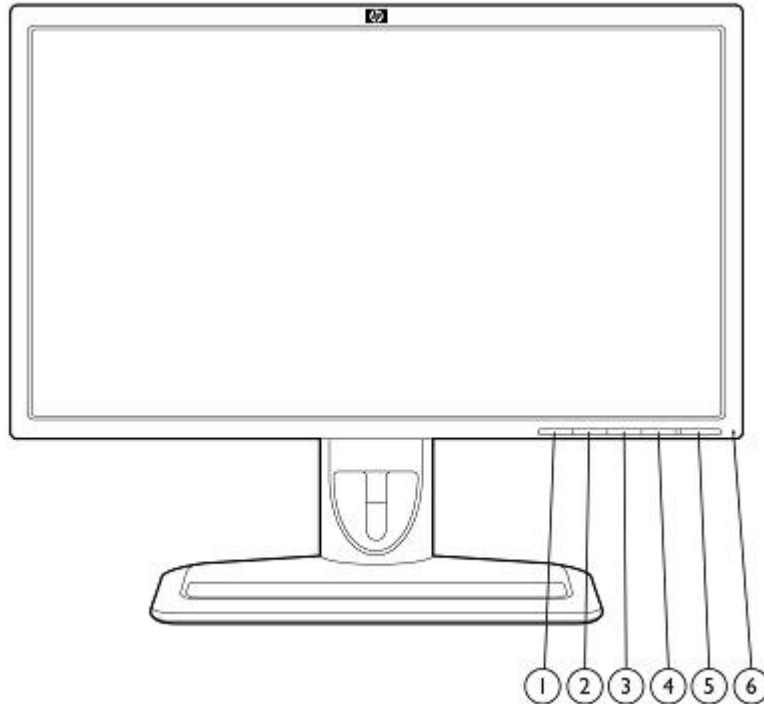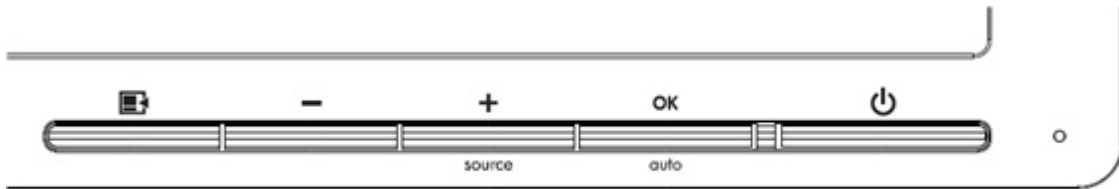
Overview

1. Menu: Opens, selects or exits the OSD menu.

2. Minus (-): Navigates backward through the OSD menu and decreases adjustment levels.

3. Plus (+)/Source: Navigates forward through the OSD menu and increases adjustment levels; when the OSD menu is inactive, selects the video input (DVI, HDMI or DisplayPort)

4. OK: To confirm selecting item when OSD menu is on.

5. Power: Turns the monitor on or off if Master Power Switch (rear) is On.

6. Power LED:
   Blue = Fully powered.
   Amber = Sleep mode.
   Flashing Amber = Sleep Timer mode

HP ZR2440w Bezel Buttons

Models

XW477A4, XW477A8

QuickSpecs

Technical Specifications

Panel	Type	IPS (in-plane switching) LED Backlit LCD
	Viewable Image Area (diagonal)	**61,13 cm,** (24.1 in.) widescreen; diagonally measured
	Screen Opening (W x H)	**52 x 32,57 cm,** (20.47 x 12.82 in.)
	Optimal Resolution	1920 x 1200 @ 60 Hz; WUXGA
	Aspect Ratio	16:10 Widescreen
	Viewing Angle (typical)	Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
	Maximum Brightness (typical)*	350 nits cd/m^2
	Minimum Brightness (typical)*	50 nits cd/m^2
	Contrast Ratio (typical)*	1000:1
	Dynamic Contrast Ratio (typical)*	2,000,000:1
	Response Time (typical)*	6 ms (gray to gray)
	Pixel Pitch	0.270 mm
	Backlight Lamp Life (to half brightness)	30,000 hours minimum
	Color Gamut Area vs. NTSC	84% (CIE 1976), 72% (CIE 1931)
	Color Gamut Coverage of sRGB	97% (CIE 1931)
	Color Support**	Up to 16.7 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**	Menu, OSD -, OSD +, OK, Power On/Off
	Languages	English, French, Spanish, German, Italian, Dutch, Brazilian-Portuguese, Japanese, S-Chinese, T-Chinese
	User Controls	Brightness, contrast, positioning, color temperature (5000K, 6500K, 9300K, custom), individual color control, serial number, display, monitor management, factory reset

Signal Interface/ Performance	**Horizontal Frequency**	24 to 80 kHz	
	Vertical Frequency	24 to 60 Hz	
	Native Resolution	1920 x 1200 @ 60 Hz; WUXGA	
	Preset VESA Graphic Modes (non-interlaced)	1920 x 1200 @ 60 Hz	
		640 x 480 @ 60 Hz	1280 x 960 @ 60 Hz,
		720 x 400 @ 70 Hz	1280x1024 @ 60 Hz
		720 x 480 @ 60 Hz	1366 x 768 @ 60 Hz
		800 x 600 @ 60 Hz	1440 x 900 @ 60 Hz
		1024 x 768 @ 60 Hz	1600 x 900 @ 60 Hz

Technical Specifications

		1152 x 720 @ 60 Hz	1600 x 1000 @ 60 Hz
		1280 x 720 @ 60 Hz	1600 x 1200 @ 60 Hz
		1280 x 768 @ 60 Hz	1680 x 1050 @ 60 Hz
		1280 x 800 @ 60 Hz	1920 x 1080 @ 60 Hz
	Text Mode	720 x 400 @ 70 Hz	
	Maximum Pixel Clock Speed	165 MHz for DVI, HDMI and DP inputs.	
	User Programmable Modes	Yes (20)	
	Anti-Glare	Yes	
	Default Color Temperature	6500 K	
Video/Other Inputs	**Plug and Play**	Yes	
	USB 2.0 Hub	One upstream, four downstream ports (cable included)	
	Input Connectors	(1) DVI-D connector; (1) DisplayPort connector; (1) HDMI connector; (HDCP support on DisplayPort, HDMI and DVI)	
	Video Cable	DisplayPort, DVI-D	
	Video Cable Lengths (DisplayPort , DVI-D)	**1,8 m** (5.9 ft.)	
	USB Cable	Included	
	USB Cable Length	**1,8 m** (5.9 ft.)	
	Audio	Stereo analog and SPDIF digital audio output	
Power	**Input Power**	90- 265 VAC, 50 to 60 Hz	
	Energy Star Power[5]	25.6 W	
	Default Power[6]	48 W	
	Maximum Power[7]	59 W	
	Power Saving	< 0.5 W sleep (standby)	
	Power Cable Length	1,9 m (6.2 ft.)	
Mechanical	**Dimensions** (W x D x H)	**Unpacked w/stand**	**56,2 x 23,5 x 42,9 to 52,9,** (22.13 x 9.25 x 16.89 to 20.83 in.)
		Unpacked w/o stand (head only)	**56,2 x 6,1 x 36,8 cm,** (22.13 x 2.40 x 14.49 in.)
		Packaged	**66x 29,3 x 45 cm,** (25.98 x 11.54 x 17.72 in.)
		Base area (footprint)	**33,4 x 23,5 cm,** (13.15 x 9.25 in.)
	Weight	**Head Only**	**4,9 kg** (10.8 lb.)
		Unpacked	**7,6 kg** (16.76 lb.)
		Packaged	**10,2 kg** (24.49 lb.)
Ergonomic Features	**8-Way Comfort Adjust Stand**	Easily adjust the display in height, tilt, swivel and pivot for maximum comfort. Eight degrees of adjustment freedom including height up/down, tilt forward/back, swivel left/right and pivot portrait/landscape.	

QuickSpecs

Technical Specifications

	HP Quick Release 2	Ultra convenient set up. Easily mount and detach the display head from the stand. The new HP Quick Release 2 is flush with rear of the display head for a clean appearance. (**NOTE:** Not compatible with HP Quick Release Kit).
	VESA External Mounting	User can VESA mount the display in two ways:

1. Use the 100x100mm VESA mount holes that are in the QR2 recess.
2. Remove the QR2 mount plate from the stand and mount the plate to the VESA arm. Then the ZR2440w head connects to the QR2 mount plate and the quick release function is retained.

	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 new HP Quick Release 2 mechanism.
	Tilt Range	-5° to +35°
	Swivel Range	Yes (+/- 45°)
	Height Adjustable	Yes (10 cm)
	Pivot Rotation	Yes
Environmental	**Temperature - Operating**	**5° to 35° C** (41° to 95° F)
	Temperature - Non-operating	**-20° to 60° C** (-4° 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** (16,404 ft)
	Altitude - Non-operating	**0 to 12,192 m** (0 to 40,000 ft)
	White LED Backlight	Yes
	Arsenic-Free Glass[3]	Yes
	BFR/PVC Free[4]	Yes, except cables
	Mercury Free	Yes
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:

- US ENERGY STAR®
- IT ECO declaration
- EPEAT® Gold[2] 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	24.43 W	24.34 W	25.58 W
Sleep	0.36 W	0.42 W	0.35 W
Off	0.34 W	0.4 W	0.4 W

Technical Specifications

Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	84 BTU/hr	83 BTU/hr	87 BTU/hr
Sleep	1 BTU/hr	1 BTU/hr	1 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 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 18.9% post-consumer recycled plastic (by wt.)
- This product is 98.6% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	Corrugated carton	1150 g
Internal:	EPS (Expanded Polystyrene)	558 g
	EPE - Expanded Polyethylene	25 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
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates

Technical Specifications

- 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.

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

QuickSpecs

Technical Specifications

		ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html
Options (sold separately)	**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 flat panel 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 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 Adjustable Dual Display Stand Part Number AW664AA	Premium space-saving dual screen solution provides access to more monitor real estate and makes it possible to manage multiple applications simultaneously. Weight adjustable for dual monitors from 17-24". Rotate displays into portrait/landscape positions.
	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 Single Monitor Arm - Part number BT861AA	The flexible design of the HP Single Monitor Arm provides a seemingly endless range of display adjustments with an amazing 13 inches of lift, 50 degrees of tilt, and 360 degrees of pan and rotation - all at your fingertips -- helping you stay comfortable and productive throughout the day.
Other	**Accessories Included**	DVI-D cable, DisplayPort cable, USB cable, power cable (single unit)
	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 or workstation.
	User Guide Languages	English, French, Spanish (Int'l), Brazilian Portuguese, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Spanish, Swedish, Czech, Hungarian, Polish, Russian, Greek, Slovenian, Turkish, Arabic, Bahasa Indonesian, S. Chinese, T. Chinese, Korean and Japanese.
	Warranty Languages	English, LA Spanish, Brazilian Portuguese, German, French, Italian, Turkish, Greek, Arabic, Russian, Hungarian, Czech, Polish, Japanese, Dutch, Danish, Finnish, Norwegian, Swedish, S. Chinese, T. Chinese, Korean, Slovenian, Bahasa Indonesia, Serbian
	Color	Black with brushed aluminum accents
	VESA External Mounting	Yes, standard 4 hole pattern, 100 mm
	Security Lock-Ready	Yes, one slot available.
Certification and Compliance		ENERGY STAR® 5.1, EPEAT® Gold[2], TCO Displays 5.2, CB,CE, FCC, ETLus, VCCI, C-tick, BSMI, ,TUV-S, ISO9241-307, "GS" Mark, TUV-GS, CCC, CECP, CEL, NOM, PSB, KC, GOST, ISC **NOTE:** agency rating label and product serial number located on a pull-out tab on left side of monitor.
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.[1]

Technical Specifications

[1] 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.

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

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

[4] 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.

[5] Energy Star power is measured with factory defaults, brightness at Energy Star® level of 200 cd/m2 and with no USB loads.

[6] Default Power is measured with factory defaults, including factory default brightness and USB ports loaded at 25% of maximum.

[7] Maximum Power is measured with monitor at maximum brightness and with USB ports loaded at 100% of maximum.