QuickSpecs

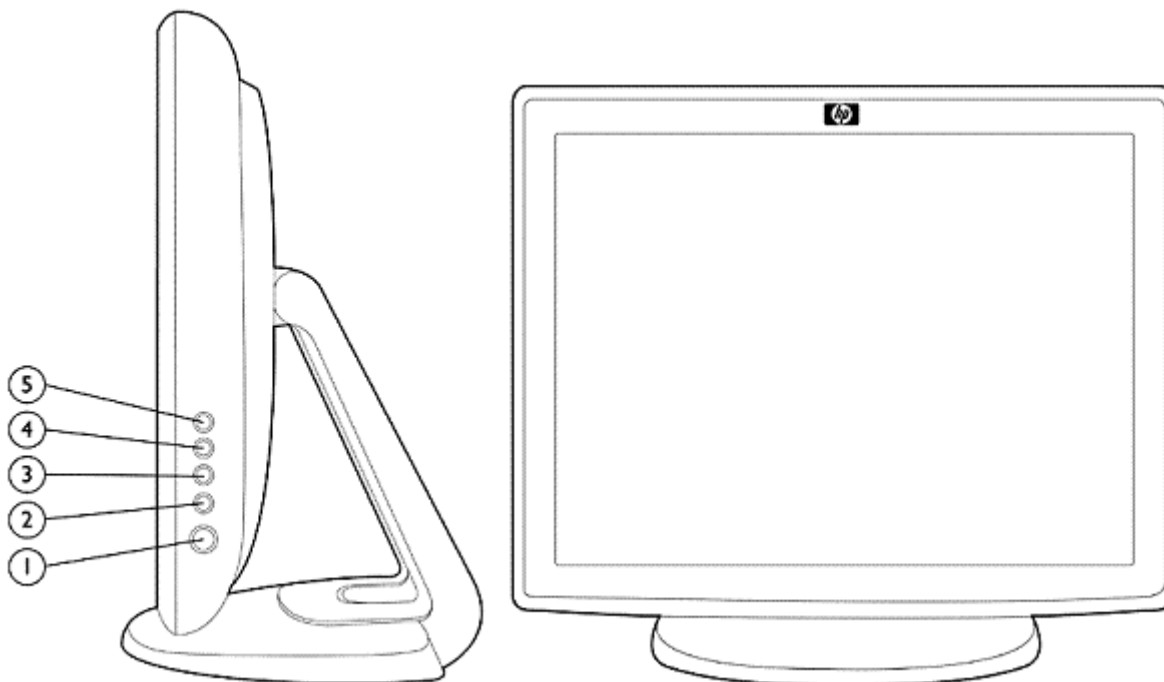## Overview

1. **Power**: Turns the unit on and off.

2. **Select**: Selects the adjustment items from the on-screen display (OSD) menus.

3. **Arrow down**: Enter brightness adjustment, decrease value of the adjustment item, select item counter-clockwise.

4. **Arrow up**: Enter contrast of the OSD, increase value of the adjustment item, select item.

5. **Menu/Exit**: Display/Exits the OSD menus.

Models

VK202AA

QuickSpecs

Technical Specifications

Panel	**Type**	15-inch Active Matrix TFT (thin film transistor)
	Viewable Image Area (diagonal)	15 in (38.1 cm)
	Screen Opening (W x H)	12.0 x 9.0 in (30.4 x 22.8 cm)
	Viewing Angle (typical)*	120 degrees horizontal/100 degrees vertical (10:1 minimum contrast ratio)
	Response Rate	17 ms
	Brightness (typ)*	225 nits (cd/m^2)
	Contrast Ratio (typ)*	400:1
	Pixel Pitch	0.297 mm
	* All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
On Screen Display (OSD) **Controls**	**Buttons or Switches**	Menu, up, down, select, power
	Languages	English, German, Spanish, Japanese, French
	User Controls	Positioning (vertical and horizontal)
		Color Temperature
		Brightness
		Contrast
		Clock, Clock Phase
		OSD Time-out duration
		Recall
Signal Interface/ Performance	**Horizontal Frequency**	31.5 to 60.2 kHz
	Vertical Frequency	56.3 to 75 Hz
	Graphics Controller	VESA standard timings/formats supported
	Native Resolution	1024 x 768 @ 60 Hz (recommended)
	Preset VESA Graphic Modes (non-interlaced)	1024 x 768 @ 60 Hz, 65 Hz (Sun), 70 Hz, and 75 Hz
		832 x 624 @ 75 Hz (Mac)
		800 x 600 @ 56 Hz, 60 Hz, 72 Hz, and 75 Hz
		720 x 400 @ 70 Hz
		640 x 480 @ 60 Hz, 66 Hz (Mac) 72 Hz, and 75 Hz
	Maximum Pixel Clock Speed	80 MHz
	User Programmable Modes	Yes, 7
	Anti-Glare	Yes
	Anti-Static	No
	Default Color Temperature	Custom color (R=G=B=100%)
Touch specifications	**Positional Accuracy**	Standard deviation of error is less than 0.080 in (2.03 mm). Equates to less than ±1% error on most displays.

Technical Specifications

	Resolution Accuracy	More than 100,000 touchpoints/in² (15,500 touchpoints/cm²) for a 15-inch touchscreen. The controller firmware program may reduce resolution to accommodate axis length greater than 465 mm.	
	Touch Activation Force	Typically less than 3 ounces (85 grams).	
	Expected Life Performance	No known wear-out mechanism, as there are no layers, coatings, or moving parts. Technology has been operationally tested to more than 50 million touches in one location without failure, using a stylus similar to a finger.	
	Surface Durability	Surface durability is that of glass, Mohs' hardness rating of 7.	
	Optical Light Transmission (per ASTM D1003)	Up to 92%	
	Chemical Resistance	The active area of the touchscreen is resistant to all chemicals that do not affect glass, such as:	

- Acetone
- Toluene
- Methyl ethyl ketone
- Isopropyl alcohol
- Methyl alcohol
- Ethyl acetate
- Ammonia-based glass cleaners
- Gasoline
- Kerosene
- Vinegar

Video Input	**Plug and Play**	Yes	
	Input Signal	Mini D-Sub 15-Pin VGA type	
	Input Impedance	75 ohms (2 % value change allowed)	
	Sync Input	TTL separate synch	
	Video Cable	Detachable 15-pin D-sub mini connector	
	Video Cable Length	72 in (1.8 m)	
Power	**Input Voltage**	100 to 240 VAC	
	Nominal Current	0.6 Amperes	
	Frequency	50/60 Hz	
	Typ Power Consumption	22 watts	
	Maximum	30 watts	
	Sleep	<4 watts	
	Off	< 2 watts (This monitor does not have an internal sleep function. It needs absence of video to go into sleep mode.)	
	Power Cable Length	72 in (1.8 m); detachable	
Mechanical	**Dimensions** (H x W x D)	**Unpacked w/ stand**	12.2 x 13.8 x 6.9 in. (31.0 x 35.0 x 17.5 cm)
		Display Head only	11.0 x 13.8 x 2.2 in. (28.0 x 35.0 x 5.5 cm)
		Packaged	10.2 x 16.5 x 15.0 in. (26.0 x 42.0 x 38.0 cm)
	Weight	**Unpacked**	10.6 lb (4.8 kg)
		Packaged	15.4 lb (7.0 kg)

Technical Specifications

	Tilt Range	-5 to +90 degrees		
	Swivel Range	None		
	Height Adjustable	No		
	Pivot Rotation	No		
	Base and Stand	Detachable		
Environmental	**Temperature – Operating**	32° to 104° F (0° to 40° C) non-condensing		
	Temperature – Non-operating	4° to 140° F (-20° to 60° C) non-condensing		
	Humidity – Operating	20% to 80% non-condensing		
	Humidity – Non-operating	10 % to 90 % non-condensing		
	Altitude - Operating	0 to 12,000 ft (0 to 3,658 m)		
	Altitude – Non-operating	0 to 40,000 ft (0 to 12,192 m)		
Environmental Data	**Eco-Label Certifications and Declarations**	This product is in compliance with the Restrictions of Hazardous Substances (RoHS) Directive, 2002/95/EC. This product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive, 2002/96/EC.		
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	15.72W	15.89W	15.69W
Sleep	0.97W	1.13W	0.96W
Off	0.56W	0.69W	0.56W

Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	54 BTU/hr	54 BTU/hr	53 BTU/hr
Sleep	3 BTU/hr	4 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).

Technical Specifications

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

This product contains 0% post-consumer recycled plastic (by wt.)

This product is 90.8% recycle-able when properly disposed of at end of life.

Packaging Materials

- External:
  - Molded pulp – 740 g
  - Polyethylene low density – 40 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
- 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

Technical Specifications

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 ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html

Technical Specifications

Other	**Accessories Included**	Detachable VGA cable, detachable AC power cord, documentation kit, and user CD.
	User Guide Languages	English
	Warranty Languages	English, German, Spanish, Japanese, French.
	Color	Black
	VESA External Mounting	Yes (Standard 4 hole pattern, 75 mm)
	Kensington Lock-ready	Yes
Certification and Compliance	UL listed, CSA, FCC approval, NOM, ISE for Cambodia, PSB for Singapore, BSMI for Taiwan MIC for Korea, CCC for China , C-Tick for Australia, S-Mark for Argentina	
Compatibility	Compatible with platforms using the VESA standard video modes.	
Operating System Support	Microsoft Windows 7 32-bit Professional Microsoft Windows 7 64-bit Professional Microsoft Windows Embedded for Point of Service Microsoft Windows Embedded POSReady Microsoft Windows Vista Business 32 Edition Microsoft Windows XP Professional	
Service and Limited Warranty	Replacement options may include second business day on-site service, or next business day direct replacement, at HP's sole discretion. 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. Optional Care Pack Services are extended service contracts which go beyond your standard warranties. For details see your product warranty or contact HP Customer Support.

P 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. | |