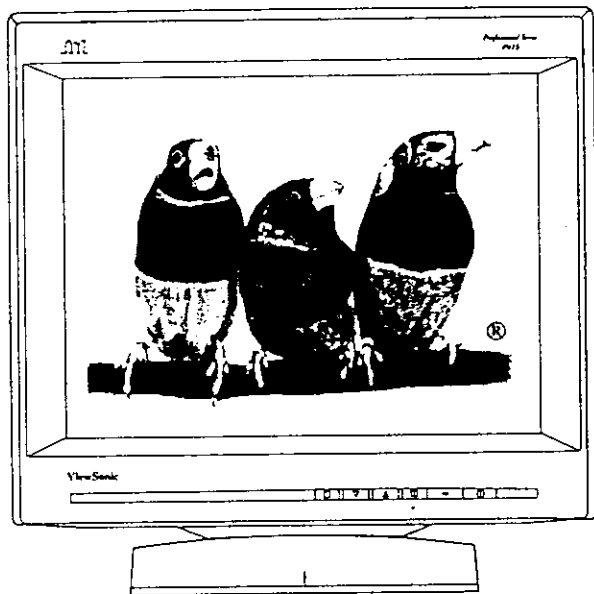


ViewSonic®

P815 Color Monitor



with Plug & Play+
21" (20.0" Viewable Diagonal)

P815-3M/3E/3A/3P

User's Guide

Guide de l'utilisateur

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사용자 설명서



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As an ENERGY STAR® partner, ViewSonic Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.



Electronic Warranty Registration

Register your monitor at www.viewsonic.com. It's fast, easy, and will simplify future support needs.

For Your Records

The serial number of this product is on the back of the monitor. You should write the serial number of this unit in the space provided below and retain this booklet as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model Name:	ViewSonic P815
Model Number:	P815-3M/3E/3A/3P
Serial Number:	
Purchase Date:	

Power Cord Safety Guidelines

Caution : Use a power cable that is properly grounded. Always use the AC cords listed below for each area :

USA	UL
Canada	CSA
Germany	VDE
Switzerland	SEV
Britain	BASEC/BS
Japan	Electric Appliance Control Act

In other areas, use AC cord which meets local safety standards.

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Power Cord Safety Guidelines (continued)

AC PLUG CORD PRECAUTIONS FOR THE UNITED KINGDOM

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET THEN THE PLUG SHOULD BE CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO AN APPROPRIATE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.

If in any doubt, please consult a qualified electrician.

WARNING: THIS APPLIANCE MUST BE EARTHED.

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:

Green-and-Yellow:	Earth
Blue:	Neutral
Brown:	Live

If the coloured wires of the mains lead of this appliance do not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the Earth symbol or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

IMPORTANT NOTICE CONCERNING POWER CORD SELECTION

The power cord for this unit has been packed separately and has been selected according to the country of destination and must be used to prevent electric shock. Use the following guidelines if it is necessary to replace the original cord set.

The female receptacle of the cord set must meet CEE-22 requirements and will look like Figure 1 below:

Figure 1



For the United States and Canada

In the United States and Canada the male plug is a NEMA5-15 style (Figure 2), UL Listed, and CSA Labelled. For units which are mounted on a desk or table, type SVT or SJT cord sets may be used. For units which sit on the floor, only SJT type cord sets may be used. The cord set must be selected according to the current rating for your unit. Please consult Table A below for the selection criteria for power cords used in the United States and Canada.

Figure 2



For European Countries

In Europe you must use a cord set which is appropriate for the receptacles in your country. The cord set is HAR-Certified, and a special mark that will appear on the outer sheath, or on the insulation of one of the inner conductors.

If you have any questions concerning which proper power cord to use, please consult with the dealer from whom you purchased your monitor.

Table A

Cord Type	Size of Conductors in Cord	Maximum Current Rating of Unit
SJT	18AWG	10Amps
	16AWG	12Amps
	14AWG	12Amps
SVT	18AWG	10Amps
	17AWG	12Amps

FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Warning:

To assure continued FCC compliance, the user must use grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. If a BNC cable is going to be used, use only a shielded BNC(S) cable. Also, any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

Power Supply Cord USA

For units with 100 - 120V input voltage in the USA, use the following :

UL Listed and CSA Certified Type SVT or SJT No. 18/3 AWG rated 125Vac 7 A min.

One end terminated in a molded on parallel blade, grounding attachment cap or hooded attachment cap (15A, 125V configuration), other end terminated in a mold-on appliance coupler.

Notice for Germany

The x-rays generated in this unit are shielded sufficiently. High voltage: Max. 27.5 kV. Also, for ergonomic reasons, we recommend that you do not display blue characters on a dark background. Doing so may produce insufficient contrast that could lead to eye strain.

Notice for Japan

This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

CE Conformity



The device complies with the requirements of the EEC directive 89/336/EEC as amended by 92/31/EEC and 93/68/EEC Art.5 with regard to "Electromagnetic compatibility", and 73/23/EEC as amended by 93/68/EEC Art. 13 with regard to "safety".

Required item	Relative to Standard Value	Relative to those Exceeding Standard Value	Remarks
EMI*	# 1		# 4
ESD*	# 2	# 3	
RADIATED RF*	# 1	# 3	
TRANSIENT F/B*	# 1	# 3	
LINE HARMONICS	# 1		

- * 1: Satisfies the standards with no problems in performance and reliability.
- * 2: Effects may appear temporarily on the screen but there will be no problem in reliability.
- * 3: There is fear of the product breaking down.
- * 4: If a signal cable other than that specified is used, it may be the cause of electromagnetic wave interruption of peripheral devices. To assure continued CE compliance the user must use the provided 1.8m shielded video signal cable with bonded ferrite cores at both ends of the cable.

Handle correctly in accordance with the instruction manual.

*EMI : Electromagnetic Interference *ESD : Electrostatic Discharge *RF : Radio Frequency *F/B : Fast Burst

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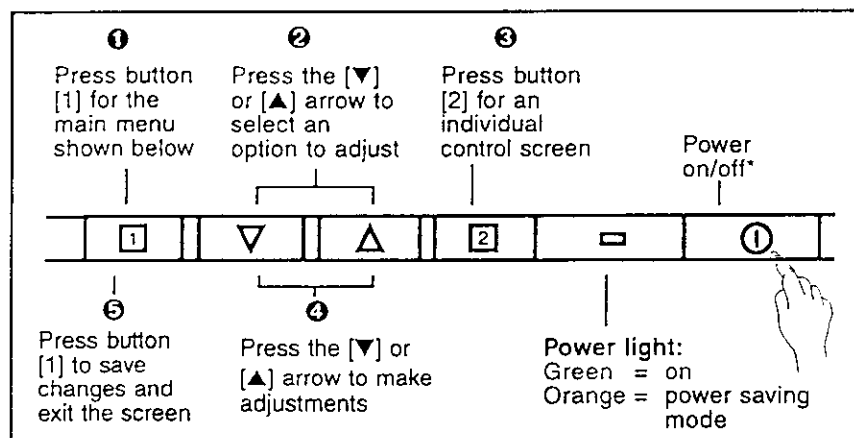


Operation

This section shows how to adjust your monitor for your personal preference.

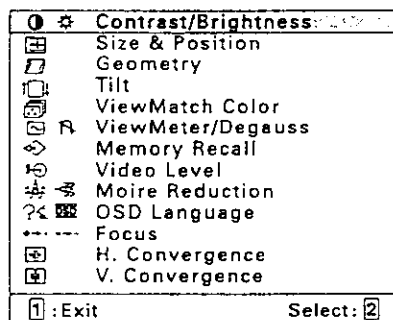
Front Control Panel

With your monitor turned on, follow the numbered steps in sequence as shown below.



OnView® Main Menu

The menu below shows the various controls for adjusting the monitor.



*The monitor automatically degausses when you turn it on. Degaussing removes magnetic field buildup that can affect color purity and convergence. However, degaussing repeatedly, either manually or from the menu shown above, may cause damage. Allow 20 minutes between degaussing.



Operation

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To exit the OnView® menu & save changes, press button [1].

- ☉ ☀ **Contrast/Brightness:** Press button [2] to select one of the following controls to adjust:

- ☉ **Contrast** adjusts foreground white level of screen image. Press [▼] or [▲] to adjust.

Note: With the Contrast adjustment screen displayed, pressing the [▼] and [▲] buttons simultaneously increases Contrast to its maximum.

- ☀ **Brightness** adjusts background black level of screen image. Press [▼] or [▲] to adjust.

Note: With the Brightness adjustment screen displayed, pressing the [▼] and [▲] buttons simultaneously returns Brightness to its factory preset level.

Shortcut: Before displaying the OnView menu, press the [▼] or [▲] button to display the adjustment screen. Then press [▼] or [▲] again to adjust. Button [2] toggles between Brightness and Contrast adjustment screens.

- ☉ ☀ **Size & Position:** Press button [2] to select one of the following controls to adjust.

- ☉ **Horizontal Position** moves the screen image left or right. [▼] moves screen left, [▲] moves screen right.



From this screen, press button [2] to display the adjustment screen for the control, then press [▼] or [▲] to adjust.

- ☉ **Horizontal Size** adjusts the width of the screen image. [▼] decreases width, [▲] increases width.

- ☉ **Vertical Position** moves the screen up and down. [▼] moves screen down, [▲] moves screen up.

- ☉ **Vertical Size** adjusts the height of the screen. [▼] decreases screen height, [▲] increases screen height.

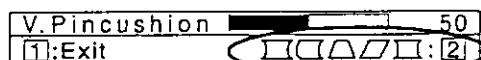
To exit the OnView® menu & save changes, press button [1].



Geometry: Press button [2] to select one of the following controls to adjust.



Vertical Pincushion straightens vertical sides of the screen. [▼] curves vertical edges inward, [▲] curves vertical edges outward.



From this screen, press button [2] to display the adjustment screen for the control, then press [▼] or [▲] to adjust.



Side Pincushion Balance curves the screen's vertical edges to the left or right. [▼] curves vertical edges to left, [▲] curves vertical edges to right.



Trapezoid makes vertical edges of the screen image parallel. [▼] narrows top and widens bottom, [▲] widens top and narrows bottom.



Parallelogram slants vertical edges of the screen to the left or right. [▼] slants vertical edges to the left, [▲] slants vertical edges to the right.



Hooking straightens the four corners of the screen image. [▼] or [▲] to adjust.



Tilt rotates the entire screen image. [▼] rotates screen counter-clockwise, [▲] rotates screen clockwise. With the Tilt adjustment screen displayed, pressing the [▼] and [▲] buttons simultaneously adjusts rotation to its factory preset level.

To exit the OnView® menu & save changes, press button [1].



ViewMatch® Color provides four color adjustment options: four preset color temperatures and User (color) which allows you to adjust the reds, greens, and blues. The factory setting for the monitor is 9300K, the color temperature most frequently used in offices with fluorescent lights.

When you select ViewMatch Color from the OnView Main Menu, the screen below appears.

ViewMatch Color		
9300K	6550K	User
[1]:Exit	Select	[2]

From this screen, press button [2] to select one of the color temperatures. When you select User, the screen below appears.

Red		50
Green		50
Blue		50
[1]:Exit	Select	[2]

From this screen, press button [2] to select Red, Green, or Blue. Press [▼] or [▲] to adjust.





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To exit the OnView[®] menu & save changes, press button [1].



Memory Recall returns adjustments back to factory settings only if the monitor is operating in a factory preset mode (see the Specifications sections).

Exception: This control does not affect changes made with the User color control where you adjust the reds, greens, and blues.



Video Level allows you to change the video input signal level to match the signal coming from your computer. Typically, 0.7V is used. *For more information, see your computer user guide.*



Moire Reduction reduces interference that causes unwanted color textures or patterns. NOTE: Only use Moire if you see ripples or waves when viewing images having closely spaced lines or finely detailed patterns. To return to factory settings use Memory Recall. Button [2] toggles between Horizontal Moire and Vertical Moire.



Horizontal Moire minimizes horizontal interference patterns. Press [▼] or [▲] to adjust.



Vertical Moire minimizes vertical interference patterns. Press [▼] or [▲] to adjust.



OSD (on screen display) Language/Position: Press button [2] to select one of the following controls to adjust.



OSD Language allows you to choose from among five languages for the OnView menus and adjustment screens; English, French, German, Italian, and Spanish.



OSD Position allows you to move the menu and adjustment screens where you want. Press [▼] or [▲] to move the OSD to one of six preset locations.



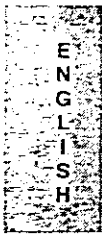


To exit the OnView[®] menu & save changes, press button [1].



FOCUS adjusts overall focus of the monitor. To reset FOCUS to the default value, press [▼] and [▲] simultaneously. Press button [2] to select H. FOCUS (Horizontal Focus).

■→- **H. FOCUS** fine tunes the horizontal line focus only. To reset H. FOCUS to the default value, press [▼] and [▲] simultaneously.



H. CONVERGENCE: (Horizontal Convergence) adjusts vertical color alignment. Use only if you see red or blue around the vertical segments of black letters on a white background. Press button [2] to toggle between RB (red/blue) and RG (red/green).

RB [▼] to move red to the left, blue to the right.
[▲] to move red to the right, blue to the left.

RG [▼] to move both red and blue to the right of green.
[▲] to move both red and blue to the left of green.



V. CONVERGENCE: (Vertical Convergence) adjusts horizontal color alignment. Use only if you see red or blue around the horizontal segments of black letters on a white background. Press button [2] to toggle between RB (red/blue) and RG (red/green).

RB [▼] to move red up, blue down.
[▲] to move red down, blue up.

RG [▼] to move both red and blue down from the green.
[▲] to move both red and blue up from the green.



Other Information

Specifications

CRT	Type	21" (20.0" / 50.8cm viewable diagonal) 0.25mm (.22mm H x .13mm V) dot pitch, 90° deflection, SuperClear™, ARAG
Input Signal	Video Sync	Separate, Composite, Sync-on-green f _v : 30-115kHz, f _h : 50-160Hz
Compatibility	PC Macintosh™ ¹	Up to 1800 x 1440 ² (Class A) Up to 1600 x 1200 (Class B)
Maximum Refresh Rates ²		1800 x 1440 NI @ 76 Hz 1600 x 1280 NI @ 86 Hz 1600 x 1200 NI @ 91 Hz 1280 x 1024 NI @ 106 Hz 1024 x 768 NI @ 139 Hz 800 x 600 NI @ 160 Hz 640 x 480 NI @ 160 Hz 640 x 400 NI @ 160 Hz
Power	Voltage	AC 100-240 VAC (auto switch) 50/60 Hz
Display Area	Default Full Scan	380mm (H) x 285mm (V) (Typical) 406mm (H) x 304mm (V) (Depends on signal timing)
Operating Conditions	Temperature Humidity Altitude	32°F to 104°F (0°C to 40°C) 5% to 90% (no condensation) To 10,000 feet
Storage Conditions	Temperature Humidity Altitude	-4°F to +140°F (-20°C to +60°C) 5% to 90% (no condensation) To 40,000 feet
Dimensions	Physical	505mm (W) x 501mm (H) x 519mm (D) 19.9" (W) x 19.7" (H) x 20.4" (D)
Weight	Net	29.1 kgs (64.2 lbs)
Regulations		UL, CSA, DHHS, FCC-B, NORDIC, CCIB, TUV/GS, CE/CISPR 22-B, MPR-II, TCO'95, Energy Star®, ISO9241-3 (Ergonomics), BCIQ, C-Tick, VCCI-B
Power saving modes	On DPMS Stand By DPMS Suspend DPMS Off	180W typical (green LED) <15W (orange LED) <15W (orange LED) <8W (orange LED)

Preset Timing Modes (the monitor has been pre-adjusted to VESA® 1600x1200 @ 75Hz).

VGA 640 x 480 @ 60 Hz & 75 Hz VESA 1024 x 768 @ 75 Hz VESA 1280 x 1024 @ 75 Hz & 85 Hz	VESA 1600 x 1200 @ 75 Hz & 85 Hz Macintosh® 1152 x 870 @ 75 Hz
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¹ A Macintosh computer requires a ViewSonic® Macintosh adapter. To order an adapter, contact customer support. See the back cover of this manual. You will need to provide the serial number on your monitor.

² Warning: Do not set the graphics card in your computer to exceed these maximum refresh rates. Doing so may result in permanent damage to the monitor.

³ Up to 1600x1200 for FCC class B.

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Other Information

