ViewSonic®

M50   Color Monitor

MultiMedia Series
M50

ViewSonic

With Plug and Play

15" (13.8" Viewable Diagonal)

User's Guide

Guide de l'utilisateur

Bedienungsanleitung

(Latin American Spanish)

(Italian)

(Brazilian Portuguese)

(Swedish)

(Russian)

(Polish)

(Arabic)

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 note the serial number of this unit in the space provided and retain this booklet as a permanent record of your purchase to aid in identification in the event of theft or loss.

Product Name:	**ViewSonic M50**
Model Number:	**VCDTS21502-1**
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.

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 set for this unit has been enclosed 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, or if the cord set is not enclosed.

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
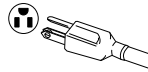
For European Countries

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 have purchased your monitor.

Table A

Cord Type	Size of Conductors In Cord	Maximum Current Rating of Unit
SJT	18AWG 16AWG 14AWG	10Amps 12Amps 12Amps
SVT	18AWG 17AWG	10Amps 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(5) 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. 30 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 to peripheral devices. To assure continued CE compliance the user must use the provided 0.6m 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

ENGLISH

CONTENTS

Getting Started

Operation

Other Information

*To meet your future needs, and to receive any additional product information as it becomes available, please register your monitor's warranty on the Internet at: **http://www.viewsonic.com**.

Getting Started

Congratulations on your purchase of a Graphics Series **ViewSonic *M50*** monitor!

Save the original box and all packing material for future shipping needs.

NOTE: This product was designed for operation in the magnetic fields of the hemisphere where it was purchased. Also, the word "Windows®" in this user guide refers to the following Microsoft® operating systems: Windows '95, Windows '98, Windows NT® (5.0).

Package Contents

Your **ViewSonic *M50*** package includes the following:

• **ViewSonic *M50*** monitor
• Attached video cable with 15 pin high density mini D-sub connector
• Power cord
• User's Guide
• INF and ICM installation files on CD-ROM or diskette

IMPORTANT: The supplied **INF file** assures compatibility with Windows operating systems, and the **ICM file** (Image Color Matching) ensures accurate on-screen colors. ViewSonic® recommends that you install both files.

• <u>For CD-ROM</u>: Insert the CD-ROM into your system, wait for it to auto-install, select "Monitor Drivers," and follow the on-screen instructions.

• <u>For diskette</u>: Insert the diskette into your system, run **install.exe,** and follow the on-screen instructions.

Precautions

• For best viewing conditions sit at least 18" from the monitor.

• AVOID TOUCHING THE SCREEN WITH YOUR FINGERS. Oils from the skin are difficult to remove.

• NEVER REMOVE THE REAR COVER. The monitor contains high-voltage parts. You may suffer serious injury if you touch these parts.

• Avoid exposing the monitor to direct sunlight or another heat source. The monitor should be facing away from direct sunlight to reduce glare.

• Always handle your monitor with care when moving it.

• Choose a well ventilated area to position your monitor. Do not place anything on the monitor that prevents adequate dissipation of heat.

• Ensure the area around the monitor is clean and free of moisture.

• Keep the monitor away from magnets, motors, transformers, speakers, and televisions.

• Do not place heavy objects on the monitor, video cable, or power cord.

• If smoke, abnormal noise, or strange odor is present, immediately switch the monitor off and call your dealer or ViewSonic. It is dangerous to continue using the monitor.
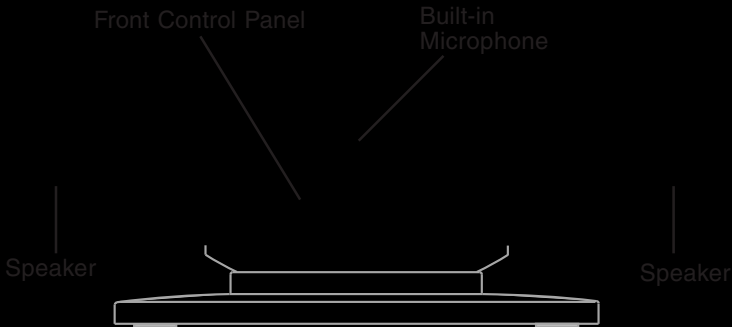

Exam
Resolu

Refres

To be best prepared for any future customer service needs:
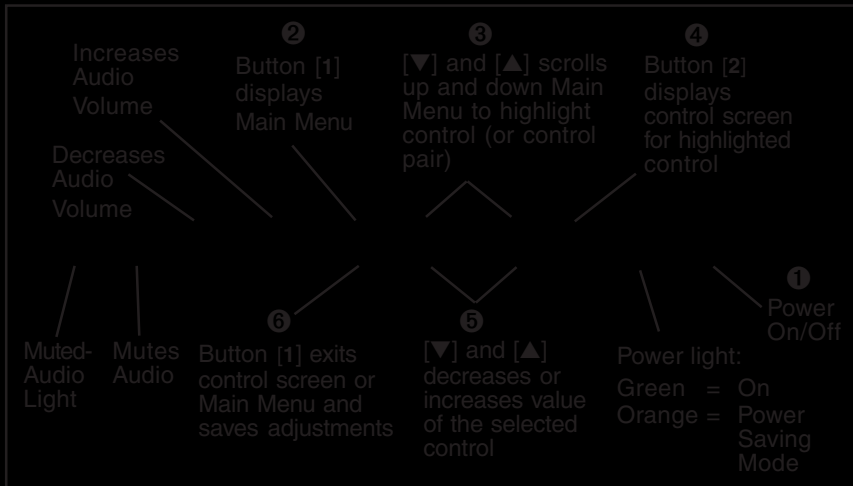
• F

(see

Operation

The buttons on the Front Control Panel allow you to adjust both the screen image and the audio of your **ViewSonic M50** monitor (see below).
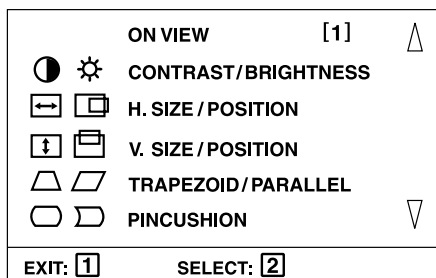
Front Control Panel

Built-in Microphone

Speaker

Speaker

Front Control Panel

To adjust the audio and screen image, follow the numbered steps in sequence as shown below.

Increases Audio Volume

❷ Button [1] displays Main Menu

❸ [▼] and [▲] scrolls up and down Main Menu to highlight control (or control pair)

❹ Button [2] displays control screen for highlighted control

Decreases Audio Volume

Muted-Audio Light

Mutes Audio

❻ Button [1] exits control screen or Main Menu and saves adjustments

❺ [▼] and [▲] decreases or increases value of the selected control

Power light:

Green = On
Orange = Power Saving Mode

❶ Power On/Off

OnView Main Menu, Part 1

```
        ON VIEW              [1]        △
  ◑ ☼    CONTRAST/BRIGHTNESS
  ↔ ⊡    H. SIZE / POSITION
  ⬍ ⊟    V. SIZE / POSITION
  △ ▱    TRAPEZOID/PARALLEL
  ◯ ⊃    PINCUSHION                     ▽
  EXIT: 1          SELECT: 2
```

NOTE: Press [**2**] to toggle between all controls that appear on the Main Menu in pairs (for example, Contrast/Brightness).

◑ **CONTRAST** adjusts foreground white level of screen image. Press [▼] or [▲] to adjust.

Shortcut: Before displaying the Main Menu, press [▼] or [▲] to display the Contrast control screen.

☼ **BRIGHTNESS** adjusts background black level of screen image. Press [▼] or [▲] to adjust.

↔ **H. SIZE** (Horizontal Size) adjusts width of screen image. [▼] decreases width, [▲] increases width.

⊡ **H. POSITION** (Horizontal Position) moves screen image left or right. [▼] moves screen image left, [▲] moves screen image right.

⬍ **V. SIZE** (Vertical Size) adjusts height of screen image. [▼] decreases height, [▲] increases height.

⊟ **V. POSITION** (Vertical Position) moves screen image up and down. [▼] moves screen down, [▲] moves screen up.

△ **TRAPEZOID** makes vertical edges of screen image parallel. [▼] narrows top and widens bottom, [▲] widens top and narrows bottom.

▱ **PARALLELOGRAM** slants vertical edges of screen image to left or right. [▼] slants vertical edges to left, [▲] slants vertical edges to right.

◯ **PINCUSHION** straightens vertical sides of screen image. [▼] curves vertical edges inward, [▲] curves vertical edges outward.

⊃ **PIN BALANCE** curves the screen's vertical edges to the left or right. [▼] curves vertical edges to left, [▲] curves vertical edges to right.

E N G L I S H

OnView Main Menu, Part 3

```
        ON VIEW          [3]     △
  ⴼ     DEGAUSS
  ⍰ ⌒   LANGUAGE
     ⍧  MEMORY RECALL           ▽
 EXIT: 1         SELECT: 2
```

DEGAUSS The monitor <u>automatically</u> *degausses* each time you turn it on, removing the buildup of magnetic fields that can affect color purity and convergence. To <u>manually</u> degauss, select the Degauss control from the OnView Main Menu (above).

Important: *Do not degauss repeatedly. Doing so can be harmful to the monitor. Wait at least 20 minutes before selecting this control again.*

LANGUAGE allows you to choose from among five languages for the OnView Main Menu and control screens: English, French, German, Italian, and Spanish. To select a language, press [**2**].

MEMORY RECALL returns all controls (except User Color) back to factory settings for the video timing currently selected. (See page 11.)

Other Information

Specifications

CRT	Type Screen	15" (13.8" viewable diagonal),0.27mm dot pitch, 90° deflection High Contrast, Anti-Reflection, Anti-static Coating; TM=46%
Input Signal	Video Sync	RGB Analog H/V Separated (TTL), Composite Sync, Sync-on-Green f_H: 30-70 kHz, f_V: 50-160 Hz
Compatibility	PC Macintosh®*	640 x 480 up to 1280 x 1024 Power Mac™ 640 x 480 up to 1024 x 768
Maximum Refresh Rates**		1280 x 1024 NI @ 66 Hz 800 x 600 NI @ 110 Hz 1024 x 768 NI @ 87 Hz 640 x 480 NI @ 135 Hz
Power	Voltage	AC 88-132/180-264 VAC (auto switch) 50/60 Hz
Audio	Front Speakers	2 Watts (x2)
Connectors	Input Signal Output Signal Microphone	Video 15 pin mini D-sub Audio 3.5mm pin mini jack (stereo) Microphone 3.5mm pin mini jack (mono/auxillary) Headphones 3.5mm pin mini jack (stereo) 3.5mm pin mini jack (mono)
Display Area	Default Full Scan	270mm (H) x 202mm (V) Typical 280mm (H) x 210mm (V) (depends on signal timing)
Operating Conditions	Temperature Humidity Altitude	32°F to 104°F (0°C to 40°C) 5% to 95% (no condensation) To 10,000 feet
Storage Conditions	Temperature Humidity Altitude	-4°F to +140°F (-40°C to +60°C) 5% to 95% (no condensation) To 36,000 feet
Dimensions	Physical	368mm (W) x 380mm (D) x 376mm (H) 14.49" (W) x 14.96" (D) x 14.08" (H)
Weight	Net	13.6 kgs (29.92 lbs) (monitor only)
Regulations		UL, CSA, DHHS, TUV, VCCI-II, FCC-B, CE, DOC-B, EN60950:1992, NEMKO, DEMKO, FIMKO, SEMKO, MPR-II, TCO'92, Energy Star®, ISO9241-3
Power saving modes	*On* *DPMS™ Stand By* *DPMS Suspend* *DPMS Off*	<125W typical (green LED) <15W (orange LED) <15W (orange LED) <5W (orange LED)

Preset Timing Modes (VESA 800 x 600 @ 75Hz is recommended)

Ind VGA 640 x 400 @ 70Hz VESA® 640 x 480 @ 75Hz VESA 800 x 600 @ 75Hz	VESA 1024 x 768 @ 75Hz VESA 1280 x 1024 @ 60Hz Macintosh 832 x 624 @ 75Hz

*   *Macintosh computers require ViewSonic® Macintosh adapters. To order an adapter, contact customer support. See back cover.*

** **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.**

Troubleshooting

No power
- Press Power button ON.
- Make sure A/C power cord is securely connected to back of monitor and to a power outlet.
- Plug another electrical device (like a radio) into power outlet to verify that outlet is supplying proper voltage.

Power on but no screen image
- Make sure video cable supplied with monitor is tightly secured to video output port on back of computer. If other end of video cable is not attached permanently to monitor, tightly secure it to monitor.
- Adjust the brightness and contrast.
- Check this user's guide to see if an adapter is required for proper signal continuity between graphics card and monitor.

Flickering
- Not enough power supplied. Connect monitor to different outlet. If using surge protector, reduce number of devices plugged in.
- Check ViewMeter® to verify refresh rate (vertical frequency) is 75 Hz or higher. See the Specifications section.
- Make sure graphics card in your computer can use non-interlaced mode at desired frequencies. To enable your graphics card to support higher refresh rates, try selecting fewer colors or running lower resolutions.
- Remove any devices from area around monitor that emit magnetic fields such as radios, surge protectors, unshielded speakers, fluorescent lights, AC power converters, desk fans, etc.

Wrong or abnormal colors
- If any colors (red, green, or blue) are missing, check video cable to make sure it is securely connected. Loose pins in the cable connector could cause a bad connection.
- Connect monitor to another computer.
- Turn monitor OFF, wait one minute, then turn ON again. *Do this only once.*
- If you have an older graphics card, contact customer support for a non-DDC adapter.

Entire screen image scrolls (rolls) vertically
- Make sure video input signals are within monitor's specified frequency range.
- Try monitor with another power source, graphics card, or computer system.
- Connect video cable securely.

Control buttons do not work
- Press only one button at a time.

Cleaning the Monitor

- MAKE SURE THE MONITOR IS TURNED OFF.
- NEVER SPRAY OR POUR ANY LIQUID DIRECTLY ONTO THE SCREEN OR CASE.

To clean the screen

1 Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
2 If still not clean, apply a small amount of <u>non-ammonia</u>, <u>non-alcohol</u> based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.

To clean the case

1 Use a soft, dry cloth.
2 If still not clean, apply a small amount of a non-ammonia, non-alcohol based, mild non-abrasive detergent onto a clean, soft, lint-free cloth, then wipe the surface.

DISCLAIMER

ViewSonic® does not recommend the use of any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor. ViewSonic will not be liable for damage resulting from use of any ammonia or alcohol-based cleaners.

LIMITED WARRANTY
VIEWSONIC *M50* MONITORS

What the warranty covers:
ViewSonic® warrants its products to be free from defects in material and workmanship during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, **ViewSonic** will at its sole option repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components.

How long the warranty is effective:
The **ViewSonic** *M50* color monitor, including the display tube, are warranted for three (3) years for all parts and three (3) years for all labor from the date of the first consumer purchase.

Who the warranty protects:
This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:
1. Any product on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
    a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
    b. Repair or attempted repair by anyone not authorized by ViewSonic.
    c. Any damage of the product due to shipment.
    d. Removal or installation of the product.
    e. Causes external to the product, such as electric power fluctuations or failure.
    f. Use of supplies or parts not meeting ViewSonic's specifications.
    g. Normal wear and tear.
    h. Any other cause which does not relate to a product defect.
3. Removal, installation, and set-up service charges.

How to get service:
1. For information about receiving service under warranty, contact **ViewSonic** Customer Support. See the back cover of this user's guide.
2. To obtain warranted service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address (d) a description of the problem and (e) the serial number of the product.
3. Take or ship the product prepaid in the original container to your ViewSonic dealer, any **ViewSonic** service center or **ViewSonic**.
4. For additional information or the name of the nearest **ViewSonic** service center, contact your **ViewSonic** dealer or **ViewSonic**.

Limitation of implied warranties:
THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Exclusion of damages:
VIEWSONIC'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. VIEWSONIC SHALL NOT BE LIABLE FOR:
1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS, OR OTHER COMMERCIAL LOSS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.
3. ANY CLAIM AGAINST THE CUSTOMER BY ANY OTHER PARTY.

Effect of state law:
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

Sales outside the U.S.A.:

For **ViewSonic** products sold outside of the U.S.A., contact your **ViewSonic** dealer for warranty information and service.

REV 1/15/99

Customer Service

To receive the most prompt assistance, dial the appropriate number below and *listen to all menu options before making your selection*: Customer Support, Technical Support, Parts, etc.

U.S. and Canada only
1-800-688-6688

From outside U.S. and Canada
909-869-7976

From Europe
44 (1293) 643-900

From Asian/Pacific Rim countries
886 (22) 248-4072

Other Options

Technical Support Questions
vstech@viewsonic.com

Product or Dealer Questions
prodinfo@viewsonic.com

World Wide Web:
http://www.viewsonic.com

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