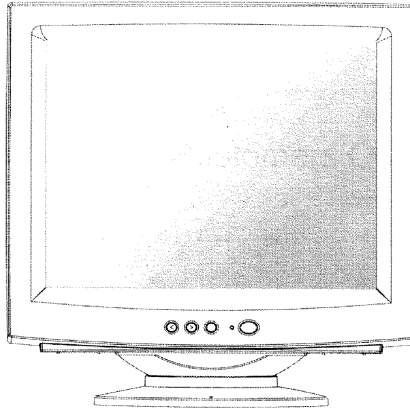


HITACHI

COLOR MONITOR

V900

USER MANUAL
MANUAL D'UTILISATION



READ THE INSTRUCTIONS INSIDE CAREFULLY.

KEEP THIS USER MANUAL FOR FUTURE REFERENCE.

For future reference, record the serial number of your color monitor.

SERIAL NO. _____

The serial number is located on the rear of the monitor.

This monitor is ENERGY STAR^(R) compliant when used with a computer equipped with VESA DPMS.

The ENERGY STAR^(R) emblem does not represent EPA endorsement of any product or service.

As an ENERGY STAR^(R) Partner, Hitachi, Ltd. has determined that this product meets the ENERGY STAR^(R) guidelines for energy efficiency.



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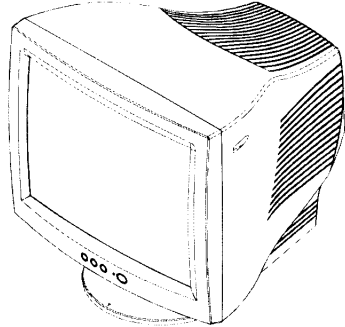
Monitor

INTRODUCTION

Congratulations on your purchase of this high performance 19" monitor. Using state-of-the-art electronics, this monitor can support a resolution 1600 x 1200 @ 75 Hz. The on-screen display allows you to customize the settings to suit your individual needs.

Features

- ☺ 19-inch monitor with a large, viewable screen for comfortable viewing.
- ☺ OSD user controls for easy and accurate adjustment of the screen image.
- ☺ Energy Star compliant to reduce power consumption.



Package Overview

Please make sure the following items are in the shipping packing and found in good condition:

- * 19" Monitor
- * Tilt and swivel stand
- * Power cord
- * This manual

Please save this packing material in case the monitor needs warranty service in the future.

CAUTIONS

■ NEVER REMOVE THE REAR COVER !

The rear cover MUST be removed only by authorized service personnel. This color monitor contains high voltage components.

■ THE RECEPTACLE SHOULD BE CLOSE TO THE MONITOR AND EASILY ACCESSIBLE !

■ INSTALL THE UNIT IN A SUITABLE ENVIRONMENT !

DO NOT expose this monitor to rain or moisture to prevent electric shock or fire hazard. This unit is designed to be used in an office or business environment.

DO NOT subject the unit to vibrations, dust, or corrosive gases.

■ KEEP IN A WELL VENTILATED PLACE !

DO NOT cover this monitor or place anything against any sides (not only the top, right and left side but also the rear and bottom side) of unit. Ventilation holes are provided at all sides of the rear cover to prevent the temperature from rising.

■ KEEP AWAY FROM HEAT SOURCES !

AVOID placing the unit in direct sunshine or near a heating appliance.

■ BE CAREFUL OF MAGNETIC FIELDS !

DO NOT place a magnet, loudspeaker system, floppy disk drive, printer, or anything which will generate magnetism near the unit. A magnetic field may cause blurred colors or distortion of the displayed pattern.

■ BE CAREFUL OF GENERATED MAGNETISM !

After the power has been turned on or the "DEGAUSS" button has been pressed, the CRT is demagnetized for approximately 10 seconds. This generates a strong magnetic field around the front cover which may affect the data stored on magnetic tape or disks near the front cover. Place such magnetic recording equipment and tapes/disks away from this unit.

■ AMBIENT ILLUMINATION

Avoid direct rays of the sun or room lighting onto the CRT screen in order to prevent eye fatigue.

■ THE ENCLOSED POWER CORD MUST BE USED !

In Europe, a proper European standard approved power cord is to be used with this monitor. For a rated current up to 6 A, a type not lighter than H05VV-F 3G 0.75 mm² or H05VVH2-F 3G 0.75 mm² must be used.

In USA/Canada, use a UL LISTED/CSA LABELLED or CERTIFIED power cord set meeting the following specifications

Rating: min. 125V, 7A

Length: max. 3.0m

Type: SVT or SJT

Plug type: NEMA 5-15P figure, Parallel blade, Grounding type

Failure to do so may cause fire or electric shock hazard.

■ USE ONLY THE CORRECT VOLTAGE POWER OUTLET WITH SAFETY GROUND CONNECTION !

100 - 120 V for USA, Canada, etc.

200 - 240 V for Europe, etc.

(This monitor will automatically adjust to the input voltage 100 - 120 / 200 - 240V.)

■ **CAUTION for 200 - 240V operation only**

This equipment relies on the protective devices in the building installation for short-circuit and over-current protection. Refer to the following table for the suitable number and location of the protective devices which should be provided in the building installation.

*Informative examples of
protective devices in single - phase equipment or sub - assemblies*

	Protection against	Minimum number of fuses or circuit - breaker poles	Location
Case A: Equipment to be connected to POWER SYSTEMS with earthed neutral reliably identified, except for Case C below.	Earth faults	1	Phase conductor
	Overcurrent	1	Either of the two conductors
Case B: Equipment to be connected to any supply, including IT POWER SYSTEMS and supplies with reversible plugs, except for Case C below.	Earth faults	2	Both conductors
	Overcurrent	1	Either of the two conductors
Case C: Equipment to be connected to 3-wire power systems with earthed neutral reliably identified.	Earth faults	2	Each phase conductor
	Overcurrent	2	Each phase conductor

Verify that the protective devices in the building installation meets the conditions in the table prior to installing the equipment.

■ **BE CAREFUL OF POWER CORD CONNECTION !**

Before inserting the plug of the power cord into a receptacle of the correct voltage, check that the connection portion of the power cord is clean (with no dust). Then, insert the plug of power cord to a receptacle firmly, otherwise it may cause electrical shock or fire.

■ **REMOVE THE POWER CORD FOR COMPLETE SEPARATION !**

For complete separation from the power source, remove the power cord from the monitor or from the wall outlet.

■ **AVOID FREQUENT POWER ON-OFF SWITCHING !**

DO NOT repeat OFF and ON in a short period. It may cause blurred colors or distortion of the displayed pattern.

■ **BE CAREFUL OF STATIC ELECTRICITY ON CRT SURFACE !**

To prevent electrical shock by the static electricity on the CRT surface, disconnect the power cord at least 30 SECONDS AFTER turning off the power.

■ **ABOUT CLEANING**

This monitor has a non-glare and anti-electrostatic treatment on the surface of the screen. Use water or alcoholic solvent with soft cloth like gauze to clean the surface of the screen.

NEVER use abrasive, glass cleaner containing highly concentrated ammonia and strong base chemicals since they damage the surface treatment.

Clean the cabinet and controls with a lightly moistened soft cloth.

DO NOT use aerosol sprays, solvents or abrasive cleaners.

FCC Statement Warning

WARNING : 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.

INSTRUCTIONS TO USERS : This equipment complies with the requirements of FCC (Federal Communication Commission) equipments provided that following conditions are met.

- (1) Power cord: Unshielded power cord must be used.
- (2) ceed the specified level.

CAUTION : Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Declaration of Conformity

According to 47CFR, Part 2 and 15 for

**Class B Personal Computers and
Peripherals; and / or**

**CPU Boards and Power Supplies used
With Class B Personal Computers:**

We: HITACHI America, Ltd.

Located at: 2000 Sierra Point Parkway, Brisbane, CA 94005-1835 U.S.A.

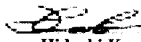
Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47FCR § 2.909. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47CFR §§ 15.101 to 15.109.

Trade name: Color Monitor

Model Number: C908

Signature of Party Responsible: _____

Printed name of Party Responsible: Hideaki Kusaba



Executed on (Date), at (Place): January 7, 2002, CA, U.S.A.

For the Customers in CANADA

NOTICE : This Class B digital apparatus complies with Canadian ICES-003.

△CAUTIONS (Continued)

For the Customers in the UK

THIS PRODUCT IS SUPPLIED WITH A TWO PIN MAINS PLUG FOR USE IN MAINLAND EUROPE. FOR THE UK PLEASE REFER TO THE NOTES ON THIS PAGE.

IMPORTANT FOR UNITED KINGDOM

WORDING FOR CLASS I EQUIPMENT INSTRUCTION BOOKS AND LABELS

The mains lead on this equipment is supplied with a moulded plug incorporating a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced, an ASTA or BSI approved BS 1362 fuse must be used of the same rating. If the fuse cover is detachable never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is of the same colour as that visible on the pin face of the plug. Fuse covers are available from your dealer.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power outlets in your home or the cable is too short to reach a power outlet, then obtain an appropriate safety approved extension lead or consult your dealer.

Should it be necessary to change the mains plugs, this must be carried out by a competent person, preferably a qualified electrician.

If there is no alternative to cutting off the mains plug, ensure that you dispose of it immediately, having first removed the fuse, to avoid a possible shock hazard by inadvertent connection to the mains supply.

WARNING: THIS EQUIPMENT MUST BE EARTHED

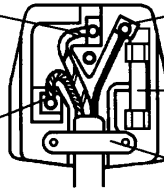
IMPORTANT

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

Green and Yellow = Earth, Blue = Neutral, Brown = Live.

Green & Yellow to Earth

Brown to Live



Fuse

Blue to Neutral

Cord Clamp

As these colours may 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 with the letter E or by the earth symbol (⊕) or coloured GREEN or GREEN and YELLOW.

The wire coloured BLUE must be connected to the terminal marked with the letter N or

coloured BLUE or BLACK. The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

NOTE:

The information in this manual is subject to change without notice. The manufacturer assumes no responsibility for any errors that may appear in this manual.

TRADEMARK ACKNOWLEDGEMENT

VGA is a registered trademark of International Business Machines Corporation.

VESA is a trademark of a nonprofit organization, Video Electronics Standard Association.

ENERGY STAR® is a U.S. registered mark of Environmental Protection Agency (EPA).

LIMITED WARRANTY FOR USA CUSTOMERS ONLY

FOR HITACHI MODELS STARTING WITH "CM":

Hitachi America, Ltd. warrants our "CM" Hitachi CRT color monitor models to be free from defects in material

and workmanship for 36 months from the date you purchased it if your purchase was made prior to 1/31/01 or 60 months if your purchase was made after 1/31/01 from your authorized Hitachi America, Ltd. monitor dealer. If you purchase a Hitachi "CML" Liquid Crystal Display (LCD) color monitor, Hitachi provides a warranty of 36 months for the panel and 12 months for the backlight if purchased before 1/31/01 or 36 months for both panel and backlight if purchased after 1/31/01. In the event of a defect during this 12 month, 36 month or 60 month period, Hitachi America, Ltd. will, at its option, repair or replace the monitor at no charge except as set forth below. If owner cannot provide proof of purchase, the warranty period will start to run from the date of manufacture.

FOR HITACHI VALUE LINE MODELS STARTING WITH "V":

Hitachi America, Ltd. warrants our Value line "V" series of color monitors to be free from defects in material and workmanship for a 36 month period from the date your purchase was made from an authorized Hitachi America, Ltd. monitor dealer. In the event of a defect during the first 12 months, Hitachi will, at its option, repair or replace the monitor at no charge except as set forth below. From the 13th month through the 36th month after purchase, Hitachi will provide parts ONLY free of charge through its Authorized Monitor Service Center. All additional charges – INCLUDING ANY & ALL MANDATORY LABOR CHARGES TO REPLACE ANY COVERED PARTS – will be your responsibility. You will be responsible for paying Hitachi's authorized service center directly for all labor and associated shipping charges.

FOR ALL HITACHI MONITORS:

Hitachi America, Ltd. may repair your monitor with new or reconditioned parts or replace it with a new or reconditioned monitor of the same or similar kind, and any replaced monitors or parts become Hitachi America, Ltd.'s property.

Exclusions from this warranty: It is normal for Cathode Ray Tube (CRT) monitors and LCD display backlights to decrease in brightness as they age. This is a natural process in CRTs & LCDs due to the degradation of the LCD backlight and the degradation of the CRT phosphors that create the image and is not covered by this warranty. THIS WARRANTY EXCLUDES DECREASED IMAGE CLARITY OR REDUCED BRIGHTNESS DUE TO NATURAL AGING OF THE MONITOR/DISPLAY. IN ADDITION, THIS WARRANTY DOES NOT COVER PHOSPHOR BURN. Phosphor burn can occur when a monitor is left with one static image for extended periods of time during which the image may become burned into the phosphors.

This limited warranty does not cover damage occurring in shipping or in storage after you purchase the monitor or damage caused by abuse, accident, disaster, misuse, mishandling, mispackaging or shipping, improper installation, unauthorized repair or modification, or failure to follow the manufacturer's instruction with respect to the proper handling, operation, installation, service and maintenance of the monitor. This warranty is for the benefit of the original owner only in accordance with all terms stated in this warranty. Warranty is not transferable.

To obtain warranty service, call 1-800-536-6721 to obtain a return authorization number and the location of your Hitachi service center. If a problem occurs within the first 30 days after purchase AND IF CONSISTENT WITH YOUR DEALER'S RETURN POLICY, you can return the monitor to the dealer from whom you bought it. Returns through dealer are subject to all dealer return policies and possible charges. Not all dealers accept returns. For warranty service, if you choose to ship the monitor rather than delivering it in person, you must assume the risk of damage or loss in transit. You must also use the original shipping container (or equivalent packaging), pay shipping charges and insurance, and enclose a copy of the proof of purchase date with the monitor. DO NOT return your monitor without a return authorization number or the shipment will be refused and returned to you at your expense. For additional information, please write to:

Hitachi America, Ltd.

200 Lowder Brook Drive, Suite 2200, Westwood, MA 02090

NEVER open the monitor cabinet. If the monitor is not operating properly, contact Hitachi America Ltd. service center (Call 1-800-536-6721). DO NOT OPEN THE MONITOR HOUSING UNDER ANY CIRCUMSTANCES. BY OPENING THE MONITOR HOUSING YOU WILL EXPOSE YOURSELF TO HIGH VOLTAGE AND POSSIBLE SEVERE ELECTRICAL SHOCKS AND VOID ALL WARRANTIES.

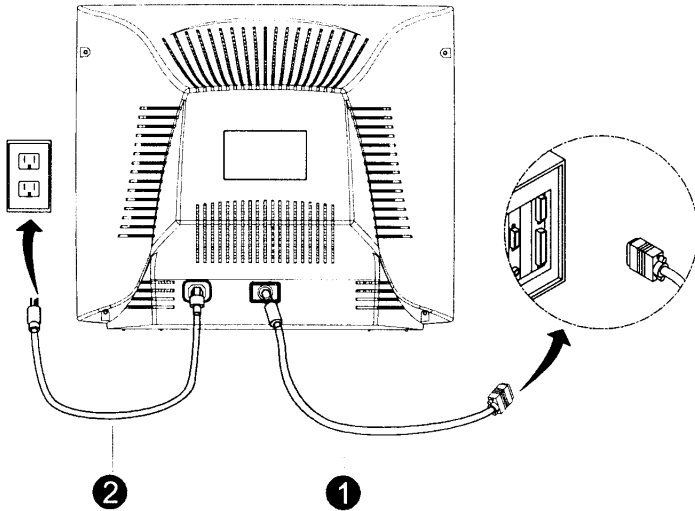
ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS MONITOR IS LIMITED TO THE 12, 36 or 60 MONTH DURATION OF THIS WRITTEN WARRANTY, AS APPLICABLE. ALL WARRANTIES SET FORTH IN THIS WARRANTY ARE LIMITED TO 12, 36 OR 60 MONTHS FROM THE DATE OF PURCHASE AS INDICATED IN THIS WARRANTY. NO WARRANTIES WHATSOEVER WILL COVER THIS MONITOR BEYOND THE STATED 12, 36 OR 60 MONTHS. HOWEVER, SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IF THIS MONITOR IS DEFECTIVE, YOUR ONLY REMEDY IS REPAIR OR REPLACEMENT, AS DESCRIBED ABOVE. UNDER NO CIRCUMSTANCES WILL HITACHI AMERICA, LTD. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING ANY LOST SAVINGS, LOST PROFITS, OR ANY OTHER DAMAGES CAUSED BY THE USE OF THIS MONITOR OR INABILITY TO USE IT, EVEN IF THE DEALER OR HITACHI AMERICA, LTD. HAS BEEN ADVISED OF SUCH LIABILITY OR OTHER CLAIMS.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY STATE TO STATE.

THIS WARRANTY APPLIES TO NEW, CURRENT, PRODUCTS SOLD THROUGH AUTHORIZED HITACHI RESELLERS ONLY AND DOES NOT APPLY TO PRODUCTS SOLD AFTER THEY ARE DISCONTINUED OR REFURBISHED OR BOUGHT FROM ANYONE OTHER THAN AN AUTHORIZED HITACHI RESELLER.

INSTALLATION

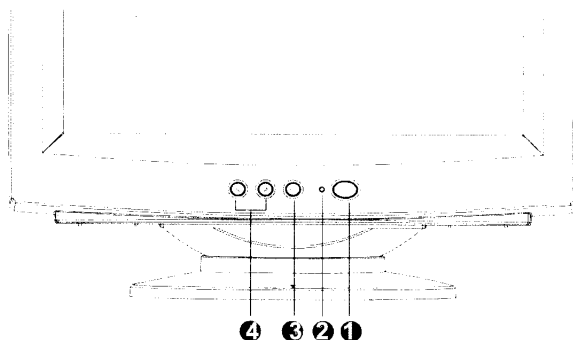


1. Connect the monitor signal cable **1** to the 15-pin mini D-sub (VGA) on the computer.
2. Connect the power cord **2** to the power connector on the back panel of the monitor, then plug the other end into an appropriately grounded electrical outlet that is easily accessible and close to the monitor.
3. First turn on the computer, then the monitor.
4. Adjust the tilt and swivel base for your viewing comfort.

And now, your monitor installation is complete.

USER CONTROLS

ENGLISH



1 Power button



Turns monitor on and off.

2 Power LED Indicator



<u>LED Color</u>	<u>State</u>
Green	On
Yellow	Sleep

3 Select button



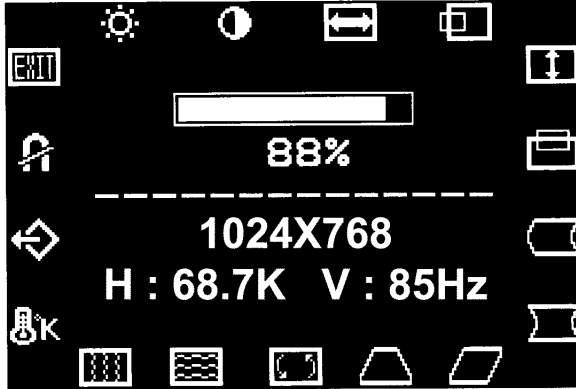
For selecting OSD functions.










4 ◀ & ▶ Adjustments




















For adjusting the display parameters in the selected function.

OSD FUNCTION DESCRIPTION



1. Press the  key to display the OSD menu.
2. To select a function, press the  and  keys until the desired function is highlighted.
3. Press the  key to choose the function.
4. Use the  and  keys to increase or decrease the parameter level of the setting.
5. Press the  key to save the new setting.
6. Select the  icon if you want to exit the OSD function, and then press the select the  key once.

OSD ICON SUMMARY

Icon	Function	Function Description
	Brightness	Adjusts display brightness
	Contrast	Adjusts display contrast
	H. Size	Increases and decreases screen width
	H. Position	Shifts display image right or left
	V. Size	Increases and decrease screen height
	V. Position	Shifts display image up or down
	Pin Balance	Adjusts the curve of the entire image left or right
	Pincushion	Adjusts the curve of the left and right sides inward and outward
	Parallelogram	Adjusts the tilt of the display sides to the left or right
	Trapezoid	Adjusts the top and bottom display widths
	Rotation	Adjusts the tilt of the display
	H. Moire	Adjusts horizontal moire
	V. Moire	Adjusts vertical moire
	Color Temp	Adjusts the vibrancy of the colors
	Reset	Reset default values
	Degauss	Demagnetizes screen to reduce color impurities
	Exit	Close OSD menu

SPECIFICATIONS

Screen	
Size	19" CRT
Horizontal dot pitch	0.22 mm
Horizontal mask pitch	0.21 mm
Surface	Non-glare
Viewable Image Area (mm)	18" (457.2 mm)
Input Signal	
Video Sync.	RGB Analog 0.7Vp-p / 75 Ohm a. Separate H/V, TTL (+/-) b. Composite H+V, TTL (+/-)
Sanning Frequency	
Horizontal (kHz)	30 - 95
Vertical (Hz)	50 - 160
Max. Resolution	1600 x 1200
Signal Cable	
	15-pin mini D-sub
Power	
Consumption	<135W
Supply	100 - 240VAC, 50 - 60Hz
Power Management	Complies with EPA Energy Star, VESA
Display Modes	
Preset	12
User	14
Operating	
Operating Temperature	0 - 40 °C
Relative Humidity	10 - 90 %
Dimensions (L x W x H)	
Including Stand	452 x 453 x 452(mm)
Weight	
Unpacked	17.8 kgs (Include Base 18.2 kgs)
Packed in box	21.5 kgs

TROUBLESHOOTING

The following are solutions to common installation problems. If the symptom remains after trying the suggested solutions, please contact HITACHI technical support or refer to www.hitachidisplays.com for additional service and support information.

Problem: Power LED is not lit when monitor is powered on.

- ✘ Check to make sure that the power cord is properly connected.
- ✘ Make sure that the extension cord or the surge protector is turned on if the monitor is plugged into a power extension cord or a surge protector.

Problem: No display appears on screen.

- ✘ Make sure that the computer switch is in the "On" position.
- ✘ Make sure that the video cable D-shaped connector is properly connected to the video adapter port on the back of the PC.
- ✘ Check to make sure that the brightness and contrast controls are not turned to their dimmest position.

Problem: Display image is either flickering or unstable.

- ✘ Make sure that the video cable's D-shaped connector is properly connected to the video adapter port on the back of the PC
- ✘ Check the refresh rate and driver on your PC. Increase the refresh rate to 70 or 75 Hz ONLY if your monitor manual states it can attain this refresh rate at this resolution.

Problem: Image is bouncing or in a wave pattern.

- ✘ Move any electrical devices that may cause magnetic interference. (Please refer to the FCC statement at the beginning of the manual for more details on display interference).