
MultiSync LCD1960NX

User's Manual

NEC

**WARNING**

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO, DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS UNLESS THE PRONGS CAN BE FULLY INSERTED.

REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

**CAUTION:**

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol warns user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.



This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

CAUTION

RISK OF ELECTRIC SHOCK • DO NOT OPEN

Caution:

When operating the MultiSync LCD1960NX with a 220-240V AC power source in Europe, use the power cord provided with the monitor.

In the UK, a BS approved power cord with a moulded plug has a Black (five Amps) fuse installed for use with this equipment. If a power cord is not supplied with this equipment please contact your supplier.

When operating the MultiSync LCD1960NX with a 220-240V AC power source in Australia, use the power cord provided with the monitor. If a power cord is not supplied with this equipment please contact your supplier.

For all other cases, use a power cord that matches the AC voltage of the power outlet and has been approved by and complies with the safety standard of your particular country.

Declaration**Declaration of the Manufacturer**

We hereby certify that the colour monitor
MultiSync LCD1960NX (L192R9) is in
compliance with

Council Directive 73/23/EEC:
– EN 60950

Council Directive 89/336/EEC:
– EN 55022
– EN 61000-3-2
– EN 61000-3-3
– EN 55024

and marked with



NEC-Mitsubishi Electric Visual
Systems, Corp.
MS Shibaura Bldg., 13-23,
Shibaura 4-chome,
Minato-Ku, Tokyo 108-0023, Japan

As an ENERGY STAR® Partner, NEC-Mitsubishi Electronics Display of America, Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency. ENERGY STAR is a U.S. registered mark. The ENERGY STAR emblem does not represent EPA endorsement of any product or service.

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VCCI Statement

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをしてください。

For the Customer to use in U.S.A. or Canada

Canadian Department of Communications Compliance Statement

DOC: This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouiller du Canada.

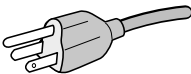
C-UL: Bears the C-UL Mark and is in compliance with Canadian Safety Regulations according to CSA C22.2 No. 60950.

Ce produit porte la marque 'C-UL' et se conforme aux règlements de sûreté Canadiens selon CAN/CSA C22.2 No. 60950.

FCC Information

1. Use the attached specified cables with the MultiSync LCD1960NX colour monitor so as not to interfere with radio and television reception.

- (1) The power supply cord you use must have been approved by and comply with the safety standards of U.S.A., and meet the following condition.

Power supply cord	Non shield type, 3-conductor
Length	2.0 m
Plug shape	
	U.S.A

- (2) Shielded video signal cable. Use of other cables and adapters may cause interference with radio and television reception.

2. 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 your dealer or an experienced radio/TV technician for help.

If necessary, the user should contact the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

Declaration of Conformity

This device complies with Part 15 of FCC Rules. 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.

U.S. Responsible Party:	NEC-Mitsubishi Electronics Display of America, Inc.
Address:	1250 N. Arlington Heights Road
	Itasca, Illinois 60143-1248
Tel. No.:	(630) 467-3000

Type of Product:	Display Monitor
Equipment Classification:	Class B Peripheral
Model:	MultiSync LCD1960NX



We hereby declare that the equipment specified above conforms to the technical standards as specified in the FCC Rules.

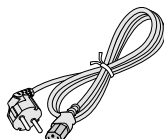
Contents

Your new NEC MultiSync LCD monitor box* should contain the following:

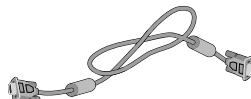
- MultiSync LCD1960NX monitor with tilt base
 - Power Cord
 - Video Signal Cable
 - User's Manual
 - Cable Management Cover
 - CD ROM (includes complete User's Manual in PDF format).
- To see the User's Manual, Acrobat Reader 4.0 must be installed on your PC.



User's Manual



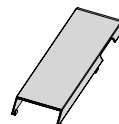
Power Cord



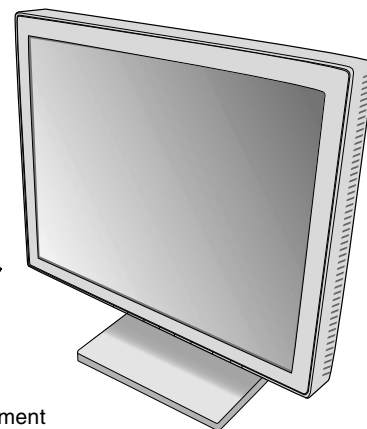
Video Signal Cable



CD ROM



Cable Management Cover



* Remember to save your original box and packing material to transport or ship the monitor.

Quick Start

To attach the MultiSync LCD monitor to your system, follow these instructions:

1. Turn off the power to your computer.
2. **For the PC or MAC with DVI digital output:** Connect the DVI signal cable (not included) to the connector of the display card in your system (**Figure A.1**). Tighten all screws.
For the PC with Analog output: Connect the 15-pin mini D-SUB signal cable to the connector of the display card in your system (**Figure A.2**). Tighten all screws.
For the MAC: Connect the MultiSync Macintosh cable adapter to the computer, then attach the 15-pin mini D-SUB signal cable to the MultiSync Macintosh cable adapter (**Figure B.1**). Tighten all screws.

NOTE: Some Macintosh systems do not require a Macintosh cable adapter.

3. Remove cable cover. Connect the 15-pin mini D-SUB of the video signal cable and DVI signal cable (not included) to the appropriate connector on the back of the monitor (**Figure C.1**).
4. Connect one end of the power cord to the monitor and the other end to the power outlet.
 Collect cables and keep them at backside of the stand and cover the cables by the optional Cable management Cover (**Figure C.2**).

Please check Tilt, Rise and Lower monitor screen when you manage cables.

NOTE: Please refer to Caution section of this manual for proper selection of AC power cord.

5. The Vacation Switch on the right side of the monitor must be turned on (**Figure D.1**). Turn on the monitor with the Power Button and the computer.

NOTE: The Vacation Switch is a true on/off switch. If this switch is on the OFF position, the monitor cannot be turned on using the front button. DO NOT switch on/off repeatedly.

6. **Analog input only:** No-touch auto adjust automatically adjusts the monitor to optimal settings upon initial setup for most timings. For further adjustments, use the following OSM controls:
 - Auto Adjust Contrast
 - Auto Adjust

Refer to the **Controls** section of this User's Manual for a full description of these OSM controls.

NOTE: If you have any problems, please refer to the **Troubleshooting** section of this User's Manual.

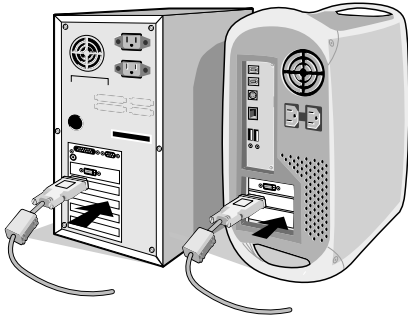
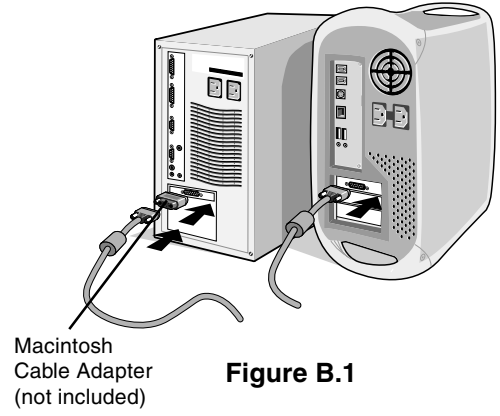


Figure A.1



Figure A.2



Macintosh
Cable Adapter
(not included)

Figure B.1

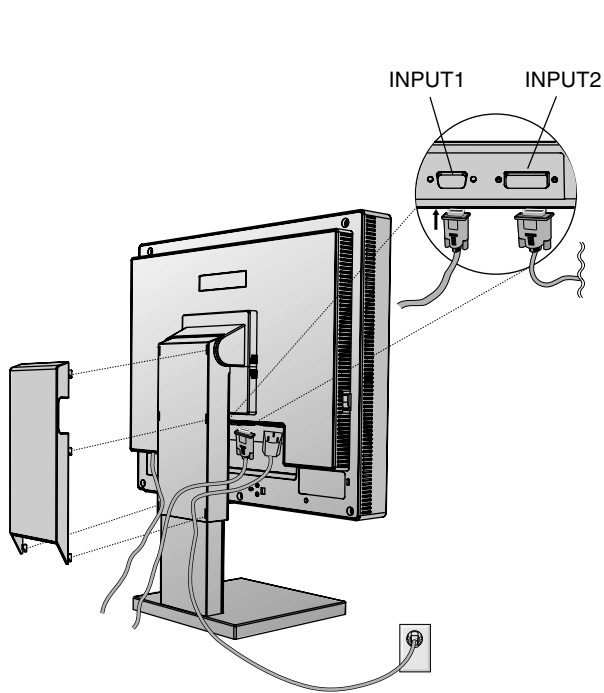


Figure C.1

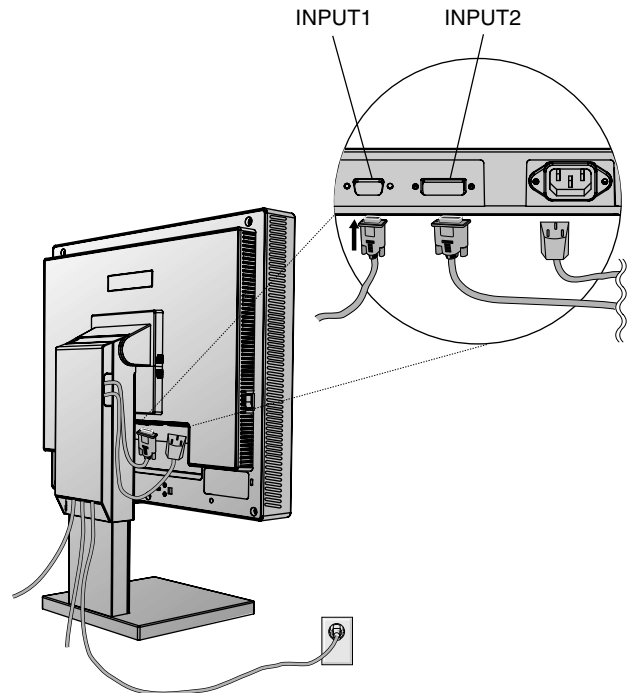


Figure C.2

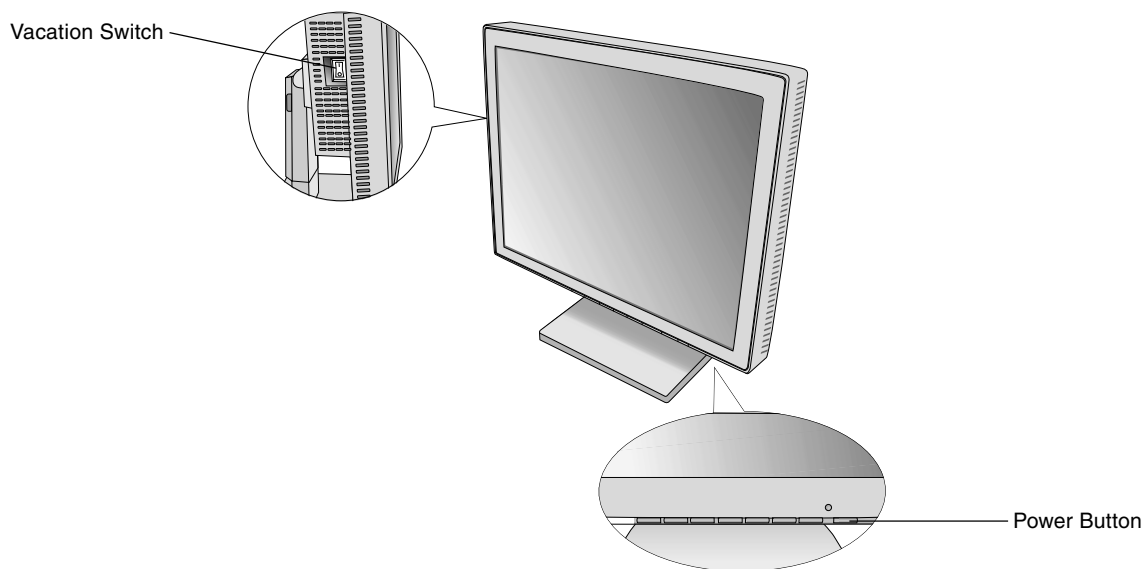


Figure D.1

Raise and Lower Monitor Screen

The monitor may be raised or lowered. To raise or lower screen, place hands on each side of the monitor and lift or lower to the desired height (**Figure RL.1**).

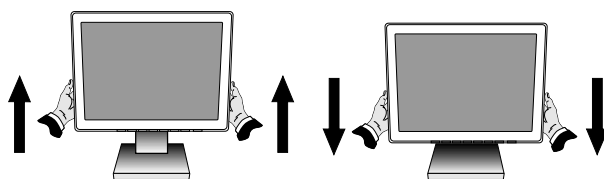


Figure RL.1

Tilt and Swivel

Grasp both sides of the monitor screen with your hands and adjust the tilt and swivel as desired (**Figure TS.1**).

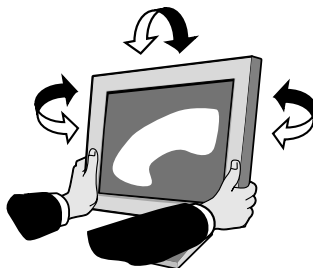


Figure TS.1

Remove Monitor Stand for Mounting

To prepare the monitor for alternate mounting purposes:

1. Disconnect all cables.
2. Place hands on each side of the monitor and lift up to the highest position.
3. Place monitor face down on a non-abrasive surface. (Place the screen on a 55 mm/2.2 inch platform so that the stand is parallel with the surface) (**Figure S.1**).

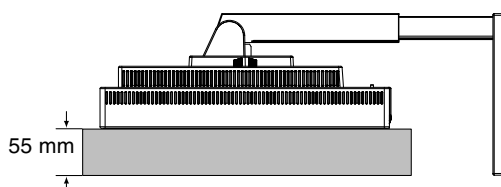


Figure S.1

4. Remove the 4 screws connecting the monitor to the stand and lift off the stand assembly (**Figure S.2**). The monitor is now ready for mounting in an alternate manner.
5. Reverse this process to reattach stand.

NOTE: Use only VESA-compatible alternative mounting method (100 mm pitch).

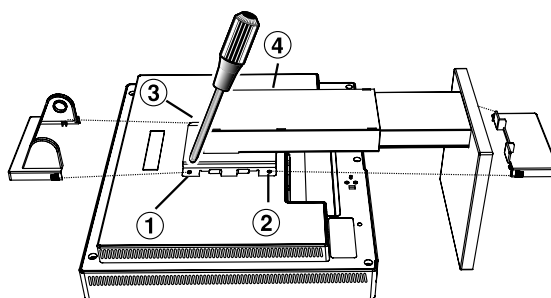


Figure S.2

Caution: Please use the attached screws (4 pcs) when mounting. To fulfil the safety requirements the monitor must be mounted to an arm which guarantees the necessary stability under consideration of the weight of the monitor. The LCD monitor shall only be used with an approved arm (e.g. GS mark).

Controls

OSM (On-Screen-Manager) Controls

The OSM controls on the front of the monitor function as follows:

To access OSM press any of the control buttons (<, >, -, +, **EXIT**).

To change signal input, press the SELECT button.

NOTE: OSM must be closed in order to change signal input.

Control	Menu
EXIT	Exits the OSM controls. Exits to the OSM main menu.
< / >	Moves the highlighted area left/right to select control menus. Moves the highlighted area up/down to select one of the controls.
- / +	Moves the bar left/right to increase or decrease the adjustment.
SELECT	Active Auto Adjust function. Enter the OSM controls. Enter the OSM sub menu.
RESET	Resets the highlighted control menu to the factory setting.

NOTE: When RESET is pressed in the main and sub-menu, a warning window will appear allowing you to cancel the RESET function by pressing the EXIT button.

Brightness/Contrast Controls

 **BRIGHTNESS**
Adjusts the overall image and background screen brightness.

 **CONTRAST**
Adjusts the image brightness in relation to the background.

 **AUTO ADJUST (Analog input only)**
Adjusts the image displayed for non-standard video inputs.

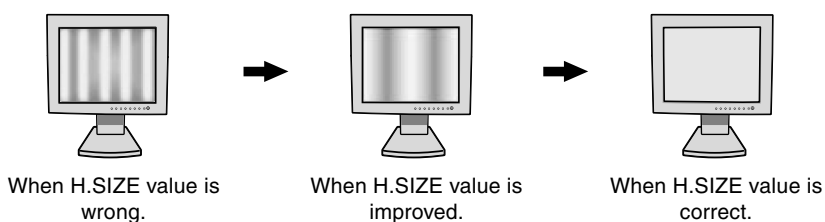
 **Auto Adjust (Analog input only)**
Automatically adjusts the Image Position, the H. Size and Fine setting.

Position Controls (Analog input only)

 **LEFT/RIGHT**
Controls Horizontal Image Position within the display area of the LCD.

 **DOWN/UP**
Controls Vertical Image Position within the display area of the LCD.

 **H. SIZE**
Adjusts the horizontal size by increasing or decreasing this setting.
Should the "AUTO Adjust function" do not give you a satisfactory picture setting, a further tuning can be performed using the "H.Size" function (dot clock). For this a Moiré test pattern could be used. This function may alter the width of the picture. Use Left/Right Menu to center the image on the screen. If the H.Size is wrongly calibrated, the result would look like on the left drawing. The image should be homogeneous.



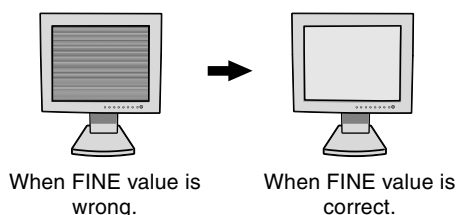


FINE

Improves focus, clarity and image stability by increasing or decreasing this setting.

Should the “Auto Adjust function” and the “H.Size” function do not give you a satisfactory picture setting, a fine tuning can be performed using the “Fine” function. It improves focus, clarity and image stability by increasing or decreasing this setting.

For this a Moiré test pattern could be used. If the Fine value is wrongly calibrated, the result would look like on the left drawing. The image should be homogeneous.



Colour Control Systems

Six colour presets select the desired colour setting (NATIVE colour presets are standard and cannot be changed).

R, G, B

Increases or decreases Red, Green or Blue colour depending upon which is selected. The change in colour will appear on screen and the direction (increase or decrease) will be shown by the bars.

sRGB

sRGB mode dramatically improves the colour fidelity in the desktop environment by a single standard RGB colour space. With this colour supported environment, the operator could easily and confidently communicate colours without further colour management overhead in the most common situations.

NATIVE

Original colour presented by the LCD panel that is unadjustable.



Tools



LANGUAGE

OSM control menus are available in seven languages.



OSM POSITION

You can choose where you would like the OSM control image to appear on your screen. Selecting OSM Location allows you to manually adjust the position of the OSM control menu left, right, down or up.



OSM TURN OFF

The OSM control menu will stay on as long as it is use. In the OSM Turn Off submenu, you can select how long the monitor waits after the last touch of a button to shut off the OSM control menu. The preset choices are 10, 20, 30, 45, 60 and 120 seconds.



OSM LOCK OUT

This control completely locks out access to all OSM control functions without Brightness and Contrast. When attempting to activate OSM controls while in the Lock Out mode, a screen will appear indicating the OSM controls are locked out. To activate the OSM Lock Out function, press SELECT, then “+” key and hold down simultaneously. To de-activate the OSM Lock Out, press SELECT, then “+” key and hold down simultaneously.



RESOLUTION NOTIFIER

This optimal resolution is 1280 x 1024. If ON is selected, a message will appear on the screen after 30 seconds, notifying you that the resolution is not at 1280 x 1024.



HOT KEY

You can adjust the brightness and contrast directly. When this function is set to ON, you can adjust the brightness with + or -, contrast with < or > key, while the OSM menu is off. The standard OSM menu can be accessed with the EXIT button.



OFF TIMER

Monitor will automatically power-down when the end user has selected a pre-determined amount of time.



FACTORY PRESET

Selecting Factory Preset allows you to reset all OSM control settings back to the factory settings. The RESET button will need to be held down for several seconds to take effect. Individual settings can be reset by highlighting the control to be reset and pressing the RESET button.



Information

MODE

DISPLAY MODE

Indicates the current display resolution and frequency setting of the monitor.



MONITOR INFO.

Indicates the model and serial numbers of your monitor.

OSM Warning

OSM Warning menus disappear with Exit button.

NO SIGNAL: This function gives a warning when there is no signal present. After power is turned on or when there is a change of input signal or video is inactive, the **No Signal** window will appear.

RESOLUTION NOTIFIER: This function gives a warning of use with optimized resolution. After power is turned on or when there is a change of input signal or the video signal doesn't have proper resolution, the **Resolution Notifier** window will open. This function can be disabled in the TOOL menu.

OUT OF RANGE: This function gives a recommendation of the optimized resolution and refresh rate. After the power is turned on or there is a change of input signal or the video signal doesn't have proper timing, the **Out Of Range** menu will appear.

Recommended use

Safety Precautions and Maintenance



FOR OPTIMUM PERFORMANCE, PLEASE NOTE
THE FOLLOWING WHEN SETTING UP AND
USING THE MULTISYNC LCD COLOUR MONITOR:



- **DO NOT OPEN THE MONITOR.** There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks. Refer all servicing to qualified service personnel.
- Do not spill any liquids into the cabinet or use your monitor near water.
- Do not insert objects of any kind into the cabinet slots, as they may touch dangerous voltage points, which can be harmful or fatal or may cause electric shock, fire or equipment failure.
- Do not place any heavy objects on the power cord. Damage to the cord may cause shock or fire.
- Do not place this product on a sloping or unstable cart, stand or table, as the monitor may fall, causing serious damage to the monitor.
- Do not place any objects onto the monitor and do not use the monitor outdoors.
- The inside of the fluorescent tube located within the LCD monitor contains mercury. Please follow the bylaws or rules of your municipality to dispose of the tube properly.

Immediately unplug your monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the monitor.
- If the monitor has been exposed to rain or water.
- If the monitor has been dropped or the cabinet damaged.
- If the monitor does not operate normally by following operating instructions.
- Do not bend power cord.
- Do not use monitor in high temperature, humid, dusty, or oily areas.
- Do not cover vent on monitor.
- If monitor is broken, do not come in contact with the liquid crystal.
- If glass is broken. Handle with care.



CAUTION

- Allow adequate ventilation around the monitor so that heat can properly dissipate. Do not block ventilated openings or place the monitor near a radiator or other heat sources. Do not put anything on top of monitor.
- The power cable connector is the primary means of detaching the system from the power supply. The monitor should be installed close to a power outlet which is easily accessible.
- Handle with care when transporting. Save packaging for transporting.
- **Image Persistence:** Image persistence is when a residual or "ghost" image of a previous image remains visible on the screen. Unlike CRT monitors, LCD monitors' image persistence is not permanent, but constant images being displayed for a long period of time should be avoided.

To alleviate image persistence, turn off the monitor for as long as the previous image was displayed. For example, if an image was on the monitor for one hour and a residual image remains, the monitor should be turned off for one hour to erase the image.

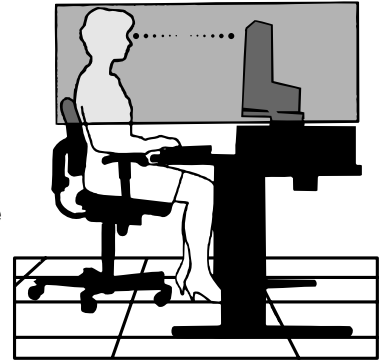
NOTE: As with all personal display devices, NEC-Mitsubishi Electronics Display-Europe recommends using a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use.



CORRECT PLACEMENT AND ADJUSTMENT OF THE MONITOR CAN
REDUCE EYE, SHOULDER AND NECK FATIGUE. CHECK THE
FOLLOWING WHEN YOU POSITION THE MONITOR:



- For optimum performance, allow 20 minutes for warm-up.
- Adjust the monitor height so that the top of the screen is at or slightly below eye level. Your eyes should look slightly downward when viewing the middle of the screen.
- Position your monitor no closer than 40 cm and no further away than 70 cm from your eyes. The optimal distance is 50 cm.
- Rest your eyes periodically by focusing on an object at least 6 m away. Blink often.
- Position the monitor at a 90° angle to windows and other light sources to minimize glare and reflections. Adjust the monitor tilt so that ceiling lights do not reflect on your screen.
- If reflected light makes it hard for you to see your screen, use an antiglare filter.
- Clean the LCD monitor surface with a lint-free, non-abrasive cloth. Avoid using any cleaning solution or glass cleaner!
- Adjust the monitor's brightness and contrast controls to enhance readability.
- Use a document holder placed close to the screen.
- Position whatever you are looking at most of the time (the screen or reference material) directly in front of you to minimize turning your head while you are typing.
- Avoid displaying fixed patterns on the monitor for long periods of time to avoid image persistence (after-image effects).
- Get regular eye checkups.



Ergonomics

To realize the maximum ergonomics benefits, we recommend the following:

- Use the preset Size and Position controls with standard signals.
- Use the preset Colour Setting.
- Use non-interlaced signals with a vertical refresh rate between 60-75 Hz.
- Do not use primary colour blue on a dark background, as it is difficult to see and may produce eye fatigue to insufficient contrast.

Specifications

Monitor Specifications		MultiSync LCD1960NX Monitor	Notes
LCD Module	Diagonal:	48.2 cm/19 inches	Active matrix; thin film transistor (TFT) liquid crystal display (LCD); 0.294 mm dot pitch; 250cd/m ² white luminance, typical; 600:1 contrast ratio, typical.
	Viewable Image Size:	48.2 cm/19 inches	
	Native Resolution (Pixel Count):	1280 x 1024	
Input Signal	Video:	ANALOG 0.7 Vp-p/75 Ohms	Digital Input: DVI
	Sync:	Separate sync. TTL Level	
		Horizontal sync. Positive/Negative Vertical sync. Positive/Negative	
Display Colours		16,777,216	Depends on display card used.
Synchronization Range	Horizontal:	31.5 kHz to 81.1 kHz (Analog) 31.5 kHz to 69.0 kHz (Digital)	Automatically
	Vertical:	56.0 Hz to 75.0 Hz	Automatically
Viewing Angle	Left/Right:	±85° contrast ratio 10:1	Some systems may not support all modes listed.
	Up/Down:	±85° contrast ratio 10:1	
Resolutions Supported		720 x 400* ¹ at 70 Hz 640 x 480* ¹ at 60 Hz to 75 Hz 800 x 600* ¹ at 56 Hz to 75 Hz 832 x 624* ¹ at 75 Hz 1024 x 768* ¹ at 60 Hz to 75 Hz 1152 x 864* ¹ at 75 Hz 1280 x 1024* ² at 60 Hz to 75 Hz (Analog) 1280 x 1024* ² at 60 Hz (Digital)	
Active Display Area	Horizontal:	376.3 mm/14.8 inches	Dependent upon signal timing.
	Vertical:	301.1 mm/11.9 inches	
Power Supply		AC 100-120/220-240 V ~ 50/60 Hz	
Current Rating		0.75 - 0.4 A	
Dimensions		416.3 mm (W) x 388.7 ~ 498.7 mm (H) X 190.0 mm (D) 16.4 inches (W) x 15.3 ~ 19.6 inches (H) x 7.5 inches (D)	
Weight		7.8 kg (17.2 lbs)	
Environmental Considerations			
	Operating Temperature:	5 °C to 35 °C	
	Humidity:	30% to 80%	
	Altitude:	0 to 3,000 m	
	Storage Temperature:	-10 °C to +60 °C	
	Humidity:	10% to 85%	
	Altitude:	0 to 12,000 m	

*1 Interpolated Resolutions: When resolutions are shown that are lower than the pixel count of the LCD module, text may appear different. This is normal and necessary for all current flat panel technologies when displaying non-native resolutions full screen. In flat panel technologies, each dot on the screen is actually one pixel, so to expand resolutions to full screen, an interpolation of the resolution must be done.

*2 NEC-Mitsubishi Electronics Display cites recommended resolutions at 60 Hz for optimal display performance.

NOTE: Technical specifications are subject to change without notice.

Features

sRGB Colour Control: A new optimized colour management standard which allows for colour matching on computer displays and other peripherals. The sRGB, which is based on the calibrated colour space, allows for optimal colour representation and backward compatibility with other common colour standards.

No Touch Auto Adjust (Analog input only): No Touch Auto Adjust automatically adjusts the monitor to optimal settings upon initial setup.

ErgoDesign® Features: Enhance human ergonomics to improve the working environment, protect the health of the user and save money. Examples include OSM controls for quick and easy image adjustments, height adjustable stand, tilt base for preferred angle of vision and compliance with i.e. TCO and MPR guidelines for lower emissions.

Reduced Footprint: Provides the ideal solution for environments requiring superior image quality but with size and weight limitations. The monitor's small footprint and low weight allow it to be moved or transported easily from one location to another.

Plug and Play: The Microsoft solution with the Windows 95/98/Me/2000/XP operating system facilitates setup and installation by allowing the monitor to send its capabilities (such as screen size and resolutions supported) directly to your computer, automatically optimizing display performance.

IPM (Intelligent Power Manager) System: Provides innovative power-saving methods that allow the monitor to shift to a lower power consumption level when on but not in use, saving two-thirds of your monitor energy costs, reducing emissions and lowering the air conditioning costs of the workplace.

Multiple Frequency Technology: Automatically adjusts monitor to the display card's scanning frequency, thus displaying the resolution required.

FullScan Capability: Allows you to use the entire screen area in most resolutions, significantly expanding image size.

NaViSet™: Is a ground-breaking software family, developed by NEC-Mitsubishi, providing intuitive access to all monitor setting controls and remote diagnosis via the Windows interface, based upon the VESA standard, DDC/CI. Using a standard VGA or DVI signal cable, NaViSet™ can either benefit single users or, with NaViSet™ Administrator, can reduce the Total Cost of Ownership through remote network-wide maintenance, diagnosis and asset-reporting.

DVI-D: The digital-only subset of DVI created by the digital Display Working Group (DDWG) for digital connections between computers and displays. As a digital-only connector, analog support is not provided off a DVI-D connector. As a DVI-based digital-only connection, only a simple adapter is necessary for compatibility between DVI-D and other DVI-based connectors such as DFP and P&D.

P&D (Plug and Display): The VESA standard for digital flat panel monitor interfaces. It is more robust than DFP since it allows for other options off a signal connector (options like USB, analog video and IEEE-1394-995). The VESA committee has recognized that DFP is a subset of P&D. As a DVI-based connector (for the digital input pins), only a simple adapter is necessary for compatibility between P&D and other DVI-based digital connector such as DVI and DFP.

OSM (On-Screen Manager) Controls: Allow you to quickly and easily adjust all elements of your screen image via simple to use on-screen menus.

VESA Standard Mounting Interface: Allows users to connect their MultiSync monitor to any VESA standard third party mounting arm or bracket. Allows for the monitor to be mounted on a wall or an arm using any third party compliant device.

Troubleshooting

No picture

- The signal cable should be completely connected to the display card/computer.
- The display card should be completely seated in its slot.
- Check the Vacation Switch should be in the ON Position. Front power Switch and computer power switch should be in the ON position.
- Check to make sure that a supported mode has been selected on the display card or system being used. (Please consult display card or system manual to change graphics mode.)
- Check the monitor and your display card with respect to compatibility and recommended settings.
- Check the signal cable connector for bent or pushed-in pins.

Power Button does not respond

- Unplug the power cord of the monitor from the AC outlet to turn off and reset the monitor.
- Check the Vacation Switch on the right hand side of the monitor.

Image Persistence

- Image persistence is when a residual or “ghost” image of a previous image remains visible on the screen. Unlike CRT monitors, LCD monitors’ image persistence is not permanent, but constant images being displayed for a long period of time should be avoided.
To alleviate image persistence, turn off the monitor for as long as the previous image was displayed. For example, if an image was on the monitor for one hour and a residual image remains, the monitor should be turned off for one hour to erase the image.

NOTE: As with all personal display devices, NEC-Mitsubishi Electronics Display-Europe recommends using a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use.

Image is unstable, unfocused or swimming is apparent

- Signal cable should be completely attached to the computer.
- Use the OSM Image Adjust controls to focus and adjust display by increasing or decreasing the fine total. When the display mode is changed, the OSM Image Adjust settings may need to be readjusted.
- Check the monitor and your display card with respect to compatibility and recommended signal timings.
- If your text is garbled, change the video mode to non-interlace and use 60 Hz refresh rate.

Message “OUT OF RANGE” is displayed (screen is either blank or shows rough images only)

- OSM warning “OUT OF RANGE” is displayed on a blank screen: Signal frequency is out of range. Choose one of the supported modes.

LED on monitor is not lit (no green or amber colour can be seen)

- Power Switch should be in the ON position and power cord should be connected.

Display image is not sized properly

- Use the OSM Image Adjust controls to increase or decrease the Coarse total.
- Check to make sure that a supported mode has been selected on the display card or system being used. (Please consult display card or system manual to change graphics mode.)

No Video

- If no video is present on the screen, turn the Power button off and on again.
- Make certain the computer is not in a power-saving mode (touch the keyboard or mouse).

TCO Development Congratulations!



The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

Ergonomics

- Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

Energy

- Energy-saving mode after a certain time – beneficial both for the user and the environment
- Electrical safety

Emissions

- Electromagnetic fields
- Noise emissions

Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 000
- Restrictions on:
 - chlorinated and brominated flame retardants and polymers
 - heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in co-operation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, please visit www.tcodevelopment.com

NEC-Mitsubishi Electric Visual Systems Corp. is strongly committed to environmental protection and sees recycling as one of the company's top priorities in trying to minimize the burden placed on the environment. We are engaged in developing environmentally-friendly products, and always strive to help define and comply with the latest independent standards from agencies such as ISO (International Organisation for Standardization) and TCO (Swedish Trades Union).

For more information, and for help in recycling your old NEC or Mitsubishi monitors, please visit our website at

<http://www.nec-mitsubishi.com> (in Europe) or

<http://www.nmv.co.jp/environment> (in Japan) or

<http://www.necmitsubishi.com/markets-solutions/totaltrade> (in USA).

Country-specific recycling programmes can also be found at:

Sweden - <http://www.el-retur.se>

Germany - <http://www.recyclingpartner.de/>

Holland - <http://www.mirec.nl/>

Japan - <http://www.diarcs.com/>

Energy saving:

This monitor features an advanced energy saving capability. When a VESA Display Power Management Signaling (DPMS) Standard signal is sent to the monitor, the Energy Saving mode is activated. The monitor enters a single Energy Saving mode.

Mode	Power consumption	LED color
Normal Operation	Approx. 38W	Green
Energy Saving Mode	Less than 2W	Amber
Off Mode	Less than 0.1W	Unlit