

NEC



USER'S MANUAL

MultiSync®

LCD1720M™

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 **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** 

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, MAKE SURE POWER CORD IS UNPLUGGED FROM WALL SOCKET. TO FULLY DISENGAGE THE POWER TO THE UNIT, PLEASE DISCONNECT THE POWER CORD FROM THE AC OUTLET. 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.

Canadian Department of Communications Compliance Statement

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

C-UL: Bears the C-UL Mark and is in compliance with Canadian Safety Regulations according to CAN/CSA C22.2 No. 950.

FCC Information

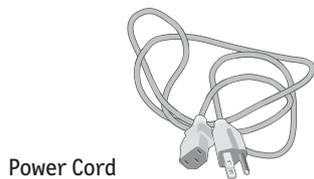
1. Use the attached specified cables with the MultiSync LCD1720M™ (LA-17S02 and LA-17S02-BK) color monitor so as not to interfere with radio and television reception.
 - (1) Please use the supplied power cord or equivalent to ensure FCC compliance.
 - (2) Please use the supplied shielded video signal cable.
 - (3) Please use supplied audio cable.
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.

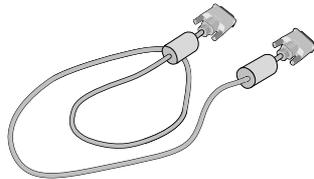
Contents

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

- MultiSync LCD1720M™ monitor with tilt / swivel base
- Power Cord
- Video Signal Cable
- Audio Cable
- User's Manual



Power Cord



Video Signal Cable



User's Manual



Audio Cable

** 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: Connect the 15-pin mini D-SUB of the appropriate signal cable to the connector of the display card in your system (**Figure A.1**). Tighten all screws.
For the Mac: Connect the MultiSync LCD1720M™ Macintosh cable adapter to the computer (**Figure B.1**). Attach the 15-pin mini D-SUB end of the appropriate signal cable to the MultiSync LCD1720M Macintosh cable adapter (**Figure B.1**). Tighten all screws.

NOTE: To obtain the MultiSync LCD1720M Macintosh cable adapter, call NEC-Mitsubishi Electronics Display of America, Inc. at (800) 632-4662.

3. Connect the 15-pin mini D-SUB of the video signal cable to the appropriate connector on the back of the monitor. (**Figure C.1**).
4. Connect the audio cable to "AUDIO INPUT" on the back of the monitor and the other end to the "Audio out" terminal of the computer (**Figure D.1**).
5. Headphones may be connected to the "Headphones" output on the front of the monitor's bezel marked "H" (**Figure E.1**). While the headphones are connected, the sound from the speakers will be disabled. Headphones can be purchased from your local electronics store.
6. Connect one end of the power cord to the MultiSync LCD Series monitor and the other end to the power outlet (**Figure C.1**).

NOTE: If you use this monitor at AC126-240V, please refer to Recommended Use section of this manual for proper selection of AC power cord.

7. Turn on the monitor with the front power switch (**Figure F.1**) and the computer.
8. To complete the setup of your MultiSync LCD monitor, 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: For download information on the Windows® 95/98/Me/2000/XP INF file for your MultiSync LCD1720M monitor, refer to the **References** section of this User's Manual.

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

Quick Start *-continued*

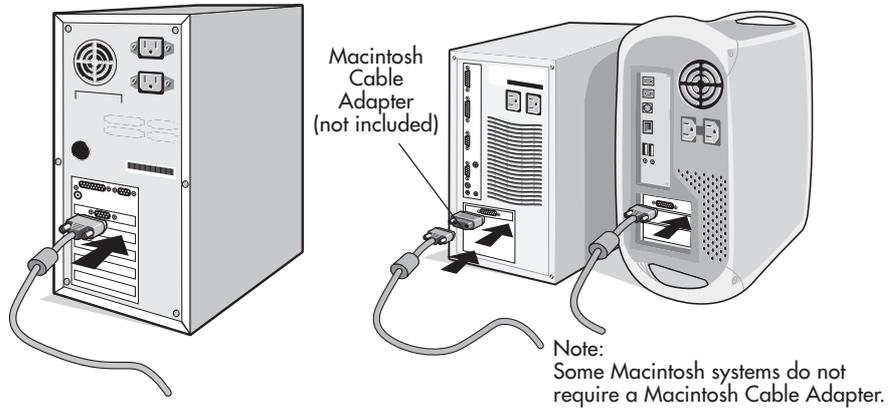


Figure A.1

Figure B.1

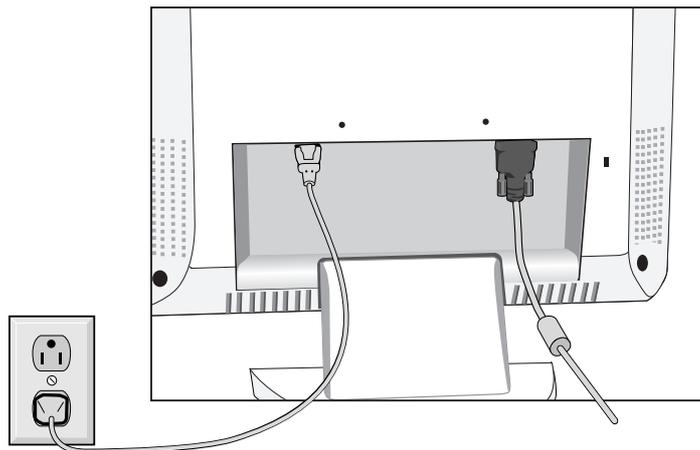


Figure C.1

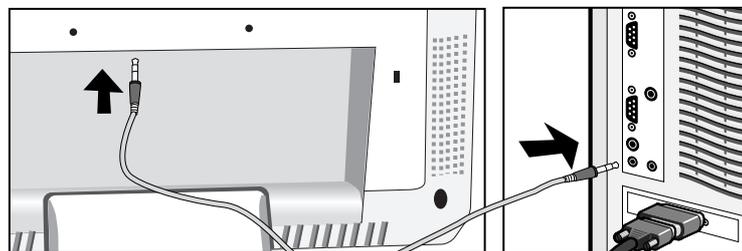


Figure D.1

Quick Start *-continued*

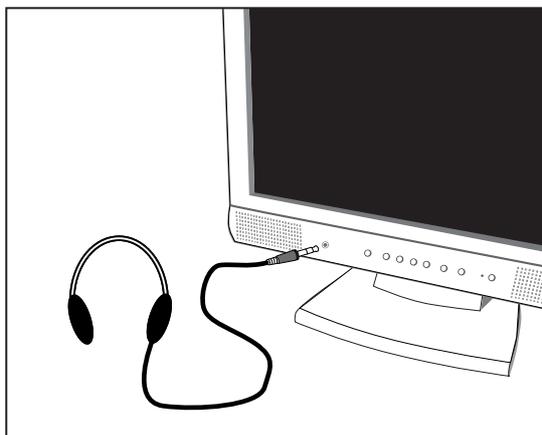


Figure E.1

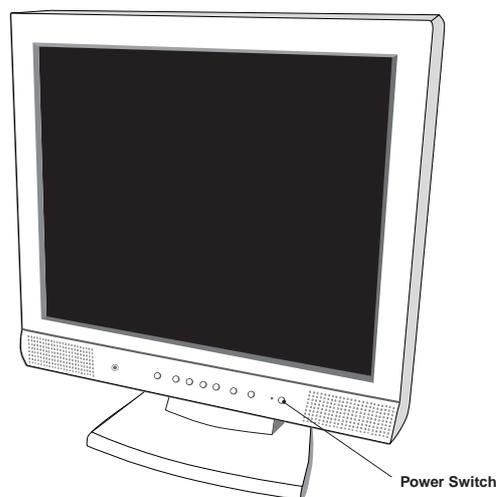


Figure F.1

Quick Start –continued

Tilt and swivel

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

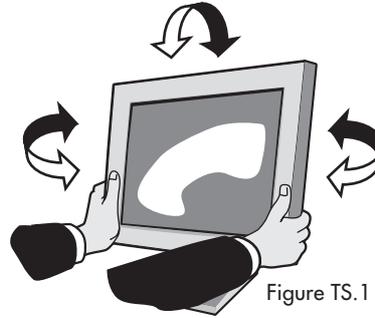


Figure TS.1

Remove Monitor Stand for Mounting

To prepare the monitor for alternate mounting purposes:

1. Disconnect all cables.
2. Place monitor face down on a non-abrasive surface. Insert a screw driver (or similar object) into the hole on the bottom of stand. As shown in the picture, hold the stand cover in hand and lift up gradually by the stick and then remove (**Figure R.1**).
3. Remove the 4 screws connecting the monitor to the stand and lift off the stand assembly (**Figure R.2**).

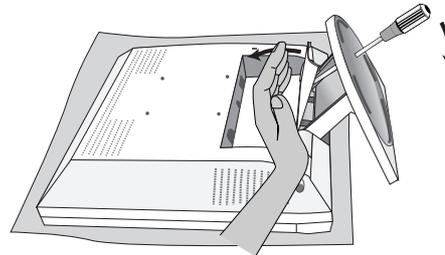


Figure R.1

The monitor is now ready for mounting in an alternate manner.

4. Connect the AC cord, signal cable and Audio cable to the back of the monitor (**Figure R.3**).
5. Reverse this process to reattach stand.

NOTE: Use only VESA-compatible alternative mounting method.

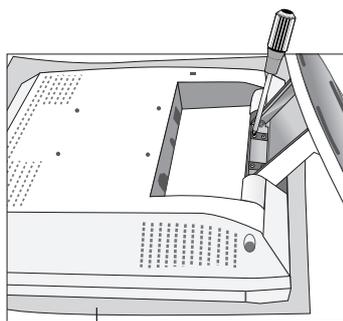


Figure R.2

Non-abrasive surface

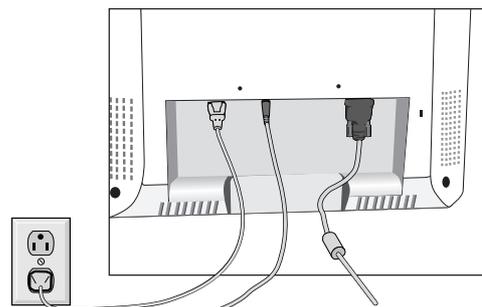


Figure R.3

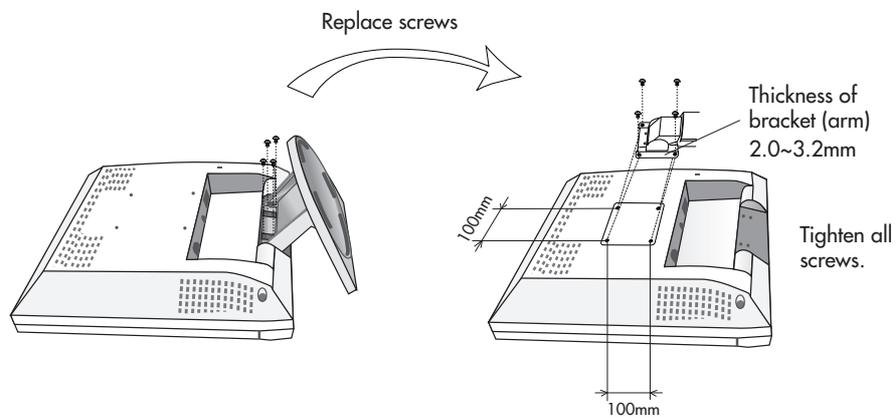
Quick Start *-continued*

6. This LCD monitor is designed for use with a flexible arm.

Please use the attached screws (4pcs) as shown in the picture when installing.

To meet the safety requirements, the monitor must be mounted to an arm which guarantees the necessary stability under consideration of the weight of the monitor.

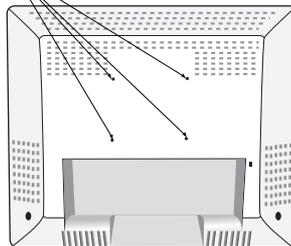
The LCD monitor shall only be used with an approved arm (e.g. GS mark).



Specifications

4-SCREWS (M4)
(MAX depth: 10mm)

If using other screws than ones included, first check depth of the hole.



Weight of LCD Assembly : 5.5kg (MAX)

Controls

OSM™ (On-Screen Manager) control buttons on the front of the monitor function as follows:

To access OSM menu, press any of the control buttons (◀ , ▶ , - , + , NEXT).

	Menu
EXIT	Exits the OSM controls. Exits to the OSM main menu.
CONTROL ◀ / ▶	Moves the highlighted area left/right to select control menus. Moves the highlighted area up/down to select one of the controls.
ADJUST -/+	Moves the bar left/right to increase or decrease the adjustment. Active Auto Adjust function. Enter the Sub Menu.
NEXT	Moves the highlighted area of main menu right to select one of the controls.
RESET / MUTE	Resets the highlighted control to the factory setting. When no OSM menu is shown, the speaker sound will be muted.

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.

Sound

Volume

Control the sound volume of speakers and headphone.

Brightness/Contrast Controls

BRIGHTNESS

Adjusts the overall image and background screen brightness.

CONTRAST

Adjusts the image brightness in relation to the background.

AUTO **AUTO**

Adjusts the image displayed for non-standard video inputs.

AUTO Auto Adjust

Automatically adjusts the Image Position and H. Size settings and Fine settings.

Image Controls

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.

FINE

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

Controls –continued

AccuColor® Control Systems

Five color presets select the desired color setting. Each color setting is adjusted at the factory.

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

Tools

 **LANGUAGE:** OSM™ control menus are available in seven languages.

 **EXPANSION MODE:** Sets the zoom method.

FULL : The image is expanded to 1280 x 1024, regardless of the resolution.

ASPECT: The image is expanded without changing the aspect ratio.

OFF: The image is not expanded.

 **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 in 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. 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 ◀, then ▶ and hold down simultaneously. To de-activate the OSM Lock Out, press ◀, then ▶ 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.

 **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.

Controls *–continued*

Information

 **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.

CHECK CABLE: This function will advise you to check all Video Inputs on the monitor and computer to make sure they are properly connected.

Recommended Use

Safety Precautions and Maintenance



FOR OPTIMUM PERFORMANCE, PLEASE NOTE THE FOLLOWING WHEN SETTING UP AND USING THE MULTISYNC® LCD COLOR 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.
- When operating the MultiSync LCD monitor with its AC 126-240V power supply, use a power supply cord that matches the power supply voltage of the AC power outlet being used. The power supply cord you use must have been approved by and comply with the safety standards of your country. (Type H05VV-F should be used in Europe)
- In UK, use a BS-approved power cord with molded plug having a black (5A) fuse installed for use with this monitor. If a power cord is not supplied with this monitor, please contact your supplier.
- 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.
- Do not bend power cord.
- Do not use monitor in high temperature, humid, dusty, or oily areas.
- If glass is broken, handle with care.
- Do not cover vent on monitor.
- If monitor or glass is broken, do not come in contact with the liquid crystal and handle with care.

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.
- 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.



CAUTION

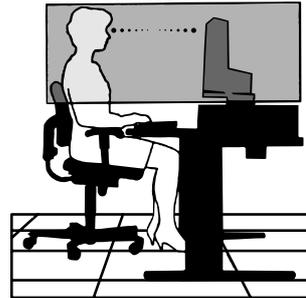
Recommended Use *–continued*



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 16 inches and no further away than 26 inches from your eyes. The optimal distance is 19 inches.
- Rest your eyes periodically by focusing on an object at least 20 feet 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 anti-glare 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 Color Setting
- Use non-interlaced signals with a vertical refresh rate between 60-75Hz
- Do not use primary color blue on a dark background, as it is difficult to see and may produce eye fatigue to insufficient contrast

For more detailed information on setting up a healthy work environment, call NEC at (888) NEC-MITS, NEC FastFacts™ information at (800) 366-0476 and request document #900108 or write the American National Standard for Human Factors Engineering of Visual Display Terminal Workstations – ANSI-HFS Standard No. 100-1988 – The Human Factors Society, Inc. P.O. Box 1369, Santa Monica, California 90406.

Specifications

Monitor Specifications	MultiSync® LCD1720M™	Notes
LCD Module Viewable Image Size: Native Resolution (Pixel Count):	Diagonal: 17.0 inch 17.0 inch 1280 x 1024	Active matrix; thin film transistor (TFT) liquid crystal display (LCD); 0.264 mm pixel pitch; 200cd/m ² white luminance; 350:1 contrast ratio, typical
Input Signal	Video: ANALOG 0.7 Vp-p/75 Ohms Sync: Horizontal sync. Positive/Negative Vertical sync. Positive/Negative	Separate sync. TTL Level
Display Colors	Analog input: 16,777,216	Depends on display card used.
Synchronization Range	Horizontal: 31.0 kHz to 81.1 kHz Vertical: 56.0 Hz to 85.0 Hz	Automatically Automatically
Resolutions Supported	720 x 400* :VGA text 640 x 480* at 60 Hz to 75 Hz 800 x 600* at 56 Hz to 75 Hz 832 x 624* at 75 Hz 1024 x 768* at 60 Hz to 75 Hz 1152 x 900* at 66 Hz 1280 x 960* at 60 Hz 1280 x 1024 at 60 Hz to 76 Hz	Some systems may not support all modes listed. NEC-Mitsubishi Electronics Display cites recommended resolution at 60 Hz for optimal display performance.
Active Display Area	Horizontal: 338 mm/13.3 inches Vertical: 270 mm/10.6 inches	
Speakers	Proclical Audio Output : 1.0W + 1.0W	
Power Supply	AC 100 - 240 V @ 50/60 Hz	
Current Rating	1.0 A @ 100 - 120 V, 0.5 A @ 220 - 240 V	
Dimensions	407 mm (W) x 431 mm (H) x 208 mm (D) 16.0 inches (W) x 16.9 inches (H) x 8.2 inches (D)	
Weight	6.5 kg 14.3 lbs	
Environmental Considerations	Operating Temperature: 5°C to 35°C/41°F to 95°F Humidity: 30% to 80% Feet: 0 to 10,000 Feet Storage Temperature: -10°C to 60°C/14°F to 140°F Humidity: 10% to 85% Feet: 0 to 31,500 Feet	

* 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.

NOTE: Technical specifications are subject to change without notice.



Features

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.

AccuColor® Control Systems: Allows you to adjust the colors on your screen and customize the color accuracy of your monitor to a variety of standards.

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.

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, tilt base for preferred angle of vision, small footprint and compliance with MPRII and TCO guidelines for lower emissions.

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.

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.

OSM Display Screen Copyright 2001 by
NEC-Mitsubishi Electronics Display of America, Inc.

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.
- 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.

Image persistence

- Image persistence is when a “ghost ” of an image remains on the screen even after the monitor has been turned off or a different image is being displayed. In most instances, the image persistence can be reduced by turning the monitor off for as long as an image was displayed or by displaying the same image in the complementary colors.

NOTE: As with all personal display devices, NEC-Mitsubishi Electronics Display of America recommends using a screen saver at regular intervals whenever the screen is idle.

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 re-adjusted.
- 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 60Hz refresh rate.

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

- Power Switch should be in the ON position and power cord should be connected.
- Make certain the computer is not in a power-saving mode (touch the keyboard or mouse).

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.)



Troubleshooting *–continued*

Selected resolution is not displayed properly

- Use OSM Display Mode to enter Information menu and confirm that the appropriate resolution has been selected. If not, select corresponding option.

No Sound

- Check to see if speaker cable is properly connected.
- Check to see if mute is activated.
- Check to see if volume in OSM is set at minimum.

References

- **BBS** **(978) 742-8706**
 NEC-Mitsubishi Electronics Display of America Remote Bulletin Board System is an electronic service accessible with your system and a modem. Communication parameters are: 300/1200/2400/9600/14.4k/28.8k/33.6k bps, no parity, 8-data bits, 1 stop bit
- **Customer Service/ Technical Support** **(800) 632-4662**
Fax **(978) 742-7049**
- **Electronic Channels:**
 Internet e-mail: tech-support@necmitsubishi.com
 Internet ftp site: <ftp.necmitsubishi.com>
 World Wide Web: <http://www.necmitsubishi.com>
 Product Registration: <http://www.necmitsubishi.com/productregistration>
 European Operations: <http://www.nec-monitors.com>
 Windows® 95/98/Me/2000/XP INF File: <http://support.necmitsubishi.com/software.htm>
 then download the file NECMSINF.ZIP
- **FastFacts™ Information** **(800) 366-0476**

INFORMATION	DESCRIPTION	DOCUMENT #
Glossary	Definition of terms related to functions, features and installation of the MultiSync® monitor	900203
More Information	Names and addresses of other groups involved in standards and features of the MultiSync monitor	900204
Macintosh Connection	Detailed information on connecting the MultiSync monitor to a Macintosh	153006
Healthy Work Environment	Detailed information on setting up a healthy work environment	900108
- **Literature & Sales Info** **(800) NEC-INFO [(800) 632-4636]**
- **MultiSync Fulfillment** **(800) 632-4662**
 [For software & accessories]
- **TeleSales** **(800) 284-4484**

Limited Warranty

NEC-Mitsubishi Electronics Display of America, Inc. (hereinafter "NMD-A") warrants this Product to be free from defects in material and workmanship and, subject to the conditions set forth below, agrees to repair or replace (at NMD-A's sole option) any part of the enclosed unit which proves defective for a period of three (3) years from the date of first consumer purchase. Spare parts are warranted for ninety (90) days. Replacement parts or unit may be new or refurbished and will meet specifications of the original parts or unit.

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state. This warranty is limited to the original purchaser of the Product and is not transferable. This warranty covers only NMD-A-supplied components. Service required as a result of third party components is not covered under this warranty. In order to be covered under this warranty, the Product must have been purchased in the U.S.A. or Canada by the original purchaser. This warranty only covers Product distribution in the U.S.A. or Canada by NMD-A. No warranty service is provided outside of the U.S.A. or Canada. Proof of Purchase will be required by NMD-A to substantiate date of purchase. Such proof of purchase must be an original bill of sale or receipt containing name and address of seller, purchaser, and the serial number of the product.

It shall be your obligation and expense to have the Product shipped, freight prepaid, or delivered to the authorized reseller from whom it was purchased or other facility authorized by NMD-A to render the services provided hereunder in either the original package or a similar package affording an equal degree of protection. All Products returned to NMD-A for service MUST have prior approval, which may be obtained by calling 1-800-632-4662. The Product shall not have been previously altered, repaired, or serviced by anyone other than a service facility authorized by NMD-A to render such service, the serial number of the product shall not have been altered or removed. In order to be covered by this warranty the Product shall not have been subjected to displaying of fixed images for long periods of time resulting in image persistence (afterimage effects), accident, misuse or abuse or operated contrary to the instructions contained in the User's Manual. Any such conditions will void this warranty.

NMD-A SHALL NOT BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR OTHER TYPES OF DAMAGES RESULTING FROM THE USE OF ANY NMD-A PRODUCT OTHER THAN THE LIABILITY STATED ABOVE. THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU.

This Product is warranted in accordance with the terms of this limited warranty. Consumers are cautioned that Product performance is affected by system configuration, software, the application, customer data, and operator control of the system, among other factors. While NMD-A Products are considered to be compatible with many systems, specific functional implementation by the customers of the Product may vary. Therefore, suitability of a Product for a specific purpose or application must be determined by consumer and is not warranted by NMD-A.

For the name of your nearest authorized NEC-Mitsubishi Electronics Display service facility, contact NEC-Mitsubishi Electronics Display of America at 1-800-632-4662.

TCO'95

MultiSync LCD1720M Black Model (LA-17S02-BK)

Congratulations! You have just purchased a TCO'95 approved and labeled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also, to the further development of environmentally adapted electronics products.



Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during the manufacturing. Since it has not been possible for the majority of electronics equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (Internal) and natural (external) environments. Since all methods of conventional electricity generation have a negative effect on the environment (acidic and climate-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronics equipment in offices consume an enormous amount of energy since they are often left running continuously.

What does labelling involve?

This product meets the requirements for the TCO'95 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Naturskyddsforeningen (The Swedish Society for Nature Conservation) and NUTEK (The National Board for Industrial and Technical Development in Sweden).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental plan which must be adhered to in each country where the company implements its operational policy. The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

TCO'95 is a co-operative project between TCO (The Swedish Confederation of Professional Employees), Naturskyddsforeningen (The Swedish Society for Nature Conservation) and NUTEK (The National Board for Industrial and Technical Development in Sweden).

Environmental Requirements

Brominated flame retardants

Brominated flame retardants are present in printed circuit boards, cables, wires, casings and housings. In turn, they delay the spread of fire. Up to thirty percent of the plastic in a computer casing can consist of flame retardant substances. These are related to another group of environmental toxins, PCBs, which are suspected to give rise to similar harm, including

TCO'95 –continued

reproductive damage in fish eating birds and mammals, due to the bio-accumulative* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

TCO'95 demand requires that plastic components weighing more than 25 grams must not contain organically bound chlorine and bromine.

Lead**

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning.

TCO'95 requirement permits the inclusion of lead since no replacement has yet been developed.

Cadmium**

Cadmium is present in rechargeable batteries and in the colour generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses.

TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of cadmium. The colour generating layers of display screens must not contain any cadmium.

Mercury**

Mercury is sometimes found in batteries, relays, switches, and back-light systems, Mercury damages the nervous system and is toxic in high doses.

TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of mercury. It also demands that no mercury is present in any of the electrical or electronics components concerned with the display unit, except the back-light system.

CFCs (freons)

CFCs (freons) are sometimes used for washing printed circuit boards and in the manufacturing of expanded foam for packaging. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on Earth of ultraviolet light with consequent increased risks of skin cancer (malignant melanoma).

The relevant TCO'95 requirement; Neither CFCs nor HCFCs may be used during the manufacturing of the product or its packaging.

*Bio-accumulative is defined as substances which accumulate within living organisms.

**Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

To obtain complete information on the environmental criteria document, order from:

TCO Development Unit
SE-114 94 Stockholm
SWEDEN
FAX Number: +46 8 782 92 07
E-mail (Internet): development@tco.se

You may also obtain current information on TCO'95 approved and labelled products by visiting their website at: <http://www.tco-info.com/>

TCO'99

MultiSync LCD1720M White Model (LA-17S02)

Congratulations! You have just purchased a TCO'99 approved and labeled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.



Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during the manufacturing. Since it has not been possible for the majority of electronics equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (Internal) and natural (external) environments. Since all methods of conventional electricity generation have a negative effect on the environment (acidic and climate-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronics equipment in offices consume an enormous amount of energy since they are often left running continuously.

What does labelling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental plan which must be adhered to in each country where the company implements its operational policy. The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

Environmental Requirements

Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. In turn, they delay the spread of fire. Up to thirty percent of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride and these are related to another group of environmental toxins, PCBs, which are suspected to give rise to severe

TCO'99 –continued

health effects, including reproductive damage in fish eating birds and mammals, due to the bio-accumulative* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound chlorine and bromine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Lead**

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning.

TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

Cadmium**

Cadmium is present in rechargeable batteries and in the colour generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses.

TCO'99 requirement states that batteries, the colour generating layers of display screens and the electrical or electronics components must not contain any cadmium.

Mercury**

Mercury is sometimes found in batteries, relays and switches, Mercury damages the nervous system and is toxic in high doses.

TCO'99 requirement states that batteries may not contain any Mercury. It also demands that no mercury is present in any of the electrical or electronics components associated with the display unit.

CFCs (freons)

CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on Earth of ultraviolet light with consequent increased risks of skin cancer (malignant melanoma).

The relevant TCO'99 requirement; Neither CFCs nor HCFCs may be used during the manufacturing and assembly of the product or its packaging.

*Bio-accumulative is defined as substances which accumulate within living organisms.

**Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

To obtain complete information on the environmental criteria document, order from:

TCO Development Unit
SE-114 94 Stockholm
SWEDEN
FAX Number: +46 8 782 92 07
E-mail (Internet): development@tco.se

You may also obtain current information on TCO'99 approved and labelled products by visiting their website at: <http://www.tco-info.com/>

Declaration of the Manufacturer

We hereby certify that the color monitor
MultiSync® LCD1720M™ (LA-17S02) and
MultiSync® LCD1720M™ (LA-17S02-BK)
are 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 Corporation
4-13-23, Shibaura,
Minato-Ku
Tokyo 108-0023, Japan



Power consumption of the monitor is less
than 3 W when in power-saving mode.

	AVERTISSEMENT	
<p>AFIN D'ÉVITER TOUT RISQUE D'INCENDIE OU D'ÉLECTROCUTION, NE PAS EXPOSER CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ. NE PAS UTILISER LA FICHE D'ALIMENTATION POLARISÉE AVEC UNE PRISE DE CORDON DE RALLONGE OU AUTRE PRISE SAUF SI LES BROCHES PEUVENT ÊTRE ENTIÈREMENT INTRODUITES. NE PAS OUVRIR LE BOÎTIER, LEQUEL CONTIENT DES COMPOSANTS À HAUTE TENSION. CONFIER TOUS TRAVAUX À DU PERSONNEL TECHNIQUE QUALIFIÉ.</p>		

	ATTENTION	
<p>RISQUE DE DÉCHARGE ÉLECTRIQUE • NE PAS OUVRIR</p>		
<p>ATTENTION : POUR ÉVITER TOUT RISQUE D'ÉLECTROCUTION, NE PAS OUVRIR LE COUVERCLE (L'ARRIÈRE). À L'INTÉRIEUR, AUCUNE PIÈCE NE NÉCESSITE L'INTERVENTION DE L'UTILISATEUR. EN CAS DE PROBLÈME, S'ADRESSER À DU PERSONNEL TECHNIQUE QUALIFIÉ.</p>		
	<p>Ce symbole est une mise en garde contre les risques d'électrocution que présentent certaines parties dépourvues d'isolation à l'intérieur de l'appareil. Il est donc dangereux d'établir le moindre contact avec ces parties.</p>	
	<p>Ce symbole prévient l'utilisateur que des directives d'utilisation et de maintenance de cet appareil sont fournies avec ce guide d'utilisateur. Par conséquent, celles-ci doivent être lues attentivement pour éviter tout incident.</p>	

Déclaration de conformité – Département des Communications du Canada

DOC : Cet appareil numérique de classe B respecte toutes les exigences du Règlement sur le matériel à l'origine d'interférences du Canada.

C-UL : Ce produit porte la marque «C-UL» et est conforme aux règlements de sécurité canadiens selon CAN/CSA C22.2 No. 950.

Informations FCC

- Utiliser les câbles spécifiés fournis avec le moniteur couleur MultiSync LCD1720M[™] (LA-17S02 et LA-17S02-BK) afin de ne pas provoquer d'interférences avec la réception radio et télévision.
 - Prière d'utiliser le câble d'alimentation fourni ou équivalent pour assurer la conformité FCC.
 - Veillez utiliser le câble de signal vidéo blindé fourni.
 - Prière d'utiliser le câble d'audio.

- Cet appareil a été testé et s'avère conforme avec les spécifications d'équipements de Classe B, section 15 de la réglementation FCC. Ces spécifications ont été établies pour garantir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet appareil génère, utilise et peut émettre des fréquences radio et, s'il n'est pas installé et utilisé selon les directives de ce guide, il peut perturber les communications radio. Cependant, il n'est pas garanti qu'aucune interférence ne se produira dans une installation donnée.

Si cet appareil provoque des interférences nuisibles à la réception radio ou télévision, ce que vous pouvez déterminer en allumant et en éteignant l'appareil, essayez de remédier au problème en prenant une ou plusieurs des mesures suivantes :

- Réorienter ou repositionner l'antenne de réception.
- Augmenter la distance entre l'appareil et le récepteur.
- Connecter l'appareil à une prise de courant sur un circuit différent de celui sur lequel le récepteur est connecté.
- Consulter son revendeur ou un technicien radio/TV pour obtenir de l'aide.

Si nécessaire, l'utilisateur doit contacter le revendeur ou un technicien radio/TV afin d'obtenir des informations supplémentaires. L'utilisateur peut se procurer le livret utile suivant, préparé par la Federal Communications Commission : «How to Identify and Resolve Radio-TV Interference Problems» (Comment cerner et résoudre les problèmes d'interférences radio/TV). Ce livret est disponible auprès du U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.