# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for NEC LCD2190UXP. You'll find the answers to all your questions on the NEC LCD2190UXP in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

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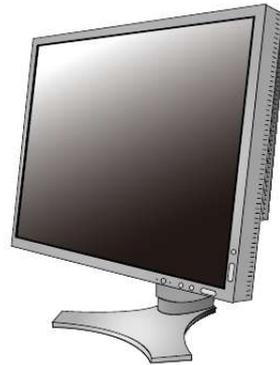
USER'S MANUAL
MANUEL D'UTILISATION
MANUAL DEL USUARIO

MultiSync® LCD2190UXp™

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Manual abstract:

@@@@@@@@C-UL: Bears the C-UL Mark and is in compliance with Canadian Safety Regulations according to CAN/CSA C22. Use the attached specified cables with the MultiSync LCD2190UXpTM (L215GW) 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 , 15-pin mini D-SUB to DVI-A cable or DVI-D to DVI-D 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: · Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. 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 RadioTV Interference Problems. Your new NEC MultiSync® LCD monitor box should contain the following: MultiSync LCD2190UXpTM monitor LCD with tilt/swivel/pivot/adjustable stand Power Cord Video Signal Cable (15-pin mini D-SUB male to DVI-A) Video Signal Cable (DVI-D to DVI-D cable) User's Manual Cable cover Screws (4)(for mounting the monitor to a flexible arm - see page 8) * Remember to save your original box and packing material to transport or ship the monitor. To attach the MultiSync® LCD monitor to your system, follow these instructions: 1.*

2. Turn off the power to your computer. For use with the PC or MAC with DVI digital output: Connect the DVI signal cable to the connector of the display card in your system (Figure A. For a PC with Analog output: Connect the 15-pin mini D-SUB to DVI-A signal cable to the connector of the display card in your system (Figure A. Place hands on each side of the monitor.

To keep the cables neatly organized, place them into the cable management system that is built into the stand. Place the D-Sub cable(not included) and the power cable into the specific hooks as indicated. When using the monitor in Portrait mode, place the DVI cable and the 15pin mini D-Sub to DVI-A cable into the hooks as indicated (Figure 7). 5. Cables should rest flat against the stand. Make sure to leave enough slack in the cables so that the Tilt and the Do not use this connector unless specified. Raise and Lower functions of the monitor are not impeded. Slide the Cable Cover back into its correct position (Figure 9). Connect the power cord to power outlet. NOTE: Please refer to the Recommended Use section of this manual for proper selection of power cord.

8. The vacation switch on the left side of the monitor must be in the ON position for the monitor to function (Figure 10). Turn on the monitor using the front power button, then turn on the computer. nOTE: The Vacation Switch is a true on/off switch. If this switch is in the OFF position, the monitor cannot be turned on using the front button. For further adjustments, refer to the Controls section of this User's Manual for a full description of the OSM controls. For download information on the Windows® 95/98/Me/2000/XP INF file for your monitor, visit www. NOTE: If you have any problems, please refer to the Troubleshooting section of this User's Manual. If this switch is in the OFF position, the monitor cannot be turned on using the front button. Raising and Lowering Monitor Screen The monitor screen may be raised or lowered while in either Portrait or Landscape mode.

To raise or lower the screen, place hands on each side of the monitor and lift or lower to the desired height (Figure RL. 1). NOTE: Handle with care when raising or lowering the monitor screen. Screen Rotation Before rotating, the screen must be raised to the highest level to avoid accidentally damaging the screen and to avoid pinching fingers. To raise the screen, place hands on each side of the monitor and lift up to the highest position (Figure RL.

1). To rotate screen, place hands on each side of the monitor screen and turn clockwise from Landscape to Portrait or counter-clockwise from Portrait to Landscape (Figure R. 1). Note: To toggle the orientation of the OSM menu between Landscape and Portrait modes, refer to the "Controls" section of this user's manual. Tilt Grasp top and bottom sides of the monitor screen with your hands and adjust the tilt as desired (Figure TS.

Swivel Grasp both sides of the monitor screen with your hands and adjust the swivel as desired (Figure TS. NOTE: Handle with care when tilting and swiveling the monitor screen. Remove Stand for Mounting The stand can be removed in order to mount the monitor using an alternate, VESA approved, mounting method. Place hands on each side and raise the monitor up to the highest position (see Raising and Lowering Monitor Screen page 5). Lift up the bottom of the stand to unhook it from the monitor (Figure S. 3). The monitor can now be mounted using and alternate method. (100mm pitch) NOTE: Handle with care when removing monitor stand. Pull lever towards stand. Use the 4 screws that are included to attach the arm to the monitor (Figure F.

Use ONLY the 4 screws that are included when mounting to avoid damaging the monitor and the stand or arm. For safety requirements, the monitor must be mounted to an arm which guaranties the necessary stability under consideration of the weight of the monitor. The LCD monitor should only be used with an approved arm (e. OSM® (On-Screen Manager) control buttons, located on the front of the monitor, function as follows: To access OSM menu, press any of the following control buttons: EXIT, LEFT, RIGHT, UP, or DOWN. To change the input source signal when the OSM is closed, press the SELECT button. 1 AMBIBRIGHT SENSOR Detects the level of ambient lighting allowing the monitor to make adjustments to various settings resulting in a more comfortable viewing experience. Do not cover this sensor. Can be changed between blue and green in the Advanced OSM Control menu. Changes the input source when not in the OSM Control menu. Navigates to the left or right through the OSM Control menu.

navigates up or down through the OSM Control menu. Resets the OSM back to factory settings. Pressing when the OSM is not showing rotates the OSM Control menu between portrait and landscape mode.

1: Adjusts the brightness automatically by detecting the brightness level of your environment and adjusting the monitor accordingly with the best BRIGHTNESS setting (see page 36 for AmbiBrightTM explanation), making the viewing experience more comfortable. 2: Adjusts the BRIGHTNESS level of the monitor to the best setting based on the amount of white being displayed on the monitor.

This function does not utilize the AmbiBright sensor. If the "Auto Adjust function" does not provide a satisfactory picture, further tuning can be performed manually using the "H. This function may alter the width of the picture. Use Left/Right Menu to center the image on the screen. Size" functions do not provide a satisfactory picture, further tuning can be performed using the "Fine" function.

When the AUTO FINE control is ON adjustment occurs approximately every 33 minutes or when a change in signal timing is detected. For preset settings: 1, 2, 3, and 5, the following levels can be adjusted: TEMPERATURE: Adjust the white temperature by increasing or decreasing this setting. A lower color temperature will make the screen reddish and a higher color temperature will make the screen bluish. WHITE (White Balance): If TEMPERATURE needs further adjustment, the individual R/ G/ B/ levels of the white point can be adjusted. The sRGB and NATIVE, color presets are standard and cannot be changed. The PROGRAMMABLE setting can only be adjusted using color calibration software such as NEC's GammaComp or Spectraview II. Tools SHARPNESS: This function is digitally capable of keeping a crisp image within any resolution at any time. This setting can be set independently for different signal timings (resolution settings). dVI SELECTION: This function selects the DVI input mode. If the DVI selection changes, you must restart the computer.

NOTE: When using a MAC with digital output: before turning on the MAC, the DVI Input mode on the monitor must be set to DIGITAL in the DVI SELECTION menu. To set the DVI SELECTION to "DIGITAL" press the SELECT button then CONTROL button when the DVI signal cable is connected to the DVI-I connector of the monitor. Otherwise the MAC may not turn on. NOTE: Depending on the type of PC/Video card or the type of video signal cable used, the DVI SELECTION function may not operate. VIDEO DETECT: Selects the method of video detection when more than one video input source is connected to the monitor. FIRST: If "FIRST" is selected as the VIDEO DETECT option, the monitor displays the signal from the first input port. If there is no signal present at the first input port, then the monitor will search for a signal from the next input port. If a new input signal is connected to another of the monitor's input ports while the monitor is in FIRST mode, the monitor DOES NOT automatically SWITCH to the new source. LAST: If "LAST" is selected as the VIDEO DETECT option, then each time a new input source is detected, the monitor will automatically display the new signal. NONE: The monitor will only search other input ports while the power is on.

oFF TIMER: Monitor will automatically power down after a user-determined length of time passes. @@Press any OSM button to delay the turn off time. IPM: The Intelligent Power Manager allows the monitor to enter into a power saving mode after a period of inactivity. the IPM has three settings. OFF: Monitor does not go into power save mode when the input signal is lost.

STANDARD: Monitor enters power save mode automatically when the input signal is lost. OPTION: Monitor enters power save mode automatically when the amount of surrounding light goes below the level that is determined by the user. This level can be determined in Tag 7 of the Advanced OSM Control menu. When in power save mode, the LED on the front of the monitor blinks amber. While in power save mode, push any of the front buttons, except for POWER and SELECT to return to normal operation.

When the amount of surrounding light returns to normal levels, the monitor will automatically return to normal mode. COLORCOMP: This function electronically compensates for the slight variations in the white uniformity level, as well as for slight differences in color that may occur throughout the display area of the screen. These variations are characteristic of LCD panel technology. This function improves the color and evens out the luminance uniformity of the display. nOTE: Using the COLORCOMP feature reduces the overall peak luminance of the display. If greater luminance is desired over the uniform performance of the display, then COLORCOMP should be turned off. MENU Tools LANGUAGE: OSM control menus are available in eight languages. You can choose the location where the OSM appears on your screen. the LEFT/RIGHT submenu moves the OSM horizontally. OSM DOWN/UP: You can choose the location where the OSM appears on your screen.

You can select how long the monitor waits after the last touch of a button to shut off the OSM control menu. Time can be set between10-120 seconds, in 5 second increments. OSM LOCK OUT: This control completely locks out access to some of or to all of the OSM control functions. When attempting to aking the viewing experience more comfortable. 2: Adjusts the BRIGHTNESS level of the monitor to the best setting based on the amount of white being displayed on the monitor. This function does not utilize the Ambibright sensor. There are 4 possible settings, with "0" being the lowest level of compensation and "3" being the highest level. Determines what settings are adjusted when Auto Adjust is performed. O: Automatic Adjustment X: No Automatic Adjustment NOTE: Automatic Adjustment does not work at resolutions less than 800 x 600 resolution. Tag 3 AUTO ADJUST LEVEL (Analog input only) Determines which items are to be adjusted when the AUTO ADJUST function is activated.

** Black level, RGB sharpness, RGB delay and RGB position can be adjusted using the Long Cable Software. The Advanced No Touch Auto Adjust function is able to recognize new signals even when neither the resolution nor the refresh rate has changed. If several PCs are connected to the monitor, and each transmit very similar (or even the same) signals in terms of resolution and refresh rates, the monitor recognizes that there is a new signal and automatically optimizes the picture without the need for any action on the part of the user. If no change in the signal is detected then A-NTAA does not activate. the screen will be blank while the monitor optimizes the signal.

OPTION: Functions the same as ON, except that the screen does not go blank when the monitor makes adjustments for changes in signal, allowing the monitor to display the new signal faster. When using an external switching device to connect 2 or more PCs to the monitor,using either the ON or OPTION setting is suitable. SIZE (Analog input only) Sets Horizontal Image Position within the display area of the LCD. press "Left" or "Right" to adjust.

Sets Vertical Image Position within the display area of the LCD.

If the "Auto Adjust function" does not give a satisfactory picture, further tuning can be performed manually using the "H. This function may alter the width of the picture. Use Left/Right Menu to center the image on the screen. Size" functions do not give a satisfactory picture, further tuning can be performed using the "Fine" function. Adjustment occurs approximately every 33 minutes or when a change in signal timing is detected. The image is expanded from 1 to 3 times in the horizontal (H. The image is expanded from 1 to 3 times in the vertical (V. Sets the point from which the screen will be expanded when either H. ZOOM expands the image from the center outward to the sides of the screen. v.

ZOOM expands the image from the center towards the top and bottom of the screen. If the resolution does not fill out the screen, when expanding, the image will not expand past the TOP or the LEFT of the screen. Theimage can be expanded past the right and bottom edges of the screen. Available in Custom Expansion mode only Available in Custom Expansion mode only Dark areas will look brighter and high bright areas will look darker. 2: Curve based on the DICOM GSDF , for use with grayscale images. PROGRAMMABLE: A programmable gamma curve can be loaded using NEC software such as GammaComp, GammaCompMD and SpectraView II. CUSTOM: The following settings can be adjusted when CUSTOM is selected as the GAMMA SELECTION setting. OFFSET: Digitally adjusts the black level after the signal is converted from analog to digital. tag 6 COLOR CONTROL ACCUCOLOR® CONTROL SYSTEM: Seven preset color settings. For preset settings: 1, 2, 3, and 5, the following levels can be adjusted: TEMPERATURE: Adjust the white temperature by increasing or decreasing this setting.

A lower color temperature will make the screen reddish and a higher color temperature will make the screen bluish. WHITE (White Balance): If TEMPERATURE needs further adjustment, the individual R/ G/ B/ levels of the white point can be adjusted. The sRGB and NATIVE color presets are standard and cannot be changed. The PROGRAMMABLE setting can only be adjusted using color calibration software such as NEC's GammaComp or Spectraview II. Tag 7 SHARPNESS This function is digitally capable of keeping an image crisp at any resolution at any time.

This setting can be set independently for different signal timings (resolution settings). this function selects the DVI input mode. If the DVI selection changes, you must restart your computer. VIDEO DETECT Selects the method of video detection when more than one video input is connected. FIRST: If "FIRST" is selected as the VIDEO DETECT option, the monitor displays the signal from the first input port.

If there is no signal present at the first input port, then the monitor will search for a signal from the next input port. If a new input signal is connected to another of the monitor's input ports while the monitor is in FIRST mode, the monitor will not switch automatically to the new source. LAST: If "LAST" is selected as the VIDEO DETECT option, then each time a new input source is detected, the monitor automatically displays the new signal. NONE: The monitor will only search other input ports while the power is on. oFF TIMER Monitor will automatically power off after a user-determined length of time passes. @@Press any OSM button to delay the turn off time. The Intelligent Power Manager allows the monitor to enter into a power saving mode after a period of inactivity. the IPM has three settings. OFF: Monitor does not go into power save mode when the input signal is lost. STANDARD: Monitor enters power save mode automatically when the input signal is lost.

OPTION: Monitor enters power save mode automatically when the amount of surrounding light goes below the level that is determined by the user. The LED on the front can be blue or green. This function electronically compensates for the slight variations in the white uniformity level as well as for slight differences in color that may occur throughout the display area of the screen. These variations are characteristic of LCD panel technology. This function improves the color and evens out the luminance uniformity of the display. nOTE: Using the COLORCOMP feature does reduce the overall peak luminance of the display. If greater luminance is desired over the uniform performance of the display, then COLORCOMP should be turned off. select the level for ColorComp adjustments. OSM control menus are available in eight languages. press "Left" or "Right" to select.

You can choose where you would like the OSM control image to appear on your screen. Selecting OSM Position allows you to manually adjust the location of the OSM control menu left, or right. You can choose where you would like the OSM control image to appear on your screen. 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 10-120 seconds by 5 seconds increments.

press "Left" or "Right" to select. 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. There are four ways to use OSM LOCK OUT function: 1: OSM LOCK OUT with BRIGHTNESS and CONTRAST control: This mode locks all OSM functions except for BRIGHTNESS and CONTRAST. 3: OSM LOCK OUT with BRIGHTNESS (only) control: This mode locks all OSM functions except for BRIGHTNESS.

"Tag window frame color", "Item select color"& "Adjust Window frame color" can be changed. Signal information can be displayed in the corner of the screen. signal information is either "ON/OFF". The Resolution Notifier warns the user if the input to the monitor is set to something other than the optimized resolution of 1600 x 1200. If the monitor detects a signal that is not at the optimized resolution, after 30 seconds a warning message will appear on the screen. the Resolution Notifier is set to ON by default. When this function is activated, the brightness and contrast of the monitor can be adjusted by using the front buttons without entering the OSM menu. Selecting the factory preset allows the user to reset most of the OSM control settings back to the factory settings. This mode changes the display's screen image from color to grayscale. MANUAL: To rotate the OSM, press the ROTATE OSM button when the OSM is not showing.

Use the SCREEN SAVER to reduce the risk of image persistence. MOTION (Default OFF): Screen image is reduced to 95% size and moves periodically in 4 directions in order to reduce the risk of image retention. Screen image can be set to move periodically in intervals from 10 to 900 seconds in 10 second increments. GAMMA (Default OFF): When OFF, the GAMMA selection that is used by the display is the same as what is selected in Tag5 (page 20).

When ON is selected, the GAMMA curve is narrow, reducing the contrast and cutting down the risk of image retention. NOTE: SCREEN SAVER does not function when the TILE MATRIX function is enabled. When the SCREEN SAVER is on and the monitor is set to the recommended resolution, the screen image will be reduced to 95% and appear slightly less sharp than normal. vIDEO BAND WIDTH (Analog input only): Adjusts the bandwidth of the video signal. Can be used to eliminate undesired video noise from a poor signal. Try this option if the FINE adjustment does not successfully eliminate the noise. @@@@ press "Left" or "Right" to select. @@@@@@This feature can be used with up to 25 monitors. @@@@TileComp using 4 monitors (black area shows monitor frames). @@@@ programs the monitor's working schedule. Sets the hour and day of the week when the monitor powers on or off. @@@@@@@@@@The "SELECT" button is used to make a selection . @@@@@@@ schedules are numbered 1-7. @@For example schedule #7 will take priority over schedule #5. @@@@Press any OSM button to delay the turn off time. displays the estimated power saving information in watt-hours. @@The brightness of the LCD screen can be set to increase or decrease depending on the amount of ambient light within the room. If the room is bright, the monitor becomes correspondingly bright. If the room is dim, then the monitor will dim accordingly. The purpose of this function is to make the viewing experience more comfortable to the eye in a variety of lighting conditions. Use the following procedure to determine the Brightness Range that the monitor will use when the Auto Brightness function is activated. This is the brightness level that the monitor will go up to when the ambient light level is highest. Make sure the room is at its brightest when setting this level. select "1" in the AUTO BRIGHTNESS menu (Figure 1). Then use the front buttons to move the cursor up to the BRIGHTNESS setting. Choose the desired brightness level (Figure 2).

This is the level of brightness that the monitor will go down to when the ambient light level is low. Make sure the room is at its darkest when setting this level. Then use the front buttons to move the cursor up to the BRIGHTNESS setting. Choose the desired brightness level (Figure 3). When the "Auto Brightness" function is enabled, the Brightness level of the screen changes automatically according to the lighting conditions of the room (Figure 4). BRIGHTNESS level set for the monitor to use when ambient lighting level is high. BRIGHTNESS level set for the monitor to use when ambient lighting level is low. Lighting level of room L1 : BRIGHTNESS level set for the monitor to use when ambient lighting level is high (L1>Lb). L2 : BRIGHTNESS level set for the monitor to use when ambient lighting level is low (L2<Lb). L1 and L2 are the brightness levels set by the user to compensate for changes in ambient lighting. CableComp Adjustment CableComp allows the monitor to correct slight variations in the image that may occur when using a long signal cable. To perform the long cable compensation adjustment, use the following steps: Set the Auto Adjust Level to "DETAIL" in the Advanced OSM Control menu (see page 18). 5 seconds 5 seconds *1: Black level, RGB sharpness, RGB delay and RGB position can be adjusted using the Long Cable Software. Turn off your monitor. Turn on your monitor by pressing the "POWER" and "SELECT" buttons simultaneously.

Press one of the following OSM buttons to enter the Advanced OSM Control menu: EXIT, LEFT, RIGHT, UP, or DOWN. to exit the Advanced OSM Control Menu · Turn off and restart your monitor. There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks. 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. 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 125-240V 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 very hot, humid, dusty, or oily areas. If monitor or glass is broken, handle with care. Do not come in contact with the liquid crystal. 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 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. 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 DISPLAY SOLUTIONS recommends using a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use.

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 28 inches from your eyes. Rest your eyes periodically by focusing on an object at least 20 feet away. 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.

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. Get regular eye checkups. Do not position the Contrast control to its maximum setting. Use the preset Size and Position controls with standard signals. Use non-interlaced signals with a vertical refresh rate more than 60Hz. 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, write the American National Standard for Human Factors Engineering of Visual Display Terminal Workstations ANSI-HFS Standard No. When the liquid crystal panel becomes dusty or dirty, wipe gently with a soft cloth.

*Do not rub the LCD panel with hard or coarse material. Do not apply pressure to the LCD surface. Gently wipe the cabinet with a soft cloth. Dampen a cloth with a neutral detergent and water, wipe the cabinet and then dry with a soft cloth. Do not place rubber or vinyl against the cabinet for long periods. These types of fluids and fabrics can cause the paint to deteriorate, crack, or peel. *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 1200 x 1600 resolution only.*

NOTE: Technical specifications are subject to change without notice. DVI-I: The integrated interface ratified by the Digital Display Working Group (DDWG) that allows both digital and analog connectors off of one port. 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 digital connectors such as DFP and P&D. DFP (Digital Flat Panel): An all-digital interface for flat panel monitors which is signal compatible with DVI.

As a DVI-based digital only connection, only a simple adapter is necessary for compatibility between DFP and other DVI-based digital connectors such as DVI 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.

Pivoting Stand: Allows users to adjust the monitor to the orientation that best fits their application, either Landscape orientation for wide documents, or Portrait orientation for the ability to preview a full page on one screen at one time. the Portrait orientation is also perfect for full screen video conferencing. 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 System: Allows the user to adjust the colors on the screen and customize the color accuracy of the monitor to a variety of color 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: Enhanced 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®95/98/2000/Me/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 lower the 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. xtraView+TM Wide Viewing Angle Technology: Allows the display image to be seen at wide viewing angles. Close to 180 degrees off center axis, for both up-down and left-right viewing angles. 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. Ultra-thin-frame design: Allows you to view more of your ideas and less of the monitor bezel, while freeing up more horizontal and vertical desktop space for multiplemonitor applications. NaViSetTM software: Offers an expanded and intuitive graphical interface, allowing you to more easily adjust OSM display settings via mouse and keyboard. cableCompTM: Automatic long cable compensation prevents image quality degradation caused by long cable lengths. Advanced No Touch Auto AdjustTM: Provides optimal image settings upon initial power-on and closed signal changes.

rapid ResponseTM: Delivers virtually uninterrupted , undistorted viewing of full-motion video applications. SRGB Color Control: A new optimized color management standard which allows for color matching on computer displays and other peripherals. The sRGB, which is based on the calibrated color space, allows for optimal color representation and backward compatibility with other common color standards. ColorComp: This feature compensates for slight variations in the white uniformity level that may occur on the screen and improves the color and evens out the luminance uniformity of the display. Adjustable stand with pivot capability: Adds flexibility to your viewing preferences.

quick Release stand: Allows fast removal of the stand. AmbiBrightTM technology: Automatically adjusts the backlight level depending on the level of ambient lighting. 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. Check the monitor and your display card with respect to compatibility and recommended settings. Power Button does not respond · Unplug the power cord of the monitor from the AC outlet to turn off and reset the monitor. 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 DISPLAY SOLUTIONS recommends using a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use. Message "OUT OF RANGE" is displayed (screen is either blank or shows rough images only) · Image is displayed only roughly (pixels are missing) and OSM warning "OUT OF RANGE" is displayed: Either signal clock or resolution is too high. OSM warning "OUT OF RANGE" is displayed on a blank screen: Signal frequency is out of range.

Signal cable should be completely attached to the computer. 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 60Hz refresh rate. LED on monitor is not lit (no green, blue, or amber color can be seen) · Power Switch should be in the ON position and power cord should be connected. Picture is not as bright · Make sure the ECO MODE, AUTO BRIGHTNESS, and COLORCOMP functions are turned off. If the brightness fluctuates, make sure that the AUTO BRIGHTNESS function is turned off. Check to make sure that a supported mode has been selected on the display card or system being used. 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).

self Diagnosis · The LCD display is equipped with the ability to self diagnose abnormalities. When the LCD detects a problem, the LED on the front flashes in a pattern of long and short blinks, depending on the type of problem detected. (hereinafter "NEC DISPLAY SOLUTIONS") 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 NEC DISPLAY SOLUTIONS' sole option) any part of the enclosed unit which proves defective for a period of four (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 NEC DISPLAY SOLUTIONS-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. This warranty only covers Product distribution in the U. 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 NEC DISPLAY SOLUTIONS 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 NEC DISPLAY SOLUTIONS 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 NEC DISPLAY SOLUTIONS 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. 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 NEC DISPLAY SOLUTIONS 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 NEC DISPLAY SOLUTIONS. 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. Energy-saving mode after a certain time beneficial both for the user and the environment · The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 001 · 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. @@@For more information, please visit www. @@@Com Country-specific recycling programs can also be found at: Sweden - http://www. Less than Less than 60W 1W 1W LED color Green or Blue Amber Unlit We hereby certify that the color monitors MultiSync® LCD2190UXp (L215GW) is in compliance with Council Directive 73/23/EEC: EN 60950-1 Council Directive 89/336/EEC: EN 55022 EN 61000-3-2 EN 61000-3-3 EN 55024 and marked with Within the European Union EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste.