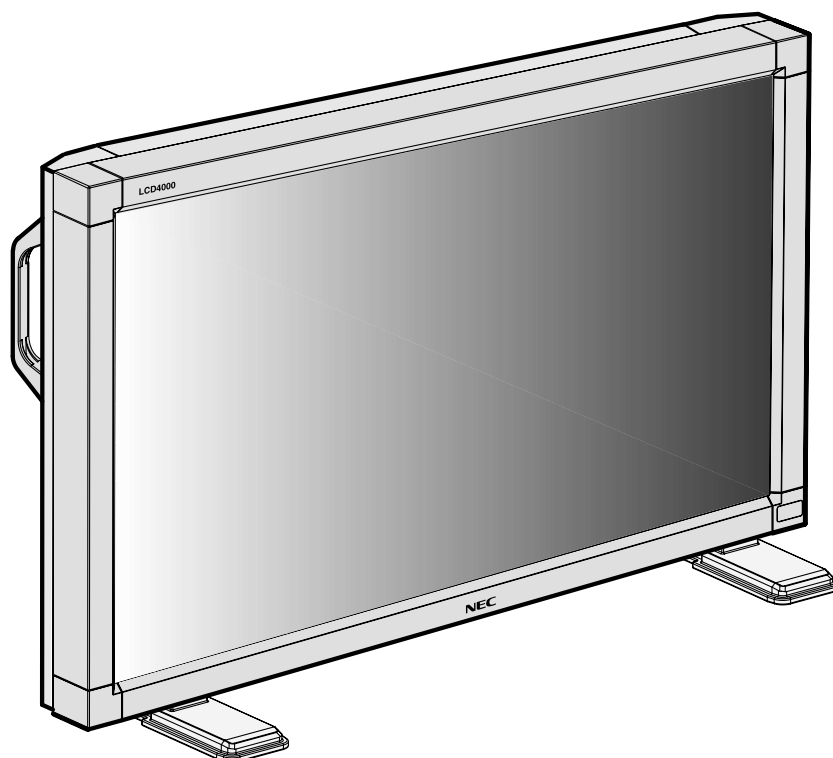

LCD4000

40" LCD Colour Monitor

User's Manual



NEC

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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 North Arlington Heights Road, Suite 500
Tel. No.:	Itasca, Illinois 60143-1248
	(630) 467-3000

Type of Product: Computer Monitor

Equipment Classification: Class B Peripheral

Model: LCD4000



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

Windows is a registered trademark of Microsoft Corporation. NEC is a registered trademark of NEC Corporation. ENERGY STAR is a U.S. registered trademark. All other brands and product names are trademarks or registered trademarks of their respective owners.

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

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. 60950.

FCC Information

1. Use the attached specified cables with the LCD4000 (L40HV201) colour 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 15-pin mini D-SUB.
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.

Important Information



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.

Declaration

Declaration of the Manufacturer

We hereby certify that the colour monitor
LCD4000 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 Corporation
4-13-23, Shibaura,
Minato-Ku
Tokyo 108-0023, Japan

Safety Precautions, Maintenance & Recommended Use

FOR OPTIMUM PERFORMANCE, PLEASE NOTE THE FOLLOWING WHEN SETTING UP AND USING THE LCD4000 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.
- When operating the LCD4000 LCD monitor with its AC 220-240V 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 3G 1mm² should be used in Europe)
- In UK, use a BS-approved power cord with molded plug having a black (13A) 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 lamps located within the LCD monitor contains mercury.
- 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.
- 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 the 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
- Please follow the bylaws or rules of your municipality to dispose of the tube properly.
- Please clean the holes of back cabinet to reject dirt and dust at least once a year because of set reliability.

Please follow the bylaws or rules of your municipality to dispose of the lamps 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.
- 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.
- 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.

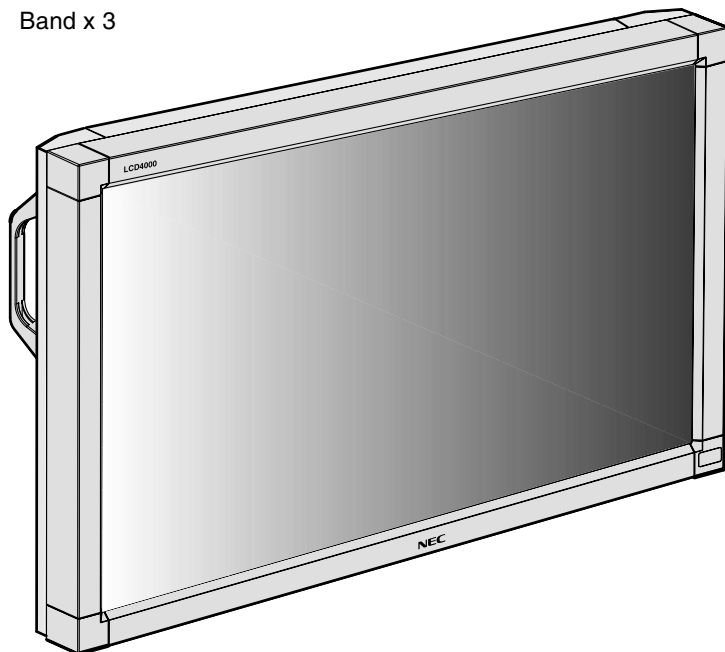
Recommended Use

- For optimum performance, allow 20 minutes for warm-up.
- 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.
- Avoid displaying fixed patterns on the monitor for long periods of time to avoid image persistence (after-image effects).
- The lamp of backlight has a little mercury. Please handle it appropriately in case of disposal.

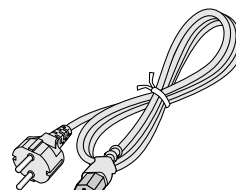
Contents

Your new LCD4000 LCD monitor box* should contain the following:

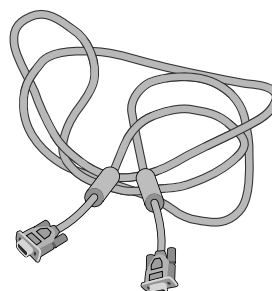
- LCD4000 LCD monitor
- Power Cord (3 m)
- PC - Video Signal Cable SC-B113 (4 m)
- User's Manual
- Wireless Remote Control and AA Batteries
- Clamper x 2
- Screw (M4 x 10) x 2
- CD-ROM
- Ferrite Core x 4
- Stand for Independence x 2
- Screw (M5 x 40 mm) for stand x 4
- Band x 3



Ferrite Core x 4



Power Cord



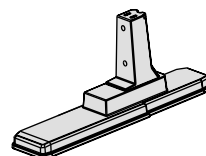
PC - Video Signal Cable
(D-SUB to D-SUB Cable)



Clamper x 2



Screw (M4 x 10) x 2



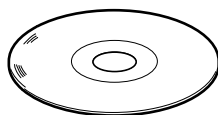
Stand for the
Independence x 2



Screw
(M5 x 40 mm) for stand x 4



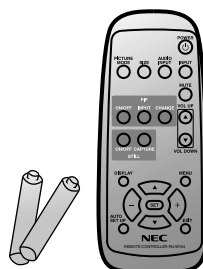
Band x 3



CD-ROM



User's Manual



Wireless Remote Control and
AA Batteries

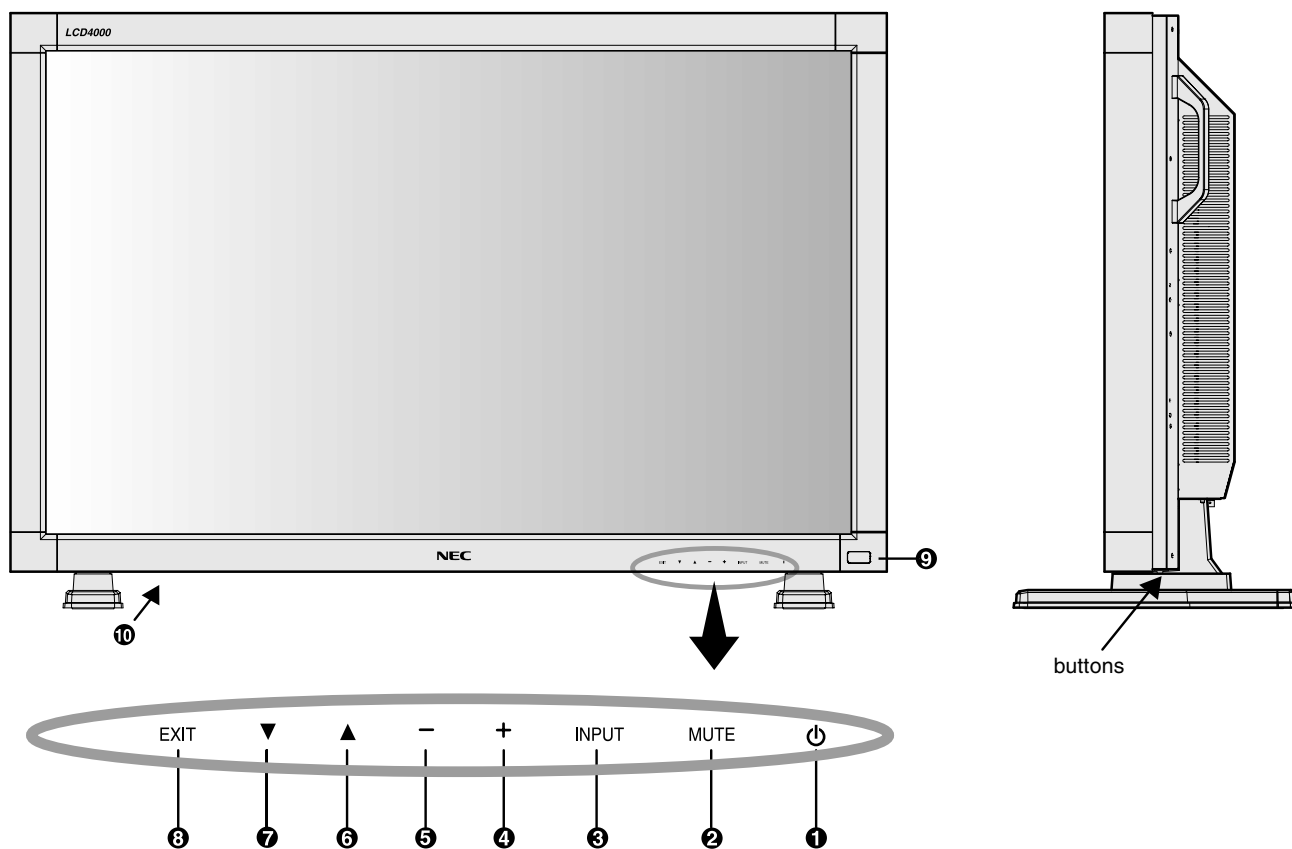
- * Install an attached stand at the time of unpacking when it uses with the stand.
- * Remember to save your original box and packing material to transport or ship the monitor.

The following components are prepared as option.

- External Speaker Unit

Parts Name and Functions

Control Panel



❶ POWER button (⏻)

Switches the power on/off. See also page 19.

❷ MUTE button

Switches the audio mute ON/OFF.

❸ INPUT button

Acts as SET button with OSM menu.
Selects the signal connected with the RGB input connector.
Toggle switches between [RGB1], [RGB2], [RGB3], [DVD/HD] and [VIDEO].

❹ PLUS button

Acts as (+) button to increase the adjustment with OSM menu.
Increases the audio output level when the OSM menu is turned off.

❺ MINUS button

Acts as (-) button to decrease the adjustment with OSM menu.
Decreases the audio output level when the OSM menu is turned off.

❻ UP (▲) button

Activates the OSM menu when the OSM menu is turned-off.
Acts as ▲ button to move the highlighted area up to select the adjustment with OSM menu.

❼ DOWN (▼) button

Activates the OSM menu when the OSM menu is turned-off.
Acts as ▼ button to move the highlighted area down to select the adjustment with OSM menu.

❽ EXIT button

Activates the OSM menu when the OSM menu is turned-off.
Acts as EXIT button to move to previous menu with OSM menu.

❾ Remote control sensor and Power Indicator

Receives the signal from the remote control (when using the wireless remote control). See also page 9.

Glow green when the LCD monitor is in active, glow red when the LCD monitor is in POWER OFF mode and glow green and red when the LCD monitor is in POWER SAVE mode.

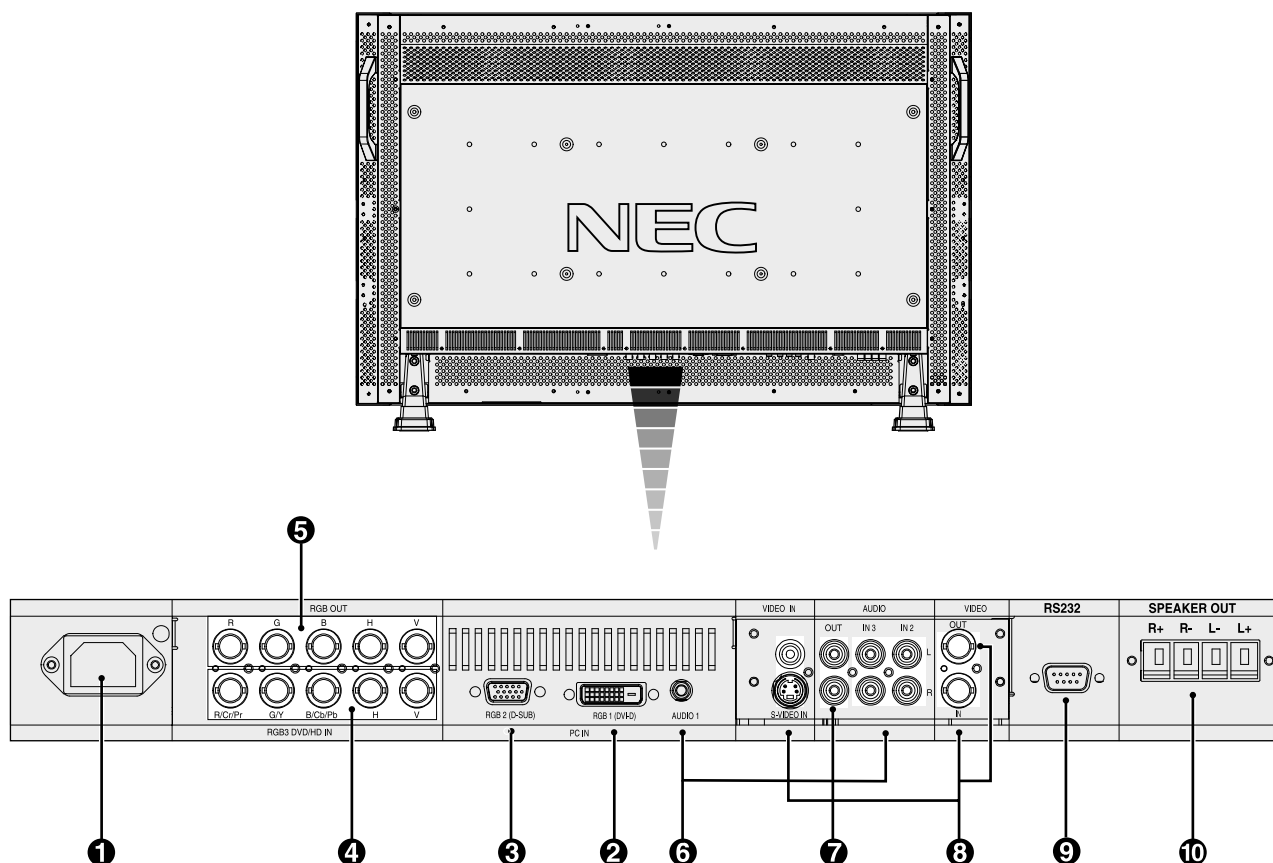
❿ Main Power Switch

On/off switch to turn main power on and off.

⓫ Control Key Lock Mode

This control completely locks out access to all Control Key functions. To activate the control key lock function, press both of “▼” and “▲” and hold down simultaneously for more than 3 seconds. To resume back to user mode, press both of “▼” and “▲” and hold simultaneously for more than 3 seconds.

Terminal Panel



❶ AC IN connector

Connects with the supplied power cord.

❷ RGB 1 IN (DVI-D)

To input digital RGB signals from a computer having a digital RGB output.

* This connector does not support analog input.

❸ RGB 2 IN (mini D-Sub 15 pin)

To input analog RGB signals from a personal computer or other RGB equipment.

❹ RGB 3 DVD/HD [R/Cr/Pr, G/Y, B/Cb/Pb, H, V] (BNC) IN connector:

To input analog RGB signals or signals from other RGB equipment.

This is also to connect equipment such as a DVD player and HDTV laser disk player. A Sync-on-Green signal can be connected to the G/Y connector.

❺ RGB OUT connector (BNC)

To output the signal from RGB 2 and 3.

❻ AUDIO IN 1, 2, 3

To input audio signal from external equipment such as a computer, VCR or DVD player.

❼ AUDIO OUT

To output the audio signal from the AUDIO IN 3 jack.

❽ VIDEO

VIDEO IN connector (BNC and RCA): To input a composite video signal. BNC and RCA connectors are not available at the same time. (Use only one input).

VIDEO OUT connector (BNC): To output the composite video signal from the VIDEO IN connector.

S-VIDEO IN connector (DIN 4 pin): To input the S-video (Y/C separate signal).

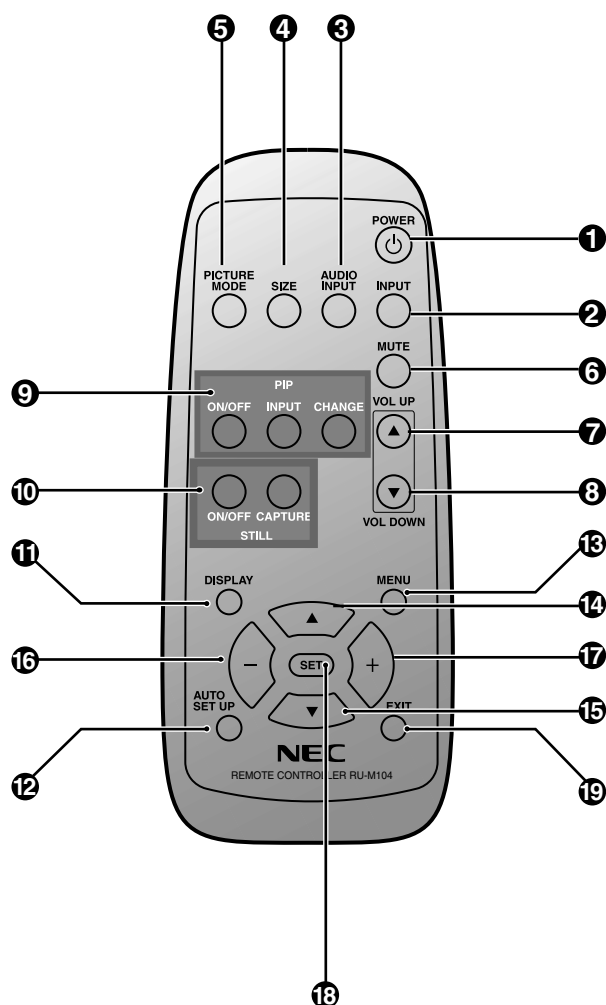
❾ EXTERNAL CONTROL (mini D-Sub 9 pin)

IN connector: Use when operating the LCD monitor from the RGB equipment like a computer.

❿ EXTERNAL SPEAKER TERMINAL

To output the audio signal from AUDIO 1 or 2 or 3 jack.

Wireless Remote Control



1 POWER button

Switches the power on/off.

* If Power Indicator is not glowing, then none of the controls will work.

2 INPUT button

Selects from input signal, [RGB1], [RGB2], [RGB3], [DVD/HD], [VIDEO].

3 AUDIO INPUT button

Selects from input audio signal, [AUDIO1], [AUDIO2], [AUDIO3].

4 SIZE button

Selects picture size, [FULL], [NORMAL], [WIDE]. See page 20.

5 PICTURE MODE button

Selects from picture mode, [HIBRIGHT], [STANDARD], [sRGB], [CINEMA].

HIBRIGHT: for moving images
STANDARD: for images
sRGB: for text based images
CINEMA: for movies. See page 20.

6 MUTE button

To switch the mute function on/off.

7 VOLUME UP button

Increase the audio output level.

8 VOLUME DOWN button

Decrease the audio output level.

9 PIP (Picture In Picture) button

ON/OFF button: Toggle switches between PIP-ON/POP-ON/OFF. See page 23.

INPUT button: Select the "picture in picture" input signal.
CHANGE button: Replaces to the main picture and sub picture.

10 STILL button

ON/OFF button: To switch the still picture mode on/off.
CAPTURE button: Capture the new picture.

11 DISPLAY button

To switch the OSM information on/off. See page 20.

12 AUTO SETUP button

To enter the auto setup menu. See page 23.

13 MENU button

To switch the menu mode on/off.

14 UP button

Acts as ▲ button to move the highlighted area up to select the adjustment with OSM menu.
Small screen which adjusted "PIP" mode moves up.

15 DOWN button

Acts as ▼ button to move the highlighted area down to select the adjustment with OSM menu.
Small screen which adjusted "PIP" mode moves down.

16 MINUS button decrease

Acts as (-) button to decrease the adjustment with OSM menu.
Small screen which adjusted "PIP" mode moves left.

17 PLUS button increase

Acts as (+) button to increase the adjustment with OSM menu.
Small screen which adjusted "PIP" mode moves right.

18 SET button

Acts as SET button with OSM menu.

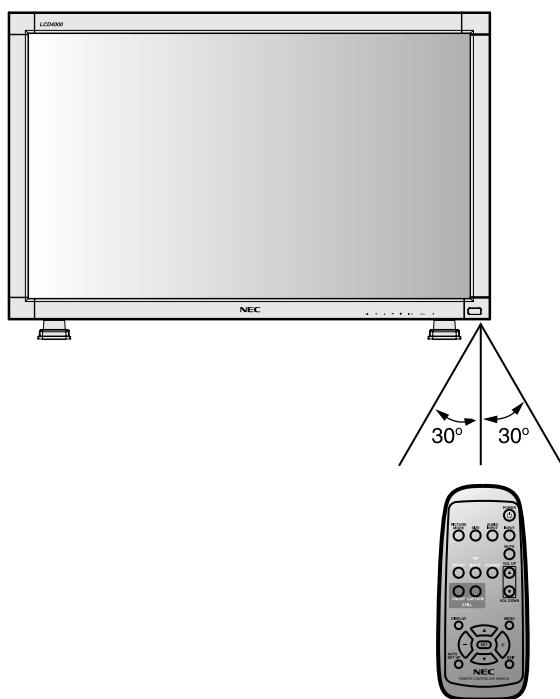
19 EXIT button

Turn to previous menu with OSM menu.

Operating Range for the Remote Control

Point the top of the remote control toward the LCD monitor's remote sensor during button operation.

Use the remote control within a distance of about 7 m from the front of the LCD monitor's remote control sensor and at a horizontal and vertical angle of within 30° within a distance of about 3 m.



Handling the remote control

- * Do not subject to strong shock.
- * Do not allow water or other liquid to splash the remote control. If the remote control gets wet, wipe it dry immediately.
- * Avoid exposure to heat and steam.

Caution: Important the remote control system may not function when direct sunlight or strong illumination strikes the remote control sensor of the LCD monitor, or when there is an obstacle in the path.

Setup Procedure

1. Determine the installation location

CAUTION: DO NOT ATTEMPT TO INSTALL THE LCD MONITOR BY YOURSELF

Installing your LCD display must be done by a qualified technician. Contact your dealer for more information.

CAUTION: MOVING OR INSTALLING THE LCD MONITOR MUST BE DONE BY TWO OR MORE PEOPLE.

Failure to follow this caution may result in injury if the LCD monitor falls.

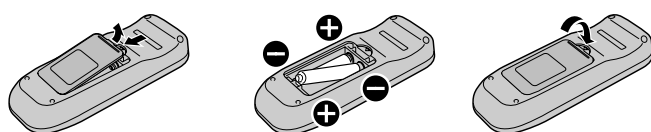
IMPORTANT: Lay the protective sheet, which was wrapped around the LCD monitor when it was packaged, beneath the LCD monitor so as not to scratch the panel.

2. Install the remote control batteries

The remote control is powered by 1.5V AA batteries. To install or replace batteries:

1. Press and slide to open the cover.
2. Align the batteries according to the (+) and (–) indications inside the case.
3. Replace the cover.

① Remove the cover ② Insert the batteries ③ Replace the cover



CAUTION: Incorrect use of batteries can result in leaks or bursting.

Be careful especially about the following points.

- Place “AA” size batteries matching the + and - signs on each battery to the + and - signs of the battery compartment.
- Don’t mix battery types.
- Don’t combine new batteries with used ones.
It causes shorter battery life or leakage of batteries.
- Remove dead batteries immediately to prevent battery liquid from leaking into the battery compartment.
Don’t touch leaked liquid, it causes damages to your skin.

NOTE: If you do not intend to use the Remote Control for a long period, remove the batteries.

3. Connect external equipment (See pages 12~18)

- To protect the connected equipment, turn off the main power before making connections.
- Refer to your equipment user manual.

4. Connect the supplied power cord

- The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.
- Fully insert the prongs into the power outlet socket. Loose connection may cause noise.

5. Switch on the power of all attached external equipment

When connected with a computer, switch on the power of the computer first.

6. Adjust the sound

Make adjustments when adjustment of the volume is required.

7. Adjust the screen (See pages 21~29)

Make adjustments when adjustment of the screen display position or distortion is required.

8. Adjust the image (See pages 21~29)

Make adjustments when picture adjustment such as the brightness or contrast is required.

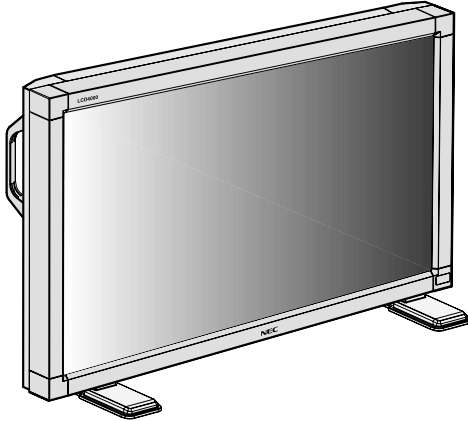
9. In case of portrait position

- Remove the stand.
- Left side of monitor must become upper side (seen from front).

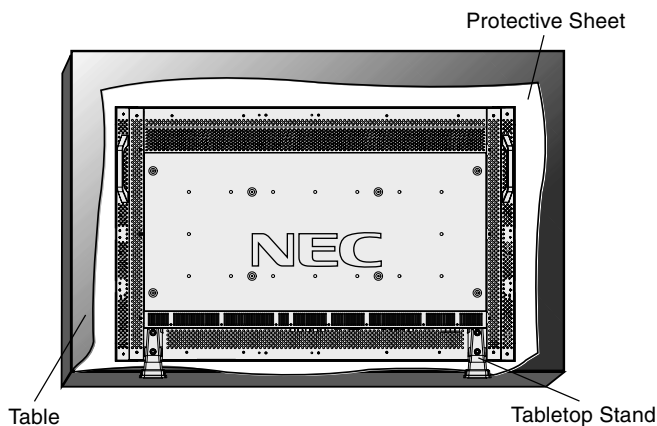
How to Mount and Attach Options to the LCD Monitor

You can attach mounting accessories to the LCD monitor in one of the following two ways:

In the upright position



Lay the screen face down



Lay the protective sheet on a table, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.

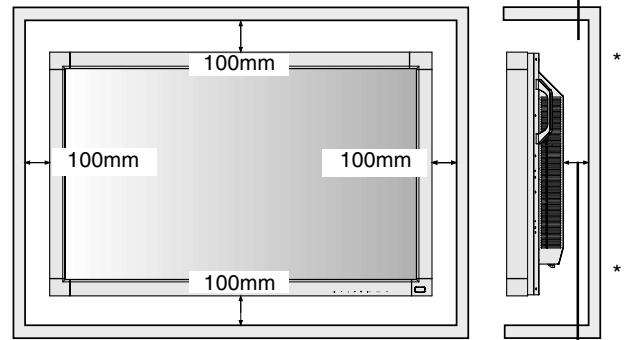
This device cannot be used or installed without the Tabletop Stand or other mounting accessory. Failure to follow correct mounting procedures could result in damage to the equipment or injury to the user or installer. Product warranty does not cover damage caused by improper installation. Failure to follow these recommendations could result in voiding your warranty.

When using with other mounting accessory, it must be a VESA-compatible mounting method and the screws must be M6 of size and 8mm or longer of length under consideration of the thickness of the mounting method. (Recommended torque: 274 ~ 362N·cm). NEC recommends using mounting interface that comply with UL1678 standard in North America.

Ventilation Requirements for enclosure mounting

To allow heat to disperse, leave space between surrounding objects as shown in the diagram to the right.

Ambient temperature should be less than 40°C.

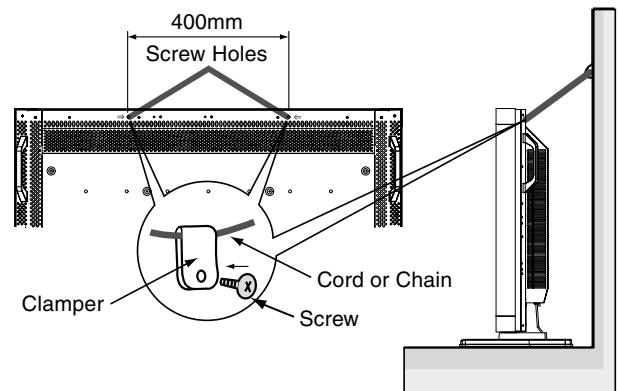


* Use some fans as needed.

100mm

To avoid falling down

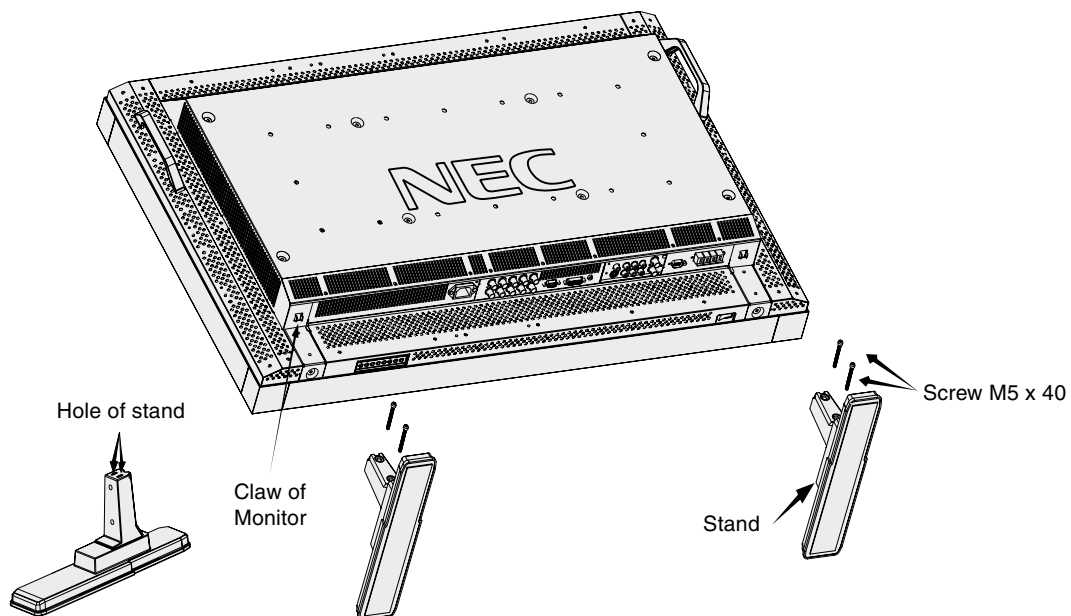
Fasten the LCD monitor to wall or pillar with a cord or chain which is sufficient to support the weight of the LCD monitor (approx. 31.5kg).



Before moving the LCD monitor, the cord or chain should be removed.

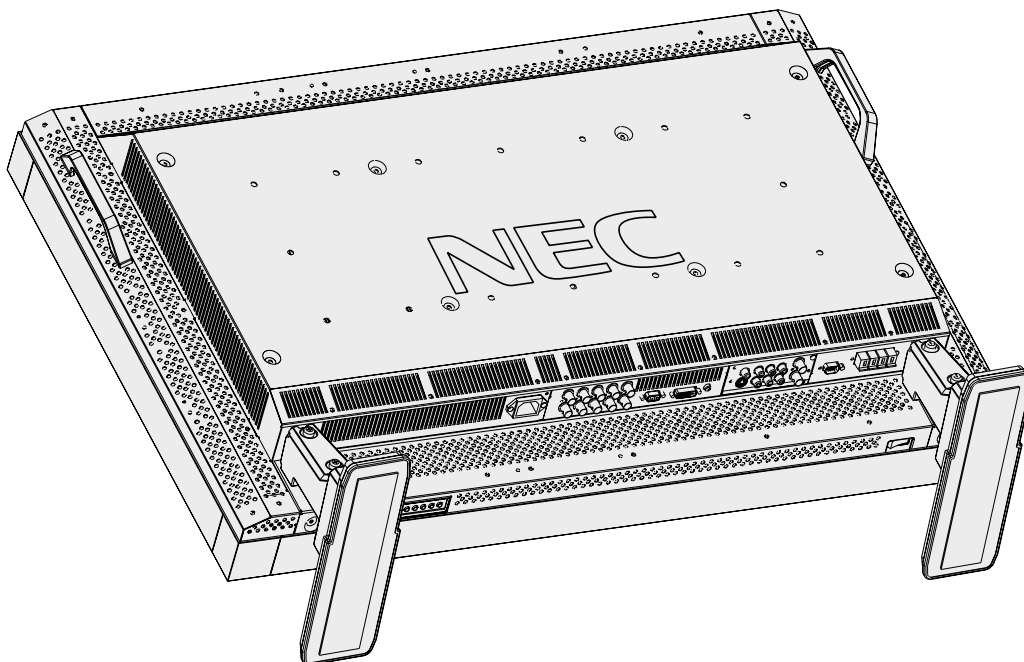
How to install stand

1. Please turn monitor off.
2. Insert claws of monitor to stand holes until clicks.
3. Fasten 2 screws (M5 x 40) of both side.
Torque 280 ~ 300N cm



How to remove the stand

1. Spread the protective sheet on the flat surface, such as a desk.
2. Place monitor on the protective sheet.
3. Remove 2 screws of each stand with a screw driver and keep them for reuse.

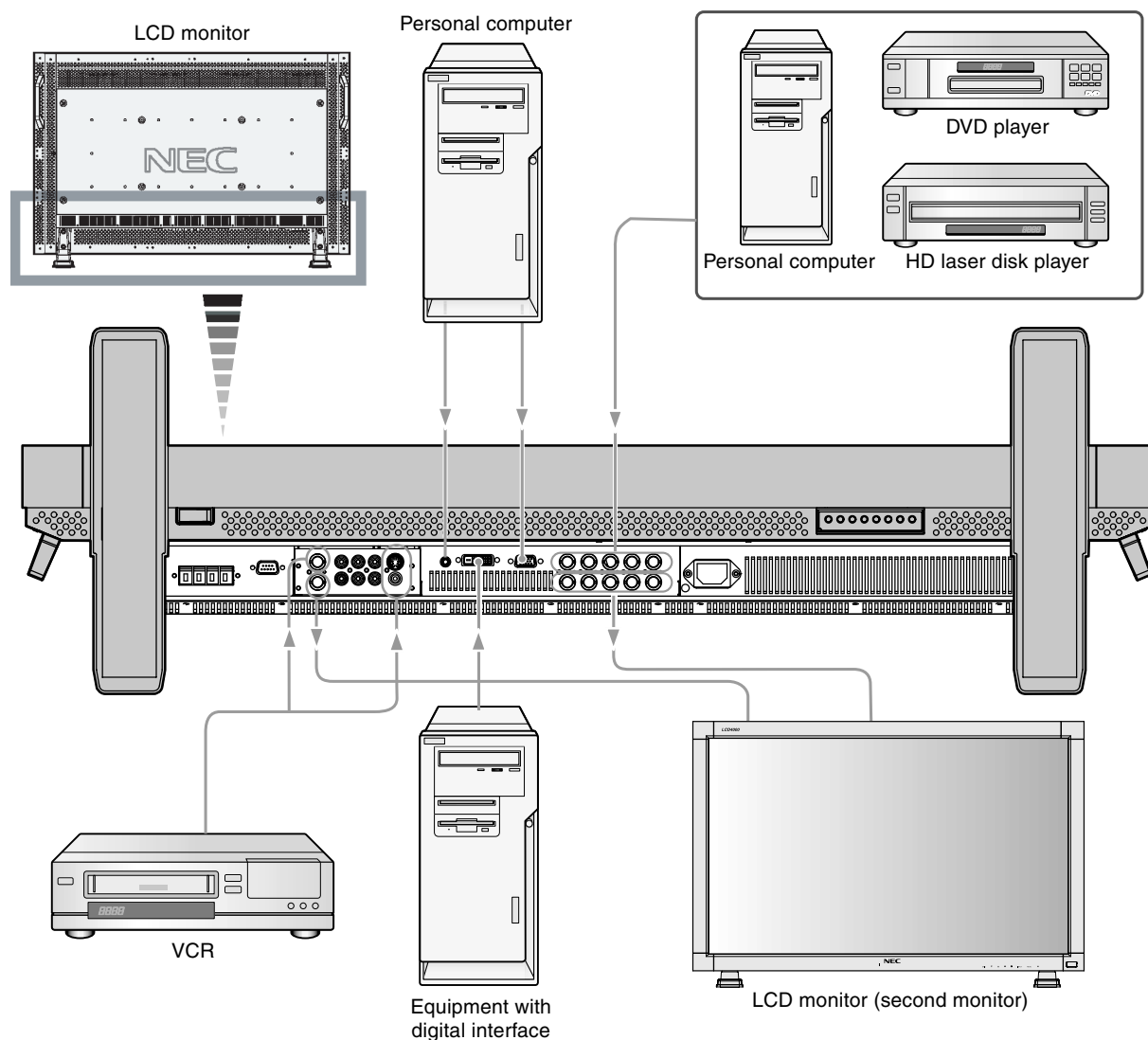


Connections

Before making connections:

- * First turn off the power of all equipment to be attached.
- * Refer to the user manual in regard to this equipment.

Wiring Diagram



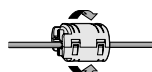
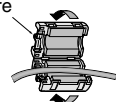
Attaching the Ferrite Core

Attach the Ferrite Core to PC Audio Cable and S-VIDEO Cable. Use of the cable without mounting the ferrite core will result in the occurrence of noise.

For PC Audio Cable

- 1 Open the ferrite core and clamp it on the PC Audio cable.
- 2 Close the ferrite core.

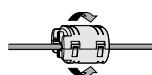
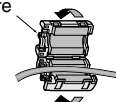
Ferrite Core



For S-VIDEO Cable

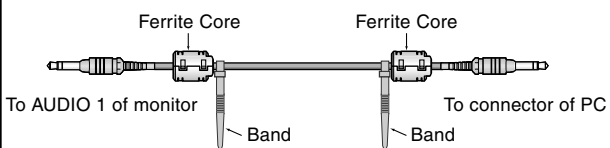
- 1 Open the ferrite core and clamp it on the S-VIDEO cable.
- 2 Close the ferrite core.

Ferrite Core

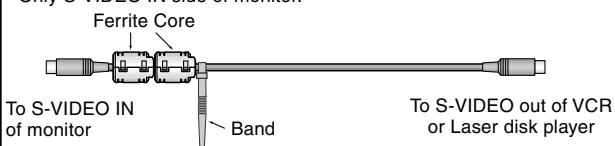


Mounting Position of Ferrite Core

Attach the two Ferrite Cores to the both ends of PC Audio Cable.



Attach the two Ferrite Cores to the end of S-VIDEO Cable. Only S-VIDEO IN side of monitor.



Connecting a Personal Computer

Connecting your computer to your LCD monitor will enable you to display your computer's screen image.

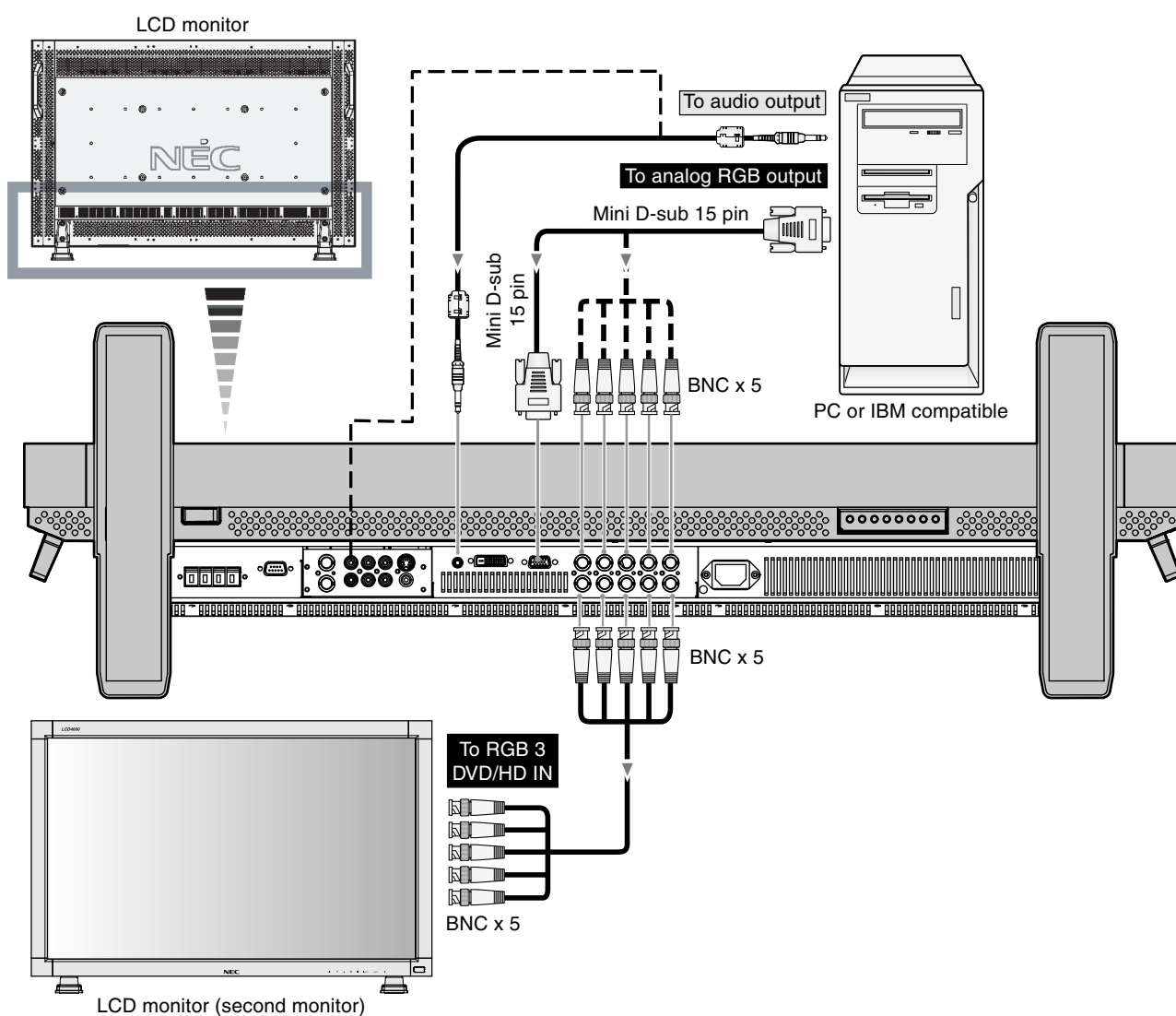
Some video cards may not be able to create a correct image resolution.

Connect the LCD Monitor to a Personal Computer

- To connect the RGB 2 IN connector (mini D-sub 15 pin) on the LCD monitor, use the supplied PC - Video RGB signal cable (mini D-sub 15 pin to mini D-sub 15 pin).
- To connect the RGB 3 DVD/HD IN connector (BNC) on the LCD monitor, use a signal cable which is available separately (mini D-sub 15 pin to BNC x 5). Select RGB 3 from the INPUT button.

When connecting one or more LCD monitors, use the RGB OUT connector (BNC).

- The AUDIO IN 1 can be used for audio input. For connection, select AUDIO 1 from the AUDIO INPUT button.



Connecting to a Macintosh® Computer

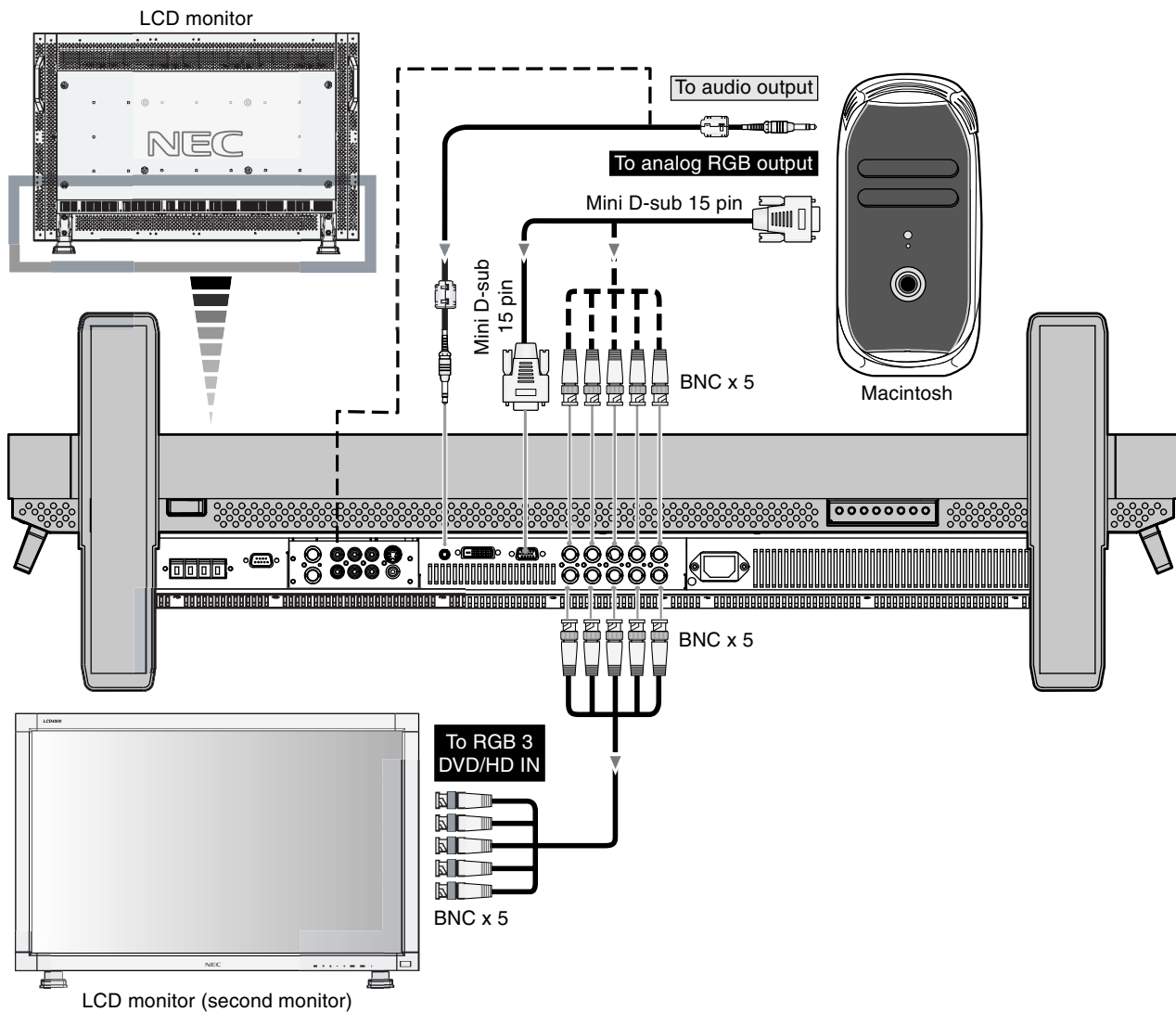
Connecting your Macintosh® computer to your LCD monitor will enable you to display your computer's screen image. Some video cards or drivers may not display images correctly.

Connect the LCD Monitor to Macintosh®

- To connect the RGB 2 IN connector (mini D-sub 15 pin) on the LCD monitor, use the supplied PC - Video RGB signal cable (mini D-sub 15 pin to mini D-sub 15 pin).
- To connect the RGB 3 DVD/HD IN connector (BNC) on the LCD monitor, use the signal cable available separately (mini D-sub 15 pin to BNC x 5).
- If you use with a Macintosh PowerBook, set "Mirroring" to Off.

Refer to your Macintosh's owner's manual for more information about your computer's video output requirements and any special identification or configuring your monitor's image and monitor may require.

- The AUDIO IN 1 can be used for audio input. For connection, select AUDIO 1 from the AUDIO INPUT button.

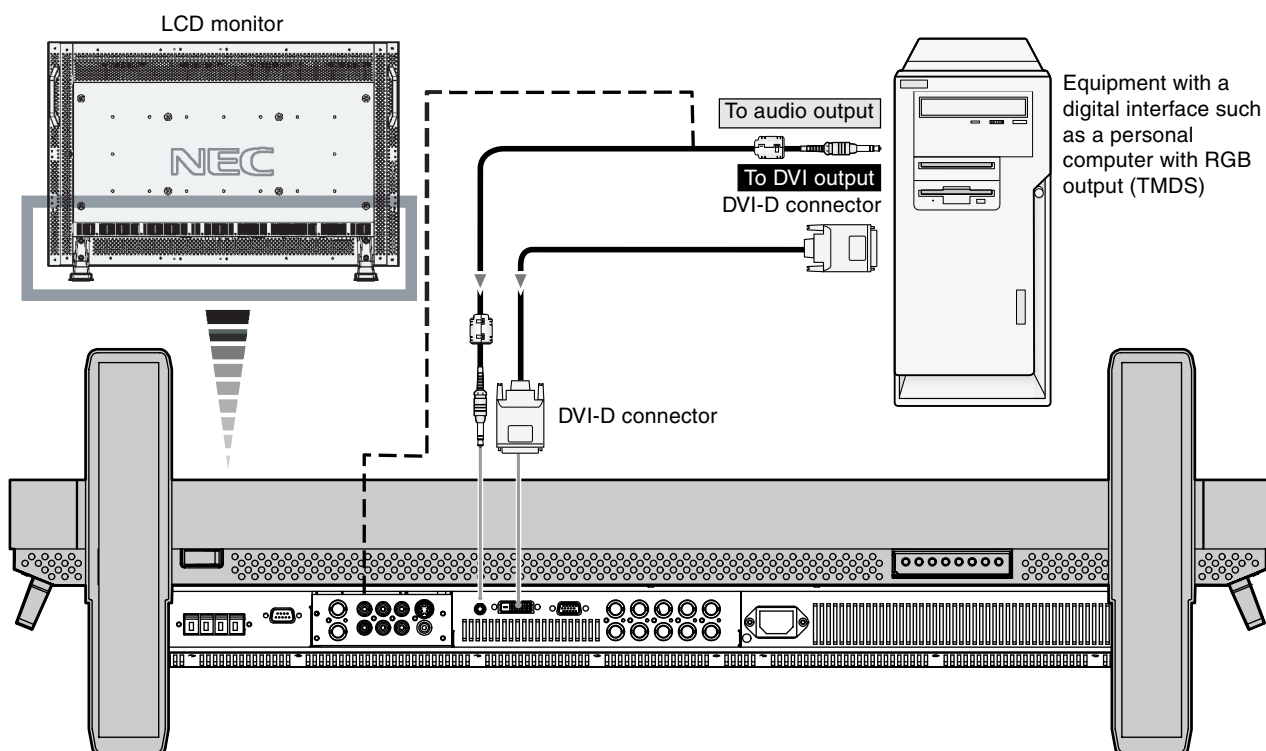


Connections with Digital Interface Equipment

Connections can be made with equipment that is equipped with a digital interface compliant with the DVI (Digital Visual Interface) standard.

Connect the LCD Monitor to a Computer with a Digital Output

- The RGB 1 IN connector also accepts a DVI-D cable.
- Input TMDS signals conforming to DVI standards.
- To maintain display quality, use a cable with a quality prescribed by DVI standards.
- The AUDIO IN 1 can be used for audio input. For connection, select AUDIO 1 from the AUDIO INPUT button.



Connecting a VCR

Connecting your VCR or laser disc player to your LCD monitor will enable you to display your VCR's or laser disc player's video. Refer to your VCR or laser disc player owner's manual for more information.

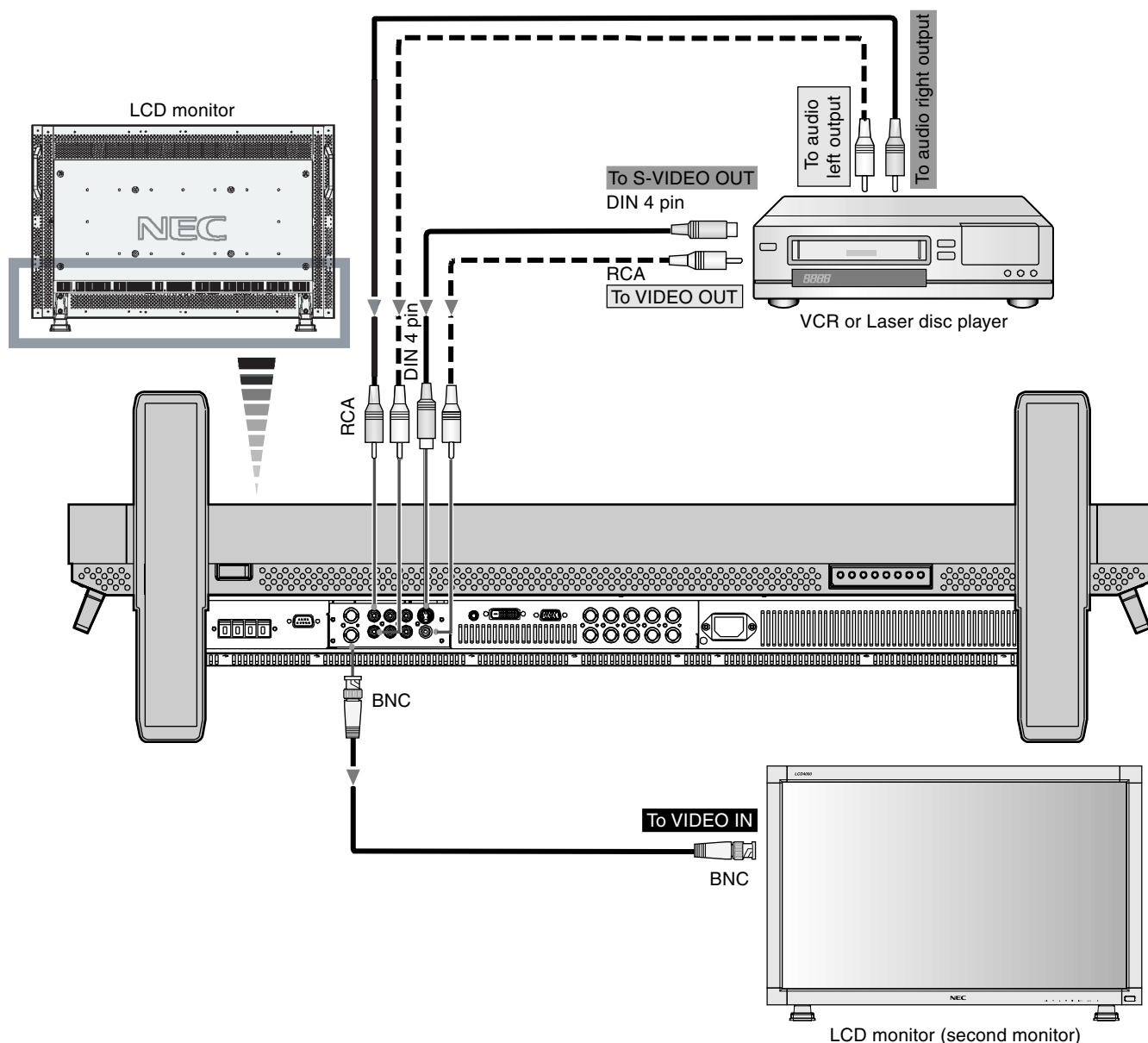
Connect the LCD Monitor to a VCR or Laser Disc Player

- Video signals can be connected to either the VIDEO IN [RCA or BNC] or the S-VIDEO IN connector.

NOTE: S-VIDEO is priority input.

Only one of the connectors, either RCA or BNC, can be used alternatively.

- Video output will be from the OUT connector.
- When connecting one or more LCD monitors in addition, use the VIDEO OUT connectors (BNC).
- The AUDIO IN 2 and 3 can be both used for audio input. For connection, select [AUDIO 2] or [AUDIO 3] from the AUDIO INPUT button.



Connecting a DVD Player with component out

Connecting your DVD player to your LCD monitor will enable you to display DVD video.

Refer to your DVD player user's manual for more information.

Connect the LCD Monitor to a DVD Player

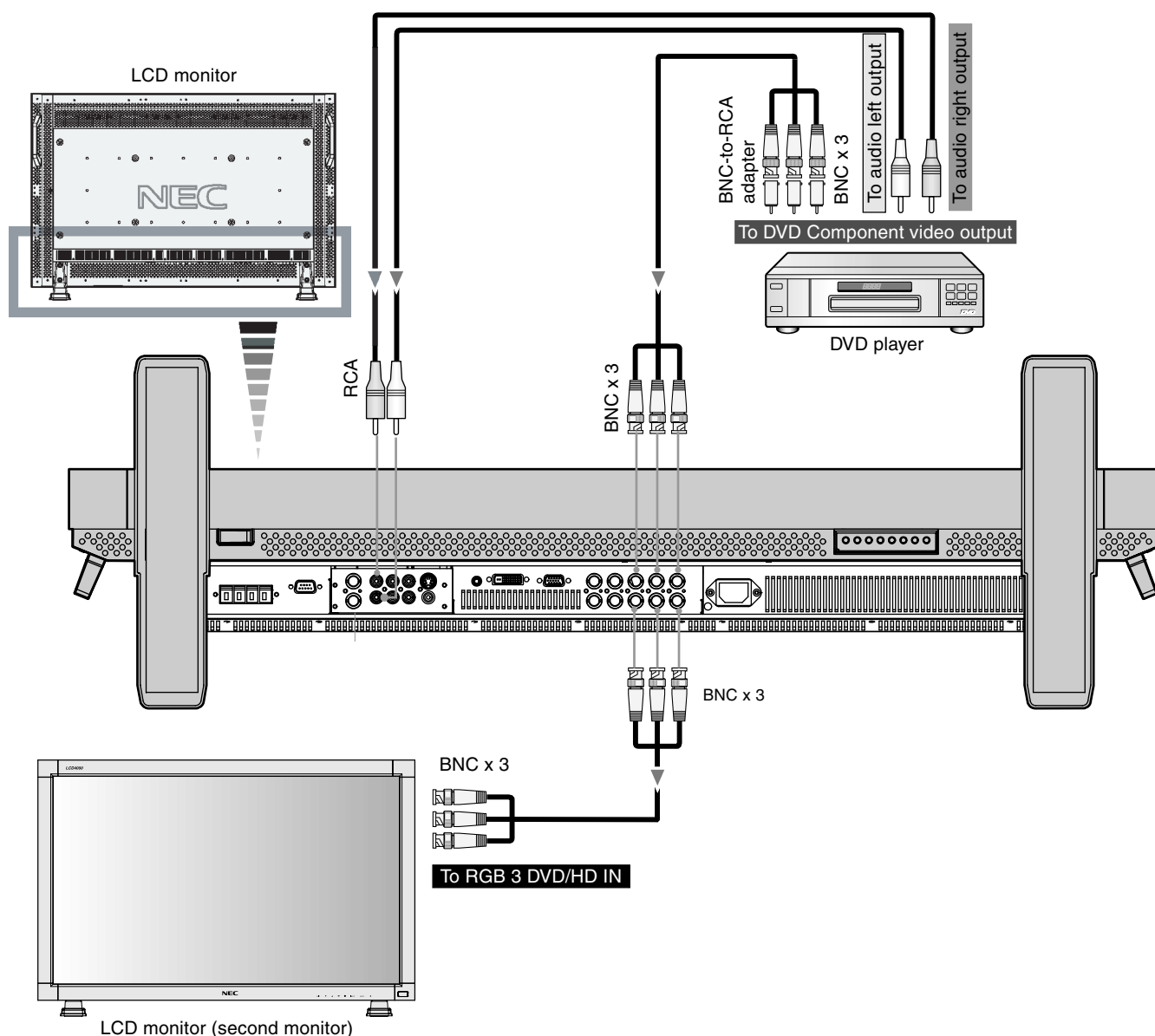
- To connect the RGB 3 DVD/HD In connector (BNC) on the LCD monitor, use a separately available BNC connector cable. You will need a separately available BNC-to-RCA adapter to connect a DVD player with an RCA pin jack to the BNC connector cable.

Some DVD players may have different connectors such as Cr/Pr, Y and Cb/Pb.

Select [DVD/HD] input mode from the INPUT button.

When connecting one or more LCD monitors, use the RGB 3 OUT connectors (BNC).

The AUDIO IN 2 and 3 (both RCA) can be used for audio input. For connection, select [AUDIO 2] or [AUDIO 3] from the AUDIO INPUT button.

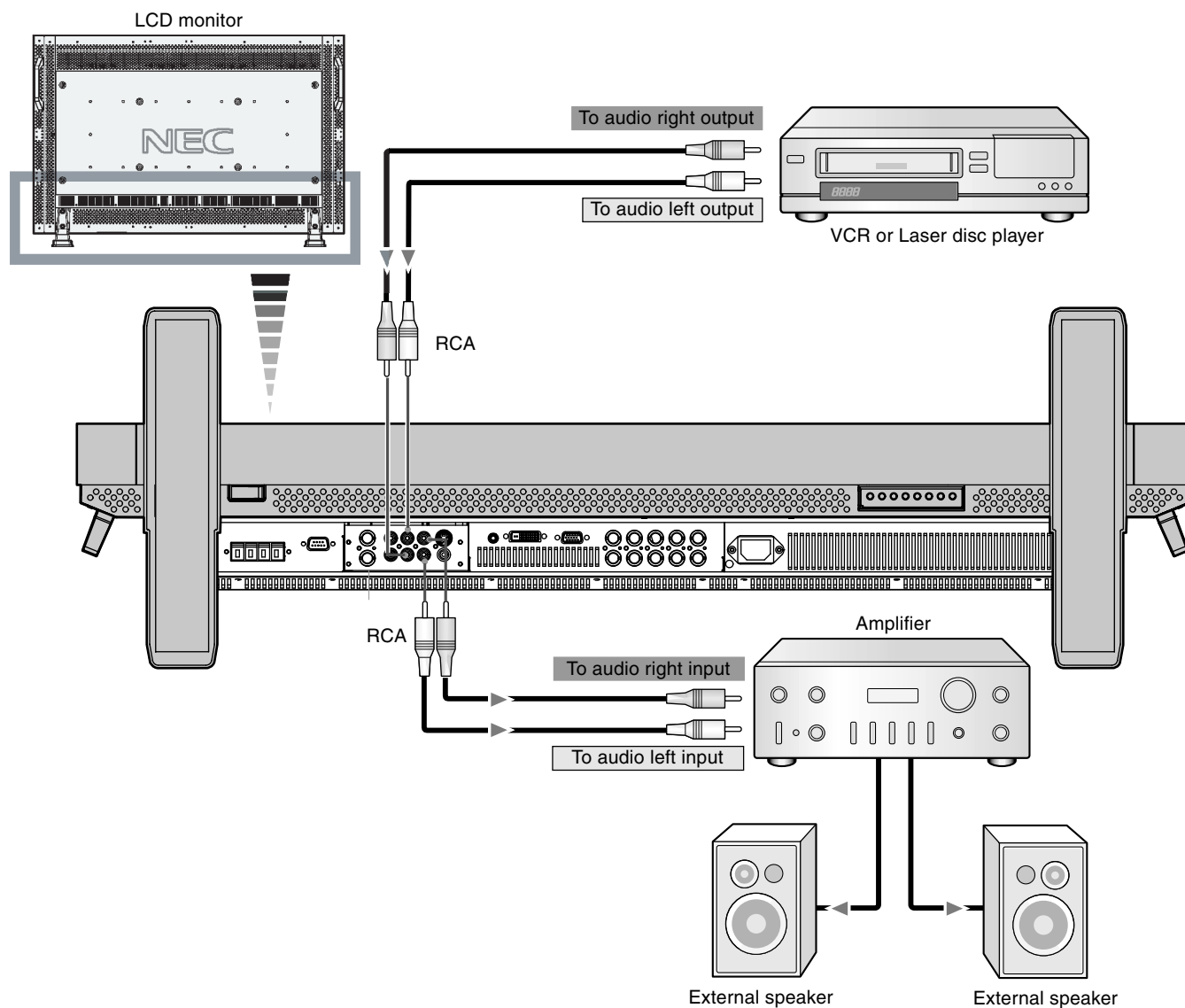


Connecting a Stereo Amplifier

You can connect your stereo amplifier to your LCD monitor. Refer to your amplifier user's manual for more information.

Connect the LCD Monitor to a Stereo Amplifier

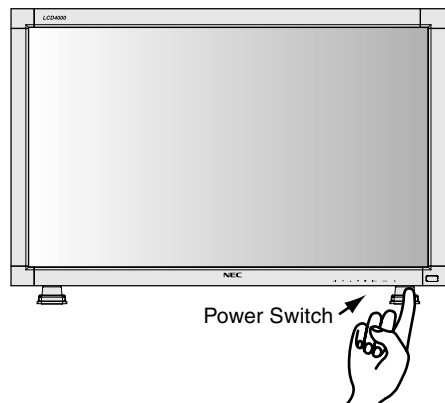
- Turn on the LCD monitor and the amplifier only after all connections have been made.
- Use an RCA cable to connect the AUDIO OUT connector (RCA) on the LCD monitor and the audio input on the amplifier.
- Do not reverse the audio left and right jacks.
- The AUDIO IN is used for audio input.
- The AUDIO OUT jack loops through the AUDIO IN 3 only.



Basic Operation

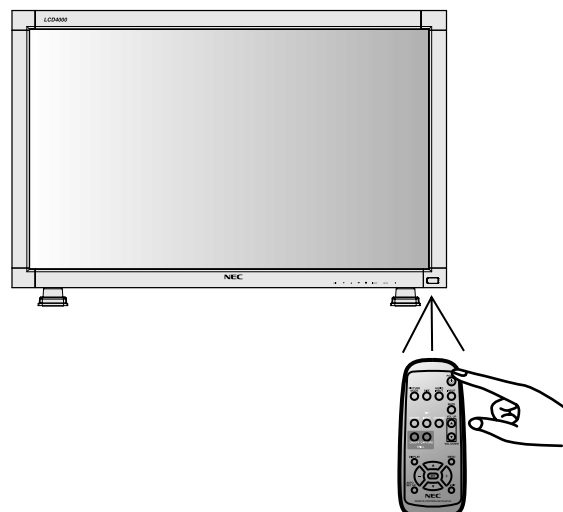
Power ON and OFF Modes

The LCD monitor power indicator will turn green while powered on, or red when in off mode. The monitor can be powered on or off using the following three options:



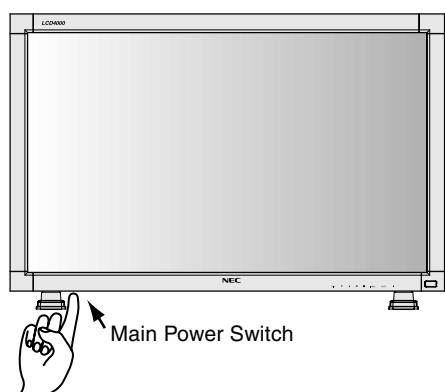
1. Pressing the power button.

Note: Before operating the remote control, be sure to turn on the Main Power Switch on LCD monitor.



2. Using the remote control.

Note: Before operating the remote control, be sure to turn on the Main Power Switch on the LCD monitor.



3. Pressing the Main Power Switch.

Note: When the Main Power Switch is used to power off the LCD, the remote control and the power switch will not activate the on mode. Be sure to turn the Main Power Switch to the on mode before using these two options.

Power Indicator

	Status
Power ON	Green
Power OFF	Red
Power Standby	Red and Green

Using Power Management

The LCD monitor follows the VESA approved DPMS Power Management function.

The power management function is an energy saving function that automatically reduces the power consumption of the display when the keyboard or the mouse has not been used for a fixed period.

Selecting a video source

To view a video source:

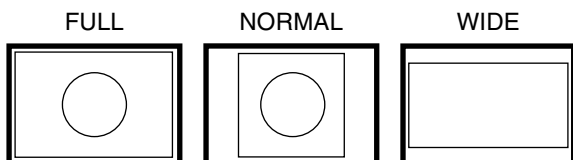
Use the input button to set [VIDEO].

Press the VIDEO button.

Use the COLOR SYSTEM menu to set [PAL], [SECAM], in according to your video format.

Picture Size

RGB 1, 2, 3 FULL* ↔ NORMAL
DVD/HD, Video WIDE → FULL → NORMAL



***NOTE:** Full only in case of W-XGA (1280 x 768)

Picture Mode

RGB 1, 2, 3 HIBRIGHT → sRGB → STANDARD
DVD/HD, Video HIBRIGHT → CINEMA → STANDARD

Information OSM

RGB1, 2, 3

RGB2 1024 x 768 48kHz 60Hz AUDIO : 1 SCREEN SIZE : FULL	← Video Input mode ← Input signal Information ← Audio input mode ← Picture Size mode
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DVD/HD

DVD/HD AUDIO : 3 SCREEN SIZE : WIDE	← Video Input mode ← Audio input mode ← Picture Size mode
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VIDEO

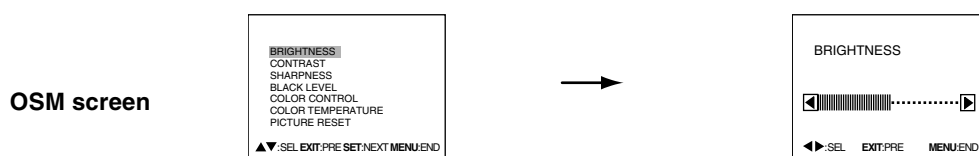
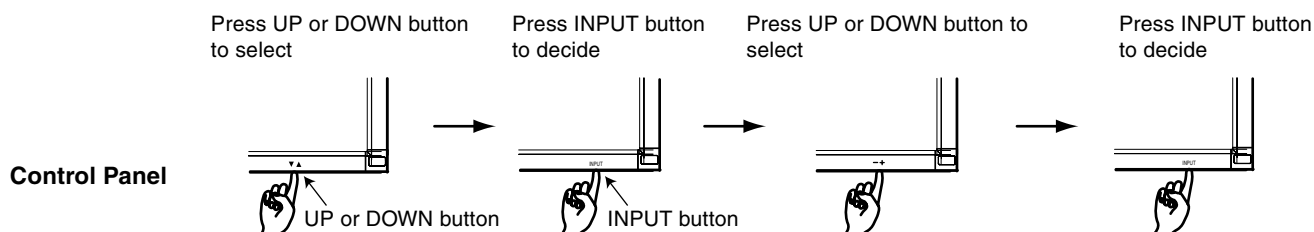
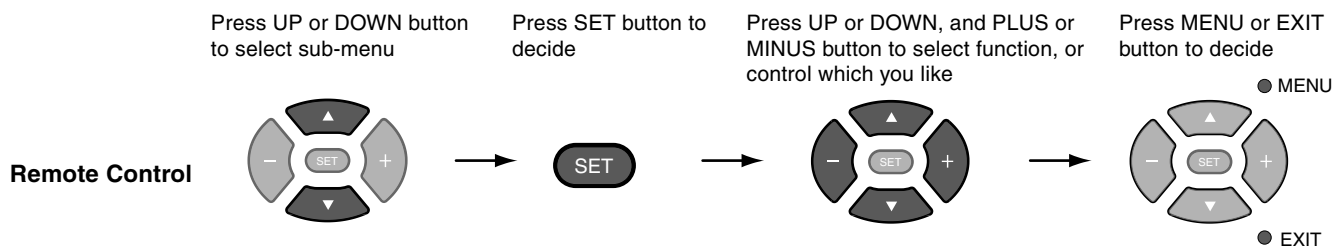
VIDEO<S> NTSC AUDIO : 3 SCREEN SIZE : NORMAL	← Video Input mode ← Input Signal Colour System mode ← Audio input mode ← Picture Size mode
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PIP or POP

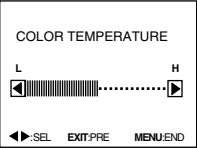
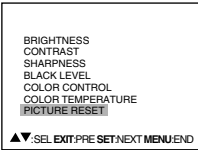
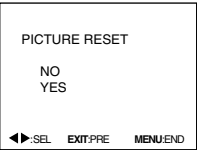
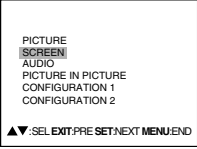
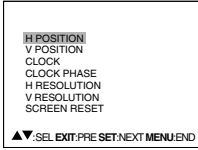
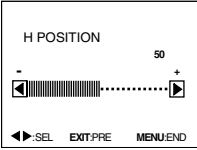
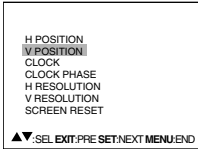
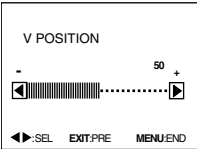
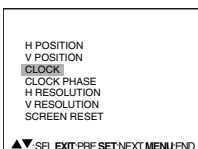
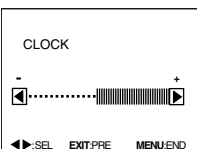
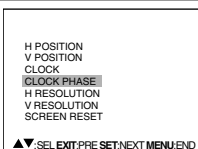
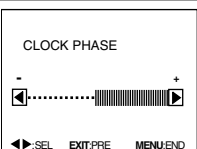
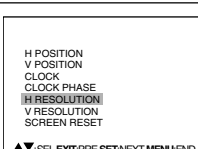
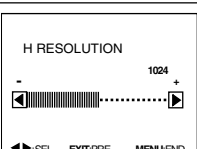
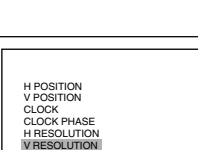
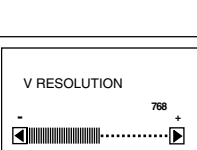
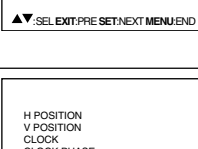
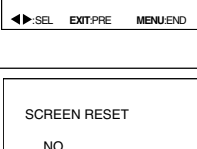
Main:RGB2
Sub:VIDEO<S>

RGB2 1024 x 768 48kHz 60Hz AUDIO : 1 VIDEO<S> NTSC SCREEN SIZE : FULL	← Main picture Information ← Sub picture Information ← Main picture Information
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OSM (On-Screen-Manager) Controls - Computer Input



Main-Menu			
PICTURE			
Sub-Menu			
	BRIGHTNESS		Adjusts the overall image and background screen brightness. Press + button to increase brightness. Press - button to decrease brightness.
	CONTRAST		Adjusts the image brightness in relation to the background Press + button to increase contrast. Press - button to decrease contrast.
	SHARPNESS		This function is digitally capable to keep crisp image at any timings. It is continuously adjustable to get distinct image or soft one as you prefer and set independently by different timing. Press + button to increase sharpness. Press - button to decrease sharpness.
	BLACK LEVEL		Press + button to increase black level. Press - button to decrease black level.
	COLOR CONTROL		Six colour presets select the desired colour setting. Colour temperature increases or decreases, in each preset. R, Y, G, C, B, M, S: Increases or decreases Red, Yellow, Green, Cyan, Blue magenta and Saturation depending upon when is selected. The change in colour will appear on screen and the direction (increase or decrease) will be shown by the colour bars.

COLOR TEMPERATURE			To adjust the colour temperature of entire screen. Adjusting power colour temperature make the screen reddish and adjusting higher colour temperature make the screen bluish.
PICTURE RESET			Selecting Picture reset allows you to reset all OSM settings related to PICTURE. Select “Yes” and press “SET” button to restore to factory preset.
Main-Menu SCREEN Sub-Menu 			
H POSITION			Controls Horizontal Image position within the display area of the LCD. Press + button to move screen to right. Press - button to move screen to left.
V POSITION			Controls Vertical Image position within the display area of the LCD. Press + button to move screen to UP. Press - button to move screen to DOWN.
CLOCK *:INPUT RGB2/3 only			Press + button to expand the width of the image on the screen to the right. Press - button to narrow the width of the image on the screen to the left.
CLOCK PHASE *:INPUT RGB2/3 only			To change the snow noise of the image.
H RESOLUTION			Adjusts the horizontal size by increasing or decreasing the setting. Press + button to expand the width of the image on the screen. Press - button to narrow the width of the image on the screen.
V RESOLUTION			Adjusts the vertical size by increasing or decreasing the setting. Press + button to expand the height of the image on the screen. Press - button to narrow the height of the image on the screen.
SCREEN RESET			Selecting Screen reset allow you to reset all OSM setting about SCREEN setting. Select “Yes” and press “SET” button to decide to restore to factory preset.

Main-Menu				PICTURE SCREEN AUDIO PICTURE IN PICTURE CONFIGURATION 1 CONFIGURATION 2 ▲▼:SEL EXIT PRE SET NEXT MENU END	
AUDIO					
Sub-Menu					
TREBLE	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	TREBLE - + ◀▶:SEL EXIT PRE MENU END	To accentuate or reduce the high frequency sound. Press + button to increase TREBLE sound. Press - button to decrease TREBLE sound.		
BASS	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	BASS - + ◀▶:SEL EXIT PRE MENU END	To accentuate or reduce the low frequency sound. Press + button to increase BASS sound. Press - button to decrease BASS sound.		
AUDIO RESET	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	AUDIO RESET NO YES ◀▶:SEL EXIT PRE MENU END	Selecting Picture reset allows you to reset all OSM settings related to AUDIO. Select “Yes” and press “SET” button to restore to factory preset.		
Main-Menu				PICTURE SCREEN AUDIO PICTURE IN PICTURE CONFIGURATION 1 CONFIGURATION 2 ▲▼:SEL EXIT PRE SET NEXT MENU END	
PICTURE IN PICTURE					
Sub-Menu					
PIP SIZE	PIP SIZE PIP AUDIO PIP RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	PIP SIZE LARGE MIDDLE SMALL REMOTE-PIP ◀▶:SEL EXIT PRE MENU END	Selecting the size of picture inserted at the “Picture-in-Picture” (PIP) mode. “Large”, “Middle”, “Small” and “REMOTE-PIP” are available.		
PIP AUDIO	PIP SIZE PIP AUDIO PIP RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	PIP AUDIO MAIN AUDIO PIP AUDIO ◀▶:SEL EXIT PRE MENU END	Selecting the sound source in PIP mode. When selecting “MAIN AUDIO”, you get the sound for the main picture and when selecting “PIP AUDIO”, you get the sound for the picture inserted.		
PIP RESET	PIP SIZE PIP AUDIO PIP RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	PIP RESET NO YES ◀▶:SEL EXIT PRE MENU END	Selecting Picture reset allows you to reset all OSM settings related to PIP. Select “Yes” and press “SET” button to restore to factory preset.		
Main-Menu				PICTURE SCREEN AUDIO PICTURE IN PICTURE CONFIGURATION 1 CONFIGURATION 2 ▲▼:SEL EXIT PRE SET NEXT MENU END	
CONFIGURATION 1					
Sub-Menu					
AUTO SETUP	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT PRE SET NEXT MENU END	AUTO SETUP NO YES ◀▶:SEL EXIT PRE MENU END	Select “Yes” and press “SET” button to automatically adjust horizontal position, vertical position, clock, clock-phase, black level.		
AUTO ADJUST	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT PRE SET NEXT MENU END	AUTO ADJUST ON OFF ◀▶:SEL EXIT PRE MENU END	Selecting the auto adjust ON/OFF. When select “ON”, the clock-phase will be automatically adjusted.		
AUTO BRIGHTNESS	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT PRE SET NEXT MENU END	AUTO BRIGHTNESS ON OFF ◀▶:SEL EXIT PRE MENU END	Selecting the auto brightness ON/OFF. When select “ON”, the brightness will be automatically adjusted.		

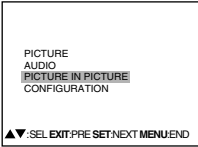
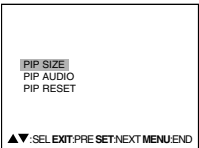
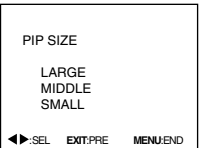
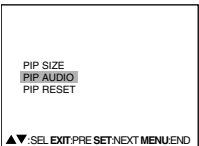
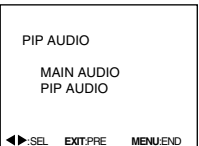
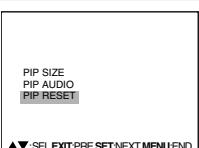
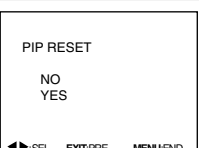
POWER SAVE	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	POWER SAVE ON OFF ◀▶:SEL EXIT:PRE MENU:END	Selecting the power management ON/OFF mode.
LANGUAGE	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	LANGUAGE ENGLISH DEUTSCH ESPANOL FRANCAIS ITALIANO SVENSKA JAPAN ◀▶:SEL EXIT:PRE MENU:END	OSM control menus are available in seven languages.
OSM TIME	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	OSM TIME 5 ◀▶:SEL EXIT:PRE MENU:END	In the OSM Time menu, you can select how long the OSM information will stay after Display key push. A time between 3 and 30 seconds, is available.
OFF TIMER	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	OFF TIMER ON 24H OFF ◀▶:SEL EXIT:PRE MENU:END	To select OFF TIMER mode ON/OFF. In the OFF TIMER menu, you can select how long monitor auto turn off time after monitor has been turned on. A time between 1 and 24 hours, is available.
SCREEN SAVER	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	SCREEN SAVER ON OFF ◀▶:SEL EXIT:PRE MENU:END	To select SCREEN SAVER mode, select ON/OFF.
FACTORY PRESET	AUTO SETUP AUTO ADJUST AUTO BRIGHTNESS POWER SAVE LANGUAGE OSM TIME OFF TIMER SCREEN SAVER FACTORY PRESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	FACTORY PRESET NO YES ◀▶:SEL EXIT:PRE MENU:END	Selecting YES allows you to reset all OSM control settings back to the factory settings.

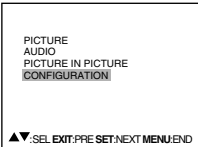
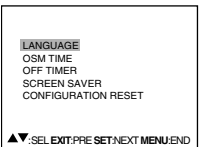
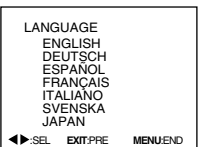
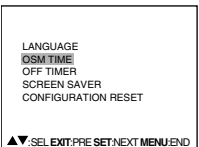
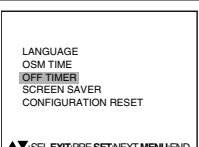
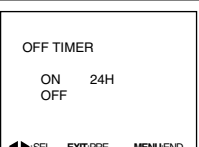
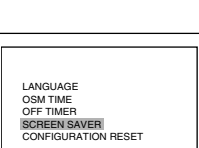
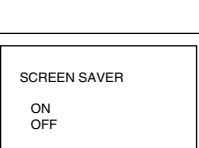
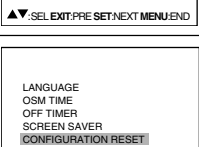
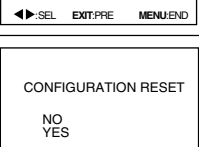
Main-Menu CONFIGURATION 2				PICTURE SCREEN AUDIO PICTURE IN PICTURE CONFIGURATION 1 CONFIGURATION 2 ▲▼:SEL EXIT:PRE SET:NEXT MENU:END
Sub-Menu				
LONG CABLE ON/OFF *:INPUT RGB2/3 only	LONG CABLE ON/OFF LONG CABLE MANUAL ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	LONG CABLE ON OFF ◀▶:SEL EXIT:PRE MENU:END	Enabling long cable compensation can be performed. If ON, enforcement of an AUTO Set Up performs the compensation algorithm. See attached CD-ROM for the adjustment.	
LONG CABLE MANUAL *:INPUT RGB2/3 only	LONG CABLE ON/OFF LONG CABLE MANUAL ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	LONG CABLE MANUAL R DELAY 0 G DELAY 0 B DELAY 0 R SHARPNESS 0 G SHARPNESS 0 B SHARPNESS 0 SOG PEAK 0 ◀▶:SEL EXIT:PRE MENU:END	Degradation of image quality when using long analog signal cables can be adjusted manually for optimum image quality.	

OSM (On-Screen-Manager) Controls - DVD&HD Input

Main-Menu		PICTURE AUDIO PICTURE IN PICTURE CONFIGURATION ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	
Sub-Menu			
BRIGHTNESS	BRIGHTNESS CONTRAST SHARPNESS COLOR BLACK LEVEL PICTURE RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	BRIGHTNESS 50 ◀▶:SEL EXIT:PRE MENU:END	Adjusts the overall image and background screen brightness. Press + button to increase brightness. Press - button to decrease brightness.
CONTRAST	BRIGHTNESS CONTRAST SHARPNESS COLOR BLACK LEVEL PICTURE RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	CONTRAST 50 ◀▶:SEL EXIT:PRE MENU:END	Adjusts the image brightness in relation to the back ground Press + button to increase contrast. Press - button to decrease contrast.
SHARPNESS	BRIGHTNESS CONTRAST SHARPNESS COLOR BLACK LEVEL PICTURE RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	SHARPNESS 50 ◀▶:SEL EXIT:PRE MENU:END	This function is digitally capable to keep crisp image at any timings. It is continuously adjustable to get distinct image or soft one as you prefer and set independently by different timing. Press + button to increase sharpness. Press - button to decrease sharpness.
COLOR	BRIGHTNESS CONTRAST SHARPNESS COLOR BLACK LEVEL PICTURE RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	COLOR ◀▶:SEL EXIT:PRE MENU:END	Adjust the color depth of the screen. Press + button to increase colour depth. Press - button to decrease colour depth.
BLACK LEVEL	BRIGHTNESS CONTRAST SHARPNESS COLOR BLACK LEVEL PICTURE RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	BLACK LEVEL ◀▶:SEL EXIT:PRE MENU:END	Press + button to increase black level. Press - button to decrease black level.
PICTURE RESET	BRIGHTNESS CONTRAST SHARPNESS COLOR BLACK LEVEL PICTURE RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	PICTURE RESET NO YES ◀▶:SEL EXIT:PRE MENU:END	Selecting Picture reset allows you to reset all OSM settings related to PICTURE. Select “Yes” and press “SET” button to restore to factory preset.

Main-Menu		PICTURE AUDIO PICTURE IN PICTURE CONFIGURATION ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	
Sub-Menu			
TREBLE	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	TREBLE - + ◀▶:SEL EXIT:PRE MENU:END	To accentuate or quiet the high frequency sound. Press + button to increase TREBLE sound. Press - button to decrease TREBLE sound.
BASS	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	BASS - + ◀▶:SEL EXIT:PRE MENU:END	To accentuate or quiet the low frequency sound. Press + button to increase BASS sound. Press - button to decrease BASS sound.
AUDIO RESET	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	AUDIO RESET NO YES ◀▶:SEL EXIT:PRE MENU:END	Selecting Picture reset allows you to reset all OSM settings related to AUDIO. Select “Yes” and press “SET” button to decide to restore to factory preset.

Main-Menu PICTURE IN PICTURE			
Sub-Menu			
PIP SIZE			Selecting the size of picture inserted at the “Picture-in Picture” (PIP) mode. “Large”, “Middle”, and “Small” are available.
PIP AUDIO			Selecting the sound source in PIP mode. When selecting “MAIN AUDIO”, you get the sound for the main picture and when selecting “PIP AUDIO”, you get the sound for the picture inserted.
PIP RESET			Selecting Picture reset allows you to reset all OSM settings related to PIP. Select “Yes” and press “SET” button to restore to factory preset.

Main-Menu CONFIGURATION			
Sub-Menu			
LANGUAGE			OSM control menus are available in seven languages.
OSM TIME			In the OSM Time menu, you can select how long the OSM information will stay after Display key push. A time between 3 and 30 seconds, is available.
OFF TIMER			To select OFF TIMER mode ON/OFF. In the OFF TIMER menu, you can select how long monitor auto turn off time after monitor has been turned on. A time between 1 and 24 hours, is available.
SCREEN SAVER			To select SCREEN SAVER mode, select ON/OFF.
CONFIGURATION RESET			Selecting the configuration reset allows you to reset all configuration settings. Select “Yes” and press “SET” button to restore to factory preset.

OSM (On-Screen-Manager) Controls - AV Input

Main-Menu		PICTURE AUDIO PICTURE IN PICTURE CONFIGURATION ▲▼:SEL EXIT PRE SET NEXT MENU END	
Sub-Menu			
BRIGHTNESS	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	BRIGHTNESS 50 ◀▶:SEL EXIT PRE MENU END	Adjusts the overall image and background screen brightness. Press + button to increase brightness. Press - button to decrease brightness.
CONTRAST	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	CONTRAST 50 ◀▶:SEL EXIT PRE MENU END	Adjusts the image brightness in relation to the background Press + button to increase contrast. Press - button to decrease contrast.
SHARPNESS	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	SHARPNESS 50 ◀▶:SEL EXIT PRE MENU END	This function is digitally capable to keep crisp image at any timings. It is continuously adjustable to get distinct image or soft one as you prefer and set independently by different timing. Press + button to increase sharpness. Press - button to decrease sharpness.
TINT	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	TINT ◀▶:SEL EXIT PRE MENU END	Adjust the tint of the screen. Press + button to Skin colour becomes greenish. Press - button to Skin colour becomes purplish.
COLOR	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	COLOR ◀▶:SEL EXIT PRE MENU END	Adjust the colour depth of the screen. Press + button to increase colour depth. Press - button to decrease colour depth.
BLACK LEVEL	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	BLACK LEVEL ◀▶:SEL EXIT PRE MENU END	Press + button to increase black level. Press - button to decrease black level.
NOISE REDUCTION	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	NOISE REDUCTION ON OFF ◀▶:SEL EXIT PRE MENU END	Activates Auto Noise reduction function.
PICTURE RESET	BRIGHTNESS CONTRAST SHARPNESS TINT COLOR BLACK LEVEL NOISE REDUCTION PICTURE RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	PICTURE RESET NO YES ◀▶:SEL EXIT PRE MENU END	Selecting Picture reset allows you to reset all OSM settings related to PICTURE settings. Select "Yes" and press "SET" button to restore to factory preset.

Main-Menu		PICTURE AUDIO PICTURE IN PICTURE CONFIGURATION ▲▼:SEL EXIT PRE SET NEXT MENU END	
AUDIO			
Sub-Menu			
TREBLE	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	TREBLE -.....+ ◀▶:SEL EXIT PRE MENU END	To accentuate or quiet the high frequency sound. Press + button to increase TREBLE sound. Press - button to decrease TREBLE sound.
BASS	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	BASS -.....+ ◀▶:SEL EXIT PRE MENU END	To accentuate or quiet the low frequency sound. Press + button to increase BASS sound. Press - button to decrease BASS sound.
AUDIO RESET	TREBLE BASS AUDIO RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	AUDIO RESET NO YES ◀▶:SEL EXIT PRE MENU END	Selecting Audio reset allows you to reset all OSM settings related to AUDIO. Select “Yes” and press “SET” button to decide to restore to factory preset.

Main-Menu		PICTURE AUDIO PICTURE IN PICTURE CONFIGURATION ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	
PICTURE IN PICTURE			
Sub-Menu			
PIP SIZE	PIP SIZE PIP AUDIO PIP RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	PIP SIZE LARGE MIDDLE SMALL ◀▶:SEL EXIT:PRE MENU:END	Selecting the size of picture inserted at the “Picture-in Picture” (PIP) mode. “Large”, “Middle”, and “Small” are available.
PIP AUDIO	PIP SIZE PIP AUDIO PIP RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	PIP AUDIO MAIN AUDIO PIP AUDIO ◀▶:SEL EXIT:PRE MENU:END	Selecting the sound source in PIP mode. When selecting “MAIN AUDIO”, you get the sound for the main picture and when selecting “PIP AUDIO”, you get the sound for the picture inserted.
PIP RESET	PIP SIZE PIP AUDIO PIP RESET ▲▼:SEL EXIT:PRE SET:NEXT MENU:END	PIP RESET NO YES ◀▶:SEL EXIT:PRE MENU:END	Selecting Picture reset allows you to reset all OSM settings related to PIP. Select “Yes” and press “SET” button to restore to factory preset.

Main-Menu		PICTURE AUDIO PICTURE IN PICTURE CONFIGURATION ▲▼:SEL EXIT PRE SET NEXT MENU END	
CONFIGURATION			
Sub-Menu			
LANGUAGE	LANGUAGE OSM TIME OFF TIMER SCREEN SAVER COLOR SYSTEM CONFIGURATION RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	LANGUAGE ENGLISH DEUTSCH ESPAÑOL FRANÇAIS ITALIANO SVENSKA JAPAN ◀▶:SEL EXIT PRE MENU END	OSM control menus are available in seven languages.
OSM TIME	LANGUAGE OSM TIME OFF TIMER SCREEN SAVER COLOR SYSTEM CONFIGURATION RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	OSM TIME - 5 + ◀▶:SEL EXIT PRE MENU END	In the OSM Time menu, you can select how long the OSM information will stay after Display key push. A time between 3 and 30 seconds, is available.

OFF TIMER	LANGUAGE OSM TIME OFF TIMER SCREEN SAVER COLOR SYSTEM CONFIGURATION RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	OFF TIMER ON 24H OFF ◀▶:SEL EXIT PRE MENU END	To select OFF TIMER mode ON/OFF. In the OFF TIMER menu, you can select monitor auto turn off time after monitor has been turned on. A time between 1 and 24 hours, is available.
SCREEN SAVER	LANGUAGE OSM TIME OFF TIMER SCREEN SAVER COLOR SYSTEM CONFIGURATION RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	SCREEN SAVER ON OFF ◀▶:SEL EXIT PRE MENU END	To select SCREEN SAVER mode, select ON/OFF.
COLOR SYSTEM	LANGUAGE OSM TIME OFF TIMER SCREEN SAVER COLOR SYSTEM CONFIGURATION RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	COLOR SYSTEM PAL SECAM ◀▶:SEL EXIT PRE MENU END	Selecting the colour system depending on your input video format. NTSC is auto.
CONFIGURATION RESET	LANGUAGE OSM TIME OFF TIMER SCREEN SAVER COLOR SYSTEM CONFIGURATION RESET ▲▼:SEL EXIT PRE SET NEXT MENU END	CONFIGURATION RESET NO YES ◀▶:SEL EXIT PRE MENU END	Selecting the configuration reset allows you to reset all configuration settings. Select “Yes” and press “SET” button to restore to factory preset.

Controlling the LCD monitor via RS-232C Remote Control

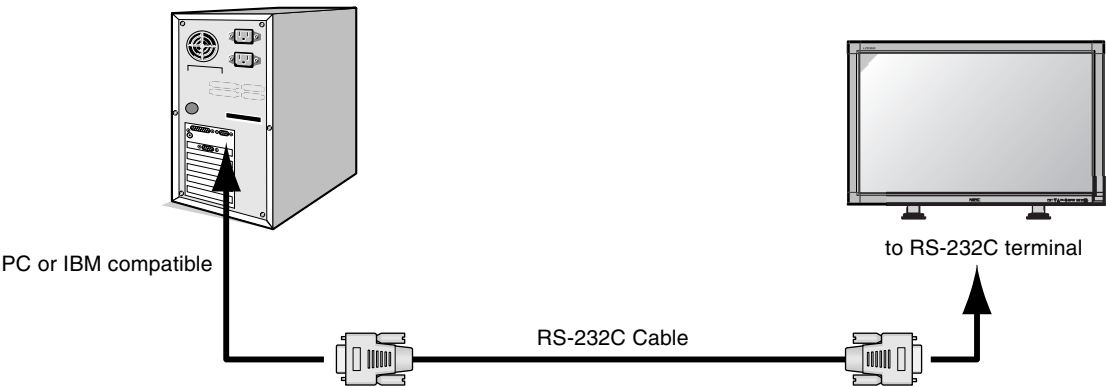
This LCD monitor can be remote controlled by connecting a computer with RS-232C interface.

The following functions can be controlled by a computer:

- Turn the monitor ON or OFF.
- Changing input signals.

Connection

LCD Monitor + IBM PC or IBM PC compatible



NOTE: If your PC is equipped only with a 25-pin serial port connector, a 25-pin serial port adapter is required. Contact your dealer for details.

1) Interface

PROTOCOL	RS-232C
BAUD RATE	9600 [bps]
DATA LENGTH	8 [bits]
PARITY BIT	NONE
STOP BIT	1 [bits]
FLOW CONTROL	NONE

This LCD monitor uses RXD, TXD and GND lines for RS-232C control.
RS-232C cable should be null modem type.

2) Control command protocol

A command is structured as: address code, function code, data code and end code.
The length of a command is variable, depending on function.

	Address code	Function code	Data code	End code
HEX	30h 30h	Function	Data	0Dh
ASCII	'0' '0'	Function	Data	↵

- [Address code] 30h 30h (ASCII code, '0' '0'), fixed.
- [Function code] A defined control code.
- [Data code] A defined value. Not available with all control commands.
- [End code] 0Dh (ASCII code, '↵'), fixed.

3) Control sequence

- (1) The command from a computer to the LCD monitor will be sent within 400ms.
- (2) The LCD monitor will send a return command 400ms* after it has received and executed a code. If the command isn't received correctly, the LCD monitor will not send the return command.
- (3) The computer checks the command and confirms if the command which has been sent has been executed or not.
- (4) The LCD monitor sends various codes other than the return code. When using the control sequence via RS-232C, rejection of other codes from computer side is required.

*: The sending time of return command may delay depending on the condition (during changing the input signal, etc.).

Example: Turn power ON (Corresponding ASCII code in ' ')

Sending commands from computer	Status code from LCD monitor	Meaning
30 30 21 0D '0' '0' '!' '↵'		Command for POWER ON
	30 30 21 0D '0' '0' '!' '↵'	Command received (Command echoed back)

4) Operation commands

The operation commands execute the basic operation setting of the LCD monitor.

It may not operate when changing the signal:

Operation	ASCII	HEX
POWER ON	!	21h
POWER OFF	"	22h
INPUT RGB 1	_r1	5Fh 72h 31h
INPUT RGB 2	_r2	5Fh 72h 32h
INPUT RGB 3	_r3	5Fh 72h 32h
INPUT VIDEO	_v1	5Fh 76h 31h
INPUT DVD/HD	_v2	5Fh 76h 32h

- POWER OFF command will not work for 1 minute after the power is turned on.
- POWER ON command will not work for 1 minute after the power is turned off.

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.

Colour Control Systems: Six colour presets select the desired colour setting (sRGB and NATIVE colour presets are standard and cannot be changed). Colour temperature increases or decreases, in each preset. R,Y,G,C,B,M,S: Increases or decreases Red, Yellow, Green, Cyan, Blue, Magenta and Saturation depending upon which is selected. The change in colour will appear on screen and the direction (increase or decrease) will be shown by the colour bars. NATIVE: Original colour presented by the LCD panel which is unadjustable.

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

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 LCD 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. NEC recommends using mounting interface that comply with UL1678 standard in North America.

DVI-D: The digital-only subset of DVI ratified 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 digital connectors such as DFP and P&D.

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

CableComp: Automatic long cable compensation prevents image quality degradation (colour shift and dull signals) caused by long cable lengths.

Remote PIP: Remote PIP is a different function from normal PIP that can display PIP on particular colour window on the desktop of PC and change the size, position with the mouse.

Set your PC as follows:

- (1) Open a new window (e.g. in Microsoft Excel) and create a picture box.
The size of the picture box should be set to, 256 dot x 144 line, which is 12.864 cm (W) x 7.236 cm (H)
or 512 dot x 384 line, which is 25.728 cm (W) x 19.296 cm (H)
- (2) Set the window's color to dark red (R=128,G=0,B=0).
There should not be any text, line, pattern, etc in the window.

Set Monitor (LCD4000) as follows:

- (3) Select "PICTURE IN PICTURE" on OSM.
- (4) Select "PIP SIZE" on OSM.
- (5) Select "REMOTE PIP" on OSM.
- (6) Turn on PIP button on Remote Control.
- (7) Sub picture is displayed in the new window on the PC.
- (8) The size and position of the Sub Picture can be changed with the mouse.

Note: When Remote PIP is selected, contrast and black level of monitor may change. Remote PIP may not be displayed on following cases:

- Gamma curve on PC's display setting is changed.
- Contrast or Black level setting is changed from reset position on OSM.

* In these cases. Please change the setting to reset position.

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 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 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 adjustment. 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.

Image of component signal is greenish

- Check to see if the DVD/HD input connector is selected.

LED on monitor is not lit (no green or red colour 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 adjustment.
- 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.)

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 is set at minimum.

Remote Control is not available

- Check the Remote Control's batteries status.
- Check if batteries are inserted correctly.
- Check if the Remote Control is pointing at the monitor's remote sensor.

Either light vertical or horizontal stripes may appear, depending on the specific display pattern. This is no product fault or degradation.

Specifications for LCD4000

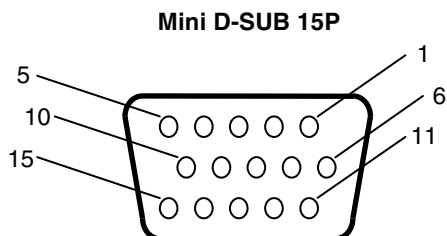
Product Specifications			
		Analog Input	Digital Input
LCD Module	Pixel Pitch: Resolution: Colour: Brightness: Viewing Angle:	(40" / 101.6cm diagonal) 0.681mm 1280 x 768 dots (WXGA) 16,777,216 450cd/m ² (Typ.) Up 85°/ Down 85°/ Left 85°/ Right 85° (typ) @ CR>10	
External speaker out put inpedance		Rating 7W x 7W (8Ohm)	
Frequency	Horizontal:	31.5kHz - 75.0kHz (15.75/15.625kHz)	31.5kHz - 48.4kHz
	Vertical:	58.0 - 62.0 Hz	58.0 - 62.0 Hz
Pixel Clock		25.0MHz - 162.0MHz	25.0MHz - 65.0MHz
Viewable Size		871.68 x 523.008mm	
Input Signal	PC-Input:		
	Signal Drive:	Separated Direct Drive	TMDs
	Video:	Analog RGB 0.7V p-p Input Impedance 75Ohm Composite: TTL level (Pos./Neg.) Composite sync on Green Video: 0.3Vp-p Neg. (video 0.7Vp-p Pos.)	
	Sync:	Separate: TTL level (Pos./Neg.) Input Impedance 2,2KOhm	
	Input-terminal:	BNC(R,G,B,H,V)	DVI-D (Digital)
		Mini D-sub 15pin	
	VIDEO-Input:	Composite 1.0V p-p Input Impedance 75Ohm BNC and RCA-INPUT Y/C Y:0.7V p-p C:0.283V p-p Input Impedance 75Ohm S-TERMINAL-INPUT Component 1.0/0.7V p-p Input Impedance 75Ohm BNC-INPUT	
	AUDIO-Input:	Two RCA JACK L/R INPUT, STEREO Mini Jack INPUT	
	Control-Input:	Mini D-sub 9Pin (RS-232C)	
Resolutions Supported		640 x 480 at 60 Hz 800 x 600 at 60 Hz 1024 x 768 at 60 Hz 1280 x 768 at 60 Hz..... Recommended Resolution 1280 x 1024 at 60 Hz..... Analog input only 1600 x 1200 at 60 Hz..... Analog input only	
Power Supply		2.35A @ 100-120 V, 1.05A @ 220-240V	
Operational Environment	Temperature:	5 - 40°C	
	Humidity:	20 - 80% (non-condensing)	
Storage Environment	Temperature:	-20 - 60°C	
	Humidity:	10 - 90% (non-condensing): 90% - 3.5% x (Temp - 40°C) regarding over 40°C	
Dimension	Net:	949 (W) x 605(H) x 141 (D) mm (without Stand), 949 (W) x 643.9 (H) x 311 (D) mm (with Stand)	
	Gross:	1125 (W) x 770 (H) x 261 (D) mm	
Weight	Net:	Approximately 27.5kg	
	Gross:	Approximately 33.5kg	
VESA compatible arm mounting interface		2 x 200 mm x 200 mm (6 Hole) 3 x 200 mm x 200 mm (8 Hole)	
Complied Regulatory and Guidelines		UL60950/CSA C22.2 No.60950/ TUV-GS/EN60950/ FCC-B/DOC-B/EN55022-A/EN55024/EN61000-3-2/EN61000-3-3/CE	
Power Management		VESA DPMS	
Plug & Play		VESA, DDC CI	
Accessories		User's manual x 1, Power Cord x 1, PC - Video Signal Cable x 1, Remote Control x 1, AA Battery x 2, Clamper x 2, Screw x 2, CD-ROM, Ferrite Core x 4, Band x 3, Stand for the Independence x 2, Screw (M5 x 40) for stand x 4	

NOTE: Technical specifications are subject to change without notice.

Pin Assignment

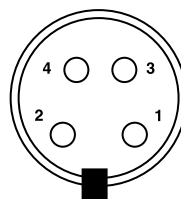
1) Analog RGB input (MiniDsub15p): R G B 2

Pin No	Name
1	Video Signal Red
2	Video Signal Green
3	Video Signal Blue
4	GND
5	DDC-GND
6	Red-GND
7	Green-GND
8	Blue-GND
9	NC
10	SYNC-GND
11	GND
12	DDC-SDA
13	H-SYNC
14	V-SYNC
15	DDC-SCL



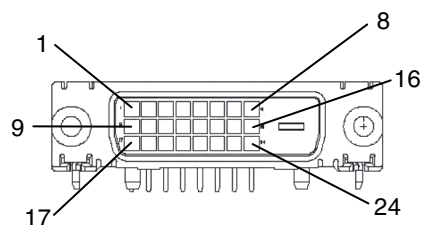
2) S-VIDEO input: V I D E O

Pin No	Name
1	GND
2	GND
3	Y (Luminance)
4	C (Chroma)



3) Digital RGB input (DVI-D): R G B 1

Pin - Assignment of DVI connector:					
1	TX2-	9	TX1-	17	TX0-
2	TX2+	10	TX1+	18	TX0+
3	Shield (TX2 / TX4)	11	Shield (TX1 / TX3)	19	Shield (TX0 / TX5)
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC-Serial Clock	14	+5V power *)	22	Shield (TXC)
7	DDC-Serial Data	15	Ground (+5V)	23	TXC+
8	NC	16	Hot plug detect	24	TXC-



4) RS-232 input

Pin No	Name
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	RTS
8	CTS
9	NC

