PlasmaSync 3300 Multimedia Monitor

NEC

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PlasmaSync 3300 Multimedia Monitor

PlasmaSync

User's Manual

NEC

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the 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 of 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.

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.

DOC compliance Notice

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Requlations.

WARNING

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warnings and Safety Precaution

The NEC Multimedia monitor PlasmaSync 3300 is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Use a soft dry cloth to clean the panel. Never use solvents such as alcohol or thinner to clean the panel surface.

For operating safety and to avoid damage to the unit, read carefully and observe the following instructions.

To avoid shock and fire hazards:

1. Provide adequate space for ventilation to avoid internal heat build-up. Do not cover rear vents or install in a closed cabinet or shelves. The unit is equipped with cooling fans. If you enclose the unit in a cabinet or rack, be sure there is adequate space at the top of the unit to allow heated air to rise and escape.
   If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location, and wait for the monitor to cool for 60 minutes. If the problem persists, contact your NEC dealer for service.
2. Do not use the power cord polarized plug with extension cords or outlets unless the prongs can be completely inserted.
3. Do not expose unit to rain or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug unit during electrical storms or if unit will not be used over a long period.
6. Do not open the cabinet which has potentially dangerous high voltage components inside. If the unit is damaged in this way the warranty will be void. Moreover, there is a serious risk of electric shock.
7. Do not attempt to service or repair the unit. NEC is not liable for any bodily harm or damage caused if unqualified persons attempt service or open the back cover. Refer all service to authorized NEC Service Centers.

To avoid damage and prolong operating life:

1. Use only with 120V 60Hz AC power supply. Continued operation at line voltages greater than 120 Volts AC will shorten the life of the unit, and might even cause a fire hazard.
2. Handle the unit carefully when installing it and do not drop.
3. Locate set away from heat, excessive dust, and direct sunlight.
4. Protect the inside of the unit from liquids and small metal objects. In case of accident, unplug the unit and have it serviced by an authorized NEC Service Center.
5. Do not hit or scratch the panel surface as flaws on the surface may result.

ATTENTION

RISQUE D'ELECTROCUTION
NE PAS OUVRIR

MISE EN GARDE: AFIN DE REDUIRE LES RISQUES D'ELECTROCUTION, NE PAS DEPOSER LE COUVERCLE, IL N'Y A AUCUNE PIECE UTILISABLE A L'INTERIEUR DE CET APPAREIL. NE CONFIER LES TRAVAUX D'ENTRETIEN QU'A UN PERSONNEL QUALIFIE.

Ce symbole a pour but de prévenir l'utilisateur de la présence d'une tension dangereuse, non isolée se trouvant à l'intérieur de l'appareil. Elle est d'une intensité suffisante pour constituer un risque d'électrocution. Eviter le contact avec les pièces à l'intérieur de cet appareil.

Ce symbole a pour but de prévenir l'utilisateur de la présence d'importantes instructions concernant l'entretien et le fonctionnement de cet appareil. Par conséquent, elles doivent être lues attentivement afin d'éviter des problèmes.

AVERTISSEMENT

AFIN DE REDUIRE LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE. AUSSI, NE PAS UTILISER LA FICHE POLARISEE AVEC UN PROLONGATEUR OU UNE AUTRE PRISE DE COURANT SAUF SI CES LAMES PEUVENT ETRE INSEREES A FOND. NE PAS OUVRIR LE COFFRET, DES COMPOSANTS HAUTE TENSION SE TROUVENT A L'INTERIEUR. LAISSER A UN PERSONNEL QUALIFIE LE SOIN DE REPARER CET APPAREIL.

DOC avis de conformation

Cet appareil numérigue de la classe A respecte toutes les exigences du Réglement sur le Matériel Brouilleur du Canada.

Mises en garde et précautions de sécurité

Le moniteur Multimédia PlasmaSync 3300 de NEC est conçu et fabriqués pour assurer une longue durée de service sans problèmes. Aucun entretien à l'exception du nettoyage n'est nécessaire. Utiliser un chiffon doux et sec. Ne jamais utiliser de détergents puissants ou des solvents, tel que l'alcool ouun diluant pour nettoyer le moniteur à écran plasma.

Pour un fonctionnement sûr et afin d'éviter d'endommager l'appareil, lire attentivement et respecter les instructions suivantes.

Afin d'éviter tout risque d'électrocution et d'incendie:

1. Réserver un espace libre suffisant pour la ventilation afin d'éviter une accumulation de chaleur interne. Ne pas couvrir les trous d'aération arrière ou installer l'appareil dans un coffret fermé ou sur une étagère. L'appareil est équipé d'ailettes de refroidissement sur le dessus. Si l'appareil est logé dans un coffret ou sur une étagère, s'assurer qu'il y a un espace libre suffisant pour la dissipation de la chaleur. Si l'appareil est posé sur un coffret ou une étagère, la température doit être maintenue en dessous de 40°C.
2. Ne pas utiliser la fiche polarisée du cordon d'alimentation avec des prolongateurs ou des prises de courant, sauf si les lames peuvent être insérées à fond.
3. Ne pas exposer à la pluie ou à l'humidité.
4. Eviter d'endommager le cordon d'alimentation, et ne pas modifier le cordon d'alimentation.
5. Débrancher l'appareil pendant les tempêtes ou si l'appareil n'est pas utilisé pendant une longue période.
6. Ne pas ouvrir le coffret. Des composants de haute tension se trouvent à l'intérieur. Si l'appareil est endommagé de cette manière, la garantie devient caduque. De plus, il y a risque d'électrocution.
7. Ne pas essayer de réparer ou entretenir l'appareil soi-même. NEC ne saura être tenu pour responsable pour toute blessure ou dommage causé par des personnes non qualifiées qui essayent de réparer ou d'ouvrir le couvercle arrière. Confier toute réparation à un centre de service agréé NEC.

Pour éviter des dommages et prolonger la durée de service de l'appareil:

1. N'utiliser qu'une source d'alimentation de 120 V 60 Hz CA. Le fait d'utiliser l'appareil en continu à des tensions de ligne supérieures à 120 Volts CA réduit sa durée de vie et risque de provoquer un incendie.
2. Manipuler l'appareil avec soin pendant son déplacement et ne pas le faire tomber.
3. Eloigner l'appareil des endroits chauds, très poussiéreux et exposés en plein soleil.
4. Eviter que des liquides et des petits objets métalliques pénètrent à l'intérieur de l'appareil. En cas d'accident, débrancher l'appareil et le confier à un centre de service agréé NEC.
5. Ne pas frapper ou rayer la surface de la écran plasma, car des défauts risquent de se produire sur la surface de la écran plasma.

CONTENTS

Introduction

Introduction to the PlasmaSync 3300

Congratulations on your purchase of NEC' s PlasmaSync 3300 multimedia monitor which includes Microsoft' s Plug and Play compatibility. Just plug your PlasmaSync 3300 monitor into a Plug and Play compatible system, and your monitor is automatically ready to run at it' s optimum performance. Other examples of features that enhance your multimedia monitor performance are the On-Screen Manager(OSM ™) controls and the Intelligent Power Manager(IPM ™) System.

The **Intelligent Power Manager**(**IPM** ™) **System** follows the United States government' s Environmental Protection Agency (EPA) guidelines. The IPM System increases the monitor' s life and saves energy and costs by powering down when not in use.

Feature Highlights

The **OSM** (**On Screen Manager**) controls have made the monitor' s Digital Control System easier to use by providing menus on screen. Pressing the PROCEED key turns on OSM. You' ll find it easy to navigate through the menu that appears, and icons show you how the controls work.

IPM (**Intelligent Power Manager**) is an innovative power saving utility that complies with the EPA' s Energy Star requirements . Energy Star products use 30 watts or less when in the main power saving mode.
When in the maximum power-down mode, the PlasmaSync 3300 monitor will consume approximately 10% of the total power drawn under normal operation. This innovation adds up to 70% energy savings, longer monitor life, environmental protection, reduced emissions, and reduced air conditioning costs of the work environment.
Monitors follow the Video Electronics Standards Association (VESA) approved DPMS power-down signaling method. VESA' s Display Power Management Signaling(DPMS) method which is endorsed by the EPA is the power-down process a system should use to communicate to the monitor to save power. Power-down functions can only be utilized with an energy star system or video card which adhere to the VESA DPMS standard. By using the monitor' s horizontal and vertical SYNC signals, the monitor can be prompted into the different IPM modes. The following is the description of the LED indicator for the IPM power saving modes:

Mode	LED Indicator	Power Saving
On	Green	None
Standby	Yellow	Minimum (Quickest Recovery)
Suspend	Orange	Moderate (EPA< 30 Watts, Moderate Recovery)
Off (IPM Mode)	Orange	Maximum (Slowest Recovery)
Off (Power Switch, Off)	No Light	No Power Used (Fully Off)

The MultiSync PlasmaSync 3300 multimedia monitor incorporates NEC' s famous **multiple frequency technology**. You are provided with a choice of multiple operating platforms and a vast array of graphic standards. Now, many resolution upgrades are possible without a new monitor.
A wide range of graphics standards is supported by the MultiSync PLASMASYNC 3300 multimedia monitor including:

*[1]NTSC
*[1]PAL
*[1]SECAM
*[2]VGA at 640 x 400 • 70Hz
VGA at 640 x 480 • 60 and 75Hz
*[1]VESA at 640 x 480 • 60, 72 and 75Hz
*[1]VESA at 800 x 600 • 56.2 and 60.3Hz
*[1] This signal is converted into a 640 x 480 image.
*[2] indiates that only 400 lines at vertical center are displayed.

And Macintosh resolutions such as:
640 x 480 • 66.6Hz

PLUG and PLAY

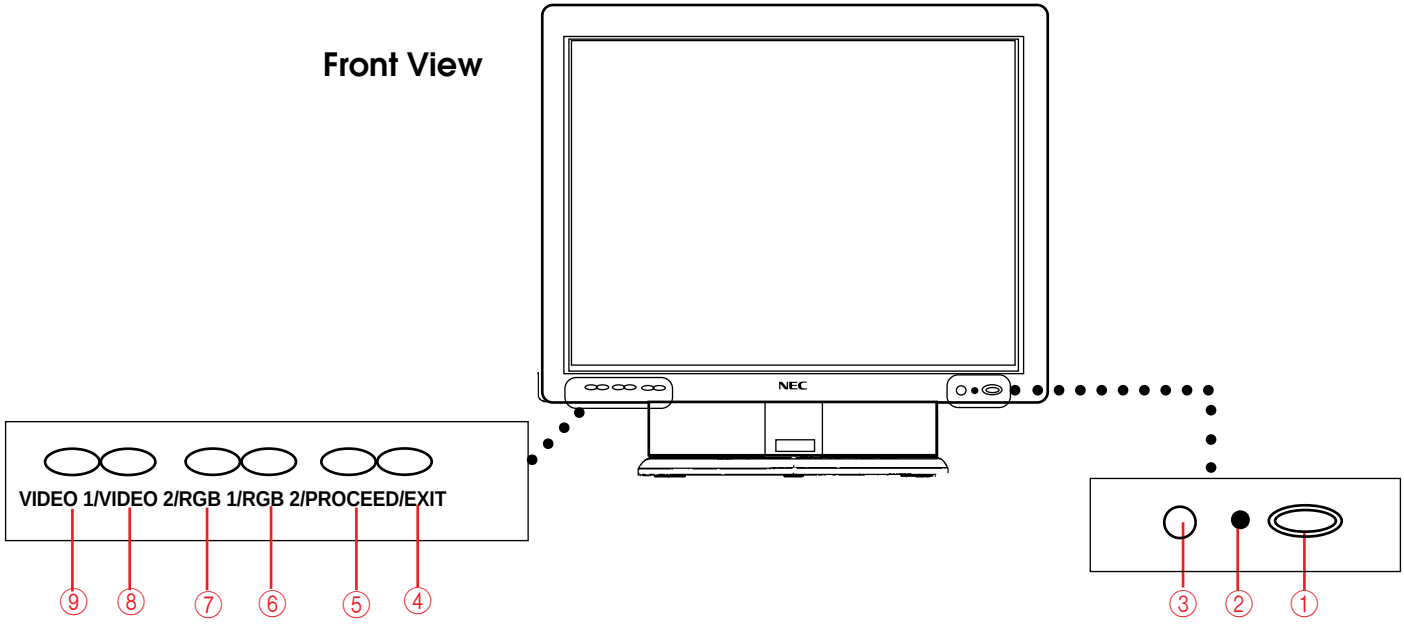
Plug and Play is the new Microsoft solution with Windows 95 to provide automatic peripheral connections without confusing and time-consuming setup. NEC developed the monitor's Plug and Play capability that allows your Plug and Play compatible system to automatically identify, configure, and optimize the monitor connected to it. The PlasmaSync 3300 multimedia monitor automatically tells the system its identification and capabilities. NEC' s partnership with Microsoft provides you with simple installation, setup, and service.

Contents of the Package

The following lists all of the items included in your multimedia monitor package. Please save the original box and packing materials for future transportation or shipment of this monitor.
1. PlasmaSync 3300 multimedia monitor
2. Power cord
3. Remote control unit with remote cable and two AA batteries.
4. User' s manual

Part Names and Functions

Front View



① **POWER** ..... Press to power the monitor on and off.

② **STANDBY ⏻ /POWER Indicator** ..... Lights green during normal operation.
Lights orange when the monitor is in standby mode.

③ **Remote Sensor Window** ..... Receives infrared signal from the remote control unit.

④ **EXIT** ..... Press to exit the OSM controls in the main menu. Press to exit to the previous menu in a submenu.

⑤ **PROCEED** ..... Press to access OSM. Press to proceed to the selected menu choice (indicated by the arrow). Press to move the arrow down to select one of the choices.

⑥ **RGB 2** ..... Press to select the RGB source that is connected to the RGB 2 input terminals (BNC type).

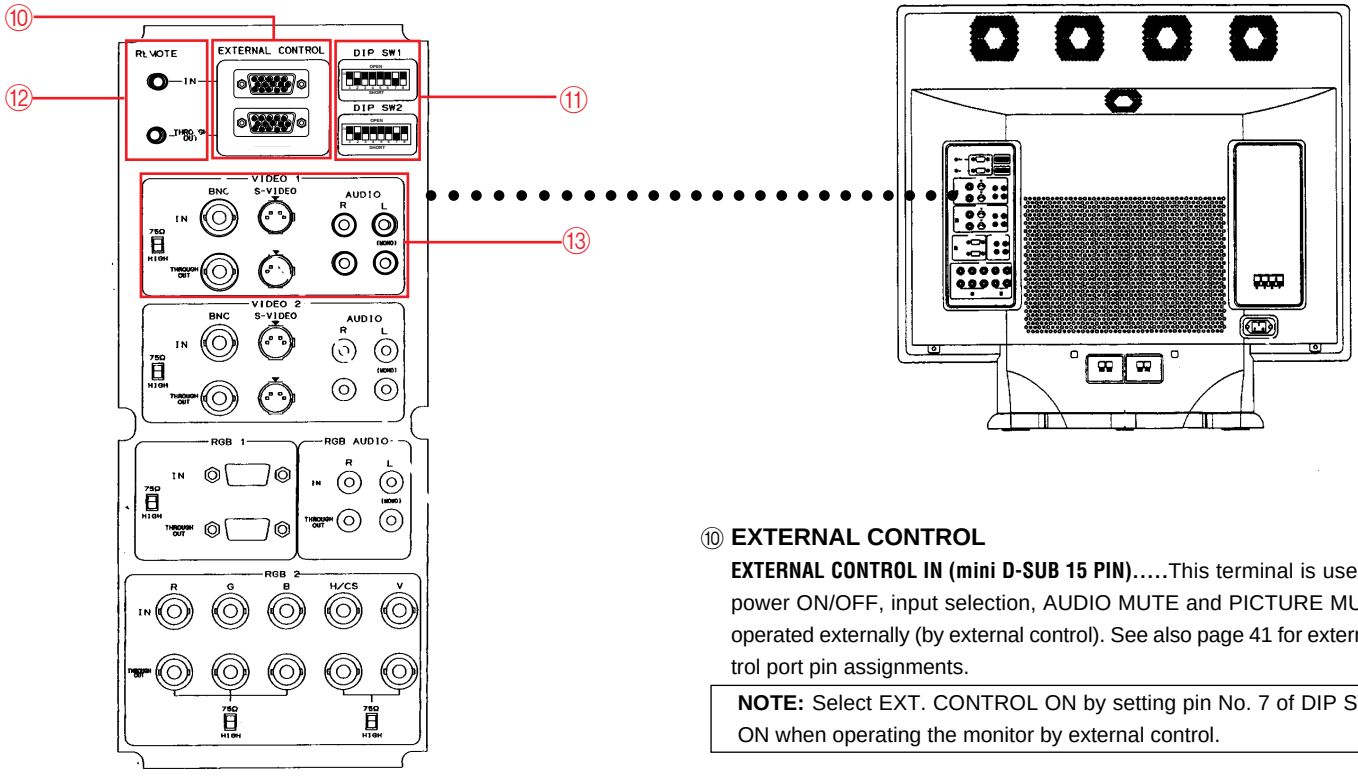
⑦ **RGB 1** ..... Press to select the RGB source that is connected to the RGB 1 input terminal (mini D-SUB 15 pin type).

⑧ **VIDEO 2** ..... Press to select the video source that is connected to the VIDEO 2 input terminal (BNC type or S-VIDEO 2 IN).

⑨ **VIDEO 1** ..... Press to select the video source that is connected to the VIDEO 1 input terminal (BNC type or S-VIDEO 1 IN).

NOTE: S-VIDEO IN terminals will take preference over VIDEO IN terminals when the video source is connected to each terminal and VIDEO 1 or 2 selected.

Terminal Board



⑩ EXTERNAL CONTROL

EXTERNAL CONTROL IN (mini D-SUB 15 PIN)..... This terminal is used when power ON/OFF, input selection, AUDIO MUTE and PICTURE MUTE are operated externally (by external control). See also page 41 for external control port pin assignments.

NOTE: Select EXT. CONTROL ON by setting pin No. 7 of DIP SW 1 to ON when operating the monitor by external control.

NOTE: When in the EXT. CONTROL mode, the following operations of the supplied remote control are not possible: Power control ON/ OFF, Input selection, and Audio mute ON/OFF.

EXTERNAL CONTROL OUT (mini D-SUB 15 PIN)..... Connect to a second monitor' s EXTERNAL CONTROL input to relay the signal input at the EXTERNAL CONTROL IN.

The EXTERNAL CONTROL THROUGH OUT terminal is used to connect several monitors together (up to 50) and allows all of the monitors to be controlled by one external control. No. 7 pin (EXT. CONTROL) of DIP SW 1 must be set to the ON position on all of the monitors.

⑪ DIP Switches

DIP SW 1..... This DIP switch sets various conditions of the monitor. See pages 17 and 18 for more details.

DIP SW 2..... This DIP switch sets Sync. Control and the Intelligent Power Manager. Set all eight pins to the OFF positions during normal operation. See pages 19 and 20 for more details.

⑫ REMOTE IN/OUT.....

When the supplied remote control is used in the wired condition, connect the supplied remote cable to the REMOTE IN terminal. The REMOTE OUT terminal is used to connect several monitors together and allows all of the monitors to be controlled by one remote control.

NOTE: Up to 50 monitors can be connected in the serial connection.

⑬ VIDEO 1

VIDEO 1 IN (BNC type)..... Connect to a video output of the external source.

S-VIDEO 1 IN..... Connect the S-video source with an S-connector output here.

THROUGH OUT (BNC type)..... Connect to a second monitor' s video input to relay the video signal input at VIDEO 1 IN.

THROUGH OUT (S-VIDEO)..... Connect to a second monitor' s S-connector input to relay the video signal input at S-VIDEO 1 IN.

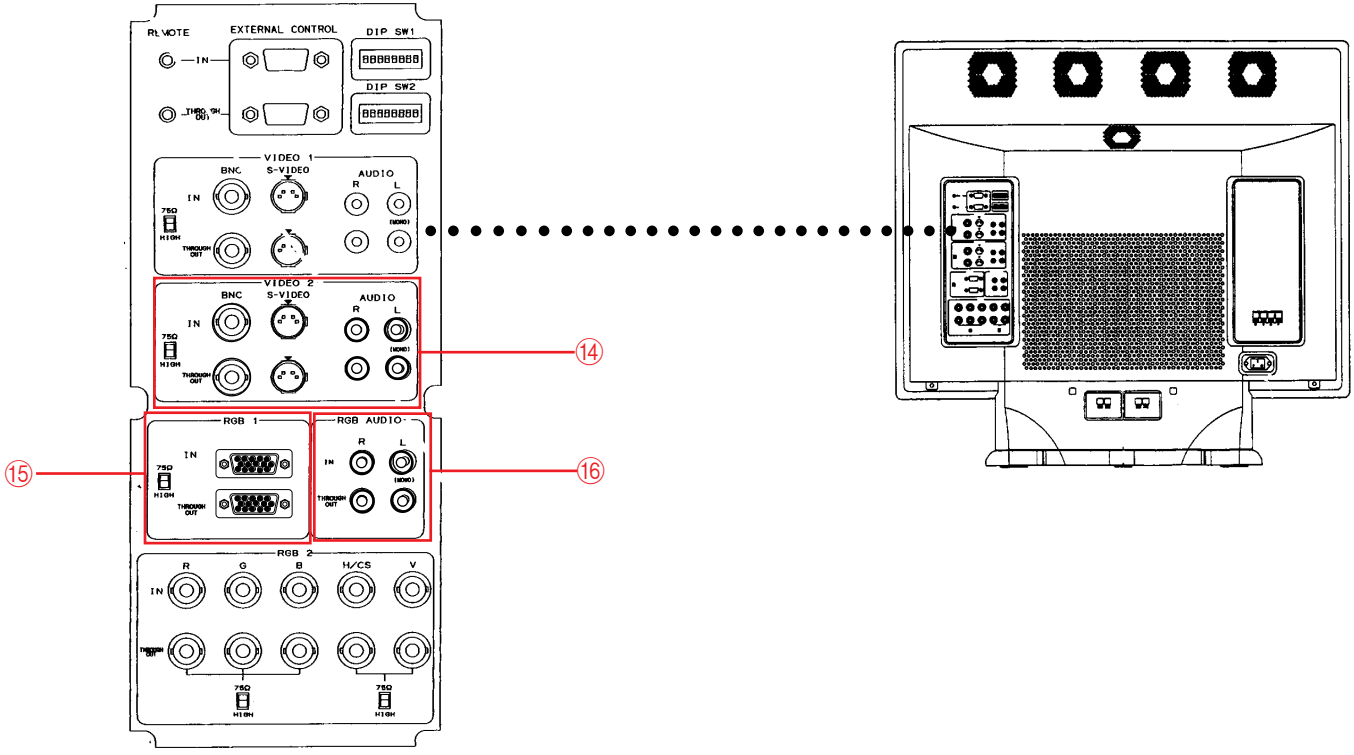
75 Ω/HIGH Impedance Select Switch..... Set to "75 Ω" during normal operation. In multiple connections using VIDEO 1 IN and THROUGH OUT terminals, set to "HIGH" on all but the last monitor. Set to "75 Ω" on the last monitor only.

AUDIO R IN..... Connect the stereo right channel audio output here.

AUDIO L IN (MONO)..... Connect the mono audio or stereo left channel audio output here.

AUDIO R THROUGH OUT..... Connect to a second monitor' s audio right channel input.

AUDIO L THROUGH OUT ..... Connect to a second monitor' s audio left channel input.



⑭ VIDEO 2

VIDEO 2 IN (BNC type)..... Connect the video source' s output here.

S-VIDEO 2 IN..... Connect the S-video source with an S-connector output here.

THROUGH OUT (BNC type)..... Connect to a second monitor' s video input to relay the video signal input at VIDEO 2 IN.

THROUGH OUT (S-VIDEO)..... Connect to a second monitor' s S-connector input to relay the video signal input at S-VIDEO 2 IN.

75 Ω/HIGH Impedance Select Switch..... Set to "75 Ω" during normal operation. In multiple connections using VIDEO 2 IN and THROUGH OUT terminals, set to "HIGH" on all but the last monitor. Set to "75 Ω" on the last monitor only.

AUDIO R IN..... Connect the stereo right channel audio output here.

AUDIO L IN (MONO)..... Connect the mono audio or stereo left channel audio output here.

AUDIO R THROUGH OUT..... Connect to a second monitor' s audio right channel input.

AUDIO L THROUGH OUT..... Connect to a second monitor' s audio left channel input.

⑮ RGB 1

Mini D-SUB 15 PIN IN.....A15 Pin Analog RGB 1 input terminal compatible with computers that have a VGA/S-VGA/XGA output signal.

D-SUB 15 PIN THROUGH OUT..... Connect to an RGB INPUT terminal on another monitor.

75 Ω/HIGH Impedance Select Switch..... Set to "75 Ω" during normal operation. Set to "HIGH" when using the D-SUB 15 PIN THROUGH OUT RGB 1 terminal.

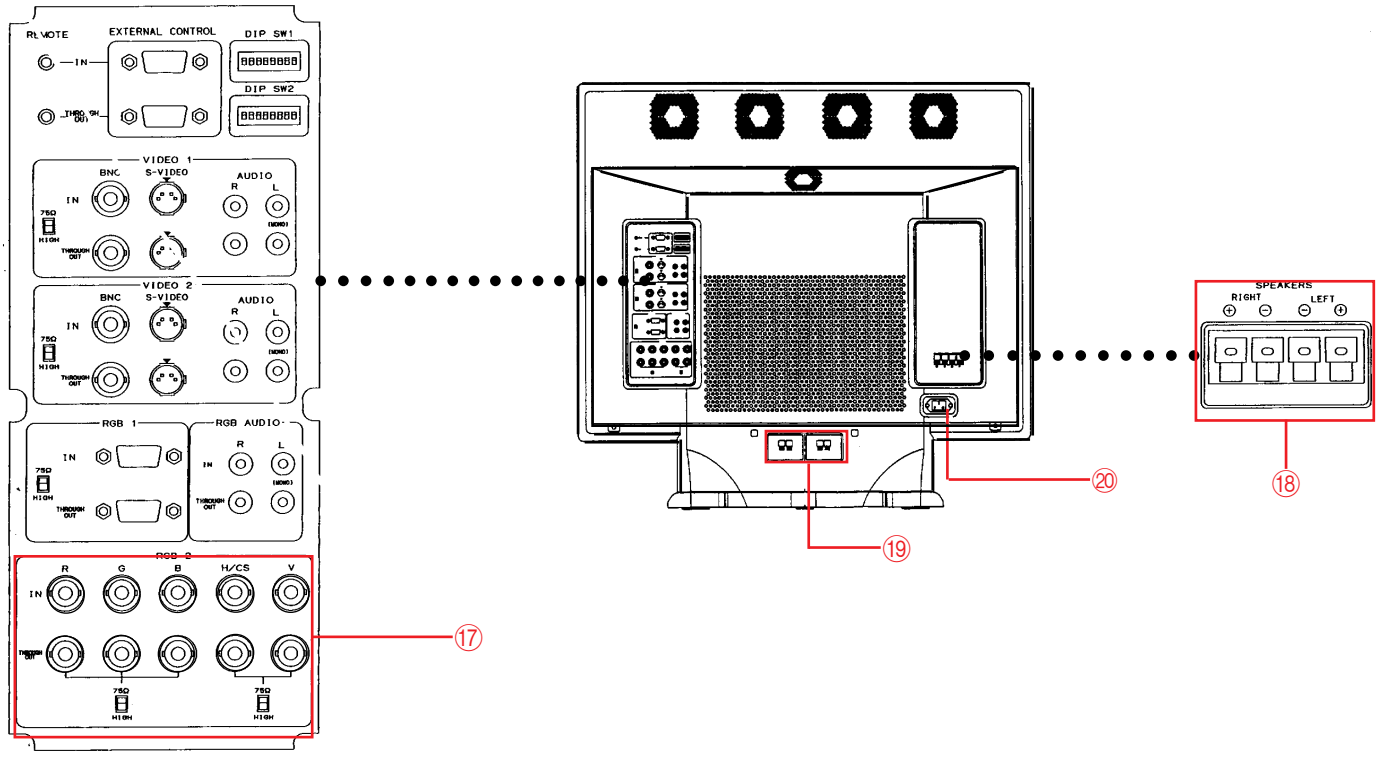
⑯ RGB AUDIO

AUDIO R IN..... Connect the audio right channel output of the RGB source.

AUDIO L IN..... Connect the mono audio or stereo left channel output of the RGB source.

AUDIO R THROUGH OUT..... Connect to a second monitor' s audio right channel RGB input.

AUDIO L THROUGH OUT..... Connect to a second monitor's audio left channel RGB input.



⑰ RGB 2

R, G, B, H/CS and V IN (BNC)..... These are analog RGB input terminals. Connect external components with R, G, B, H/CS, and V output terminals to these analog RGB input terminals. Be sure that the RGB connection cable is correctly attached to the corresponding terminals.

R, G, B, H/CS and V THROUGH OUT (BNC)..... Connect to a second monitor's RGB inputs to relay the RGB signal inputs at R, G, B, H/CS and V IN.

75 Ω/HIGH Impedance Select Switches for RGB and H/CS&V..... Set to "75 Ω" during normal operation. In multiple connections using R, G, B, H/CS and V IN and OUT terminals, set to "HIGH" on all but the last monitor. Set to "75 Ω" on the last monitor only.

⑱ External Speaker Terminals

- + **RIGHT.....**Connect RIGHT speaker positive wire here.
- - **RIGHT.....**Connect RIGHT speaker negative wire here.
- - **LEFT.....**Connect LEFT speaker negative wire here.
- + **LEFT.....**Connect LEFT speaker positive wire here.

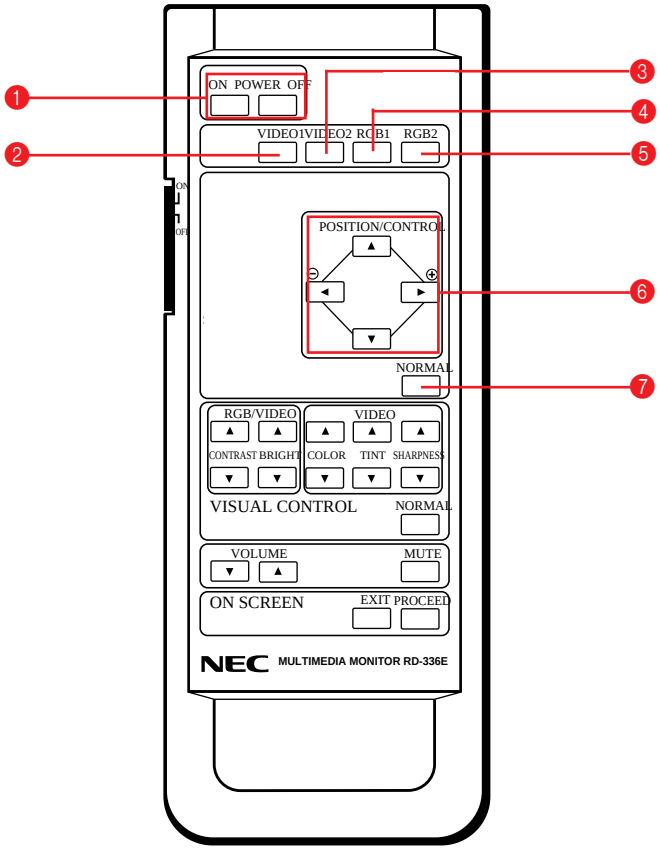
⑲ Internal Speaker Terminals

To enable the internal speakers, use the supplied speaker cables to connect between the external speaker terminals⑱ and here.

⑳ AC Input

Connect the supplied power cord' s three-pin plug here.

Remote Control Unit



❶ **POWER ON/OFF** ..... Press POWER ON to turn the monitor on when the STANDBY/POWER indicator is lit orange.
Press POWER OFF to turn the monitor off and the monitor will go into the standby condition.

❷ **VIDEO 1** ..... Press to select reception of a conventional component or S-connector component connected to VIDEO 1 IN terminal.

❸ **VIDEO 2** ..... Press to select reception of a conventional component or S-connector component connected to VIDEO 2 IN terminal.

❹ **RGB1** ..... Press to select reception of a component connected to RGB 1 IN terminal.

❺ **RGB 2** ..... Press to select reception of a component connected to RGB 2 IN terminal.

Raster Control

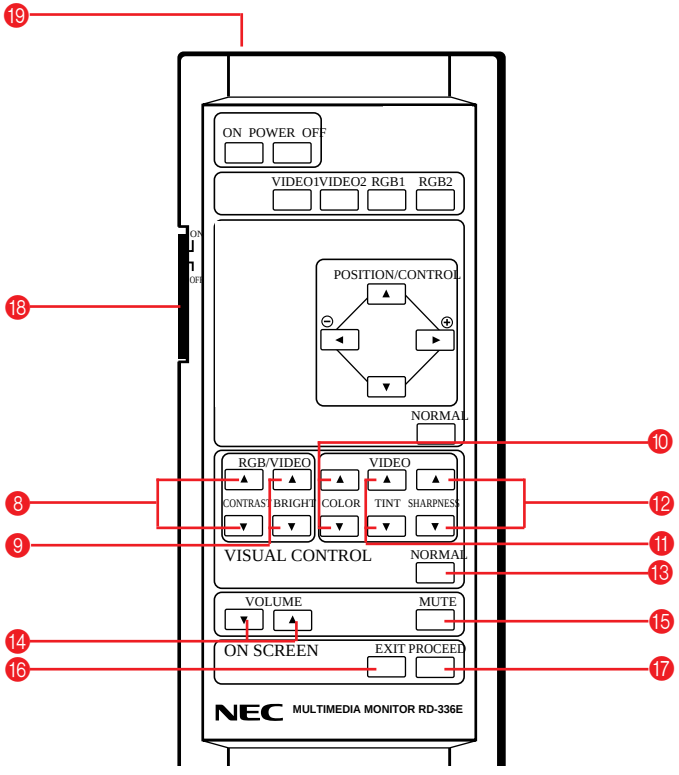
❻ **POSITION/CONTROL (▲/▼/◀/▶)** ..... Adjusts the vertical position of the image up and down, and the horizontal position of the image from left to right.

CONTROL (⊖/⊕) ..... Moves the bar in the ⊕ or ⊖ direction to increase or decrease the adjustment in an OSM submenu.

CONTROL(▲/▼) ..... Moves the arrow up or down to select one of the controls.

❼ **NORMAL** ..... This key resets the raster adjustment settings of user changeable memory and recalls the factory preset data.

NOTE: This can be done to only the signal having the factory preset data.



Visual Control

❽ **RGB/VIDEO CONTRAST (▲ / ▼) .....** Adjusts the image brightness in relation to the background.
Press and hold ▲ for higher contrast.
Press and hold ▼ for lower contrast.

❾ **RGB/VIDEO BRIGHT (▲ / ▼) .....** Adjusts the overall image and screen brightness.
Press and hold ▲ for a brighter picture.
Press and hold ▼ for a darker picture.

❿ **VIDEO COLOR (▲ / ▼) .....** Adjusts color intensity of VIDEO display.
Press and hold ▲ for more color saturation.
Press and hold ▼ for less color saturation.

⓫ **VIDEO TINT (▲ / ▼) .....** Adjusts red and green values of VIDEO display.
Press and hold ▲ for a greener tint.
Press and hold ▼ for a redder tint.
This control does not work for the PAL signal.

⓬ **VIDEO SHARPNESS (▲ / ▼).....** Adjusts picture detail of VIDEO display.
Press and hold ▲ for a sharper picture.
Press and hold ▼ for a softer picture.

NOTE: The COLOR, TINT and SHARPNESS keys work for the VIDEO display only.

NOTE: The VISUAL CONTROL storing operation is effective only for one input (VIDEO1, VIDEO2, RGB1 or RGB2).

⓭ **NORMAL .....** This key resets the picture adjustment settings of user changeable memory and recalls the factory preset data.

NOTE: The CONTRAST, BRIGHT, COLOR, TINT and SHARPNESS adjustment level are factory preset at the optimum position.

⓮ **VOLUME (▼ / ▲) .....** Adjusts the volume.
Press and hold ▼ to decrease sound.
Press and hold ▲ to increase sound.

⓯ **MUTE .....** Press to cancel sound ; press again to restore sound.

NOTE: The other ways to restore sound are to press POWER ON, then OFF and to press VOLUME keys on the remote control unit.

⓰ EXIT ..... Press to exit the OSM controls in the main menu. Press to exit to the previous menu in a submenu.

⓱ PROCEED ..... Press to access OSM. Press to proceed to the selected menu choice (indicated by the arrow). Press to move the arrow down to select one of the choices.

NOTE:
- Other control keys than POSITION/CONTROL + / -, ▲ / ▼, and NORMAL are not available during the OSM screen display.

- Other control keys than POSITION/CONTROL + / -, ▲ / ▼, and NORMAL can be directly to access to each control. OSM controls are not possible in that case.

⓲ **Backlight Switch** Set to ON to light up keys from the inside of the remote control panel.This is useful when the remote control unit is used in a darkened room.

NOTE: The backlight key characters may be invisible in a bright-lit room. Make sure that the backlight switch is OFF when the remote control unit is not used. If no button operation is made within 30 seconds when the backlight is lit in the wireless condition, the backlight go off automatically. To turn the backlight on again, set the switch to the OFF position, then set it to the ON position.

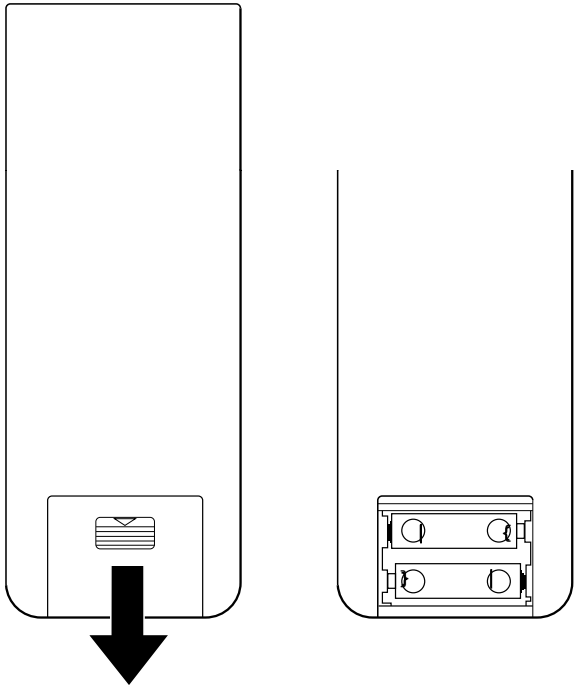
⓳ **Remote Jack .....** Insert the plug of the supplied remote cable when using the supplied remote control unit in the wired condition. Connecting the monitor and the remote control unit with the supplied remote cable turns on the backlight independent of the backlight switch setting when the monitor is powered on.

Battery Installation and Replacement

The remote control is powered by two 1.5V AA batteries.

To install or replace batteries:

1. Turn the remote control unit upside down.
2. Press down on the battery compartment grip and slide the compartment in the direction of the arrow.
3. Install the two new batteries, making sure that their polarity matches the (+) (-) diagrams inside the battery compartment. Incorrect polarity could damage the unit.
4. Close the battery compartment cover.



Remote Control Cautions

- Do not drop or mishandle the remote control unit.
- Do not get the remote control unit wet. If the remote gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control unit for a long period, remove the batteries.
- Do not use new and old batteries together, or use different types together.
- Do not take apart the batteries, heat them, or throw them into a fire.
- When using the remote control unit in the wireless condition, be sure to unplug the remote cable from the REMOTE IN terminal on the monitor.

Operating Range

- The infrared signal operates by line-of-sight up to a distance of approximately 20 feet and within a 60 degree angle of the Remote Sensor Window.
- The monitor will not function if there are objects between the Remote and the Sensor Window or if strong light falls on the Sensor Window. Weak batteries will also prevent the monitor from operating properly.

Functions of DIP SW

Functions and Settings of DIP SW 1

This DIP switch sets various conditions of the monitor.

No.1
No.2
No.3

POWER ON MODE SET

MODE	DIP SWITCH		
	No.1	No.2	No.3
DEFEAT	OFF	---	---
VIDEO 1	ON	OFF	OFF
VIDEO 2	ON	ON	OFF
RGB 1	ON	OFF	ON
RGB 2	ON	ON	ON

No.4	Not Used
No.5	ON : On Screen display ON OFF : On Screen display OFF
No.6	Not Used
No.7	ON : External control ON OFF : External control OFF
No.8	ON : Wireless remote control ON OFF : Wireless remote control OFF

Pin numbers 4 and 6 are not used. Set the six pins to the OFF position except Nos. 5 and 8 pin during normal operation.

Pins No. 1, 2 and 3 (POWER ON MODE SET)
Sets the monitor to default to any one of its inputs each time the monitor is turned on. See table on the above.

This function does not work when the pin No. 1 is set to the OFF position. The last selected input will be stored.

Pin No. 5 (ON SCREEN DISPLAY)
When this switch is set to ON, the On Screen Manager can be accessed.

Pin No. 7 (EXT. CONTROL)
When this switch is set to ON, the External Control function is activated. See page 41 for pin assignments.

Pin No. 8 (WIRELESS REMOTE ON/OFF)
When this switch is set to ON, the monitor can be controlled by the wireless remote control unit.

Functions and Settings of DIP SW 2

This DIP switch is used for Sync. Control and Intelligent Power Manager.
Set all pins to the OFF position except No. 3 pin during normal operation.

No.1
No.2

SYNC. CONTROL

MODE	DIP SWITCH No.1	DIP SWITCH No.2
AUTO CONTROL (Sep, Comp, Sync on G)	OFF	OFF
MANUAL 1 (Comp. Sync)	OFF	ON
MANUAL 2 (Sync. on G)	ON	OFF
UNUSED	ON	ON

No.3	ON: Auto selection for video standard OFF: Manual selection for video standard
No.4	ON: Manually selecting PAL OFF: Manually selecting NTSC
No.5	ON: Manually selecting SECAM OFF: Manually selecting other
No.6	ON: Manually selecting 4.43 NTSC OFF: Manually selecting other
No.7	Not Used
No.8	ON : Intelligent Power Manager ON OFF: Intelligent Power Manager OFF

Sync. Control (Pins Nos 1 and 2)

These pins set Sync. Control.
Set both pins to OFF position during normal operation.
Pin No.1 (Sync. on Green Control)
Set pin No.1 to the ON position and pin No. 2 to the OFF position when sync on green signals are necessary for synchronization with an external component.
Pin No.2 (Composite Sync Control)
Set pin No. 2 to the ON position and pin No. 1 to the OFF position for H/V composite sync signals.

NOTE: When pins Nos. 1 and 2 are set to the OFF positions, the monitor automatically determines if the input signal is separate sync, composite sync or G-sync signal in this order.

Pin No. 8 (Intelligent Power Manager)

This function saves power.
When Intelligent Power Manager control is on:
When no horizontal sync. signal is present, the STANDBY/POWER indicator is lit yellow.
When no vertical sync. signal is present, the STANDBY/POWER indicator is lit orange.
When neither horizontal nor vertical sync. signal is present, the STANDBY/POWER indicator is lit orange.

NOTE: The Intelligent Power Manager works only for the RGB input. If selecting the VIDEO input, or when connecting to no signal source, the Intelligent Power Manager does not work.

Installation

External Component Connections

The NEC PlasmaSync 3300 multimedia monitor is designed for convenient installation with a wide variety of audio, the latest video components and many data processing devices equipped with analog RGB output.

BNC jack terminals (VIDEO 1 and VIDEO 2) are provided for connection to two separate external video components, plus S-VIDEO IN (VIDEO 1 and VIDEO 2) terminals for connection to S-connector VCRs.

THROUG-OUT (VIDEO 1 and VIDEO 2) are bridged output terminals that provide direct signal output of the component connected to VIDEO 1 IN, VIDEO 2 IN, S-VIDEO 1 IN or S-VIDEO 2 IN.

A D-SUB 15 PIN RGB multi-signal input connector automatically scans frequencies between 15.5 kHz and 39.5 kHz. It is compatible with the IBM compatibles, and other IBM Compatible Graphics adapters plus any other data processing devices equipped with analog RGB output.

Video Signal Connections

VIDEO 1 INPUT Connections

1. Connect the external component video output to VIDEO 1 IN.
2. Connect the external component mono audio or stereo left channel audio output to L AUDIO (MONO).
3. Connect the external component stereo right channel audio output to R AUDIO.
4. Press VIDEO 1 on the terminal board or the VIDEO 1 key on the remote control unit.

NOTE: S-VIDEO IN terminals will take preference over VIDEO IN terminals when a component is connected to each terminal and VIDEO 1 or 2 selected.

S-VIDEO 1 INPUT Connections

1. Connect the external components with an S-connector output to S-VIDEO 1 IN.
2. Connect audio terminals as explained in VIDEO 1 INPUT connection previously.
3. Press VIDEO 1 on the terminal board or the VIDEO 1 key on the remote control unit.

VIDEO 2 INPUT Connections

1. Connect the external component video output to VIDEO 2 IN.
2. Connect the external component mono audio or stereo left channel audio output to L AUDIO (MONO).
3. Connect the external component stereo right channel audio output to R AUDIO.
4. Press VIDEO 2 on the terminal board or the VIDEO 2 key on the remote control unit.

S-VIDEO 2 INPUT Connections

1. Connect the external component with an S-connector output to S-VIDEO 2 IN.
2. Connect audio terminals as explained in VIDEO 2 INPUT connections previously.
3. Press VIDEO 2 on the terminal board or the VIDEO 2 key on the remote control unit.

THROUGH OUT (VIDEO 1) Connections

1. Connect THROUGH OUT 1 BNC or S-VIDEO 1 OUT to external components to relay the signal input at VIDEO 1 IN, or S-VIDEO 1 IN.
2. Connect the external component mono audio or stereo left channel audio input to L AUDIO.
3. Connect the external component stereo right channel audio input to R AUDIO.
4. Set the 75Ω/HIGH impedance select switch of the corresponding input signal on all but the last monitor to “HIGH” position. On only the last monitor set it to “75Ω” position.

THROUGH OUT (VIDEO 2) Connections

1. Connect THROUGH OUT 2 BNC or S-VIDEO 2 OUT to external component to relay the signal input at VIDEO 2 IN or S-VIDEO 2 IN.
2. Connect the external component mono audio or stereo left channel audio input to L AUDIO.
3. Connect the external component stereo right channel audio input to R AUDIO.
4. Set the 75Ω/HIGH impedance select switch of the corresponding input signal on all but the last monitor to “HIGH” position. On only the last monitor set it to “75Ω” position.

NOTE: The connection of three PlasmaSync 3300 monitors or more with THROUGH OUT (VIDEO 1 or 2) terminals may degrade image quality.

RGB Signal Connections

RGB 1 INPUT Connections

Mini D-SUB 15 Pin RGB Connector.

1. Connect external components or computers having RGB output to the mini D-SUB 15-Pin connector.
2. Connect the external RGB component mono audio or stereo left channel audio output to L RGB AUDIO IN (MONO).
3. Connect the external RGB component stereo right channel audio output to R RGB AUDIO IN.

RGB 2 INPUT Connections

Connect external components with R.G.B.H/CS and V output to the R.G.B.H/CS and V analog input terminals.

NOTE: "Plug and Play" is not available during use of the RGB 2 BNC terminals.

THROUGH OUT (RGB 1) Connections

Monitor Connection

Connect mini D-SUB 15 PIN THROUGH OUT to an RGB input connector of other monitors.

THROUGH OUT (RGB 2) Connections

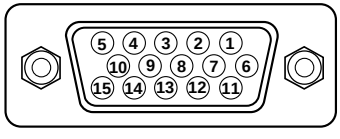
1. Connect the R.G.B.H/CS and V THROUGH OUT terminals to relay the signal input at the R.G.B.H/CS and V IN terminals.
2. Set all the 75Ω/HIGH impedance select switches on all but the last monitor to “HIGH” position. On only the last monitor set all of them to “75Ω” position.

NOTE: The connection of three PlasmaSync 3300 monitors or more with THROUGH OUT (RGB 1 or 2) terminals may degrade image quality.

NOTE: "Plug and Play" is available only for the monitor connected directly to a personal computer with the D-Sub 15 PIN IN RGB connector. Therefore, "Plug and Play" does not work for monitors connected with the THROUGH OUT terminal. This is because only the RGB video, the horizontal, or the vertical sync. signal is output from the THROUGH OUT terminals.

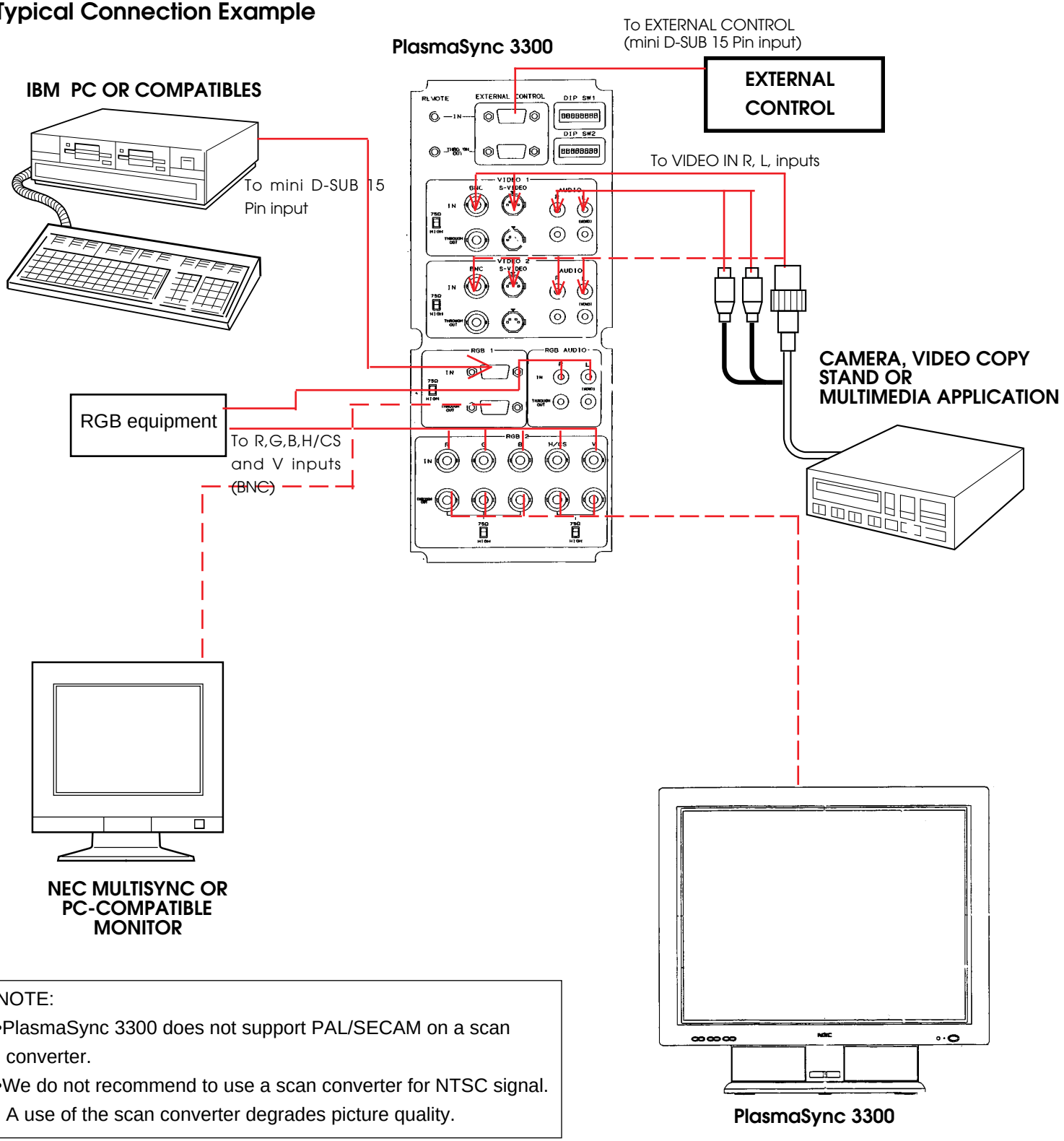
Mini D-Sub 15 Pin RGB Signal Composition

Pin Assignments and Signal Levels for 15 pin RGB (Analog)



Pin No.	Signal to be connected	Loop through output
1	RED	RED
2	GREEN or Sync. on Green	GREEN or Sync. on Green
3	BLUE	BLUE
4	GND	GND
5	GND	GND
6	RED (GND)	RED (GND)
7	GREEN (GND)	GREEN (GND)
8	BLUE (GND)	BLUE (GND)
9	No Connection	No Connection
10	SYNC (GND)	SYNC (GND)
11	GND	GND
12	SDA	No connection
13	H. or Composite sync	H. or Composite sync
14	V.SYNC	V.SYNC
15	SCL	No connection

Typical Connection Example



NOTE:

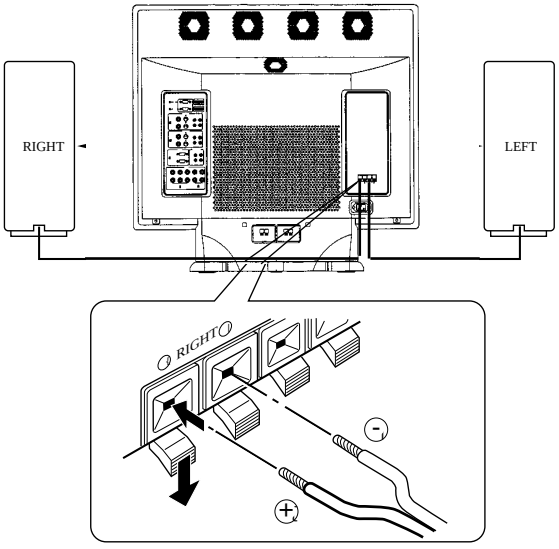
- PlasmaSync 3300 does not support PAL/SECAM on a scan converter.
- We do not recommend to use a scan converter for NTSC signal. A use of the scan converter degrades picture quality.

External Speaker Connections

External speakers may be connected to the monitor to reproduce sound from VIDEO 1, VIDEO 2, RGB 1 or RGB 2 signal sources.

External speakers may be connected directly to the EXTERNAL SPEAKERS terminals or indirectly by connecting a stereo system amplifier to the audio outputs.

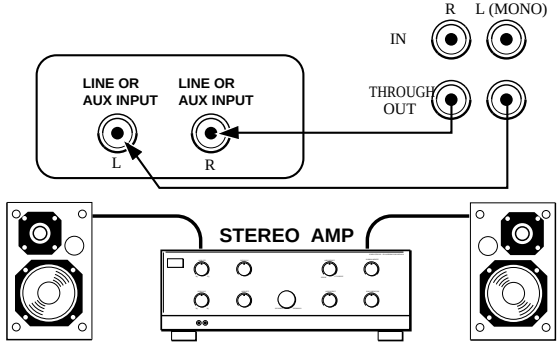
CAUTION: Unplug the monitor and all connected components before connecting external speakers. Use only speakers with 8-ohm impedance and a power output rating of 5 watts or more.



To connect external speakers directly to the monitor:

1. Strip the ends of the speaker wires.
2. Press down a button below the EXTERNAL SPEAKERS terminals, insert the speaker wire and release the button to secure a speaker wire connection:
   [a] Connect the right speaker (located at right side of the monitor when viewed from the front) positive (+) wire to RIGHT +.
   [b] Connect the right speaker negative (-) wire to RIGHT -.
   [c] Connect the left speaker negative (-) wire to LEFT -.
   [d]Connect the left speaker positive wire (+) to LEFT +.

VIDEO or RGB AUDIO L and R outputs of PlasmaSync 3300

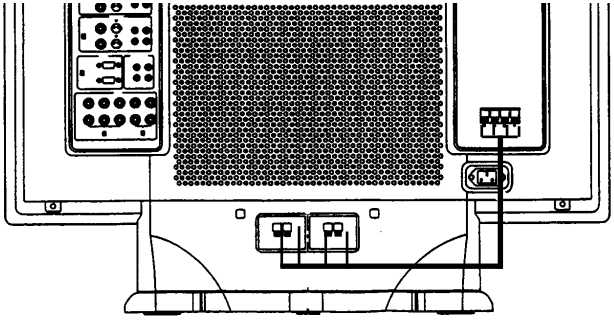


To connect the monitor to stereo system speakers:

1. Connect L AUDIO output to the stereo amplifier L AUX input.
2. Connect R AUDIO output to the stereo amplifier R AUX input.

IMPORTANT: Do not connect speakers to both the monitor EXTERNAL SPEAKERS terminals and to the stereo amplifier. This could damage both the monitor and the speakers.

To enable the internal speakers, use the supplied speaker cables to connect between the external speaker terminals and the internal speaker terminals.



Controls/Adjustments

Power

1. Plug in the power cord to an electrical outlet to connect power.
2. Press POWER to turn the monitor on.
3. Press POWER again to turn the monitor off.
   Press the POWER OFF key on the remote control unit to turn the monitor off when the monitor is turned on.
   The monitor will go into the standby condition and the STANDBY/POWER indicator will light up orange.
   Press the POWER ON key on the remote control unit to turn the monitor on when the monitor is in the standby condition. The STANDBY/POWER indicator will light up green.

Video Signal Input Settings

Video Input Selection

Press the desired input selection key (VIDEO 1 or VIDEO 2) on the remote control unit or the monitor.

NOTE: During VIDEO input, set the 75Ω/HIGH switch to "75Ω" if VIDEO THROUGH OUT is not being used.

Video Signal, Picture Adjustments

1)To adjust:

a. CONTRAST
Adjust the contrast of video display.

b. BRIGHT
Adjust the brightness of video display.

c. COLOR
Adjust the color intensity of video display.

d. TINT
Adjust red and green values of video display.

e. SHARPNESS
Adjust picture detail of video display.

2) Adjust the picture position.
To reset the stored adjustment data and recall the factory preset data:
Press the NORMAL keys.

RGB Signal Input Settings

RGB 1 Signal Input

Proceed as follows for correct setting of the monitor when input is via mini D-SUB 15 Pin (ANALOG) terminal.
Connect IBM PC or Macintosh to the mini D-SUB 15 Pin terminal, and press RGB 1.

RGB 2 Signal Input

When using with a .

1. Connect the R, G, B, H/CS and V terminals on the terminal board to the outputs of your RGB equipment.
2. Set all of the 75Ω/HIGH Impedance select switches to "75Ω".
3. Press the RGB 2 key.

RGB Signal, Picture Adjustments

1. a)Adjust the contrast of RGB display.
   b)Adjust the brightness of RGB display.
2. Adjust the picture position.
   See “Signal Identification Flowchart” on pages 43 and 44.

NOTE: To reset the stored adjustment data and recall the factory preset data, press the NORMAL key on the remote control unit.

NOTE: Over adjusting the POSITION Up/Down may cause a picture to distort. If this happens, readjust the picture so that the distortion is not seen.

Volume Control

1. Adjust the volume by pressing the VOLUME keys (▼/ ▲).
2. To cancel sound, press the MUTE key on the remote control unit; press again to restore sound.

-in a submenu: moves the bar in the + or - direction to increase or decrease the adjustment.

NORMAL (RASTER/VISUAL) : resets the currently selected control to the factory setting.
-in the main menu: resets all the controls within the selected menu.
-in a submenu: resets the selected control.

Typical OSM windows have the following elements:

arrow : indicates the selected menu or control.

moving icon : provides a quick moving illustration of what the control will do (also indicates the direction of control when adjusting).

scroll bar : indicates direction of adjustment.

OSM™ Controls

NEC's new OSM, or On-Screen Manager, System offers the ultimate form of monitor controls. Keys on the remote control unit allow you to easily navigate through menus and adjust controls. As you chose controls, the moving icon shows you what the chosen control will do. These pictures give you immediate understanding of the controls.

OSM controls include extended controls such as Position, White Balance and other OSM utilities. Adjustments are saved instantly. The currently addressed control can be reset to factory settings by pressing the NORMAL key.

OSM keys on the remote control unit function as follows:

PROCEED : accesses the OSM controls.
-in the main menu: proceeds to the selected menu choice.
-in a submenu: proceeds to the control in that submenu.

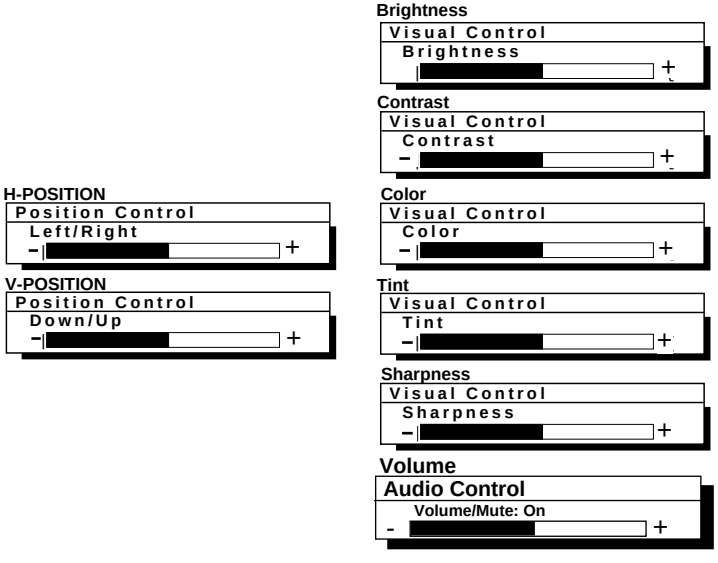
EXIT : in the main menu: exits the OSM controls.
- in a submenu: exits to the OSM main menu.

POSITION CONTROL up/down : moves the arrow up or down to select one of the controls.

POSITION CONTROL-/+ : in the main menu: has no function.

Direct Control Screen

To switch to another control screen, press any one of the other keys.
*To end the OSM display, press EXIT.
*If no key operation is made within three seconds, the OSM display will disappear.



Accessing OSM

Press the PROCEED key.

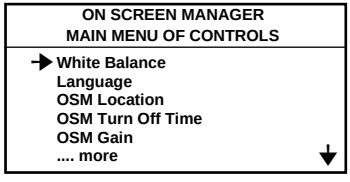
Turning off OSM

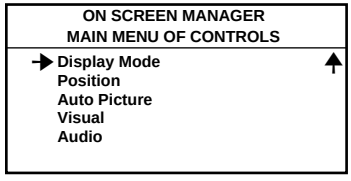
Press the EXIT key when in the main menu ; press the EXIT key twice when in submenus.

OSM Menus

Main Menu

On-Screen Manager' s main menu of Controls gives you an overview of the selection of controls available.





The arrow in the bottom or upper right corner indicates further choices are available. Use the Up or Down control keys to scroll through all of the options.

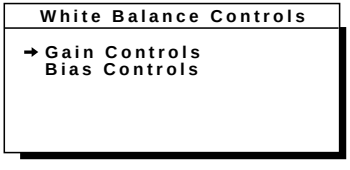
While in the main menu, the keys on the remote control unit work as follows:

POSITION CONTROL +/- (Left/Right) : has no function.
POSITION CONTROL Up/Down : proceeds to the selected menu choice.
EXIT : exits the OSM controls.
PROCEED : proceeds to the next control in the submenu.
NORMAL : resets all the controls within the selected menu.

NOTE: The NORMAL function is not needed in the OSM Turn Off Time, Language Select menus, and Volume Control.

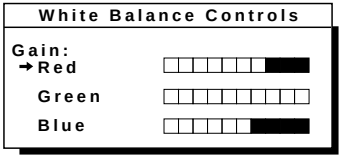
White Balance Controls

The White Balance controls allow you to adjust the white balance.

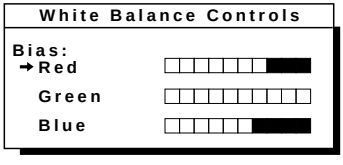


POSITION CONTROL Up/Down : moves the arrow up or down to select either Gain or Bias controls.
PROCEED : proceeds to the adjust menu.
EXIT : exits to the main menu.
NORMAL (VISUAL) : resets the current white balance controls to the factory setting.

Gain



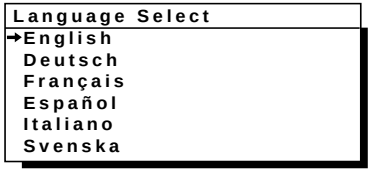
Bias



POSITION/CONTROL Up/Down : moves the arrow up or down to select one of the choices.
POSITION/CONTROL +/- : moves the bar to increase or decrease the adjustment.
EXIT : exits to the submenu.
NORMAL (VISUAL) : resets the current selected control to the factory setting.

Language Select

OSM Menus are available in six languages.

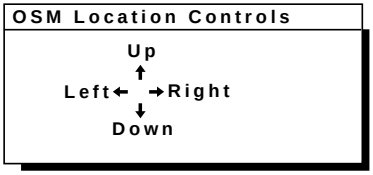


POSITION/CONTROL +/- : moves the arrow up or down to select one of the six languages.

EXIT : exits to the main menu.

OSM Location Control

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



POSITION/CONTROL Up/Down : moves the OSM menu up or down.

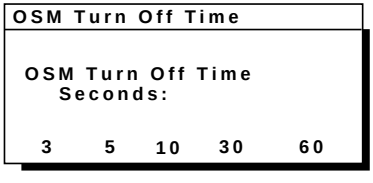
POSITION/CONTROL +/- : moves the OSM menu right or left.

EXIT : exits to the main menu.

NORMAL (RASTER) : resets the current selected control to the factory setting.

OSM Turn Off Time

The OSM menu will stay on as long as it is in use. In the OSM Turn Off Time submenu, you can select how long the monitor waits after the last touch of a key to shut off the OSM menu. The preset choices are 3, 5, 10, 30, and 60 seconds. Note that 30 seconds is the factory preset.

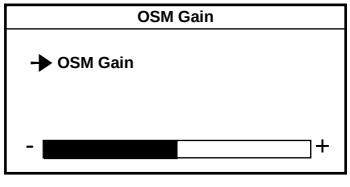


POSITION/CONTROL +/- : selects the preset time in increasing or decreasing order.

EXIT : exits to the main menu.

OSM Gain Control

The OSM Gain allows you to manually adjust the brightness of OSM menu.



POSITION/CONTROL +/- : adjusts the brightness of the OSM menu. Press + for brighter OSM menu; - for dimmer OSM menu.

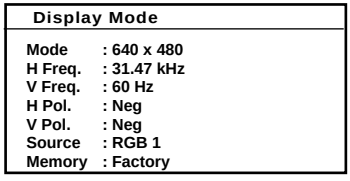
EXIT : exits to the main menu.

NORMAL (RASTER) : resets the current selected control to the factory setting.

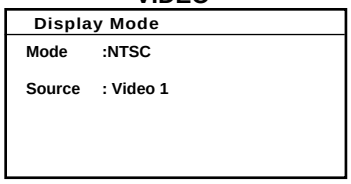
Display Mode

Display Mode provides you information about the current resolution display and technical data including the horizontal and vertical frequency.

RGB



VIDEO

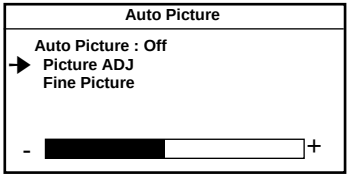


Mode : indicates the resolution of the current input signal (dot x line).
H. Freq : indicates the horizontal frequency of the current input signal.
V. Freq : indicates the vertical frequency of the current input signal.
H. Pol : indicates the polarity of the horizontal sync. signal.
V. Pol : indicates the polarity of the vertical sync. signal.
Neg : indicates the polarity is negative.
Pos : indicates the polarity is positive.
Source : indicates the current input source.
Memory : indicates the memory area.
EXIT : exits to the main menu.

NOTE: Vertical frequencies identified by the OSM System's Display Mode function may exhibit variances from the actual vertical frequency of the connected input source. Vertical frequencies between 60-70 Hz may vary by +/- 3 Hz; vertical frequencies from 70 Hz to 100 Hz may vary by +/-5 Hz. In these situations, it is recommended that the vertical frequency identified by the OSM System Display Mode function be regarded as an approximate reference within tolerances stated above.

Auto Picture Control (Picture ADJ/Fine Picture)

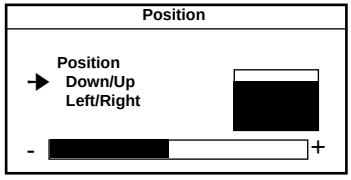
The Auto picture control allows you to adjust the Picture Adjustment and Fine Picture.

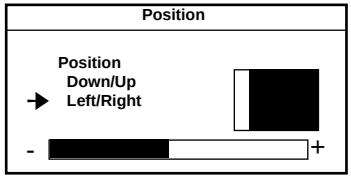


POSITION/CONTROL Up/Down : moves the arrow up or down to select one of the choices.
POSITION/CONTROL +/- : moves the bar to increase or decrease the adjustment.
EXIT : exits to the main menu.
NORMAL (RASTER) : resets the current menu control to the factory setting.

Position Controls

The Position controls allow you to adjust the position of the image.





Position Down/Up : moves the image vertically up or down.
Position Left/Right : moves the image horizontally left or right.
POSITION/CONTROL Up/Down : moves the arrow up or down to select one of the choices.
POSITION/CONTROL +/- : moves the bar to increase or decrease the adjustment.
EXIT : exits to the main menu.
NORMAL (RASTER) : resets the current menu control to the factory setting.

NOTE:
- The Picture ADJ and Fine Picture features are available only when the Auto Picture is off. The Picture ADJ and Fine Picture features are not available for Video or S-Video source.
- When the Auto Picture is on, the Picture ADJ and Fine Picture adjustments are made automatically.

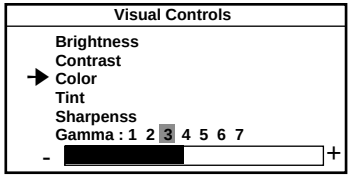
- The Picture Adjustment control allows you to fine tune the computer image or to remove vertical banding that might appear. This function adjusts the clock frequencies that eliminate banding in the image.
- The Fine Adjustment adjusts the clock phase or reduces video noise, dot interference or cross talk. (This is evident when parts of the image appear to be shimmering.)

Visual Controls

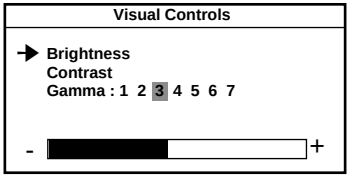
The Visual controls allow you to adjust the picture controls such as brightness, contrast, color, tint, sharpness and gamma.

NOTE: The color, tint, and sharpness controls are not available in the RGB mode and the tint not available in the PAL and SECAM mode.

VIDEO



RGB



POSITION/CONTROL Up/Down : moves the arrow up or down to select one of the choices.

POSITION/CONTROL +/- : moves the bar to increase or decrease the picture adjustment.

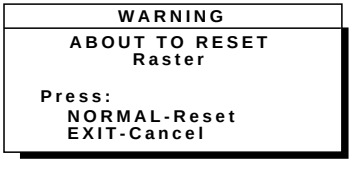
EXIT : exits to the main menu.

NORMAL (VISUAL) : resets the current selected control to the factory setting.

NOTE:
- "Gamma" adjusts the brightness of a dark area on the screen. You can adjust seven levels, in decreasing order of darkness.
- When "Gamma" is selected, the bar graph, plus and minus symbol do not appear.

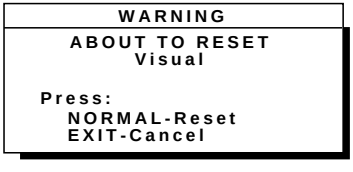
NORMAL

Pressing NORMAL allows you to reset the settings back to the factory settings.



Screen when RASTER NORMAL is pressed with no OSM display.

The above warning statement will appear to confirm that you do want to reset all raster settings.

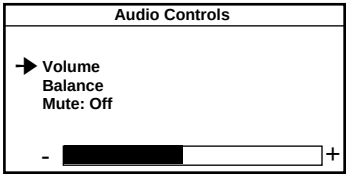


Screen when VISUAL NORMAL is pressed with no OSM display.

The above warning statement will appear to confirm that you do want to reset all visual settings.

Volume Control

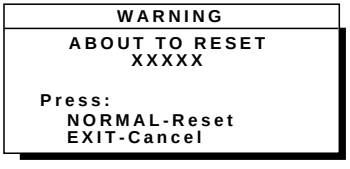
The Volume control allows you to adjust the volume and balance, or to mute the sound.



POSITION/CONTROL Up/Down :moves the arrow up or down to select one of thechoices.

POSITION/CONTROL +/- :moves the bar in the + or - direction to increase or decrease the volume; + to increase the righ speaker volume and - for the left speaker volume.

EXIT :exits to the main menu.



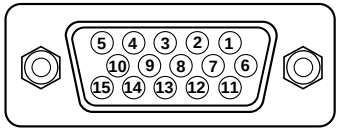
Screen when NORMAL is pressed during adjustment.

The above warning statement will appear to confirm that you do want to reset individual settings. XXXXX refers to a specific adjustment item you wish to reset.

NOTE:
- In addition to OSM controls, adjustments can be directly accessed with the remote control keys. When adjusting with the remote control keys, the on-screen display for the related adjustment appears instead of the OSM menu.
- When Pin No. 5 of the DIP SW 1 is set at the OFF position, OSM controls are not available while the remote control direct access is possible.

External Control Function

External Control Port Pin Assignments



Pin No.	Signal to be connected	OPEN	GND
1-3	Not Used	-	-
4, 5	INPUT SELECT NO.4 / NO.5 / INPUT OPEN / OPEN / VIDEO 1 GND / OPEN / VIDEO 2 OPEN / GND / RGB 1 GND / GND / RGB 2		
6-8	Not Used	-	-
9	GND	-	-
10	Power ON/OFF Selection	OFF	ON
11-14	Not Used	-	-
15	GND	-	-

NOTE: "GND" means to connect with pin 9.

NOTE: If EXT. Control is set to ON, the exter control will be effective only for the above functions. If EXT. Control is set to OFF, PC CTL will be effective.

Signal Identification Flowchart

Input signal

28 kHz≤fH<34 kHz	fV<65 Hz	640 x 480@60 Hz (VESA, VGA)
	65 Hz≤fV	640 x 400@70 Hz (IBM)
34 kHz≤fH<36.5 kHz	fV<65 Hz	800 x 600@56.2 Hz (VESA)
	65 Hz≤fV	640 x 480@67 Hz (Macintosh)
36.5 kHz≤fH<38.6 kHz	fV<65 Hz	800 x 600@60.3 Hz (VESA)
	65 Hz≤fV<74Hz	640 x 480@72.8 Hz (VESA)
	74 Hz≤fV	640 x 480@75 Hz (VESA)
38.6 kHz≤fH<42 kHz		640 x 480@75 Hz (XGA-2)

NOTE: There are other two memory locations for NTSC and PAL than the above.

User preset : 9

Factory preset : 11

Total : 20

Troubleshooting

Before arranging for service by the NEC Service Center, check the following to be sure repairs are needed.

Problem	Possible Cause	Correction
No Picture or Sound	Power cord unplugged. Power outlet inactive. Power of external equipment is not ON. External equipment has been incorrectly connected. Incorrect input selection.	Plug in power cord. Be sure wall switch is on and outlet has power. Switch to ON or connect to an active AC outlet. Correct all connections. Press correct RGB1, RGB 2, VIDEO 1 or VIDEO 2 button.
Sound OK; poor picture with VIDEO signal input.	Improper control setting. Local interference. Cable interconnections. Input impedance is not correct level.	Adjust picture controls as needed. Try another location for the monitor. Be sure all connections are secure. Check 75 ohm high impedance select switch.
Sound OK; poor picture with RGB signal input.	Improper control setting. Incorrect 15 PIN connector pin connections.	Adjust picture controls as needed. Check pin assignments and connections.
Picture OK; poor or no sound.	Cable interconnections. Volume is not adjusted. Poor audio connections from external source. Improper control settings. MUTE key is ON.	Be sure all connections are secure. Adjust volume. Correct audio connections. Adjust volume controls. Press again to restore sound.
Poor sound from external speakers or setereo system speakers	Cable interconnections. Improper volume setting.	Secure all cable connections. Check volume controls of all components.
Remote control does not work.	Weak batteries. Obstacle between Remote Control and Sensor Window. (Wireless) You are not within the effective operating range. (Wireless) Incorrect setting of DIP SW 1. (Wireless) When in the EXT. CONTROL mode, the remote control unit will not operate the monitor. The remote cable is plugged into the REMOTE IN terminal. (Wireless)	Install new batteries. Point remote control directly at Sensor Window. Use the remote control unit within 30° left and right of center (at a distance of within 22ft). Set Pin no. 8 to ON. Set Pin no. 7 of DIP SW 1 to OFF. Unplug the remote cable from the monitor.
STANDBY/POWER indicator is blinking	Horizontal and/or vertical sync signal is not present when the Intelligent Power Manager control is on.	Check the input signal.

In the following case, power off the monitor immediately and contact your dealer or authorized NEC Service Center.

The monitor turns off in 5 seconds after powering on and then the STANDBY/POWER indicator blinks. It indicates that the power supply circuit or, one or more fans have been damaged.

Specifications

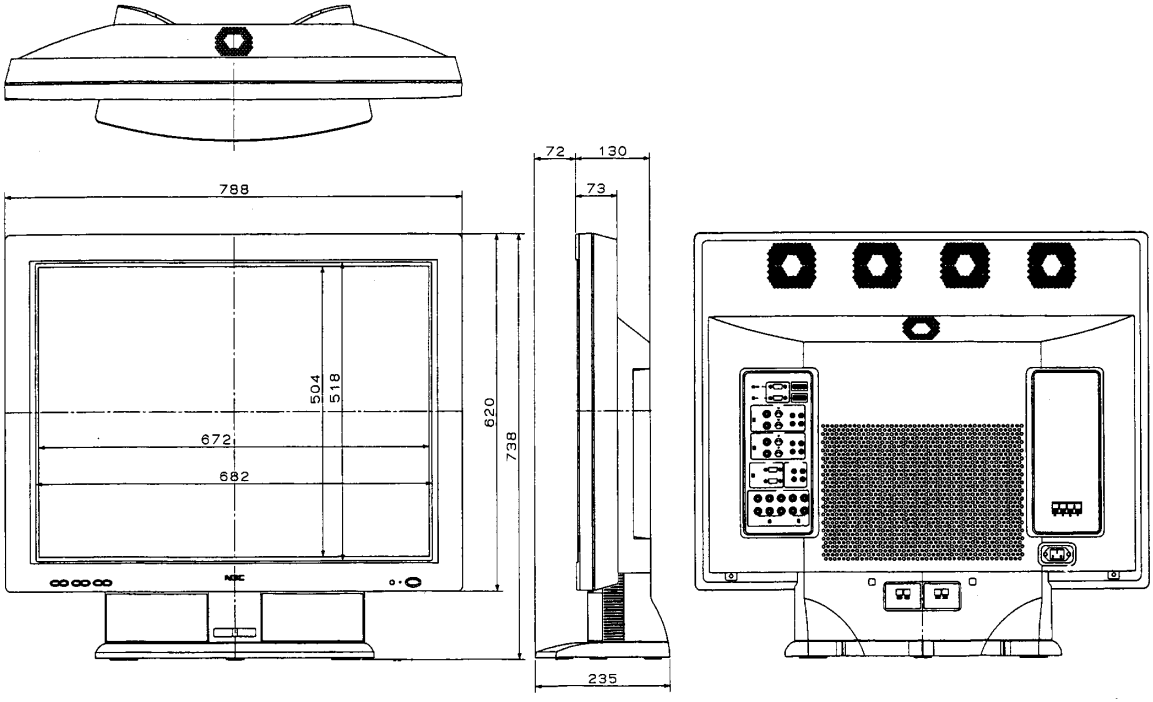
Plasma Screen	33 inch Visual size (Diagonal), AC Drive type Phosphor stripe trios Ph 1.05 mm, Pv 1.05 mm Medium-short persistence phosphor Optical filter coating Aspect ratio: 3 : 4 Display color: 260,000 colors (RGB 64 shades of gray respectively)
RGB Input Terminals	RGB: D-SUB 15pin BNC (R, G, B, H and V) : Video : Analog 0.7Vp-p/75 Ohms (Positive) : Sync. : Separate Sync. TTL level, 0.7 - 4.0Vp-p/75 Ohms.....BNC only Horizontal Sync. (Positive/Negative) Vertical Sync. (Positive/Negative) : Composite Sync. TTL Level (Positive/Negative) : Composite Sync. On Green Video 0.3Vp-p (Negative)
RGB Output Terminals **THROUGH OUT**	D-SUB 15pin BNC (R, G, B, H, V)
Video Input Terminals **VIDEO** **S-VIDEO**	1.0Vp-p, 75 Ohms unbalanced (BNC-Jack), Composite video signal, Sync-negative. Y : 1.0Vp-p, 75 Ohms unbalanced, Sync-negative. C : 0.28Vp-p, 75 Ohms unbalanced, Color burst level.

Video Output Terminals **THROUGH OUT** **THROUGH OUT (S-VIDEO 1, 2)**	1.0Vp-p, 75 Ohms unbalanced (BNC Jack), Composite video signal, Sync-negative. Y : 1.0Vp-p, 75 Ohms unbalanced, Sync-negative. C : 0.28Vp-p, 75 Ohms unbalanced, Color burst level.
Audio Input Terminals **VIDEO 1, 2 / RGB**	Left (Mono) : 0.5 Vrms, high impedance (Pin-Jack) Right : 0.5Vrms, high impedance (Pin-Jack)
Audio Output Terminals **THROUGH OUT**	Left : 0.5 } 0.1 Vrms, less than 22 K Ohms (Pin-Jack) Right : 0.5 } 0.1 Vrms, less than 22 K Ohms (Pin-Jack)
External Control **(IN/THROUGH OUT)**	mini D-SUB 15pin (IN/THROUGH OUT)
SOUND Output **Internal** **External**	2.5W+2.5W (THD 10%) at 16 Ohm 5W+5W (THD10%) at 8 Ohm
Speaker	Oval type 9 X 5.5 cm 16 Ohm, 2pcs.
Display Colors	Analog Input: Unlimited colors
Synchronization Range	Horizontal: 15.5 kHz to 39.5 kHz (Automatically) Vertical:46 Hz to 76 Hz (Automatically)

Maximum Resolution	RGB: 640(H) x 480(V) pixels VIDEO: 400 horizontal lines
Signal Bandwidth	33 MHz (maximum)
Current Rating	AC 120 V, 60 Hz
Power Consumption	4.5 A (maximum)
Dimensions	31.1(W) x 29.1(H) x5.2 (D) inches/ 788(W) x 738(H) x130(D) mm (Height: 24.5 inches/ 620 mm; not including the base)
Weight	73.63 lbs/33.4 kg (60.85 lbs/27.6 kg not including the base)
Environmental Considerations	Operating Temperature : 0 to 40 Humidity : 0 to 90% Altitude : 0 to 10,000 feet Storage Temperature : -10 to 50 Humidity : 0 to 95% Altitude : 0 to 45,000 feet
Regulations :	UL Approved (UL 1950, CSA 950) DOC Canada requirements Meets FCC class A requirements

All specifications are subject to change without notice.

Dimensions



PROFESSIONAL GRAPHICS PRODUCTS

Limited Warranty

MULTIMEDIA MONITORS

NEC Technologies, Inc.(hereafter NECTECH)warrants this product to be free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Parts and labor are warranted for (1) One Year and Plasma display for (1) One year from the date of the first customer purchase.

WHO IS PROTECTED

This warranty may be enforced only by the first purchaser.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as specified below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed in the U.S.A. Canada, and Mexico by NECTECH or which is not purchased in the U.S.A. Canada, and Mexico from an authorized NECTECH dealer.
   If you are uncertain as to whether a dealer is authorized, please contact NECTECH at 800-836-0655. If you are uncertain as to whether a dealer is authorized, please contact NECTECH .
2. Any product on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
   a. Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
   b. Repair or attempted repair by anyone not authorized by NECTECH.
   c. Any shipment of the product (claims must be presented to the carrier).
   d. Removal or installation of the product.
   e. Any other cause which does not relate to a product defect.
   f. Burns or residual images upon the phosphor of the tubes.
4. Cartons, carrying cases, batteries, external cabinets, magnetic tapes, or any accessories used in connection with the product.

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items, but we will not pay for the following:

1. Removal or installation charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls. These costs are the responsibility of the NECTECH dealer from whom the product was purchased.
3. Payment of shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on your product, consult the dealer from whom you purchased the product, or ship it prepaid to any authorized NECTECH service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing, your name, address and a description of the problem(s).
3. For the name of the nearest NECTECH authorized service center, call NECTECH at 800-836-0655.

LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

NECTECH's liability for any defective product is limited to the repair or replacement of the product at our option. NECTECH shall not be liable for:

1. Damage to other property caused by any defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or
2. Any other damages whether incidental, consequential or otherwise. Some states do not allow limitation on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

HOW STATE LAW RELATES TO THE WARRANTY

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FOR MORE INFORMATION, TELEPHONE 800-366-5213

NEC TECHNOLOGIES, INC.

1250 N. Arlington Heights Road, Suite 500

Itasca. Illinois 60143-1248

NOTE: All products returned to NECTECH for service MUST have prior approval. To get approval, call NEC Technologies at 800-836-0655.