



**Operation Manual**

**Betriebshandbuch**

**Mode d'emploi**

**Manual de funcionamiento**

**Manuale d'uso**

**Руководство по эксплуатации**

# Operation Manual

For the specifications of your plasma monitor, refer to "Model Information".

**ENGLISH**

**日本語**

**한국어**

**繁體中文**


**简体中文**

# Important Information


## Precautions

Please read this manual carefully before using your plasma monitor and keep the manual handy for future reference.



**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.**

## Warnings and Safety Precaution

This plasma monitor is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Please see the section "Plasma monitor cleaning procedure" on the next page.

The plasma display panel consists of fine picture elements (cells) with more than 99.99 percent active cells. There may be some cells that do not produce light or remain lit.

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 the unit in a closed cabinet or shelves.  
If you install the unit in an enclosure, make sure there is adequate space at the top of the unit to allow hot 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 60 minutes to cool the monitor. If the problem persists, contact your dealer for service.
2. Do not use this unit's polarized plug with extension cords or outlets unless the prongs can be completely inserted.
3. Do not expose the unit to water or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug the power cord during electrical storms or if the 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. The manufacturer 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 Service Centers.

To avoid damage and prolong operating life:

1. Use only with 100-240V 50/60Hz AC power supply. Continued operation at line voltages greater than 100-240 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. Set the unit 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 power cord and have it serviced by an authorized Service Center.
5. Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
6. For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
7. As is the case with any phosphor-based display (like a CRT monitor, for example) light output will gradually decrease over the life of a Plasma Display Panel.
8. To avoid sulfurization it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.
9. Do not use in a moving vehicle, as the unit could drop or topple over and cause injuries.
10. Do not place the unit on its side, upside-down or with the screen facing up or down, to avoid combustion or electric shock.

Plasma monitor cleaning procedure:

1. Use a soft dry cloth to clean the front panel and bezel area. Never use solvents such as alcohol or thinner to clean these surfaces.
2. Clean plasma ventilation areas with a vacuum cleaner with a soft brush nozzle attachment.
3. To ensure proper ventilation, cleaning of the ventilation areas must be carried out monthly. More frequent cleaning may be necessary depending on the environment in which the plasma monitor is installed.

Recommendations to avoid or minimize phosphor burn-in:

Like all phosphor-based display devices and all other gas plasma displays, plasma monitors can be susceptible to phosphor burn under certain circumstances. Certain operating conditions, such as the continuous display of a static image over a prolonged period of time, can result in phosphor burn if proper precautions are not taken. To protect your investment in this plasma monitor, please adhere to the following guidelines and recommendations for minimizing the occurrence of image burn:

- \* Always enable and use your computer's screen saver function during use with a computer input source.
- \* Display a moving image whenever possible.
- \* Change the position of the menu display from time to time.
- \* Always power down the monitor when you are finished using it.

If the plasma monitor is in long term use or continuous operation take the following measures to reduce the likelihood of phosphor burn:

- \* Lower the Brightness and Contrast levels as much as possible without impairing image readability.
- \* Display an image with many colors and color gradations (i.e. photographic or photo-realistic images).
- \* Create image content with minimal contrast between light and dark areas, for example white characters on black backgrounds. Use complementary or pastel color whenever possible.
- \* Avoid displaying images with few colors and distinct, sharply defined borders between colors.

\* Note: Burn-in is not covered by the warranty.

Contact your dealer for other recommended procedures that will best suit your particular application needs.

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## Contents of the Package

- ☐ Plasma monitor
- ☐ Power cord
- ☐ Remote control with two AAA Batteries
- ☐ Manuals (Model Information and Operation)
- ☐ Safety metal fittings\*
- ☐ Ferrite cores, bands
- ☐ Cable clamps
- ☐ HDMI-DVI cable

\* These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws (see page E-4).

## Options

- Wall mount unit
- Ceiling mount unit
- Tilt mount unit
- Stand
- Attachable speakers

# Installation

You can attach your optional mounts or stand to the plasma monitor in one of the following two ways:

- \* While it is upright. (See Drawing A)
- \* As it is laid down with the screen face down (See Drawing B). Lay the protective sheet, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
- \* Do not touch or hold the screen face when carrying the unit.

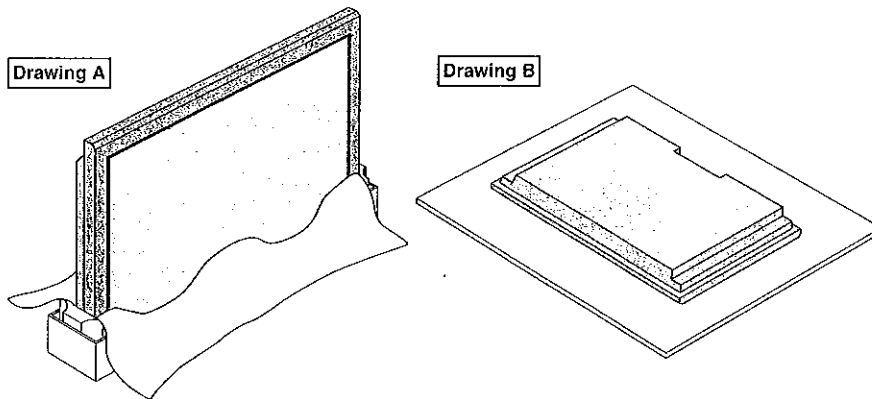
• This device cannot be installed on its own. Be sure to use a stand or original mounting unit. (Wall mount unit, Stand, etc.)

\* See page E-3.

• For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.

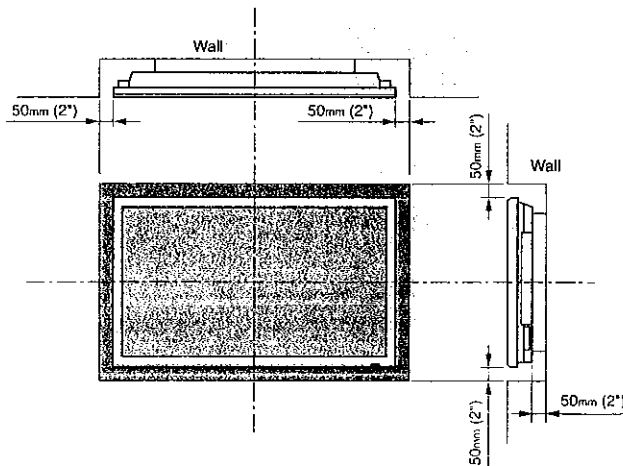
Failure to follow correct mounting procedures could result in damage to the equipment or injury to the installer.

Product warranty does not cover damage caused by improper installation.



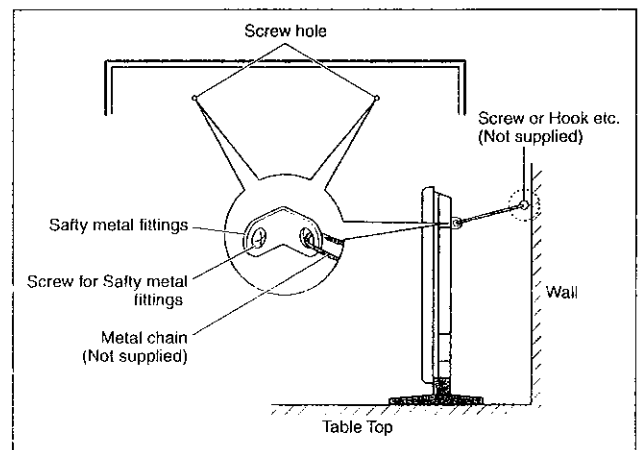
## Ventilation Requirements for enclosure mounting

To allow heat to disperse, leave space between surrounding objects as shown on the diagram below when installing.



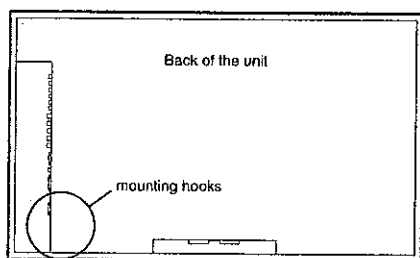
## How to use the safety metal fittings and the screws for safety metal fittings

These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws.

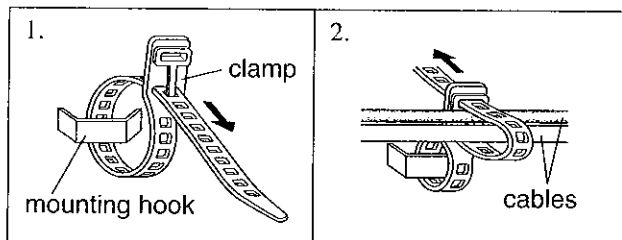


## Cable Management

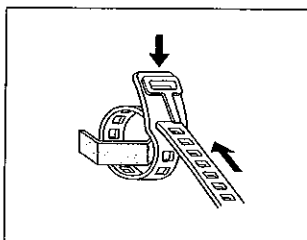
Using the cable-clamps provided with the plasma display, bundle at the back of the unit the signal and audio cables connected to the display.



To attach



To detach

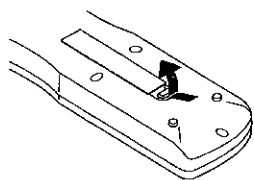


## How to use the remote control

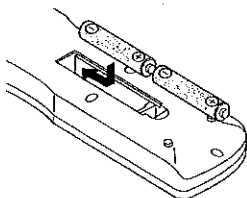
### Battery Installation and Replacement

Insert the 2 "AAA" batteries, making sure to set them in with the proper polarity.

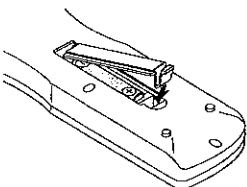
1. Press and open the cover.



2. Align the batteries according to the (+) and (-) indication inside the case.

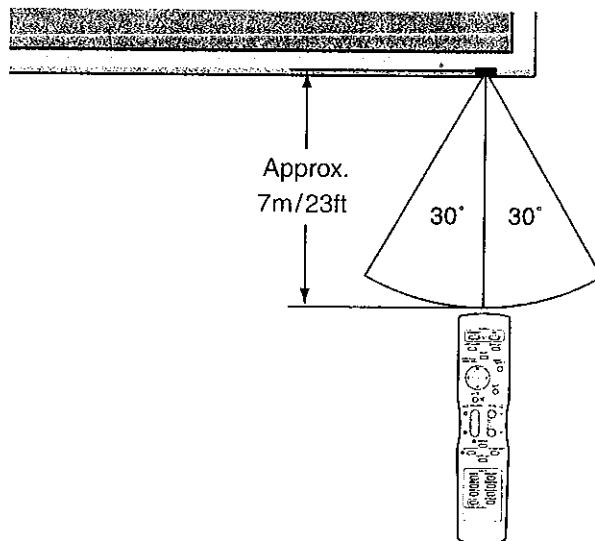


3. Replace the cover.



## Operating Range

- \* Use the remote control within a distance of about 7 m/ 23ft. from the front of the monitor's remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- \* The remote control operation may not function if the monitor's remote control sensor is exposed to direct sunlight or strong artificial light, or if there is an obstacle between the sensor and the remote control.

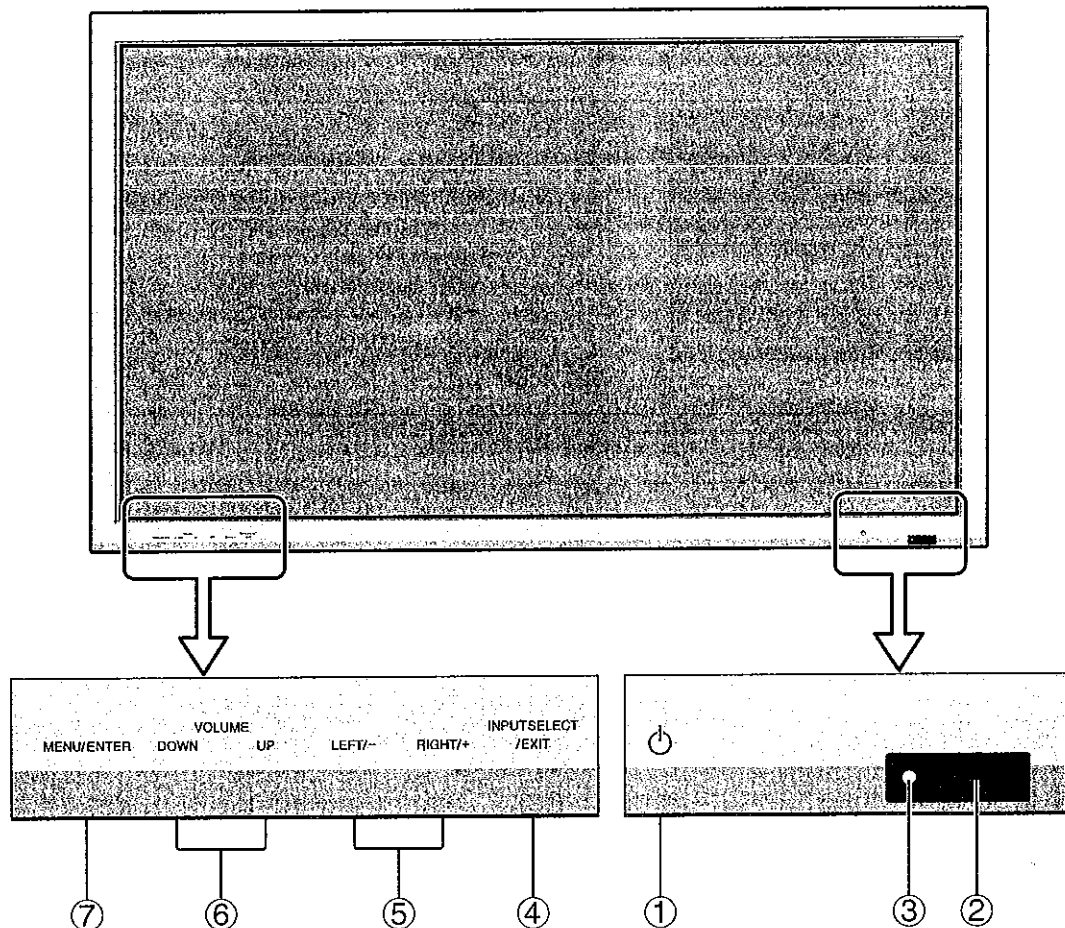


## Handling the remote control

- Do not drop or mishandle the remote control.
- Do not get the remote control wet. If the remote control gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control 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.

# Part Names and Function

## Front View



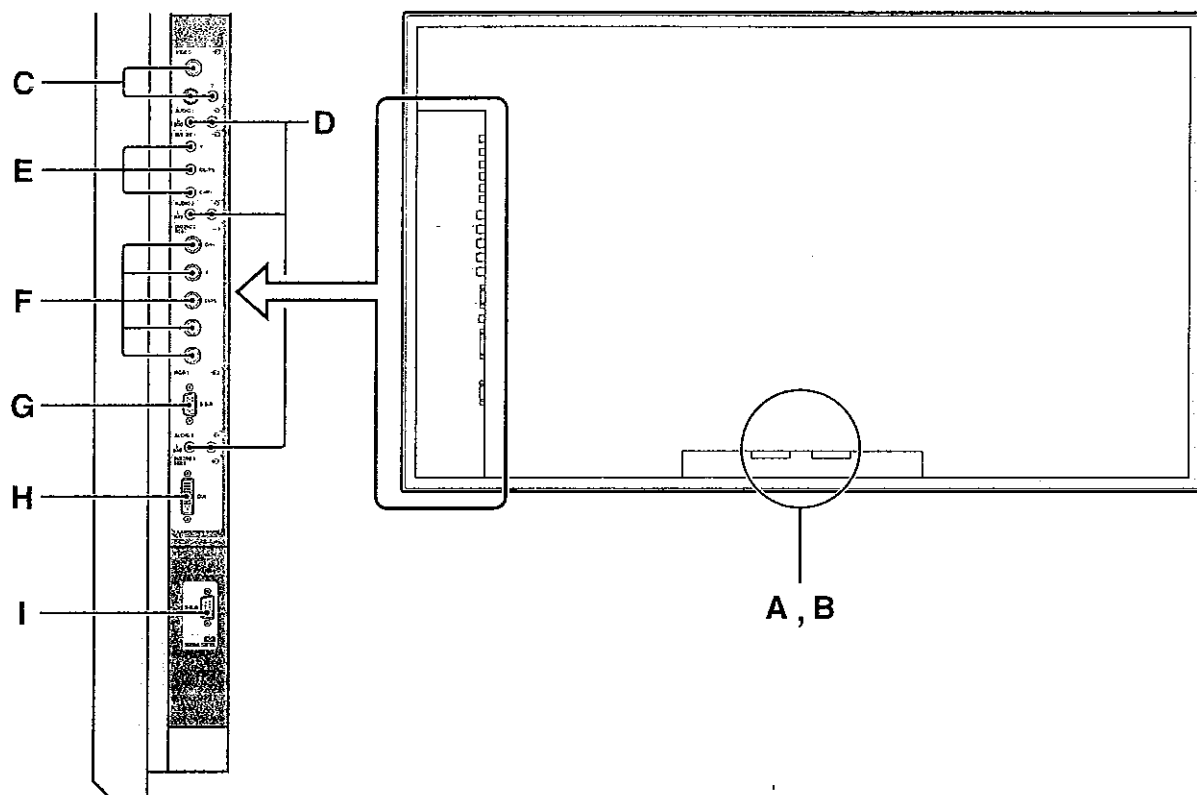
- ① **Power**  
Turns the monitor's power on and off.
- ② **Remote sensor window**  
Receives the signals from the remote control.
- ③ **POWER/STANDBY indicator**  
When the power is on ..... Lights green.  
When the power is in the standby mode ... Lights red.
- ④ **INPUT SELECT / EXIT**  
Switches the input.  
The available inputs depend on the setting of "BNC INPUT", "D-SUB INPUT", "RGB SELECT" and "DVI SET UP".  
Functions as the EXIT buttons in the On-Screen Menu (OSM) mode.
- ⑤ **LEFT/- and RIGHT/+**  
Enlarges or reduces the image. Functions as the CURSOR (◀/▶) buttons in the On-Screen Menu (OSM) mode.
- ⑥ **VOLUME DOWN and UP**  
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Menu (OSM) mode.
- ⑦ **MENU/ENTER**  
Sets the On-Screen Menu (OSM) mode and displays the main menu.

### **WARNING**

The Power on/off switch does not disconnect the plasma display completely from the supply mains.

**Note:** This plasma monitor has the capacity to display images when connected to European DVD players with a SCART output signal, which is RGB with composite sync.  
Your dealer can supply a special SCART cable, which will enable you to use the RGB with composite sync signal.  
To obtain the special cable as well as for further information, please contact your dealer.  
Please refer to page E-19 for selection of the correct mode in the on-screen manager.

## Rear View/ Terminal Board



### A AC IN

Connect the included power cord here.

### B EXT SPEAKER L and R

Connect speakers (optional) here. Maintain the correct polarity. Connect the  $\oplus$  (positive) speaker wire to the  $\oplus$  EXT SPEAKER terminal and the  $\ominus$  (negative) speaker wire to the  $\ominus$  EXT SPEAKER terminal on both LEFT and RIGHT channels.

Please refer to your speaker's owner's manual.

### C VIDEO1, 2, 3 (BNC, RCA, S-Video)

Connect VCR's, DVD's or Video Cameras, etc. here.

### D AUDIO1, AUDIO2, AUDIO3

These are audio input terminals.

The input is selectable. Set which video image to allot them from the audio menu screen.

### E DVD1 / HD1

Connect DVD's, High Definition or Laser Discs, etc. here.

### F DVD2/ HD2, RGB2

DVD2/ HD2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.

This input can be set for use with an RGB or component source. (see page E-19)

RGB2: You can connect an analog RGB signal and the synchronization signal.

### G RGB1 (D-Sub)

Connect an analog RGB signal from a computer, etc. here.

### H DVD3/HD3, RGB3 (DVI)

Connect a digital signal (TMDS) from a source with a DVI output.

This input can be set for use with an RGB3 or DVD3/ HD3 source. (see page E-20)

### I EXTERNAL CONTROL (D-Sub)

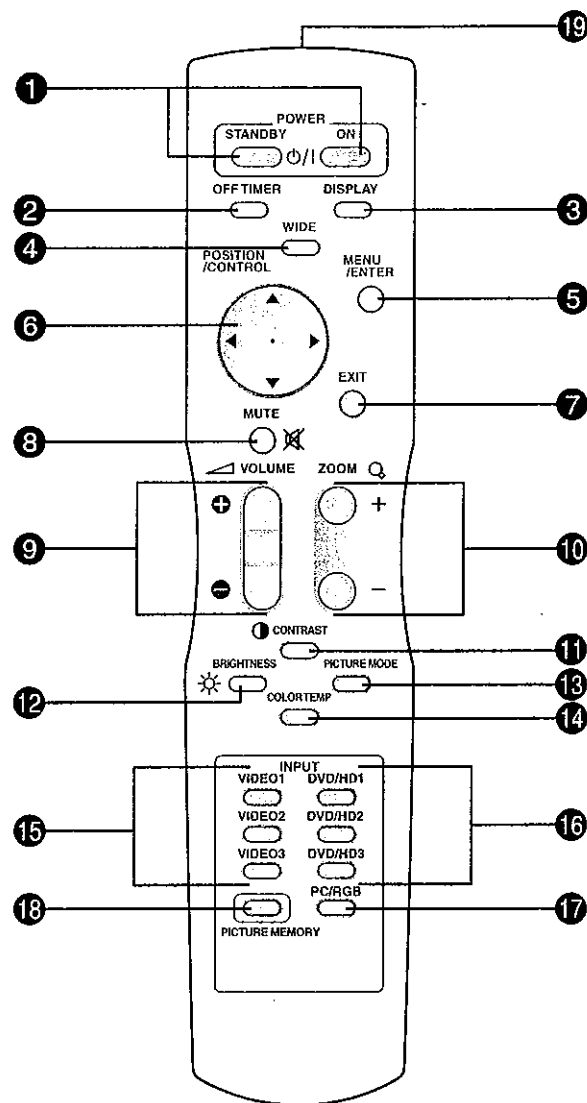
This terminal is used when operating and controlling the monitor externally (by RS-232C).

### Information

- For Y/CB/Cr, connect to the DVD1 or DVD2 terminals.
- For SCART, this unit provides three ways to connect:
  - SCART1: Connect R/G/B to the DVD2 terminals and composite sync. to the HD terminal.
  - SCART2: Connect R/G/B to the DVD2 terminals and composite sync. to the VIDEO1 terminal.
  - SCART3: Connect R/G/B + composite sync. to the RGB1 terminal.



## Remote Control



- 8 MUTE**  
Mutes the audio.
- 9 VOLUME (+/-)**  
Adjusts the audio volume.
- 10 ZOOM (+/-)**  
Enlarges or reduces the image.
- 11 CONTRAST**  
Press this button to adjust contrast directly.
- 12 BRIGHTNESS**  
Press this button to adjust brightness directly.
- 13 PICTURE MODE**  
Press this button to adjust picture mode directly.
- 14 COLOR TEMP**  
Press this button to adjust color tone directly.
- 15 VIDEO1, 2, 3**  
Press this button to select VIDEO as the source. VIDEO can also be selected using the INPUT SELECT button on the monitor.
- 16 DVD/HD1, 2, 3**  
Press this button to select DVD/HD as the source. DVD/HD can also be selected using the INPUT SELECT button on the monitor.
- 17 PC/RGB**  
Press this button to select PC/RGB as the source. PC/RGB can also be selected using the INPUT SELECT button on the monitor.
- 18 PICTURE MEMORY**  
Switches sequentially between picture memory settings 1 to 6.
- 19 Remote control signal transmitter**  
Transmits the remote control signals.

- 1 POWER ON/STANDBY**  
Switches the power on/standby.  
(This does not operate when POWER/STANDBY indicator of the main unit is off.)
- 2 OFF TIMER**  
Activates the off timer for the unit.
- 3 DISPLAY**  
Displays the source settings on the screen.
- 4 WIDE**  
Automatically detects the signal and sets the aspect ratio.  
Wide button is not active for all signals.
- 5 MENU/ENTER**  
Press this button to access the OSM controls.  
Press this button during the display of the main menu to go to the sub menu.
- 6 CURSOR (▲/▼/◀/▶)**  
Use these buttons to select items or settings and to adjust settings or switch the display patterns.
- 7 EXIT**  
Press this button to exit the OSM controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

## POWER

### To turn the unit ON and OFF:

1. Plug the power cord into an active AC power outlet.
2. Press the Power button (on the unit).  
The monitor's POWER/STANDBY indicator turns red and the standby mode is set.
3. Press the POWER ON button (on the remote control) to turn on the unit.  
The monitor's POWER/STANDBY indicator will light up (green) when the unit is on.
4. Press the POWER STANDBY button (on the remote control) or the Power button (on the unit) to turn off the unit.  
The monitor's POWER/STANDBY indicator turns red and the standby mode is set (only when turning off the unit with the remote control).

## VOLUME

### To adjust the sound volume:

1. Press and hold the VOLUME  $\oplus$  button (on the remote control or the unit) to increase to the desired level.
2. Press and hold the VOLUME  $\ominus$  button (on the remote control or the unit) to decrease to the desired level.

## MUTE

### To mute the audio:

Press the MUTE button on the remote control to mute the audio; press again to restore.

## DISPLAY

### To check the settings:

1. The screen changes each time the DISPLAY button is pressed.
2. If the button is not pressed for approximately three seconds, the menu turns off.

## DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

1. Press the ZOOM (+ or -) button to display magnifying glass. ( Q )

### To change the size of the picture:

Press the ZOOM+ button and enlarge the picture.

A press of the ZOOM- button will reduce the picture and return it to its original size.

### To change the picture position:

Select the position with the  $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$  buttons.

2. Press the EXIT button to delete the pointer.

## OFF TIMER

### To set the off timer:

The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

1. Press the OFF TIMER button to start the timer at 30 minutes.
2. Press the OFF TIMER button to the desired time.
3. The timer starts when the menu turns off.

→ 30 → 60 → 90 → 120 → 0

OFFTIMER 30

### To check the remaining time:

1. Once the off timer has been set, press the OFF TIMER button once.
2. The remaining time is displayed, then turns off after a few seconds.
3. When five minutes remain the remaining time appears until it reaches zero.

OFFTIMER 28

### To cancel the off timer:

1. Press the OFF TIMER button twice in a row.
2. The off timer is canceled.

OFFTIMER 0

### Note:

After the power is turned off with the off timer ...  
A slight current is still supplied to the monitor. When you are leaving the room or do not plan to use the system for a long period of time, turn off the power of the monitor.

# WIDE Operations

## Wide Screen Operation (manual)

With this function, you can select one of six screen sizes.

### When viewing videos or digital video discs

1. Press the WIDE button on the remote control.
2. Within 3 seconds ...

Press the WIDE button again.

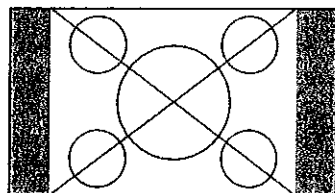
The screen size switches as follows:

→ NORMAL → ANAMORPHIC → STADIUM → ZOOM → 2.35:1 → 14:9

When a 720P or 1080I signal is input:

ANAMORPHIC ↔ 2.35:1

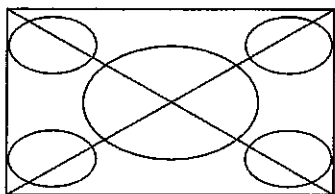
### NORMAL size screen (4:3)



The normal size screen is displayed.

- \* The picture has the same size as video pictures with a 4 : 3 aspect ratio.

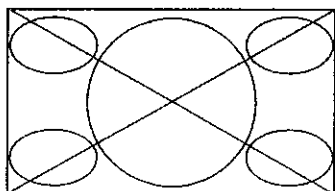
### ANAMORPHIC size screen



The image is expanded in the horizontal direction.

- \* Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen with correct linearity. (Normal images are expanded in the horizontal direction.)

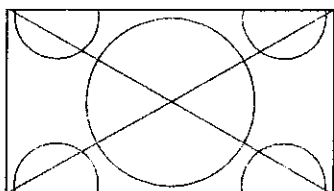
### STADIUM size screen



The picture is expanded in the horizontal and vertical directions at different ratios.

- \* Use this for watching normal video programs (4:3) with a wide screen.

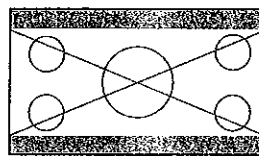
### ZOOM size screen



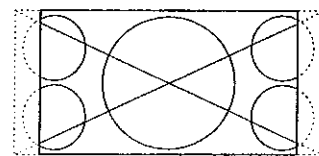
The picture is expanded in the horizontal and vertical direction, maintaining the original proportions.

- \* Use this for theater size (wide) movies, etc.

### 2.35:1 size screen



Original image

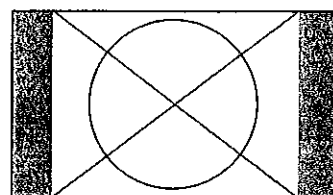


Information is lost on both sides.

The squeezed film image is expanded to fulfill the entire screen at a ratio of 2.35:1. Black bands do not appear at the top and bottom but information is lost on the left and right margins.

- This feature is available when the input signal is video, component (480I, 480P, 576I, 576P, 720P, 1080I) or RGB (525P or 625P signal from a scan converter).
- \* If black bands appear on the top and bottom in the full size screen, select the 2.35:1 size screen to avoid phosphor burn-in.

### 14:9 size screen



The image is displayed at a 14:9 aspect ratio.

- \* This feature is available when the input signal is video, component (480I, 480P, 576I, 576P) or RGB (525P or 625P signal from a scan converter).

### Note:

*Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.*

## Wide Screen Operation with Computer Signals

Switch to the wide screen mode to expand the 4 : 3 image to fill the entire screen.

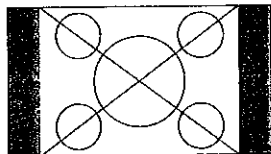
1. Press the WIDE button on the remote control.
2. Within 3 seconds ...

Press the WIDE button again.

The screen size switches as follows:

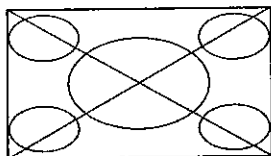
→ NORMAL → ANAMORPHIC → ZOOM

NORMAL size screen (4:3 or SXGA 5:4)



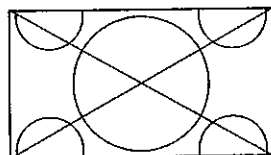
The picture has the same size as the normal computer image.

ANAMORPHIC size screen



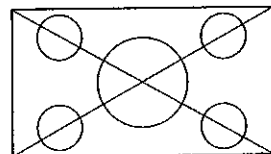
The image is expanded in the horizontal direction.

ZOOM size screen



When wide signals are input.

ANAMORPHIC size screen



### Information

#### ■ Supported resolution

See page E-2 of Model Information for details on the display output of the various VESA signal standards supported by the monitor.

■ When 852 (848) dot × 480 line wide VGA\* signals with a vertical frequency of 60 Hz and horizontal frequency of 31.7 (31.0) kHz are input

Select an appropriate setting for RGB SELECT mode referring to the "Table of Signals Supported" on page E-2 of Model Information.

\* "VGA", "SVGA" and "SXGA" are registered trademarks of IBM, Inc. of the United States.

#### Note:

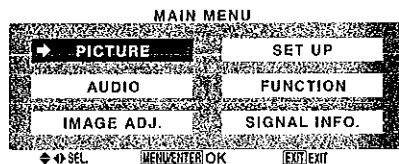
*Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.*

# OSM (On Screen Menu) Controls

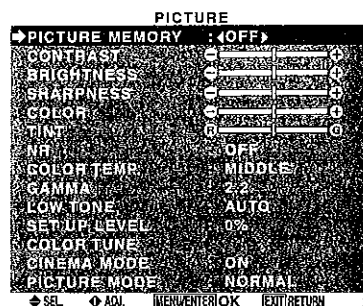
## Menu Operations

The following describes how to use the menus and the selected items.

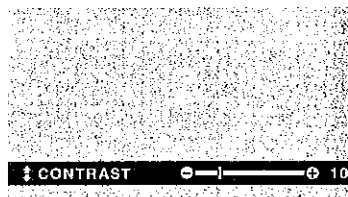
1. Press the MENU/ENTER button on the remote control to display the MAIN MENU.



2. Press the cursor buttons ▲ ▼ on the remote control to highlight the menu you wish to enter.
3. Press the MENU/ENTER button on the remote control to select a sub menu or item.



4. Adjust the level or change the setting of the selected item by using the cursor buttons ◀ ▶ on the remote control.



5. The adjustments or the settings that are stored in memory. The change is stored until you change it again.
  6. Repeat steps 2 – 5 to adjust an additional item, or press the EXIT button on the remote control to return to the main menu.
- \* When adjusting using the bar at the bottom of the screen, press the ◀ or ▶ button within 5 seconds. If not, the current setting is set and the previous screen appears.

**Note:** The main menu disappears by pressing the EXIT button.

## Menu Tree

:Shaded areas indicate the default value.

← → + : Press the ◀ or ▶ button to adjust. The default value is at the center.

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
PICTURE	PICTURE MEMORY	OFF/MEMORY1-6			NO	E-15
	CONTRAST	← → + 0←52→72			YES	E-15
	BRIGHTNESS	← → + 0←32→64			YES	E-15
	SHARPNESS	← → + 0←16→32			YES	E-15
	COLOR	← → + 0←32→64			YES	E-15
	TINT	R← → G 0←32→64			YES	E-15
	NR	OFF/NR-1/NR-2/NR-3			YES	E-15
	COLOR TEMP.	LOW/MIDDLE LOW/MIDDLE/HIGH			YES	E-16
	WHITE BALANCE	GAIN RED	← → + 0← → 70		YES	E-16
		GAIN GREEN	← → + 0← → 70		YES	E-16
		GAIN BLUE	← → + 0← → 70		YES	E-16
		BIAS RED	← → + 0← → 70		YES	E-16
		BIAS GREEN	← → + 0← → 70		YES	E-16
		BIAS BLUE	← → + 0← → 70		YES	E-16
		RESET	OFF← → ON		YES	E-16
	GAMMA	2.1←2.2←2.3→2.4			YES	E-16
	LOW TONE	AUTO← → 1← → 3			YES	E-16
	SET UP LEVEL	0%← → 3.75%← → 7.5%			YES	E-17
	COLOR TUNE	RED	Y← → M 0← → 64		YES	E-17
		GREEN	C← → Y 0← → 64		YES	E-17
		BLUE	M← → C 0← → 64		YES	E-17
		YELLOW	G← → R 0← → 64		YES	E-17
		MAGENTA	R← → B 0← → 64		YES	E-17
		CYAN	B← → G 0← → 64		YES	E-17
		RESET	OFF← → ON		YES	E-17
	CINEMA MODE	ON← → OFF			YES	E-17
	PICTURE MODE	DEFAULT/THEATER1/THEATER2/NORMAL/BRIGHT			YES	E-17

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
AUDIO	BASS	← → + 0←13→26			YES	E-18
	TREBLE	← → + 0←13→26			YES	E-18
	BALANCE	L← → R -22←0→+22			YES	E-18
	AUDIO INPUT1	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-18
	AUDIO INPUT2	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-18
	AUDIO INPUT3	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-18

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
IMAGE ADJUST	ASPECT MODE	ZOOM/NORMAL/ANAMORPHIC/STADIUM/14:9/2.35:1			NO	E-18
	V-POSITION	← → + -64←0→+64			YES	E-18
	H-POSITION	← → + -128←0→+127			YES	E-18
	V-HEIGHT	← → + 0← → 64			YES	E-18
	H-WIDTH	← → + 0← → 64			YES	E-18
	AUTO PICTURE	ON← → OFF*2			NO	E-18
	FINE PICTURE*1	← → + *2 0← → 64			YES	E-18
	PICTURE ADJ.*1	← → + *2 0← → 128			YES	E-18

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SET UP	LANGUAGE	ENGLISH/DEUTSCH/FRAÇAIS/ESPAÑOL/ITALIANO/SVENSKA/中文/РУССКИЙ			NO	E-19
	BNC INPUT	RGB← → COMPONENT← → SCART1← → SCART2			YES	E-19
	D-SUB INPUT	RGB← → SCART3			YES	E-19
	HD SELECT	1080i/1035i/540P			NO	E-19
	RGB SELECT	AUTO/STILL/MOTION/WIDE1/WIDE2/WIDE3/DTV			YES	E-19
	DVI SET UP	PLUG/PLAY	PC← → STB/DVD		NO	E-20
		BLACK LEVEL	LOW← → HIGH		NO	E-20
	COLOR SYSTEM	AUTO/PAL/PAL-M/PAL-N/PAL 60/SECAM/4.43 NTSC/3.58NTSC			NO	E-20
	BACK GROUND	BLACK/GRAY			YES	E-20
	GRAY LEVEL	0← → 3← → 15			YES	E-21
	S1/S2	AUTO← → OFF			YES	E-21
	DISPLAY OSM	ON← → OFF			YES	E-21
	OSM ADJ.	TOP LEFT← → TOP CENTER← → TOP RIGHT← → BTM LEFT← → BTM CENTER← → BTM RIGHT			YES	E-21
	ALL RESET	ON← → OFF			—	E-21

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
FUNCTION	POWER MGT.	ON←→OFF			YES	E-22
	INPUT SKIP	ON←→OFF			YES	E-22
	PDP SAVER	MANUAL/AUTO			YES	E-22
		PEAK BRIGHT	100%/75%/50%/25%		YES	E-23
		ORBITER	OFF/AUTO1/AUTO2		YES	E-23
		INVERSE/WHITE	OFF/INVERSE/WHITE		YES	E-23
		SCREEN WIPER	ON/OFF		YES	E-23
		SOFT FOCUS	OFF/LEVEL1-4		YES	E-23
		OSM ORBITER	ON/OFF		YES	E-24
		OSM CONTRAST	LOW/NORMAL		YES	E-24
Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SIGNAL INFO.					—	E-24

\*1 Only when AUTO PICTURE is OFF.

\*2 RGB/PC only

### **Information**

#### **■ Restoring the factory default settings**

Select "ALL RESET" under the SET UP menu. Note that this also restores other settings to the factory defaults.

## Picture Settings Menu

### Storing picture settings

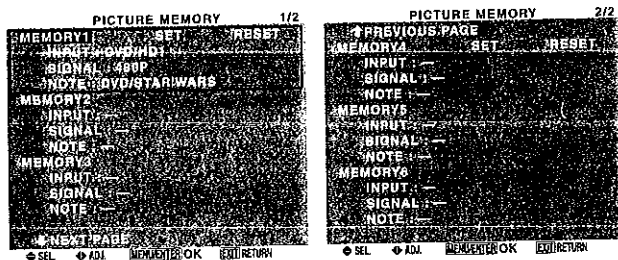
This function allows you to store in memory the current input signal and PICTURE menu settings and to recall these settings when necessary.

There are six picture memories, and notes of up to 15 characters can be added to each.

Example: Storing picture settings at MEMORY1

On "PICTURE MEMORY" of "PICTURE" menu, select "MEMORY1", then press the MENU/ENTER button.

The "PICTURE MEMORY" screen appears.



### Information

#### PICTURE MEMORY Settings

OFF: Picture memory not used.

MEMORY1 to 6: Picture memory with the specified number used. Maximum memories are 6, not depending on inputs.

#### Setting the memory

- Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6.
- Use the ◀ and ▶ buttons to select "SET", then press the MENU/ENTER button.
- If necessary, input a note.

#### Resetting the memory

Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6, then use the ◀ and ▶ buttons to select "RESET", and finally press the MENU/ENTER button.

The memory is cleared, and "—" is displayed in the "INPUT", "SIGNAL" and "NOTE" columns.

#### Inputting notes

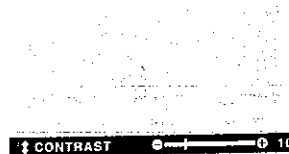
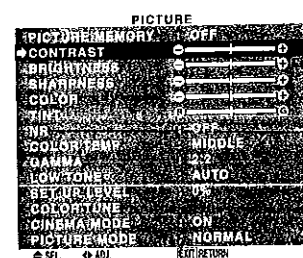
- Use the ◀ and ▶ buttons to select "NOTE", then press the MENU/ENTER button.
- Input the note.
  - Use the ▲ and ▼ button to select the character.
  - Use the ◀ and ▶ buttons to move the cursor.
  - Use the EXIT button to delete the character at the cursor position.
- When you have finished inputting the note, press the MENU/ENTER button.

## Adjusting the picture

The contrast, brightness, sharpness, color and tint can be adjusted as desired.

Example: Adjusting the contrast

On "CONTRAST" of "PICTURE" menu, adjust the contrast.



**Note:** If "CAN NOT ADJUST" appears ...

When trying to enter the PICTURE submenu, make sure PICTURE MODE is not set to DEFAULT.

### Information

#### Picture adjustment screen

CONTRAST: Changes the picture's white level.

BRIGHTNESS: Changes the picture's black level.

SHARPNESS: Changes the picture's sharpness.

Adjusts picture detail of VIDEO display.

COLOR: Changes the color density.

TINT: Changes the picture's tint. Adjust for natural colored skin, background, etc.

#### Adjusting the computer image

Only the contrast and brightness can be adjusted when a computer signal is connected.

#### Restoring the factory default settings

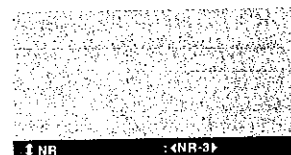
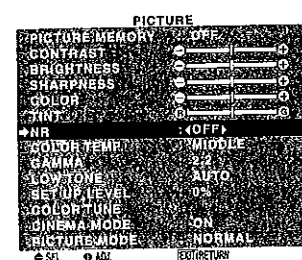
Select "DEFAULT" under the "PICTURE MODE" settings.

## Reducing noise in the picture

Use these settings if the picture has noise due to poor reception or when playing video tapes on which the picture quality is poor.

Example: Setting "NR-3"

On "NR" of "PICTURE" menu, select "NR-3".



### Information

#### NR

\* "NR" stands for Noise Reduction.

\* This function reduces noise in the picture.

#### Types of noise reduction

There are three types of noise reduction. Each has a different level of noise reduction.

The effect becomes stronger as the number increases (in the order NR-1 → NR-2 → NR-3).

OFF: Turns the noise reduction function off.

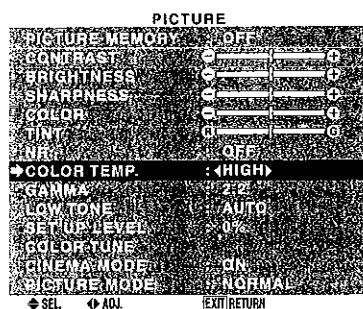


## Setting the color temperature

Use this procedure to set color tone produced by the plasma display.

Example: Setting "HIGH"

On "COLOR TEMP." of "PICTURE" menu, select "HIGH".



### Information

#### ■ Setting the color temperature

LOW: Redder

MIDDLE LOW: Slightly red

MIDDLE: Standard (slightly bluer)

HIGH: Bluer

## Adjusting the color to the desired level

Use this procedure to adjust the white balance for each color temperature to achieve the desired color quality.

Example: Adjusting the "GAIN RED" of "HIGH" color temperature

On "COLOR TEMP." of "PICTURE" menu, select "HIGH", then press the MENU/ENTER button.

The "WHITE BALANCE" screen appears.

On "GAIN RED", adjust the white balance.



### Information

#### ■ Adjusting the white balance

GAIN R/G/B: White balance adjustment for white level

BIAS R/G/B: White balance adjustment for black level

RESET: Resets settings to the factory default values. Use ◀ and ▶ buttons to select "ON", then press the MENU/ENTER button.

#### ■ Restoring the factory default settings

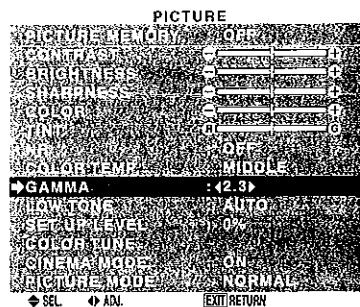
Select "RESET" under the WHITE BALANCE menu.

## Changing the Gamma Curve

This feature adjusts the brightness of the midtone areas while keeping shadows and highlights unchanged.

Example: Setting "2.3"

On "GAMMA" of "PICTURE" menu, select "2.3".



### Information

#### ■ GAMMA settings

The picture becomes darker as the number increases (in the sequence of 2.1, 2.2, 2.3, 2.4).

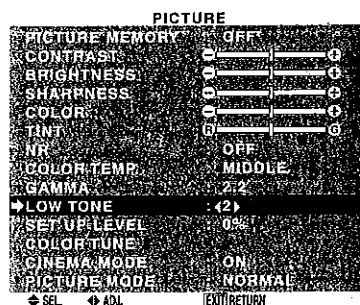
\* These values are approximate.

## Making the Low Tone adjustments

This feature allows more detailed tone to be reproduced especially in the dark area.

Example: Setting "2"

On "LOW TONE" of "PICTURE" menu, select "2".



### Information

#### ■ LOW TONE settings

AUTO: Will automatically appraise the picture and make adjustments.

1: Will apply the dither method suitable for still pictures.

2: Will apply the dither method suitable for motion pictures.

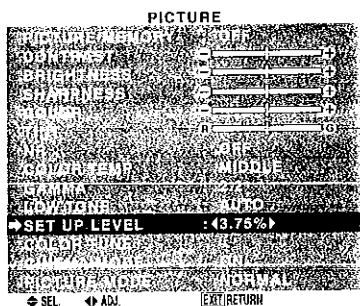
3: Will apply the error diffusion method.

## Adjusting the pedestal level (black level)

This feature adjusts the video black level in a video image.

Example: Setting "3.75%"

On "SET UP LEVEL" of "PICTURE" menu, select "3.75%".



### Information

#### ■ SET UP LEVEL settings

0%: Normal status

3.75%: 3.5% lower than normal

7.5%: 7.5% lower than normal

## Adjusting the colors

Use this procedure to adjust hue and color density for red, green, blue, yellow, magenta and cyan.

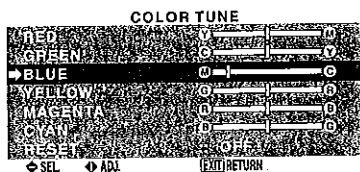
You can accentuate the green color of trees, the blue of the sky, etc.

Example: Adjusting the color tune for blue

On "PICTURE" menu, select "COLOR TUNE", then press the MENU/ENTER button.

The "COLOR TUNE" screen appears.

On "BLUE" of "COLOR TUNE", adjust the color tune.



### Information

#### ■ COLOR TUNE settings

RED: Makes red's adjustment

GREEN: Makes green's adjustment

BLUE: Makes blue's adjustment

YELLOW: Makes yellow's adjustment

MAGENTA: Makes magenta's adjustment

CYAN: Makes cyan's adjustment

RESET: Resets settings to the factory default value. Use

◀ and ▶ buttons to select "ON", then press the MENU/ENTER button.

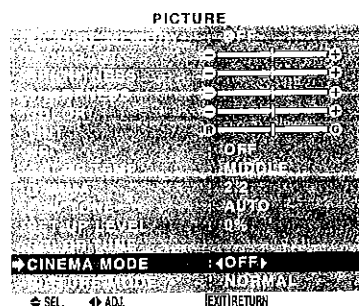
## Setting the picture to suit the movie

The film image is automatically discriminated and projected in an image mode suited to the picture.

[NTSC, PAL, PAL60, 480i (60Hz), 525i (60Hz), 576i (50Hz), 625i (50Hz), 1035i (60Hz), 1080i (60Hz) only]

Example: Setting the "CINEMA MODE" to "OFF"

On "CINEMA MODE" of "PICTURE" menu, select "OFF".



### Information

#### ■ CINEMA MODE

ON: Automatic discrimination of the image and projection in cinema mode.

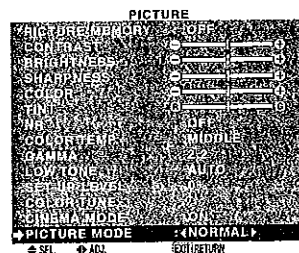
OFF: Cinema mode does not function.

## Setting the picture mode according to the brightness of the room

There are four picture modes that can be used effectively according to the environment in which you are viewing the display.

Example: Setting the "THEATER1" mode

On "PICTURE MODE" of "PICTURE" menu, select "THEATER1".



### Information

#### ■ Types of picture modes

THEATER1, 2: Set this mode when watching video in a dark room.

This mode provides darker, finer pictures, like the screen in movie theaters.

For a darker image, select THEATER2.

NORMAL: Set this mode when watching video in a bright room.

This mode provides dynamic pictures with distinct differences between light and dark sections.

BRIGHT: This mode provides brighter pictures than NORMAL.

DEFAULT: Use this to reset the picture to the factory default settings.

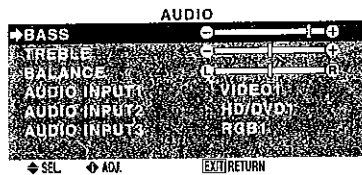
## Audio Settings Menu

Adjusting the treble, bass and left/right balance and audio input select

The treble, bass and left/right balance can be adjusted to suit your tastes.

Example: Adjusting the bass

On "BASS" of "AUDIO" menu, adjust the bass.



**Note :** If "CAN NOT ADJUST" appears...  
Set "AUDIO INPUT" on the AUDIO menu correctly.

### Information

#### ■ Audio settings menu

**BASS:** Controls the level of low frequency sound.  
**TREBLE:** Controls the level of high frequency sound.  
**BALANCE:** Controls the balance of the left and right channels.

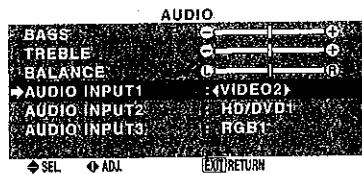
## Setting the allocation of the audio connectors

Setting the AUDIO 1, 2, and 3 connectors to the desired input.

Example: Setting "AUDIO INPUT1" to "VIDEO 2"

On "AUDIO INPUT1" of "AUDIO" menu, select "VIDEO2".

The available sources depend on the settings of input.



### Information

#### ■ AUDIO INPUT

A single audio input cannot be selected as the audio channel for more than one input terminal.

## Image Adjust Settings Menu

Adjusting the Position, Size, Fine Picture, Picture Adj

The position of the image can be adjusted and flickering of the image can be corrected.

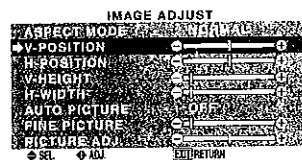
Example: Adjusting the vertical position in the normal mode

On "V-POSITION" of "IMAGE ADJUST" menu, adjust the position.

The mode switches as follows each time the ◀ or ▶ button is pressed:

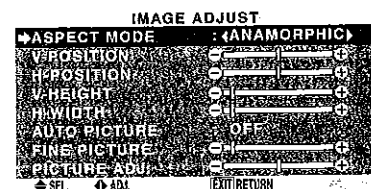
**NORMAL ↔ ANAMORPHIC**

- \* The mode can also be switched by pressing the WIDE button on the remote control.
- \* The settings on the IMAGE ADJUST menu are not preset at the factory.



### Information

#### ■ When "AUTO PICTURE" is "OFF"



When Auto Picture is off, the Fine Picture and the Picture ADJ. items are displayed so that you can adjust them.

#### ■ Adjusting the Auto Picture

**ON:** The Picture ADJ., Fine Picture and Position adjustments are made automatically.

Not available for digital ZOOM.

**OFF:** The Picture ADJ., Fine Picture and Position adjustments are made manually.

- \* If FINE PICTURE can't be adjusted, set Auto Picture to OFF and adjust manually.

#### ■ Adjusting the position of the image

**V-POSITION:** Adjusts the vertical position of the image.

**H-POSITION:** Adjusts the horizontal position of the image.

**V-HEIGHT:** Adjusts the vertical size of the image. (Except for STADIUM mode)

**H-WIDTH:** Adjusts the horizontal size of the image. (Except for STADIUM mode)

**FINE PICTURE\*:** Adjusts for flickering.

**PICTURE ADJ.\*:** Adjusts for striped patterns on the image.

- \* The Picture ADJ. and Fine Picture features are available only when the "Auto Picture" is off.

- \* The AUTO PICTURE, FINE PICTURE and PICTURE ADJ. are available only for RGB signals. But, these features are not available for moving pictures on VIDEO, HD/DVD or RGB.

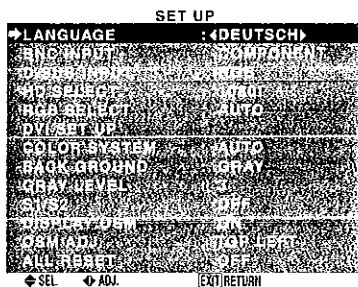
## SET UP Settings Menu

### Setting the language for the menus

The menu display can be set to one of eight languages.

Example: Setting the menu display to "DEUTSCH"

On "LANGUAGE" of "SET UP" menu, select "DEUTSCH".



### Information

#### Language settings

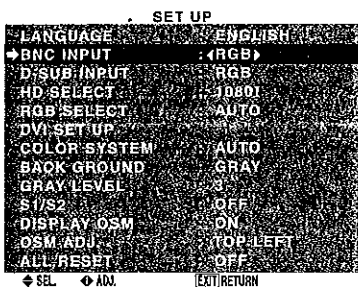
ENGLISH .....	English	ITALIANO .....	Italian
DEUTSCH .....	German	SVENSKA .....	Swedish
FRANÇAIS .....	French	中文 .....	Chinese
ESPAÑOL .....	Spanish	РУССКИЙ .....	Russian

### Setting the BNC connectors

Select whether to set the input of the 5 BNC connectors to RGB and component or SCART1, 2.

Example: Set the BNC INPUT mode to "RGB"

On "BNC INPUT" of "SET UP" menu, select "RGB".



### Information

#### BNC INPUT Settings

RGB: Use the 5BNC terminals for RGB input.

COMPONENT: Use the 3BNC terminals for component input.

SCART1: Use the 4BNC terminals for RGB with composite sync. See page E-7.

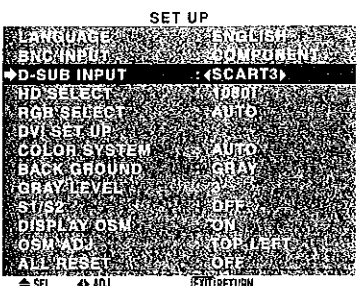
SCART2: Use the 3BNC terminals for RGB and the VIDEO1 terminal for composite sync. See page E-7.

### Setting the RGB1 connector

Select one of the signals being transmitted to the RGB1 terminal.

Example: Set the D-SUB INPUT mode to "SCART3"

On "D-SUB INPUT" of "SET UP" menu, select "SCART3".



### Information

#### D-SUB INPUT Settings

RGB: Use the D-SUB terminal for RGB input.

SCART3: Use the D-SUB terminal for RGB signal fed from SCART. See page E-7.

### Setting high definition images to the suitable screen size

Use this procedure to set whether the number of vertical lines of the input high definition image is 1080I or 1035I or 540P.

Example: Setting the "HD SELECT" mode to "1035I"

On "HD SELECT" of "SET UP" menu, select "1035I".



### Information

#### HD SELECT modes

These 3 modes are not displayed in correct image automatically.

1080I: Standard digital broadcasts

1035I: Japanese "High Vision" signal format

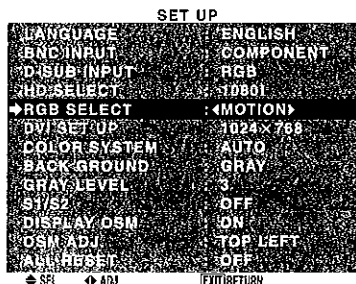
540P: Special Digital broadcasts (for example : DTC100)

### Setting a computer image to the correct RGB select screen

With the computer image, select the RGB Select mode for a moving image such as (video) mode, wide mode or digital broadcast.

Example: Setting the "RGB SELECT" mode to "MOTION"

On "RGB SELECT" of "SET UP" menu, select "MOTION".



### Information

#### RGB SELECT modes

One of these 7 modes must be selected in order to display the following signals correctly.

AUTO: Select the suitable mode for the specifications of input signals as listed in the table "Computer input signals supported by this system" on page E-2 of Model Information.

STILL: To display VESA standard signals. (Use this mode for a still image from a computer.)

MOTION: The video signal (from a scan converter)

will be converted to RGB signals to make the picture more easily viewable. (Use this mode for a motion image from a computer.)

**WIDE1:** When an 852 dot × 480 line signal with a horizontal frequency of 31.7kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE1.

**WIDE2:** When an 848 dot × 480 line signal with a horizontal frequency of 31.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE2.

**WIDE3:** When an 1920 dot × 1200 line signal with a horizontal frequency of 74.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE3.

**DTV:** Set this mode when watching digital broadcasting (480P).

See page E-2 of Model Information for the details of the above settings.

### Setting the signal and black level for DVI signal

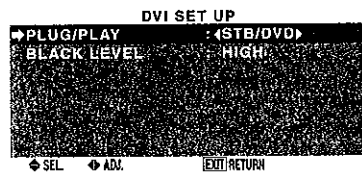
Choose the signal for the DVI connector (PC or STB/DVD) and set the black level.

Example: Setting the "PLUG/PLAY" mode to "STB/DVD"

On "SET UP" menu, select "DVI SET UP", then press the MENU/ENTER button.

The "DVI SET UP" screen appears.

On "PLUG/PLAY" of "DVI SET UP" menu, select "STB/DVD".



#### Information

##### ■ PLUG/PLAY settings

**PC:** When connected to the PC signal.

**BLACK LEVEL** is set to "LOW" automatically.

**STB/DVD:** When connected to the SET TOP BOX, DVD etc.

**BLACK LEVEL** is set to "HIGH" automatically.

##### ■ BLACK LEVEL settings

**LOW:** When connected to the PC signal.

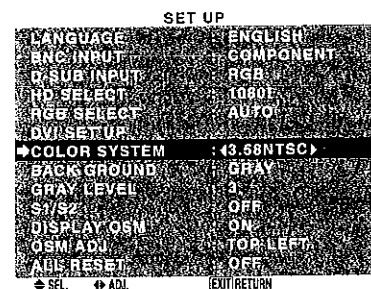
**HIGH:** When connected to the SET TOP BOX, DVD etc. Change "HIGH" into "LOW" if the black level appears gray.

### Setting the video signal format

Use these operations to set the color systems of composite video signals or Y/C input signals.

Example: Setting the color system to "3.58 NTSC"

On "COLOR SYSTEM" of "SET UP" menu, select "3.58NTSC".



#### Information

##### ■ Video signal formats

Different countries use different formats for video signals. Set to the color system used in your current country.

**AUTO:** The color systems are automatically identified and the format is set accordingly.

**PAL:** This is the standard format used mainly in the United Kingdom and Germany.

**SECAM:** This is the standard format used mainly in France and Russia.

**4.43 NTSC, PAL60:** This format is used for videos in countries using PAL and SECAM video signals.

**3.58 NTSC:** This is the standard format used mainly in the United States and Japan.

**PAL-M:** This is the standard format used mainly in Brazil.

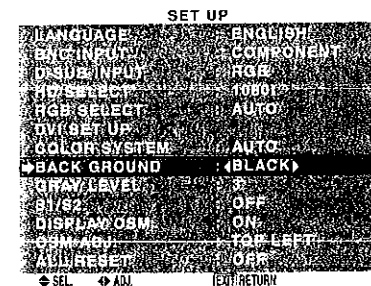
**PAL-N:** This is the standard format used mainly in Argentina.

### Setting the background color when no signal is being input

The color displayed on the background when there is no signal can be set to gray.

Example: Setting "BACK GROUND" to "BLACK"

On "BACK GROUND" of "SET UP" menu, select "BLACK".



#### Information

##### ■ BACK GROUND Settings

**BLACK:** Sets the background color to black.

**GRAY:** Sets the background color to gray.

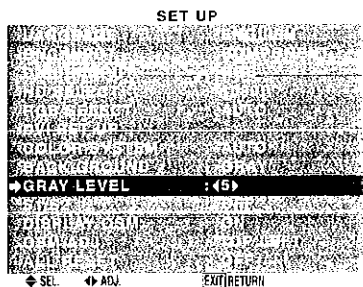
Setting this makes it easier to see that there is no signal.

## Setting the gray level for the sides of the screen

Use this procedure to set the gray level for the parts on the screen on which nothing is displayed when the screen is set to the 4:3 size.

Example: Setting "GRAY LEVEL" to "5"

On "GRAY LEVEL" of "SET UP" menu, select "5".



### Information

#### ■ GRAY LEVEL settings

This adjusts the brightness of the black (the gray level) for the sides of the screen.

The standard is 0 (black). The level can be adjusted from 0 to 15. The factory setting is 3 (dark gray).

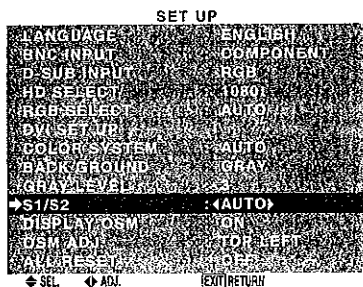
## Setting the screen size for S1/S2 video input

If the S-video signal contains screen size information, the image will be automatically adjusted to fit the screen when this S1/S2 is set to AUTO.

This feature is available only when an S-video signal is input via the VIDEO3 terminal.

Example: Setting "S1/S2" to "AUTO"

On "S1/S2" of "SET UP" menu, select "AUTO".



### Information

#### ■ S1/S2 settings

AUTO: Adjusts the screen size automatically according to the S1/S2 video signal.

OFF: Turns the S1/S2 function off.

## Turning on/off the menu display

When this is set to OFF, the menu will not displayed even if you press the MENU/ENTER button.

Example: Turning the DISPLAY OSM off

On "DISPLAY OSM" of "SET UP" menu, select "OFF".



### Information

#### ■ DISPLAY OSM settings

ON: The on-screen menu appears.

OFF: The on-screen menu does not appear.

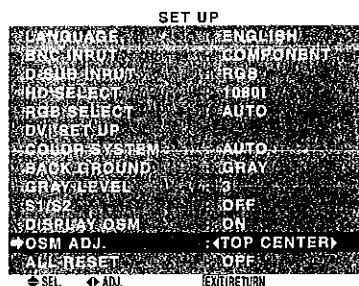
If you press the DISPLAY button on the remote control for more than 3 seconds the main menu will appear and can be set (although it is not ON).

## Setting the position of the menu

Adjusts the position of the menu when it appears on the screen.

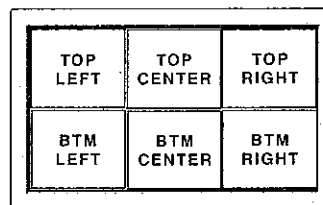
Example: Set the position to "TOP CENTER"

On "OSM ADJ." of "SET UP" menu, select "TOP CENTER".



### Information

#### ■ OSM ADJUST settings

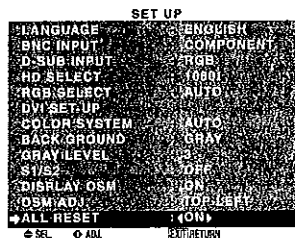


## Resetting to the default values

Use these operations to restore all the settings (PICTURE, AUDIO, IMAGE ADJUST, SET UP, etc) to the factory default values.

Refer to page E-13 for items to be reset.

On "ALL RESET" of "SET UP" menu, select "ON", then press the MENU/ENTER button.



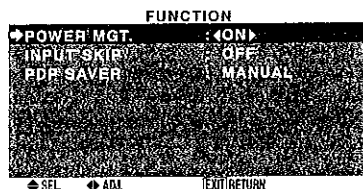
When the "SETTING NOW" screen disappears, then all the settings are restored to the default values.

## Function Settings Menu

### Setting the power management for computer images

This energy-saving (power management) function automatically reduces the monitor's power consumption if no operation is performed for a certain amount of time.

Example: Turning the power management function on  
On "POWER MGT." of "FUNCTION" menu, select "ON".



#### Information

##### ■ Power management function

- \* The power management function automatically reduces the monitor's power consumption if the computer's keyboard or mouse is not operated for a certain amount of time. This function can be used when using the monitor with a computer.
- \* If the computer's power is not turned on or if the computer and selector tuner are not properly connected, the system is set to the off state.
- \* For instructions on using the computer's power management function, refer to the computer's operating instructions.

##### ■ Power management settings

ON: In this mode the power management function is turned on.

OFF: In this mode the power management function is turned off.

##### ■ Power management function and POWER/STANDBY indicator

The POWER/STANDBY indicator indicates the status of the power management function. See below for indicator status and description.

#### POWER/STANDBY indicator

Power management mode	POWER/STANDBY Indicator	Power management operating status	Description	Turning the picture back on
On	Green	Not activated.	Horizontal and vertical synchronizing signals are present from the computer.	Picture already on.
Off	Red	Activated	Horizontal and/or vertical synchronizing signals are not sent from the computer.	Operate the keyboard or mouse. The picture reappears

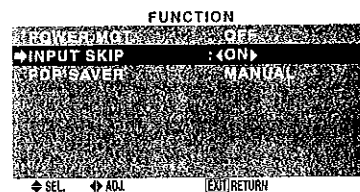
### Setting the Input Skip

When this is ON, signals which are not present will be skipped over and only pictures whose signals are being transmitted will be displayed.

This setting is valid only for the INPUT SELECT button on the unit.

Example: Set to "ON"

On "INPUT SKIP" of "FUNCTION" menu, select "ON".



#### Information

##### ■ INPUT SKIP settings

OFF: Regardless of the presence of the signal, scan and display all signals.

ON: If no input signal is present, skip that signal.

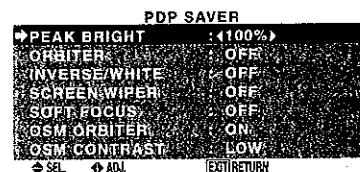
\* "SETTING NOW" will appear during the input search.

### Reducing burn-in of the screen

The brightness of the screen, the position of the picture, positive/negative mode and screen wiper are adjusted to reduce burn-in of the screen.

On "PDP SAVER" of "FUNCTION" menu, select "MANUAL", then press the MENU/ENTER button.

The "PDP SAVER" screen appears.



#### Information

##### ■ When set to AUTO

Set automatically, as described below.

PEAK BRIGHT: 100%

ORBITER: OFF

INVERSE/WHITE: OFF

SCREEN WIPER: OFF

SOFT FOCUS: OFF

OSM ORBITER: ON

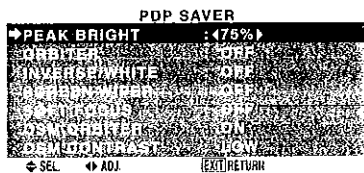
OSM CONTRAST: LOW

## PEAK BRIGHT

Use this to activate the brightness limiter.

Example: Setting "PEAK BRIGHT" to "75%"

On "PEAK BRIGHT" of "PDP SAVER" menu, select "75%".



### Information

#### ■ PEAK BRIGHT settings

100%: The brightness of the screen is adjusted automatically to suit the picture quality.

75%, 50%, 25%: Sets maximum brightness.

The brightness level decreases in the order of 75%, 50%, 25%. 25% provides minimum brightness.

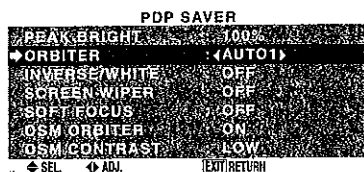
\* These values are approximate.

## ORBITER

Use this to set the picture shift.

Example: Setting "ORBITER" to "AUTO1"

On "ORBITER" of "PDP SAVER" menu, select "AUTO1".



### Information

#### ■ ORBITER settings

OFF: Orbiter mode does not function.

This is the default setting when RGB is input.

AUTO1: The picture moves around the screen intermittently, making the picture smaller. This is the default setting when a Video or a DVD/HD/DTV signal is input. Set to "OFF" when these signals are not used.

AUTO2: The picture moves around the screen intermittently, making the picture bigger.

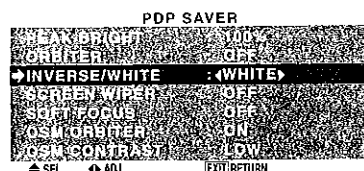
\* When a Video or a DVD/HD/DTV signal is input, the AUTO1 and 2 functions will affect only the moving picture and will not make the screen smaller or bigger.

## INVERSE/WHITE

Use this to set the inverse mode or to display a white screen.

Example: Setting "INVERSE/WHITE" to "WHITE"

On "INVERSE/WHITE" of "PDP SAVER" menu, select "WHITE".



### Information

#### ■ INVERSE/WHITE Settings

OFF: Inverse/white mode does not function.

INVERSE: The picture is displayed alternately between positive image and negative image.

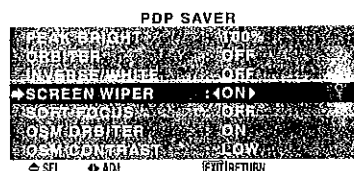
WHITE: The entire screen turns white.

## SCREEN WIPER

When this is set to ON, a white vertical bar moves repeatedly from the left and of the screen to the right end at a constant speed.

Example: Setting "SCREEN WIPER" to "ON"

On "SCREEN WIPER" of "PDP SAVER" menu, select "ON".



### Information

#### ■ SCREEN WIPER

ON: The white vertical bar appears.

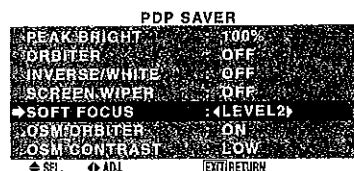
OFF: Screen wiper mode does not function.

## SOFT FOCUS

Reduces edges and softens the image.

Example: Setting "SOFT FOCUS" to "LEVEL2"

On "SOFT FOCUS" of "PDP SAVER" menu, select "LEVEL2".



### Information

#### ■ SOFT FOCUS settings

OFF: Turns the SOFT FOCUS function off.

LEVEL1, 2, 3, 4: Activates the SOFT FOCUS setting. The higher numbers create a softer image.

"SHARPNESS" can not be adjusted on the "PICTURE" menu.



## OSM ORBITER

Use this to set OSM menu shift.

Example: Setting "OSM ORBITER" to "OFF"

On "OSM ORBITER" of "PDP SAVER" menu, select "OFF".



### Information

#### ■ OSM ORBITER settings

ON: The position of the menu will be shifted by eight dots each time OSM is displayed.

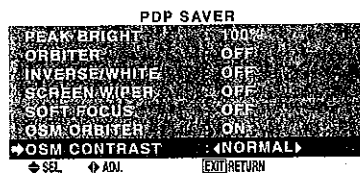
OFF: OSM will be displayed at the same position.

## OSM CONTRAST

Use this to reduce the brightness of OSM menu.

Example: Setting "OSM CONTRAST" to "NORMAL"

On "OSM CONTRAST" of "PDP SAVER" menu, select "NORMAL".



### Information

#### ■ OSM CONTRAST settings

NORMAL: OSM brightness is set to normal.

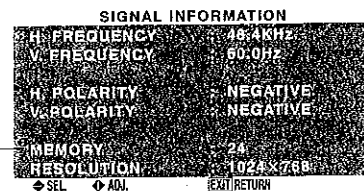
LOW: OSM brightness is set to lower.

## Signal Information Menu

### Checking the frequencies, polarities of input signals, and resolution

Use this function to check the frequencies and polarities of the signals currently being input from a computer, etc. On "MAIN MENU", select "SIGNAL INFO.", then press the MENU/ENTER button.

The "SIGNAL INFORMATION" is displayed.



PC: MEMORY will be displayed.  
Others: MODE will be displayed.

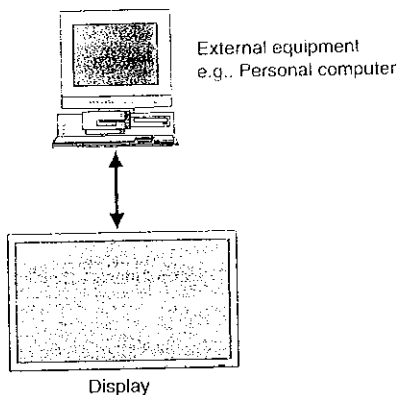
# External Control Pin Assignments

## Application

These specifications cover the communications control of the plasma monitor by external equipment.

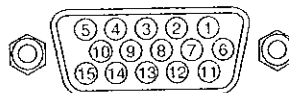
## Connections

Connections are made as described below.



## mini D-Sub 15-pin connector (Analog)

RGB 1



Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

Connector on the plasma monitor side: EXTERNAL CONTROL connector.

Use a crossed (reverse) cable.

Type of connector: D-Sub 9-pin male

Pin No.	Pin Name	Pin No.	Pin Name
1	No Connection	6	DSR (DCE side ready)
2	RXD (Receive data)	7	RTS (Ready to send)
3	TXD (Transmit data)	8	CTS (Clear to send)
4	DTR (DTE side ready)	9	No connection
5	GND		



## Communication Parameters

- (1) Communication system Asynchronous
- (2) Interface RS-232C
- (3) Baud rate 9600 bps
- (4) Data length 8 bits
- (5) Parity Odd
- (6) Stop bit 1 bit
- (7) Communication code Hex

## External Control Codes (Reference)

FUNCTION	CODE DATA
Power ON	9FH 80H 60H 4EH 00H CDH
OFF	9FH 80H 60H 4FH 00H CEH
Input Switch	
Video1 (BNC)	DFH 80H 60H 47H 01H 01H 08H
Video2 (RCA)	DFH 80H 60H 47H 01H 02H 09H
Video3 (S-Video)	DFH 80H 60H 47H 01H 03H 0AH
DVD1/HD1 (RCA)	DFH 80H 60H 47H 01H 05H 0CH
DVD2/HD2 (BNC)	DFH 80H 60H 47H 01H 06H 0DH
DVD3/HD3 (DVI)	DFH 80H 60H 47H 01H 0EH 15H
RGB1 (mini D-Sub 15-Pin)	DFH 80H 60H 47H 01H 07H 0EH
RGB2 (SBNC)	DFH 80H 60H 47H 01H 08H 0FH
RGB3 (DVI)	DFH 80H 60H 47H 01H 0CH 13H
Audio Mute	
ON	9FH 80H 60H 3EH 00H 8DH
OFF	9FH 80H 60H 3FH 00H BEH
Picture Mode	
NORMAL	DFH 80H 60H 0AH 01H 31H CBH
THEAT 1	DFH 80H 60H 0AH 01H 02H CCH
THEAT 2	DFH 80H 60H 0AH 01H 03H CDH
DEFAULT	DFH 80H 60H 0AH 01H 04H CEH
BRIGHT	DFH 80H 60H 0AH 01H 05H CFH
Screen Mode	
STADIUM	DFH 80H 60H 51H 01H 02H 13H
ZOOM	DFH 80H 60H 51H 01H 03H 14H
NORMAL	DFH 80H 60H 51H 01H 04H 15H
ANAMORPHIC	DFH 80H 60H 51H 01H 05H 16H
14:9	DFH 80H 60H 51H 01H 09H 1AH
2.35:1	DFH 80H 60H 51H 01H 0AH 1BH
Auto Picture	
ON	DFH 80H 60H 7FH 03H 03H 09H 00H 4DH
OFF	DFH 80H 60H 7FH 03H 03H 09H 01H 4EH
Cinema Mode	
ON	DFH 80H 60H C1H 01H 01H 82H
OFF	DFH 80H 60H C1H 01H 02H 83H

**Note:** Contact your local dealer for a full list of the External Control Codes if needed.

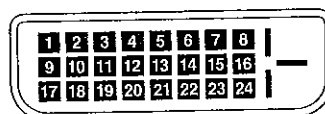
## DVI-D 24-pin connector (Digital)

The unit is equipped with a type of connector commonly used for digital.

(This cannot be used for an analog input.)

(TMDS can be used for one link only.)

RGB 3



Pin No.	Signal (Digital)
1	T.M.D.S Data 2 -
2	T.M.D.S Data 2 +
3	T.M.D.S Data 2 Shield
4	No connection
5	No connection
6	DDC Clock
7	DDC Data
8	No connection
9	T.M.D.S Data 1 -
10	T.M.D.S Data 1 +
11	T.M.D.S Data 1 Shield
12	No connection
13	No connection
14	+5V Power
15	Ground
16	Hot Plug Detect
17	T.M.D.S Data 0 -
18	T.M.D.S Data 0 +
19	T.M.D.S Data 0 Shield
20	No connection
21	No connection
22	T.M.D.S Clock Shield
23	T.M.D.S Clock +
24	T.M.D.S Clock -

# Troubleshooting

If the picture quality is poor or there is some other problem, check the adjustments, operations, etc., before requesting service.

Symptom	Checks	Remedy
Mechanical sound is heard.	• Maybe the sound from the cooling fans used to prevent over heating.	
The unit emits a crackling sound.	• Are the image and sound normal?	• If there are no abnormalities in the image and sound, the noise is caused by the cabinet reacting to changes in temperature. This will not affect performance.
Picture is disturbed. Sound is noisy. Remote control operates erroneously.	• Is a connected component set directly in front or at the side of the display?	• Leave some space between the display and the connected components.
The remote control does not work.	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
Monitor's power does not turn on when the remote control's power button is pressed.	• Is the monitor's power cord plugged into a power outlet? • Are all the monitor's indicators off? • Are the remote control's batteries worn out?	• Plug the monitor's power cord into a power outlet. • Press the power button on the monitor to turn on the power. • Replace both batteries with new ones.
Monitor does not operate when the remote control's buttons are pressed.	• Is the remote control pointed at the monitor, or is there an obstacle between the remote control and the monitor? • Is direct sunlight or strong artificial light shining on the monitor's remote control sensor? • Are the remote control's batteries worn out?	• Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle. • Eliminate the light by closing curtains, pointing the light in a different direction, etc. • Replace both batteries with new ones.
No sound or picture is produced.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
Picture appears but no sound is produced.	• Is the volume set at the minimum? • Is the mute mode set? • Are the speakers properly connected? • Is AUDIO INPUT set correctly?	• Increase the volume. • Press the remote control's MUTE button. • Connect the speakers properly. • Set AUDIO INPUT on the AUDIO menu correctly.
Poor picture with VIDEO signal input.	• Improper control setting. Local interference. Cable interconnections. Input impedance is not correct level.	• Adjust picture control as needed. Try another location for the monitor. Be sure all connections are secure.
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.
Tint is poor or colors are weak.	• Are the tint and colors properly adjusted?	• Adjust the tint and color (under PICTURE).
Nothing appears on screen.	• Is the computer's power turned on? • Is a source connected? • Is the power management function in the standby or off mode?	• Turn on the computer's power. • Connect source to the monitor. • Operate the computer (move the mouse, etc.).
Part of picture is cut off or picture is not centered.	• Is the position adjustment appropriate?	• Adjust the IMAGE ADJUST properly.
Image is too large or too small.	• Is the screen size adjustment appropriate?	• Press the WIDE button on the remote control and adjust properly.
Picture is unstable.	• Is the computer's resolution setting appropriate?	• Set to the proper resolution.
POWER/STANDBY indicator is lighted in red.	• Horizontal and / or vertical sync signal is not present when the Intelligent Power Manager control is on.	• Check the input signal.
POWER/STANDBY indicator is blinking in red.	• The temperature inside the main unit has become too high and has activated the protector.	• Promptly switch off the power of the main unit and wait until the internal temperature drops. See *1.
POWER/STANDBY indicator is blinking in green and red, or green.		• Promptly switch off the power of the main unit. See *2.

**\*1 Overheat protector**

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 dealer.

**\*2 In the following case, power off the monitor immediately and contact your dealer or authorized Service Center.**

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

## ***PX-42VR5G*** ***(42Wide VGA)***

**Model Information**

**Modell-Informationen**

**Informations modèle**

**Información del modelo**

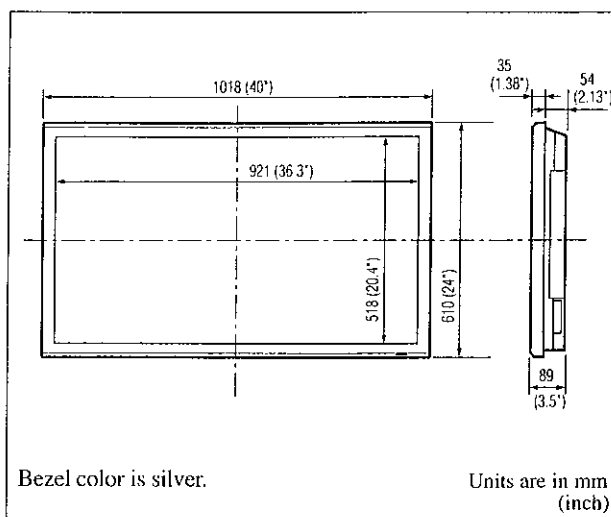
**Informazioni sul modello**

**Информация о модели**

# Specifications

For the operation of your plasma monitor, refer to "Operation Manual".

<b>Screen Size</b>	921(H) × 518(V) mm 36.3"(H) × 20.4"(V) inches diagonal 42"
<b>Aspect Ratio</b>	16 : 9
<b>Resolution</b>	853(H) × 480(V) pixels
<b>Pixel Pitch</b>	1.08(H) × 1.08(V) mm 0.04"(H) × 0.04"(V) inches
<b>Color Processing</b>	4,096 steps, 68.7 billion colors
<b>Signals</b>	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD* <sup>1</sup> , DVD* <sup>1</sup> , DTV* <sup>1</sup>
<b>Input Terminals</b>	
<b>RGB</b>	
Visual 1 (Analog)	mini D-sub 15-pin × 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) × 1* <sup>2</sup>
Visual 3 (Digital)	DVI-D 24-pin × 1* <sup>3</sup>
<b>Video</b>	
Visual 1	BNC × 1
Visual 2	RCA-pin × 1
Visual 3	S-Video: DIN 4-pin × 1
<b>DVD/HD/DTV</b>	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) × 1* <sup>1</sup>
Visual 2	BNC (Y, PB[CB], PR[CR]) × 1* <sup>1,2</sup>
Visual 3	DVI-D 24-pin × 1* <sup>3</sup>
<b>Audio</b>	Stereo RCA × 3(Selectable)
<b>External Control</b>	D-sub 9-pin × 1(RS-232C)
<b>Sound output</b>	8W+8W at 6 ohm
<b>Power Supply</b>	AC100-240V 50/60Hz
<b>Current Rating</b>	4.5A (maximum)
<b>Power Consumption</b>	270W (typical)
<b>Dimensions</b>	1018 (W) × 610 (H) × 89(D) mm 40 (W) × 24 (H) × 3.5 (D) inches
<b>Weight</b>	28.5 kg / 62.8 lbs (without stand)
<b>Environmental Considerations</b>	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Humidity	20 to 80% (no condensation)
Altitude	0 to 2800 m / 0 to 9180 feet
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 90% (no condensation)
Altitude	0 to 3000 m / 0 to 9840 feet
<b>Front Panel User Controls</b>	Power on/off, Input source select, Volume up/down, OSM control
<b>Remote Control Functions</b>	Power on/off, Input source select, OSM control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Zoom up/down, Picture control buttons
<b>OSM Functions</b>	PICTURE (PICTURE MEMORY/CONTRAST/ BRIGHTNESS/SHARPNESS/COLOR/TINT/ NR/COLOR TEMP./WHITE BALANCE/ GAMMA/LOW TONE/SET UP LEVEL/COLOR TUNE/CINEMA MODE/PICTURE MODE), AUDIO (BASS/TREBLE/BALANCE/AUDIO INPUT1/AUDIO INPUT2/AUDIO INPUT3), IMAGE ADJUST (ASPECT MODE/V- POSITION/H-POSITION/V-HEIGHT/H- WIDTH/AUTO PICTURE/FINE PICTURE/ PICTURE ADJ.), SET UP (LANGUAGE*/BNC INPUT/D-SUB INPUT/HD SELECT/RGB SELECT/DVI SET UP/COLOR SYSTEM/BACK GROUND/GRAY LEVEL/S1/S2/DISPLAY OSM/OSM ADJ./ALL RESET), FUNCTION (POWER MGT./INPUT SKIP/PDP SAVER/PEAK BRIGHT/ORBITER / INVERSE/WHITE / SCREEN WIPER / SOFT FOCUS / OSM ORBITER / OSM CONTRAST), SIGNAL INFO.



The features and specifications may be subject to change without notice.

## \*<sup>1</sup> HD/DVD/DTV input signals supported on this system

480P (60 Hz)	480I (60 Hz)
525P (60 Hz)	525I (60 Hz)
576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)
720P (60 Hz)	1035I (60 Hz)
1080I (50 Hz)	1080I (60 Hz)

\*<sup>2</sup> The 5-BNC connectors are used as RGB/PC2 and HD/DVD2 input. Select one of them under "BNC INPUT".

\*<sup>3</sup> Compatible with HDCP.

## Supported Signals

- 640 × 480P @ 59.94/60Hz
- 1280 × 720P @ 59.94/60Hz
- 1920 × 1080I @ 59.94/60Hz
- 720 × 480P @ 59.94/60Hz
- 1440 (720) × 480I @ 59.94/60Hz
- 1920 × 1080I @ 50Hz
- 720 × 576P @ 50Hz
- 1440 (720) × 576P @ 50Hz

**Note:** In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

\*English, German, French, Italian, Spanish, Swedish, Chinese, Russian

**Other Features** Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Self Diagnosis, Image Burn reduction tools (PEAK BRIGHT, ORBITER, INVERSE/WHITE, SCREEN WIPER), Color Temperature select (high/middle/ middle low/low, user has 4 memories), Auto Picture, Input Skip, Color Tune, Low Tone (3 mode), Gamma Correction (4 mode), Plug and play (DDC1, DDC2b, RGB3: DDC2b only)

**Accessories** Remote control with two AAA batteries, Power cord, Manuals, Safety metal fittings, Ferrite cores, Bands, Cable clamps, HDMI-DVI cable

**Regulations** Meets EMC Directive (EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3)  
Meets Low Voltage Directive (EN60950 and EN60065, IEC60950 and IEC60065, SEMKO Approved)  
Meets AS/NZS CISPR 22:2002 Class B

# Table of Signals Supported

## ■ Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 640 dots × 480 lines signal. (Except for \*2~\*4)
- When the screen mode is ANAMORPHIC, each signal is converted to a 853 dots × 480 lines signal. (Except for \*1)

## Computer input signals supported by this system

Model	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode		RGB select*5	DVI	Memory
				Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	ANAMORPHIC (16:9)			
Signal Type												
IBM PC/AT compatible computers*8	640×400	70.1	31.5	NEG	NEG	YES	YES	YES*2*3	YES	--	NO	4
	640×480	59.9	31.5	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	5
		72.8	37.9	NEG	NEG	YES	YES	YES*3	YES	--	YES	7
		75.0	37.5	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	8
		85.0	43.3	NEG	NEG	YES	YES	YES*3	YES	--	YES	9
		100.4	51.1	NEG	NEG	YES	YES	YES*3	YES	--	YES	41
		120.4	61.3	NEG	NEG	YES	YES	YES*3	YES	--	YES	42
		848×480	60.0	31.0	POS	POS	YES	YES	--	YES*3	WIDE2	YES
	852×480*1	60.0	31.7	NEG	NEG	YES	YES	--	YES*3	WIDE1	YES	17
	800×600	56.3	35.2	POS	POS	YES	YES	YES	YES	STILL	YES	11
		60.3	37.9	POS	POS	YES	YES	YES	YES	STILL	YES	12
		72.2	48.1	POS	POS	YES	YES	YES	YES	--	YES	13
		75.0	46.9	POS	POS	YES	YES	YES	YES	--	YES	14
		85.1	53.7	POS	POS	YES	YES	YES	YES	--	YES	15
		99.8	63.0	POS	POS	YES	YES	YES	YES	--	YES	43
		120.0	75.7	POS	POS	YES	YES	YES	YES	--	YES	44
		1024×768	60.0	48.4	NEG	NEG	YES	YES	YES	YES	STILL	YES
	70.1		56.5	NEG	NEG	YES	YES	YES	YES	--	YES	25
	75.0		60.0	POS	POS	YES	YES	YES	YES	STILL	YES	26
	85.0		68.7	POS	POS	YES	YES	YES	YES	--	YES	27
	100.6		80.5	NEG	NEG	YES	YES	YES	YES	--	YES	45
	1152×864	75.0	67.5	POS	POS	YES	YES	YES	YES	STILL	YES	51
	1280×768	56.2	45.1	POS	POS	YES	YES	--	YES	WIDE1	NO	52
		59.8	48.0	POS	NEG	YES	YES	--	YES	WIDE3	YES	80
	1280×768*9	69.8	56.0	NEG	POS	YES	YES	--	YES	WIDE1	YES	66
	1280×800*9	60.0	49.7	NEG	NEG	YES	YES	--	YES	WIDE1	YES	21
	1280×854*9	60.0	53.1	NEG	NEG	YES	YES	--	YES	WIDE2	YES	37
	1360×765	60.0	47.7	POS	POS	YES	YES	--	YES	WIDE1	NO	22
	1360×768	60.0	47.7	POS	POS	YES	YES	--	YES	WIDE1	YES	22
	1376×768	59.9	48.3	NEG	POS	YES	YES	--	YES	WIDE2	YES	53
	1280×1024	60.0	64.0	POS	POS	YES	YES	YES*4	YES	STILL	YES	29
		75.0	80.0	POS	POS	YES	YES	YES*4	YES	--	YES	30
		85.0	91.1	POS	POS	YES	YES	YES*4	YES	--	YES	40
		100.1	108.5	POS	POS	YES	YES	YES*4	YES	--	NO	47
	1680×1050*9	60.0	65.3	NEG	NEG	YES	YES	--	YES	WIDE4	YES	38
	1600×1200	60.0	75.0	POS	POS	YES	YES	YES	YES	--	YES	54
		65.0	81.3	POS	POS	YES	YES	YES	YES	--	NO	55
		70.0	87.5	POS	POS	YES	YES	YES	YES	--	NO	56
		75.0	93.8	POS	POS	YES	YES	YES	YES	--	NO	57
		85.0	106.3	POS	POS	YES	YES	YES	YES	--	NO	58
	1920×1200*9	60.0	74.6	NEG	NEG	YES	YES	--	YES	WIDE2	--	81
	1920×1200RB*9	60.0	74.0	NEG	NEG	YES	YES	--	YES	WIDE3	YES	88
Apple Macintosh*6, *8	640×480	66.7	35.0	Sync on G	Sync on G	--	--	YES*3	YES	--	NO	6
	832×624	74.6	49.7	Sync on G	Sync on G	--	--	YES	YES	--	NO	16
	1024×768	74.9	60.2	Sync on G	Sync on G	--	--	YES	YES	WIDE1	NO	28
	1152×870	75.1	68.7	Sync on G	Sync on G	--	--	YES	YES	WIDE1	NO	39
	1440×900*9	60.0	56.0	NEG	NEG	YES	YES	--	YES	--	YES	89
Work Station (EWS4800)*8	1280×1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	YES	--	YES	29
		71.2	75.1	NEG	NEG	YES	YES	YES*4	YES	--	YES	48
Work Station (HP)*8	1280×1024	72.0	78.1	--	--	--	--	YES*4	YES	--	YES	59
Work Station (SUN)*8	1152×900	66.0	61.8	C Sync	C Sync	--	--	YES	YES	--	YES	60
		76.0	71.7	C Sync	C Sync	--	--	YES	YES	--	YES	61
	1280×1024	76.1	81.1	C Sync	C Sync	--	--	YES*4	YES	--	YES	30
Work Station (SGI)	1024×768	60.0	49.7	--	--	--	--	YES	YES	--	YES	62
	1280×1024	60.0	63.9	--	--	--	--	YES*4	YES	--	YES	29
IDC-3000G												
PAL625P	768×576	50.0	31.4	NEG	NEG	YES	YES	YES*7	YES*7	--	NO	31
	NTSC525P	640×480	59.9	31.5	NEG	NEG	YES	YES	YES*7	YES*7	MOTION	NO

# NEC

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