

Plasma Monitor

Model : OP-42M1
OP-42M2
TPM-420

User's Manual



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.

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio, TV technical for help.
- Only shielded interface cable should be used.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

Warnings and Safety Precaution

This plasma monitor 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.

The plasma display panel consists of fine picture elements (cells). Although our company produces the plasma display panels 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 the monitor to cool for 60 minutes.

If the problem persists, contact your 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 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 unit 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. We are 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 other than 100~240V 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 unit 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.

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.

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INTRODUCTION

□ Introduction to the Plasma Monitor

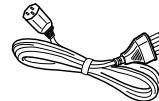
Our Plasma Monitor is a seamless blend of cutting-edge visual technology and sophisticated design. At 42-inches, with a 16:9 aspect ratio, this Plasma Monitor certainly makes a big impression. However, at a mere 3.1 inches/78 mm thin, the monitor's sleek techno-art lines blend in well with your environment. Plasma Monitor's crisp, vivid image quality will transform data from any graphic medium from PCs to DVD players- into art. And weighing only 66 lbs/ 30 kg, it actually can be hung almost anywhere. We have made sure that a host of multimedia resources can be easily connected and displayed as brilliantly as intended on the Plasma Monitor.

□ The features you'll enjoy include:

- 42-inch screen
- 16:9 aspect ratio
- 3.1 inch / 78 mm thin
- 66 lbs/ 30 kg light
- High-resolution screen: 852 x 480 pixels
- 160-degrees of off-axis viewing, horizontally and vertically.
- Flicker and warp free display provides excellent image geometry even in screen corners
- Not affected by magnetic fields, no color drift or edge distortion.
- VGA, SVGA, XGA, SXGA, UXGA computer signal compatibility
- NTSC, PAL, SECAM, composite and S-Video signal compatibility
- 480P, 1080I, 720P and HDTV signal compatibility
- PCs, VCRs, Laser Disc and DVD player source compatibility
- Scan conversion automatically converts VGA, SVGA, XGA, SXGA and UXGA signals to the panel's native resolution
- RGB input (2 pairs), Video input (1 pairs), DVD/HD input (2 pairs), Audio input (4 pairs), External Control input (1 pair), Digital RGB input (1 pair)
- Plasma Monitor control system provides user selectable on-screen color temperature settings
- New Drive Technology
- Component video input terminal for DVD, 15.734kHz, 15.625kHz (Y, CB, CR)
- Digital broadcasting source compatibility
- 8 languages (English, German, French, Italian, Korean, Spanish, Swedish, and Japanese)

□ Contents of the Package

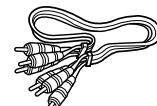
- plasma monitor



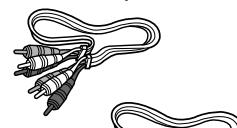
- Power cord



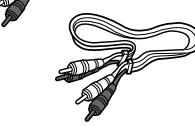
- RGB cable (D-Sub 15- pin connector)



- Component cable



- AV cable



- Audio cable



- Remote control with two AAA Batteries



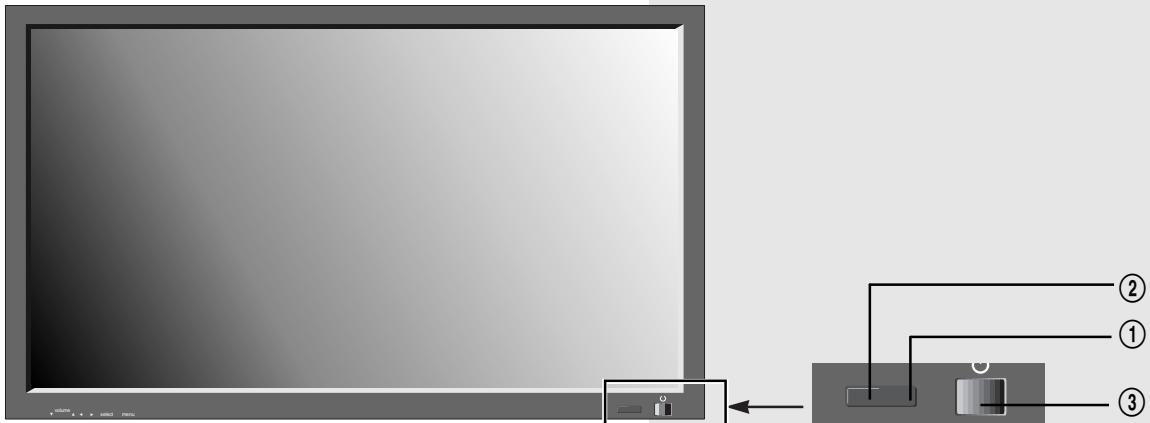
- User's manual

□ Options

- Wall mount unit
- Tabletop stand
- Speakers

PART NAMES AND FUNCTION

□ Front View



① Remote sensor window

Receives the signals from the remote control.

② POWER/STANDBY indicator

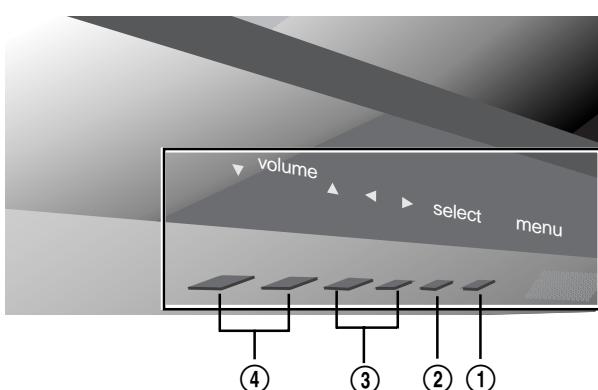
When the power is on Lights green.

When the power is in the standby mode .. Lights red.

③ Power

Turns the monitor's power on and off.

□ Bottom View



① MENU

Press this button to access the OSD controls.

② INPUT SELECT / EXIT

Switches the input, in the following order.

VIDEO → S-Video → Component1 → Component2 → RGB1 → DVI-RGB2 → DVI-DIGITAL RGB → VIDEO → ...

Functions as the EXIT buttons in the On-Screen Display (OSD) mode.

③ LEFT ◀/- and RIGHT ▶/+

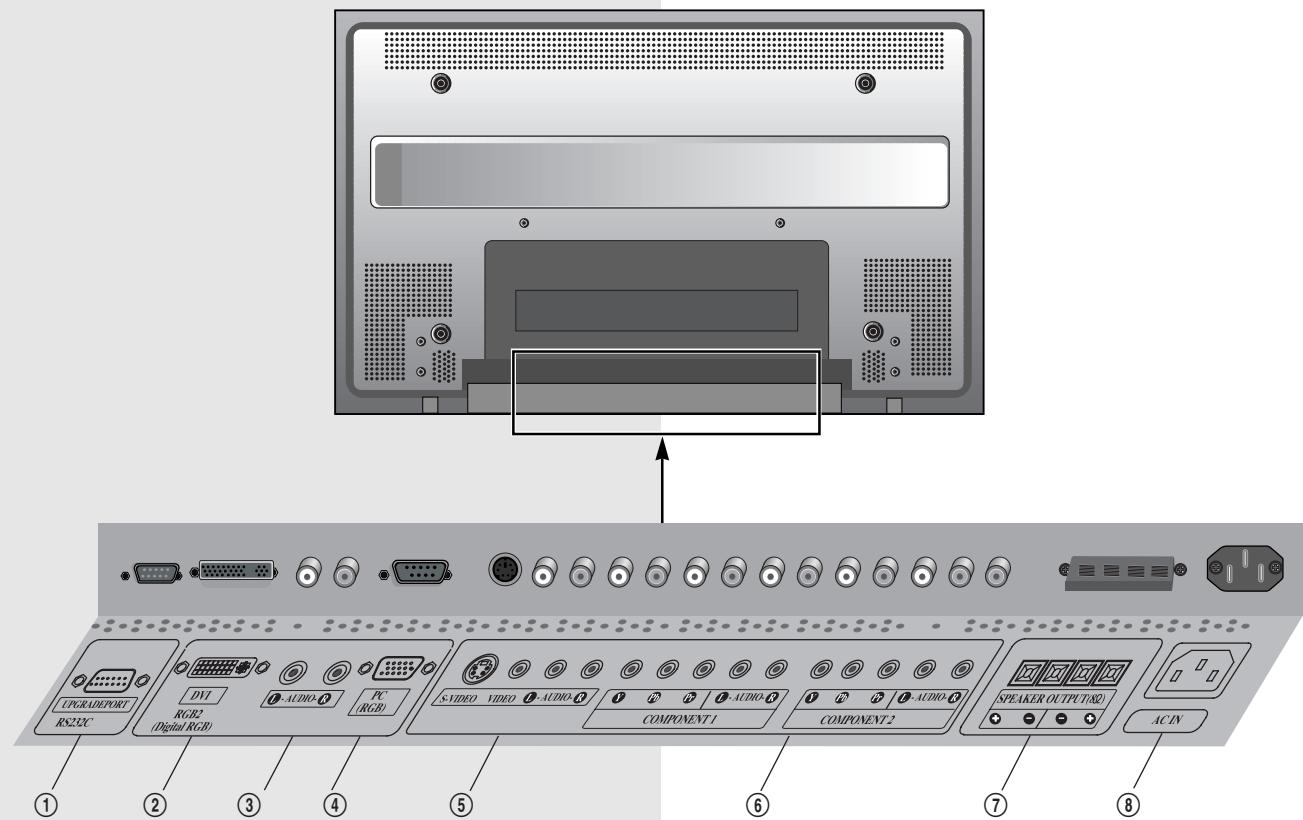
Functions as the CURSOR (◀/▶) buttons in the On-Screen Display (OSD) mode.

④ VOLUME Down and Up

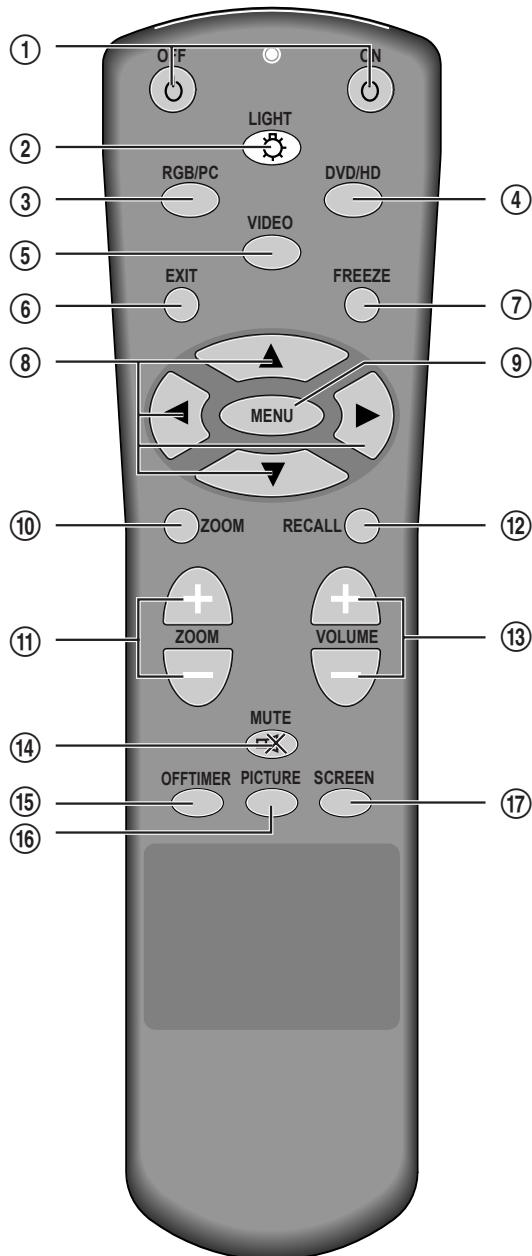
Adjusts the volume.

Functions as the CURSOR (▼/▲) buttons in the On-Screen Display (OSD) mode.

□ Rear View/ Terminal Board



□ Remote Control



① POWER ON/OFF

Switches Power ON/OFF. (This does not operate when POWER/STANDBY indicator of the main unit is off.)

② LIGHT

lights on every button of remote control.

③ RGB/PC

Press this button to select RGB/PC as the source.
RGB1 → RGB2 → Digital RGB → RGB1...

④ DVD / HD

Press this button to select DVD/HD as the source.
COMPONENT1 → COMPONENT2 → COMPONENT1...

⑤ VIDEO

Press this button to select VIDEO as the source.
VIDEO → S-Video ...

⑥ EXIT

Press this button to exit the OSD controls in the main menu. Press this button during the display of the sub menu to return to the main menu.

⑦ FREEZE

freezes current screen.

⑧ CURSOR (▲/▼/◀/▶)

Use these buttons to select items or settings and to adjust settings.

⑨ MENU

Press this button to access the OSD controls.

⑩ ZOOM

Enters into Zoom mode.

⑪ ZOOM (+/-)

Enlarges or reduces the image.

⑫ RECALL

Displays the source settings on the screen.

⑬ VOLUME (+/-)

Adjusts the volume.

⑭ MUTE

Mutes the sound.

⑮ OFF TIMER

Activates the off timer for the unit.

⑯ PICTURE

Press this button to select the mode of picture, and the recommended picture mode is set.

USER → NORMAL → CINEMA → DYNAMIC → USER ...

⑰ SCREEN

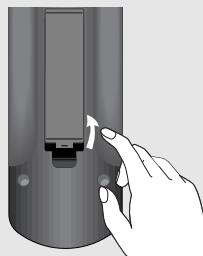
Press this button to select the mode of screen.

NORMAL → WIDE → ZOOM1 → ZOOM2 → PANORAMA → NORMAL ...

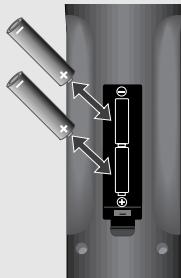
□ Battery Installation and Replacement

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.

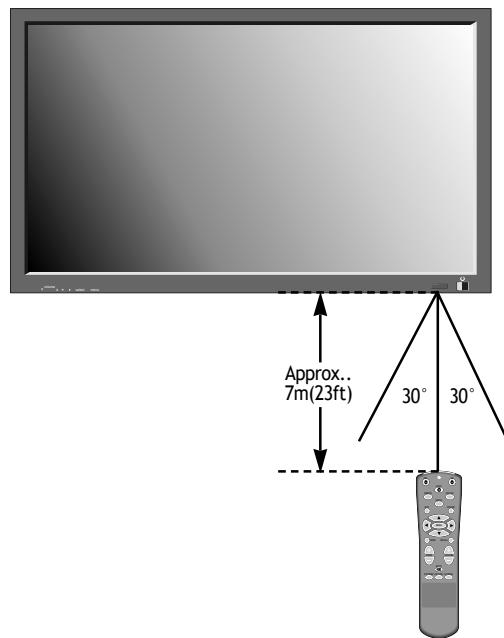


3. Close the cover.



□ Operating Range

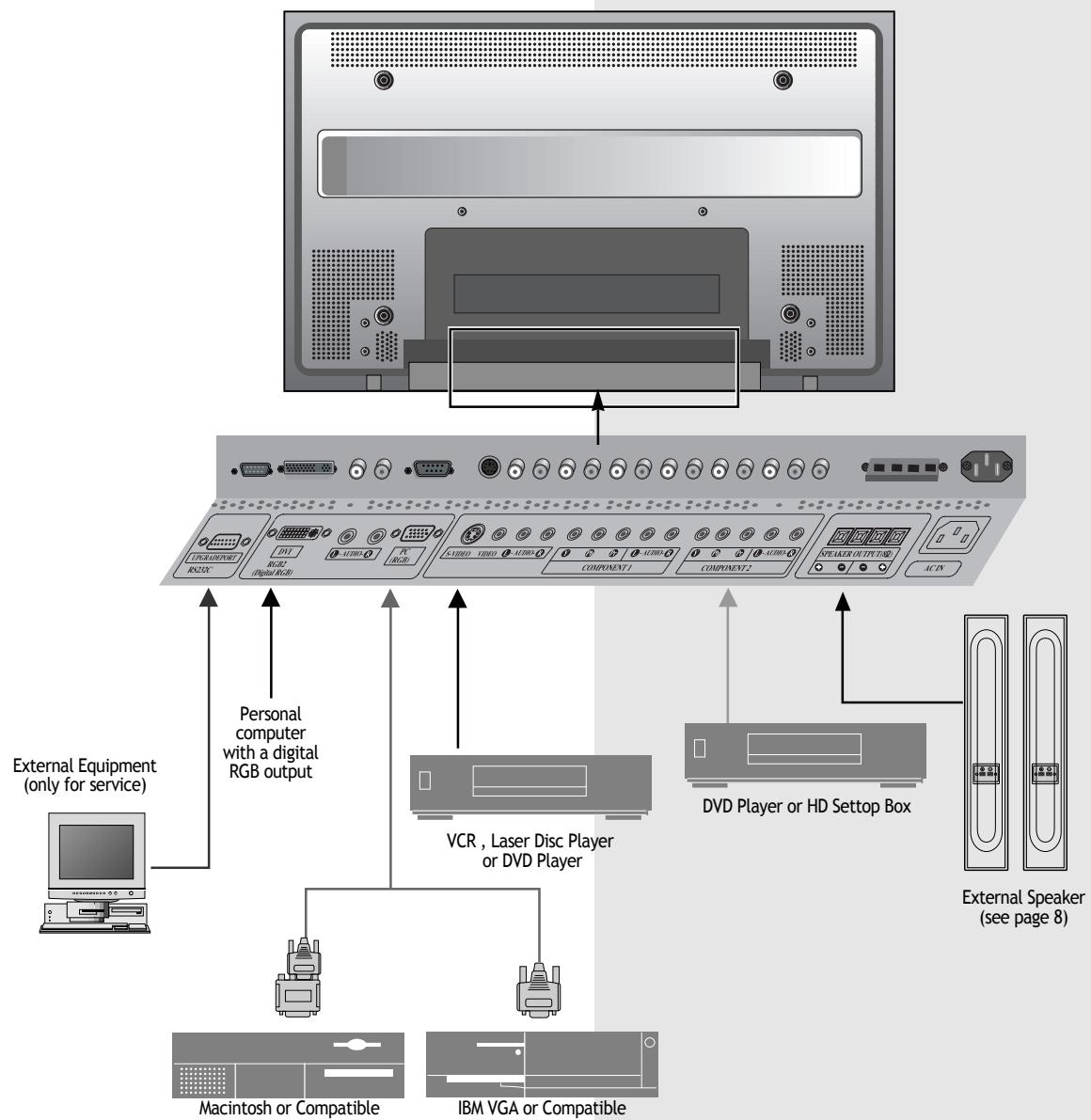
- * Use the remote control within a distance of about 7 m/ 23ft. from the front of the monitor's remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- * The remote control operation may not function if the monitor's remote control sensor is exposed to direct sunlight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

INSTALLATION



□ Connecting Your PC or Macintosh Computer

Connecting your PC or Macintosh computer to your plasma monitor will enable you to display your computer's screen image for an impressive presentation. The plasma monitor supports the signals described on page 20.

To connect a PC, Macintosh or compatible graphics adapter, simply:

1. Turn off the power to your plasma monitor and computer.
2. If your PC does not support UXGA/SXGA/XGA/SVGA/VGA you will need to install an UXGA/SXGA/XGA/SVGA/VGA graphics board. Consult your computer's owner's manual for your UXGA/SXGA/XGA/SVGA/VGA configuration. If you need to install a new board, see the manual that comes with your new graphics board for installation instructions.
3. The plasma monitor provides signal compatibility up to VESA 1600 x 1200 (UXGA). However, it is not recommended to use this resolution due to image readability on the monitors 852 x 480 native pixel resolution panel.
4. Use the signal cable that's supplied to connect your PC or Macintosh computer to the plasma monitor. For Macintosh, use the monitor adapter to connect to your computer's video port.
5. Turn on the plasma monitor and the computer.

 You can connect to a Digital Settop Box which outputs RGB signal.

□ Connections with Equipment that has a Digital Interface

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

- Use a DVI 29-pin signal cable when making connections to the RGB2 IN (DVI) connector of the main unit.

The RGB2 IN(DVI) terminal also supports analog RGB input source.



1. Input TMDS signals conforming to DVI standards. The TMDS input corresponds to 1 link.

2. To maintain display quality, use a cable with a quality prescribed by DVI standards that is within 5 meters in length.

□ Connecting Your VCR or Laser Disc Player

Use common RCA cables (not provided) to connect your VCR or laser disc player to your plasma monitor. To make these connections, simply:

1. Turn off the power to your plasma monitor and VCR or laser disc player.
2. Connect one end of your RCA cable to the video output connector on the back of your VCR or laser disc player, connect the other end to the Video input on your plasma monitor. Use standard RCA audio patch cords to connect the audio from your VCR or laser disc player to your plasma monitor (if your VCR or laser disc player has this capability). Be careful to keep your right and left channel connections correct for stereo sound.
3. Turn on the plasma monitor and the VCR or laser disc player.



1 Refer to your VCR or laser disc player owner's manual for more information about your equipment's video output requirements.

2 When your Laser Disc Player has S-Video Output jack, you can connect to S-Video input jack with S-video cable.

□ Connecting Your DVD Player or Digital TV Settop Box

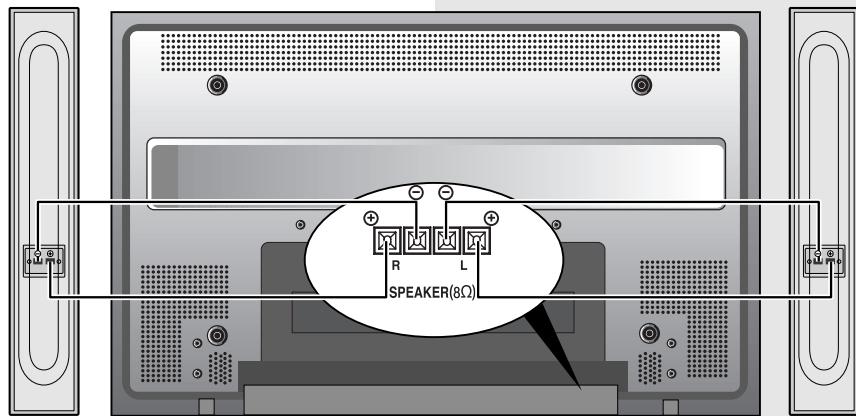
You can connect your plasma monitor to a DVD player or Digital TV Settop Box. To do so, simply:

1. Turn off the power to your plasma monitor and DVD player or Digital TV Settop Box.
2. Use a standard video cable to connect your DVD player or Digital TV Settop Box to the Y, Pb/Cb, and Pr/Cr inputs on your plasma monitor. Or use the DVD-player's S-Video output. Use a standard S-Video cable to connect to the S-Video input on the plasma monitor.
3. Turn on the plasma monitor and the DVD player or Digital TV Settop Box.



Refer to your DVD Player's manual or Digital TV Settop Box's manual for more information about your equipment's video output requirements.

□ External Speaker Connections



External speakers (option) may be connected to the plasma monitor to reproduce sound from VIDEO, DVD or RGB signal sources.

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

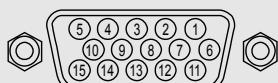
To connect external speakers directly to the plasma monitor:

1. Strip the ends of the speaker wires.
2. Press down the levers over the SPEAKERS terminals, insert the speaker wire and pull up the levers to secure the 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 +.



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

Pin Assignments for D-sub 15 pin Connector (Analog RGB1)

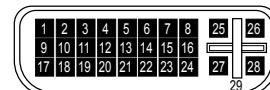


Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

Pin Configuration and Signal of the DVI 29 pin Connector (Analog RGB2 and Digital RGB)

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

(TMDS can be used for one link only.)



Pin No.	Signal
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	Vertical Sync
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 -
25	Red
26	Green
27	Blue
28	Horizontal Sync.
29	Ground

BASIC OPERATIONS

1 POWER

If you want to turn on or off the monitor:

- 1) Plug the AC cord in.
- 2) If the **POWER** button of unit is pressed, monitor will become red and monitor is on stand-by mode. (ON/OFF indicator is red.)
- 3) If the **POWER** button of unit is not pressed, press it.
- 4) Press the **ON** button of remote control to turn the monitor on, Then, ON/OFF indicator becomes green.
- 5) Press the **OFF** button of remote control to turn the monitor off.

Then, ON/OFF indicator becomes red and monitor is on stand by mode.

If you don't have remote control, you can press any key of the product's Left/Under side to turn on the monitor.

2 VOLUME

To adjust the volume:

- 1) Press and hold the **VOLUME +** button (on the remote control or the unit) to increase to the desired level.
- 2) Press and hold the **VOLUME -** button (on the remote control or the unit) to decrease to the desired level.



3 MUTE

To cancel the sound:

Press the **MUTE** button on the remote control to cancel the sound; press again to restore.

4 DISPLAY

To check the source settings on the screen:

- 1) The screen changes each time the **RECALL** button is pressed.
- 2) If the button is not pressed for approximately two seconds, the menu turns off.

5 DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

- 1) Press the **ZOOM** button to enter into zoom mode. Current zoom mode will be displayed.

- 2) 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.

Set the zoom mode to "0" if you want to watch the picture with original size.



- 3) To change the picture position:

Select the position with the **▲ / ▼ / ◀ / ▶** buttons.



The more the picture is enlarged, the more its particle becomes thick and dim.

Zoom size can be selected from 0 to 20.

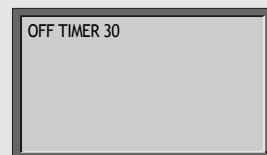
To exit from Zoom mode, press EXIT button.

6 OFF TIMER

To set the off timer:

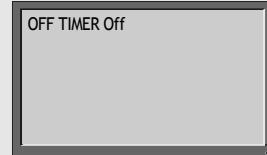
The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

- 1) Press the **OFF TIMER** button to start the timer at 30 minutes.
- 2) Press the **OFF TIMER** button to the desired time.
30 → 60 → 90 → 120 → Off → 30...
- 3) The timer starts when the menu turns off.
- 4) You can check the time left by pressing the **OFF TIMER** button once.



To cancel the off timer:

- 1) Press the **OFF TIMER** button until the timer on screen reaches to "Off".
- 2) The off timer is canceled.



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.

7 Setting the Screen Mode

7-1 When watching videos or digital video discs

With this function, you can select one of 5 screen sizes.

- 1) Press the SCREEN button on the remote control.
- 2) Within 2 seconds ... Press the SCREEN button again.

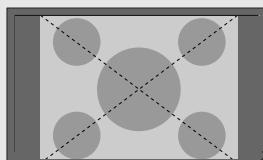
The screen size switches as follows:

NORMAL → WIDE → ZOOM1 → ZOOM2 → PANORAMA
→ NORMAL → ...

NORMAL size screen (4:3)

The normal size screen is displayed.

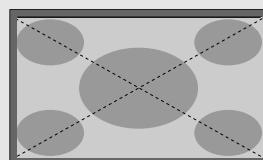
- The picture has the same size as video pictures with a 4 : 3 aspect ratio.



WIDE size screen (16 : 9)

The image is expanded in the horizontal direction.

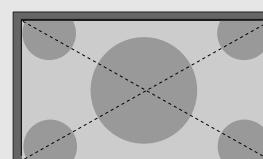
- Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen. (Normal images are expanded in the horizontal direction.)



ZOOM 1 size screen

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

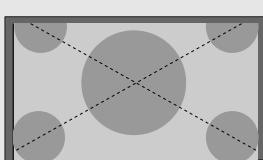
- Use this for theater size (wide) movies, etc.



ZOOM 2 size screen

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

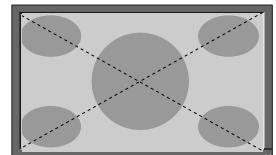
- Use this for theater size (wide) movies, etc.



PANORAMA size screen

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

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



7-2 When watching high definition video source (ex. 1080i, 720p)

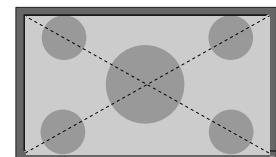
- 1) Press the SCREEN button on the remote control.
- 2) Within 2 seconds ... Press the SCREEN button again.

The screen size switches to WIDE.

WIDE size screen (16 : 9)

The full size screen is displayed (When watching high definition video source).

- The picture has the same size as video picture (16:9).



7-3 When watching computer images

- 1) Press the SCREEN button on the remote control.

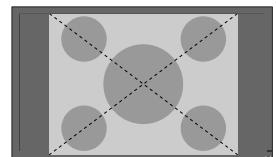
- 2) Within 2 seconds ...

Press the SCREEN button again. The screen size switches as follows: 4:3 → 16:9 → 4:3 → ...

NORMAL size screen (4:3)

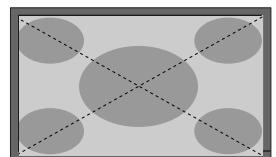
The normal size screen is displayed.

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



WIDE size screen (16 : 9)

The image is expanded in the horizontal direction.



8 Setting the Picture Mode

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

- 1) Press the PICTURE button on the remote control.
- 2) Within 2 seconds ...

Press the PICTURE button again.

The picture mode switches as follows:

USER → NORMAL → CINEMA → DYNAMIC → USER → ...



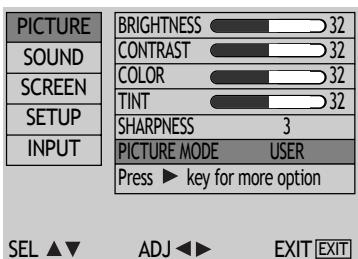
Types of picture modes

USER	The last picture adjustments are stored here
NORMAL	Set this mode when watching video in a bright room. This mode provides dynamic pictures with distinct differences between light and dark sections.
CINEMA	Set this mode when watching video in a dark room. This mode provides darker, finer pictures, like the screen in movie theaters.
DYNAMIC	Set this mode when watching video in a light room. This mode provides brighter pictures than Normal mode.

1-2 Setting the picture mode

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

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...
Use the ▲ and ▼ buttons to select "PICTURE", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "PICTURE MODE".



- 3) To set to "NORMAL" ...

Use the ▲ and ▼ buttons to select "NORMAL".

The mode switches as follows when the and buttons are pressed:

USER → NORMAL → CINEMA → DYNAMIC → USER → ...
• If neither the ▲ or ▼ button is pressed within 10 seconds, the current selection is set and the previous screen reappears.

- 4) Once the adjustment is completed ...

Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.



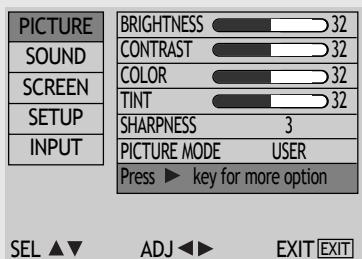
For the information of "Types of picture modes", refer to page 12.

1-3 Setting the color temperature

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

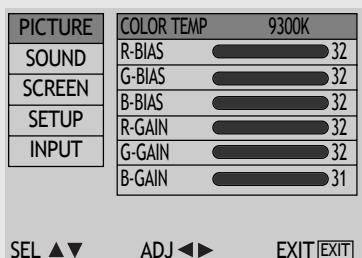
- 1) Press the MENU button on the remote control to display the MENU on the screen, then...
Use the ▲ and ▼ buttons to select "PICTURE", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "Press ► key for more option".

- 3) Use the ► button to go to "COLOR TEMP".



- 4) To set to "9300K" ...

Use the ▲ and ▼ buttons to select "9300K".



The mode switches as follows when the and buttons are pressed:

USER → 5000K → 6000K → 7300K → 9300K → USER → ...

- See next page to set "USER".
- If neither the ▲ or ▼ button is pressed within 10 seconds, the current selection is set and the previous screen reappears.

- 5) Once the setting is completed...

Press the EXIT button to return to the main menu.

To delete the main menu, press the EXIT button once more.



Setting the color temperature

5000K, 6000K Low (redder)

7300K Middle (Standard)

9300K High (bluer)

Restoring the factory default settings

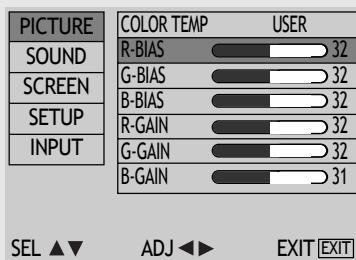
Select "RESET" under the SETUP menu. Note that this also restores other settings to the factory defaults.

1-4 Adjusting the color to the desired quality

Use this procedure to adjust the white balance for bright pictures and dark pictures to achieve the desired color quality.

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...

Use the ▲ and ▼ buttons to select "PICTURE", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "Press ► key for more option".
- 3) Use the ► button to go to "COLOR TEMP".
- 4) Use the ◀ and ► buttons to select "USER".
- 5) Use the ▲ and ▼ buttons to select "R-BIAS".



- 6) Adjust the COLOR TEMP using the ◀ and ► buttons.
 - If neither the ◀ or ► button is pressed within 10 seconds, the current setting is set and the previous screen reappears.
- 7) Repeat steps 5-6 to adjust more items.
- 8) Once the adjustment is completed...

Press the EXIT button several times to return to the main menu. To delete the main menu, press the EXIT button once more.

Adjusting the COLOR TEMP

R,G,B-GAIN White balance adjustment for signal level

R,G,B-BIAS White balance adjustment for black level

Restoring the factory default settings

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

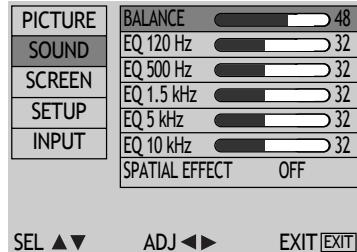
2 SOUND Settings Menu

The balance, EQ and spatial effect can be adjusted to suit your tastes.

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...

Use the ▲ and ▼ buttons to select "SOUND", then press the ► button.
- 2) To adjust the balance...

Use the ▲ and ▼ buttons to select "BALANCE".



- If neither the ◀ or ► button is pressed within 10 seconds, the current selection is set and the previous screen reappears.
- To continue adjusting more items, repeat from step 2.

- 3) Once the adjustment is completed ...

Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.

Sound settings menu

BALANCE ... Changes the balance of the left and right channels.

EQ ... Changes the level of each frequency band.

Spatial Effect settings

ON ... turns on the sound's spatial effect.

OFF ... turns off the sound's spatial effect.

Restoring the factory default settings

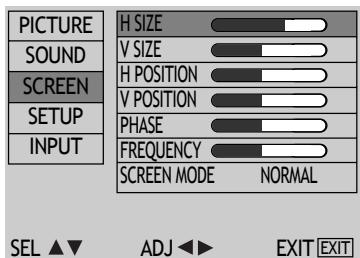
Select "RESET" under the SETUP menu. Note that this also restores other settings to the factory defaults.

3 SCREEN Settings Menu

Adjusting the Size, Position, Phase and Frequency

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...

Use the ▲ and ▼ buttons to select "SCREEN", then press the ► button.



- When you select VIDEO or DVD(Component) for input mode, only SCREEN MODE will appear.
- When you select Digital RGB for input mode, only SCREEN MODE will appear.
- When you select digital TV signals (480p, 720p, 1080i), H size and V size are not displayed.

- 2) To adjust the Horizontal SIZE ...

Use the ▲ and ▼ buttons to select "H SIZE".

- 3) Adjust using the ▲ and ▼ buttons.

• If neither the ▲ or ▼ button is pressed within 10 seconds, the current setting is set and the previous screen reappears.

- 4) To continue making other computer image adjustments (Vertical SIZE, Horizontal POSITION, Vertical POSITION, PHASE, FREQUENCY) ...

Repeat from step 2.

- 5) To select a SCREEN MODE ...

Use the ▲ and ▼ buttons to select a mode.

The mode switches as follows when the ▲ and ▼ buttons are pressed:

NORMAL → WIDE → ZOOM 1 → ZOOM 2 → PANORAMA → NORMAL → ..

- The mode can also be switched by pressing the "SCREEN" button on the remote control.
- When you select PC signals (VGA, XGA, UXGA etc.), the mode switches like : 4:3 → 16:9 → 4:3 → ...
- When you select digital TV signals (720p, 1080i), the mode switches like; Normal → Wide → Normal

- 6) Once all adjustments are completed ...

Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.



Adjusting the position of the image

V SIZE : Adjusts the vertical size of the image.
(Only PC signals input)

H SIZE : Adjusts the horizontal size of the image.
(Only PC signals input)

V-POSITION : Adjusts the vertical position of the image.(Only PC signals and digital TV signals input)

H-POSITION : Adjusts the horizontal position of the image.(Only PC signals and digital TV signals input)

PHASE : Adjusts the phase of the image.(Only PC signals and digital TV signals input)

If the jitter occurs on the screen, please adjust it. This phenomenon may happen differently according to the type of PC or set-top box.

FREQUENCY : Adjusts the fine frequency of the image.(Only PC signals and digital TV signals input)

Restoring the factory default settings

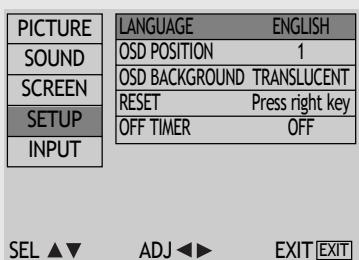
Select "RESET" under the SETUP menu. Note that this also restores other settings to the factory defaults.

4 SETUP Settings Menu

4-1 Setting the language for the menus

The menu display can be set to one of 8 languages: Korean, Japanese, English, German, French, Swedish, Italian or Spanish.

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...
Use the ▲ and ▼ buttons to select "SETUP", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "LANGUAGE", then press the ► button.



- 3) To select "DEUTSCH" for example...

Use the ◀ and ► buttons to select "DEUTSCH". The mode switches as follows when the and buttons are pressed:

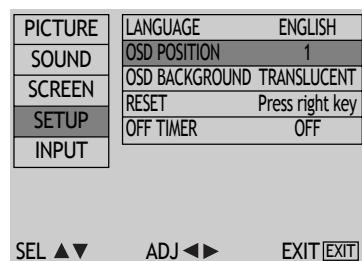
ENGLISH → German (DEUTSCH) → Japanese (日本語)
→ French (FRANÇAIS) → Italian (ITALIANO) → Korean (한국어) → Swedish (SVENSKA) → Spanish (ESPAÑOL)
→ ENGLISH → ...

- 4) Once the setting is completed ... Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.

4-2 Adjusting the position of the menu display

Use these operations to adjust the position of the menus that appear on the screen.

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...
Use the ▲ and ▼ buttons to select "SETUP", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "OSD POSITION".



- 3) To adjust the position...

Adjust using the ◀ and ► buttons. The position can be set between 1 and 9.



- 4) Once all adjustments are completed ...

Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.



Position of the menu display

1 : Upper Left	2 : Upper Center
3 : Upper Right	4 : Middle Left
5 : Middle Center	6 : Middle Right
7 : Low Left	8 : Low Center
9 : Low Right	

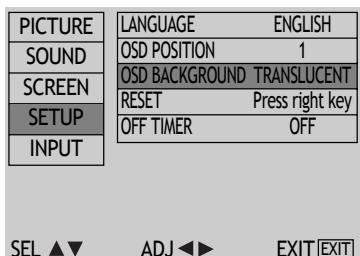
Restoring the factory default settings

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

4-3 Adjusting the background of the menu display

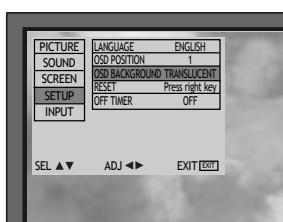
Use these operations to adjust the background of the menus that appear on the screen.

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...
Use the ▲ and ▼ buttons to select "SETUP", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "OSD BACKGROUND".

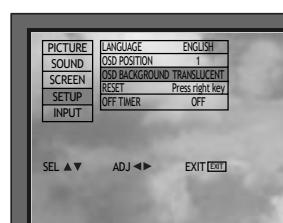


- 3) To adjust the background...

Adjust using the ▲ and ▼ buttons. You can select one item between OPAQUE or TRANSLUCENT for OSD Background.



: OPAQUE Background



: TRANSLUCENT
Background

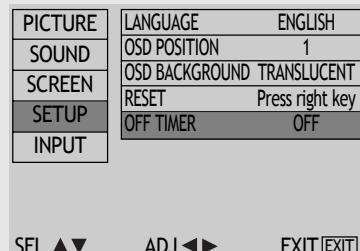
- 4) Once all adjustments are completed ...

Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.

4-4 Resetting to the default values

Use these operations to restore all the picture adjustments, audio settings, to the factory default values.

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...
Use the ▲ and ▼ buttons to select "SETUP", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "RESET", then press the ► button.



The screen will be restored to the previous "RESET" mode, then all the settings are restored to the default values.

- 3) Once the setting is completed ...

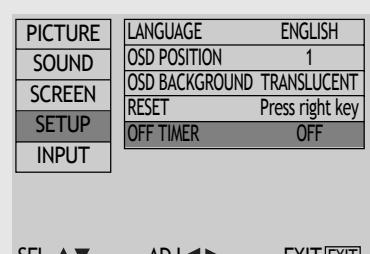
Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.

4-5 Setting the OFF Timer:

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

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...
Use the ▲ and ▼ buttons to select "SETUP", then press the ► button.
- 2) Use the ▲ and ▼ buttons to select "OFF TIMER", then press the ► button.
- 3) To turn the power management function on ...
Use the ▲ and ▼ buttons to select "ON".

The mode switches as follows each time the ▲ or ▼ button is pressed:
OFF → 30 → 60 → 90 → 120 → OFF →...



4. Once the setting is completed ...

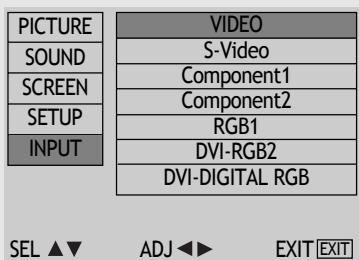
Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.

5 INPUT Settings Menu

Selecting the input signal for your unit. (VIDEO, S-Video, Component1, Component2, RGB1, DVI-RGB2, DVI-DIGITAL RGB).

- 1) Press the MENU button on the remote control to display the MENU on the screen, then...

Use the ▲ and ▼ buttons to select "INPUT", then press the ► button.



- 2) Use the ▲ and ▼ buttons to select desired input, then press the ► button.

- 3) Once the setting is completed...

Press the EXIT button to return to the main menu. To delete the main menu, press the EXIT button once more.

TABLE OF COMPUTER SIGNALS SUPPORTED

Types of PC Input Resolution corresponding to PDP

RESOLUTION	HORIZONTAL FREQUENCY(KHz)	VERTICAL FREQUENCY(Hz)	NOTE
640 x 350	31.469	70.1	IBM
	37.861	85.1	VESA
640 x 400	24.823	56.4	NEC
	30.48	60.0	PGA
	31.469	70.1	IBM (DOS)
	37.861	85.1	VESA
640 x 480	31.469	59.9	DOS
	35	66.7	Macintosh
	37.861	72.8	VESA
	37.5	75.0	VESA
	39.375	75.0	IBM
	43.269	85.0	VESA
720 x 400	31.47	60.1	VGA
	31.469	70.1	IBM
	37.927	85.1	VESA
720 x 480	31.54	60.0	480P
720 x 576	31.25	50.0	576P
800 x 600	35.156	56.3	VES
	35.16	57.2	VESA
	37.879	60.3	VESA
	48.077	72.2	VESA
	46.875	75.0	VESA
	53.674	85.1	VESA
832 x 624	49.726	74.0	Macintosh
1024 x 768	48.193(48.077)	59.3 (59.8)	Macintosh (OAK)
	48.363	60.0	VESA
	53.95	66.1	XGA
	56.476	70.1	HP & VESA
	60.241	74.9 (74.6)	Macintosh
	60.023	75.0	VESA
	68.677	85.0	VESA
	80.66	100.0	Fujitsu
	70.84	84.0	SUN
1152 x 864	54	60.0	VAX
	63.851	70.0	VESA
	67.5	75.0	VESA
	77.094	85.0	VESA
1152 x 900	61.796	66.0	SUN
	71.713	76.0	SUN
1280 x 720	45	60.0	720P
1280 x 960	60	60.0	VESA
	75	75.0	VESA
	85.938	85.0	VESA
	46.433	43.4	VESA
1280 x 1024	63.981	60.0	VESA
	70.66	66.5	VAX
	74.88	70.0	NEC
	78.125	72.0	HP & HITA
	78.855	74.0	Sony & NEC
	79.976	75.0	VESA
	81.13	76.1	SUN
	91.146	85.0	VESA
	62.5	48.0	VESA
	75	60.0	VESA
1600 x 1200	81.25	65.0	VESA
	87.5	70.0	VESA
	93.75	75.0	VESA
	100	80.0	VESA



- Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
- To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin, not supplied) to your computer's video port. If your computer has a mono D-sub 15-pin connector, you may have to use the supplied RGB cable.
- While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the phase because of errors in synchronization of your computer.
- This monitor has a resolution of 852 dot x 480 line. It is recommended that the input signal should be VGA or SVGA.
- With digital input some signals are not accepted.
- The sync may be disturbed when a nonstandard signal other than the aforementioned is input.

- * "IBM PC/AT" and "VGA" are registered trademarks of IBM, Inc. of the United States.
- * "Apple Macintosh" is a registered trademark of Apple Computer, Inc. of the United States.

TROUBLESHOOTING

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

SYMPTOM	CHECKS	REMEDY
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?	• Plug the monitor's power cord into a power outlet.
	• Are all the monitor's indicators off?	• Press the power button on the monitor to turn on the power.
	• Are the remote control's batteries worn out?	• 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?	• Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle.
	• Is direct sunlight or strong artificial light shining on the monitor's remote control sensor?	• Eliminate the light by closing curtains, pointing the light in a different direction, etc.
	• Are the remote control's batteries worn out?	• 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?	• Increase the volume.
	• Is the mute mode set?	• Press the remote control's MUTE button.
	• Are the speakers properly connected?	• Connect the speakers properly.
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").

SYMPTOM	CHECKS	REMEDY
Nothing appears on screen.	• Is the computer's power turned on?	• Turn on the computer's power.
	• Is a source connected?	• Connect source to the monitor.
	• Is the power management function in the standby or off mode?	• 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 "SCREEN" properly.
Image is too large or too small.	• Is the screen size adjustment appropriate?	• Press the "SCREEN" 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 Save function is on.	• Check the input signal.

SPECIFICATIONS

Product Name	Plasma Monitor
Screen Size	36.7"(H) x 20.9"(V) inches 933(H) x 533(V) mm diagonal 42"
Aspect Ratio	16 : 9
Resolution	852(H) x 480(V) pixels
Pixel Pitch	0.043"(H) x 0.044"(V) inches 1.095(H) x 1.11(V) mm
Color Reproduction	256 levels, 16,770,000 colors
Input Terminals and Signals	
RGB 1	D-sub 15-pin, 1 pair Analog RGB input (up to UXGA 80Hz)
RGB 2	DVi 29-pin, 1 pair Analog RGB input (up to UXGA 80Hz) Digital RGB input (TMDS, up to UXGA 60Hz) Stereo RCA, 1pair (for RGB input)
Component (2 pairs)	RCA-pin (Y, Pb/Cb, Pr/Cr), Stereo RCA 480i, 480p, 576i, 576p, 720p, 1080i
Video (1 pairs)	S-Video DIN 4-pin, Video RCA, Stereo RCA NTSC, NTSC 4.43, PAL, PAL60, PAL M, PAL N, SECAM
Sound output	8W+8W at 8 ohm
Power Supply	AC100-240V, 50/60Hz
Current Rating	3.9A (maximum)
Power Consumption	320W (typical)
Dimensions	40.8(W) x 24.8(H) x 3.1(D) inch 1037(W) x 631(H) x 78(D) mm
Weight	66 lbs / 30 kg
Environmental Considerations	
Operating Temperature	0°C to 35°C / 32°F to 95°F
Humidity	20 to 80% (no condensation)
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 80% (no condensation)
Side Panel User Controls	
Power on/off, Input source select, Volume up/down/ Menu, Left, Right	
Remote Control Functions	
Power on/off, Input source select, OSD control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Recall, Freeze, Zoom up/down, Off timer, Mute, Key light on/off, Picture mode, screen mode	

OSD Functions

- Picture (Brightness / Contrast / Sharpness / Color / Tint / Picture mode / Color temperature)
- Sound (Spatial / Equalizer)
- Screen (V-Position / H-Position / V-Size / H-Size / Phase / Frequency / Screen mode)
- Setup(Language select / OSD position /OSD background / Reset / Off Timer)
* English, German, French, Italian, Spanish, Swedish, Japanese, Korean

Other Features

- 3D motion adaptive Scan Converter with 3-2 (60Hz) pull down Converter
- Digital Zoom function
- Color Temperature Select
- Plug and play (RGB2: DDC2b only)

Accessories

Remote control unit with two AAA batteries, RGB cable, Component cable, AV cable, Audio cable, Power cord, User's Manual

The plasma display panel consists of the fine picture elements (cells). Although we produce these plasma display panels with more than 99.99 percent of their cells active, there may be some cells that do not produce light or remain lit after they should have turned off.

Light output of a PDP module gradually decreases over long-term use. Do not display static images for prolonged periods; otherwise, phosphor burn may appear on a part of the panel. Phosphor burn is not covered by the warranty.

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



MEMO



MEMO

ENGLISH



MEMO

LIMITED WARRANTY

We warrants each new electronic product manufactured by it to be free from defective material and workmanship and agrees to remedy any such defect or to furnish a new part (at the Company's option) in exchange for any part of any unit of its manufacture which under normal installation, use and service disclosed such defect, provided the unit is delivered by the owner to us or to our authorized distributor from whom purchased or authorized service station intact, for our examination with all transportation charges prepaid to our factory.

To establish and receive warranty service at our factory or authorized service facilities, proof of purchase/dated sales invoice is required. Written authorization must be obtained before any merchandise is returned to the factory.

This warranty does not extend to any of our electronic products which have been subjected to misuse, neglect, accident, incorrect wiring not our own, improper installation, unauthorized modification, or used in violation of instructions furnished by us, nor units which have been repaired or altered outside of our factory, nor to cases where the serial number thereof has been removed, defaced or changed.

This warranty is in lieu of all warranties expressed or implied and no representative or person is authorized to assume for us any other liability in connection with the sale of our electronic products.

Over-the-counter exchange of initially defective units

A unit is described as initially defective when the dealer opens the unit and finds that it is inoperative or a customer opening a new unit finds that it is initially defective. This unit may be returned to the factory by the dealer for exchange. Under no circumstances will a customer be permitted to return an initially defective unit directly to the factory.

Model	Parts
Plasma Monitor	1 Year

