Contents

Warnings

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

The lightening flash with arrow-head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.

The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

WARNING: To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.
Do not place containers with water (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)

WARNING: 1) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
2) Do not remove the grounding pin on the power plug. This apparatus is equipped with a three pin grounding-type power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician.
Do not defeat the purpose of the grounding plug.

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 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 technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, includinginterference that may cause undesired operation.

Safety Instructions

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, cosult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

PORTABLE CART WARNING

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Set up

Do not place the High Definition Plasma Display on sloped or unstable surfaces.
■ The High Definition Plasma Display may fall off or tip over.

Do not place any objects on top of the High Definition Plasma Display.
■ If water spills onto the High Definition Plasma Display or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the High Definition Plasma Display, please consult an Authorized Service Center.

Do not cover the ventilation holes.
■ Doing so may cause the High Definition Plasma Display to overheat, which can cause fire or damage to the High Definition Plasma Display.

If using the pedestal (optional accessory), leave a space of 10 cm (approx. 4 inches) or more at the top, left and right, 6 cm (approx 2.5 inches) or more at the bottom, and 7 cm (approx. 3 inches) or more at the rear. If using some other setting-up method, leavea space of 10 cm (approx. 4 inches) or more at the top, bottom, left and right, and 1.9 cm (approx. 1 inches) or more at the rear.

As illustrated below, if an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as provide protection against voltage surges. US section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure. Grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electode.

Antenna lead-in

Electronic service

Antenna discharge

Grounding

Power service

Grounding clamps
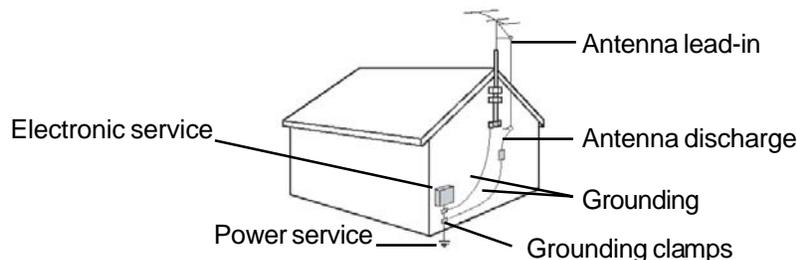
AC Power Supply Cord

Securely insert the power cord plug as far as it will go.
■ If the plug is not fully inserted, heat may be generated which could fire. If the plug is damaged or the wall socket plate is loose, they should not be used.

Do not handle the power code plug with wet hands.
■ Doing so may cause electric shocks.

Do not do anything that might damage the power cable. When disconnecting the power cable, hold the plug, not the cable.
■ Do not make any modifications, place heavy objects on, place near hot objects, heat, bend, twist or forcefully pull the power cable. Doing so may cause damages to the power cable which can cause fire or electric shock. If damage to the cable is suspected, have it repaired at an Authorized Service Center.

If the Plasma Display is not in use for a long period of time, unplug the power cord from the wall outlet.

N O T E

■ Do not allow a still picture to be displayed for an extended period, as this may cause a permanent after-image to remain on the High Definition Plasma Display, which will not be covered by the product.

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Safety Precautions

If Problems occur during use

If a problem occurs(such as no picture or no sound), or if smoke or an abnormal odor is detected from the High Definition Plasma Display, unplug the power cord immediately.
- Continuous use of the Display under these conditions might cause fire or permanent damage to the unit. Have the Display evaluated at an Authorized Service Center. Services to the Display by any unauthorized personnel are strongly discouraged due to its high voltage dangerous nature.

If water or foreign objects get inside the High Definition Plasma Display, if the High Definition Plasma Display is dropped, or if the cabinet becomes damaged, disconnect the power code plug immediately.
- A short may occur, which could cause fire. Contact an Authorized Service Center for any repairs that need to be made.

When using the High Definition Plasma Display

Do not bring your hands, face or objects close to the ventilation holes of the High Definition Plasma Display.
- Top of High Definition Plasma Display is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries can happen if any body parts are brought too close. Placing any object near the top of the display could also result in heat damages to the object as well as to the Display if its ventilation holes are blocked.

Be sure to disconnect all cables before moving the High Definition Plasma Display.
- Moving the Display with its cables attached might damage the cable which, in turn, can cause fire or electric shock.

Disconnect the power plug from the wall outlet as a safety precaution before carrying out any cleaning
- Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it from becoming dusty.
- Built-up dust on the power cord plug can increase humidity which might damage the insulation and cause fire. Unplug the cord from the wall outlet and clean it with a dry cloth.

Cleaning and maintenance

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.
- If the surface is particularly dirty, soak a soft, lint-free cloth in a weak detergent solution and then wring the cloth to remove excess liquid. Use this cloth to wipe the surface of the display panel, then wipe it evenly with a dry cloth, of the same type, until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

**If the cabinet becomes dirty, wipe it with a soft, dry cloth.**
- If the cabinet is particularly dirty, soak the cloth in a weak detergent solution and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface of the High Definition Plasma Display. If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

Accessories Supplied

Check that you have the Accessories and items

■ Operating instruction book
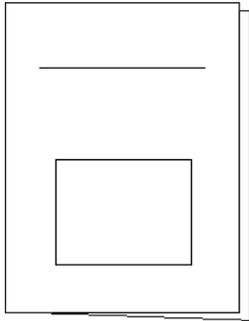
■ Remote control transmitter

■ Betteries for the remote control transmitter (AAA Battery×2)
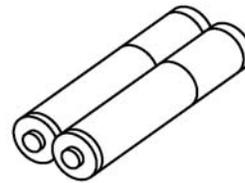
■ Power cord

■ D-sub to RCA cable
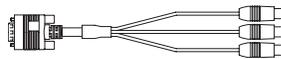
■ Phone plug/RCA jack audio input

■ Warranty Card
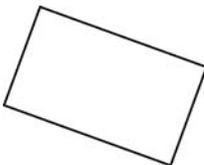
Optional Accessories

■ Wall mount bracket
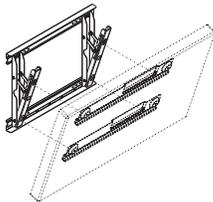
■ Pedestal

N O T E

■ Please only use attachments/accessories specific by manufacturer.
■ Recommend to use the qualified accessaries with your PDP only.

Batteries

Requires two AAA batteries
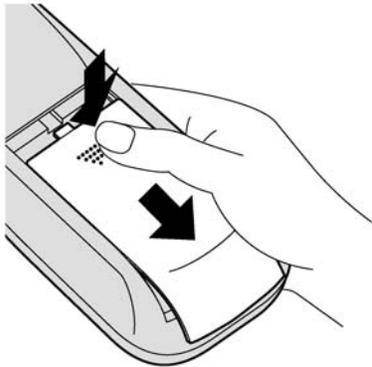
1. Turn the transmitter face down.
   Press and slide off the battery cover.

2. Install the batteries as shown in the battery compartment.
   (Polarity + or - must match the markings in the compartment).

Two **AAA** size
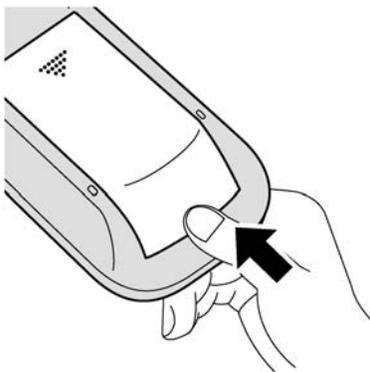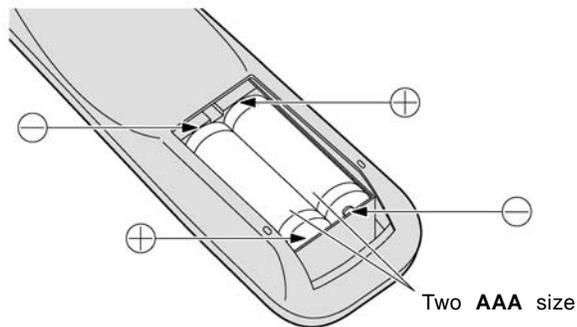
3. Replace the cover and slide in reverse until the lock snaps.

H I N T

For frequent remote control users, we suggest to replace batteries with Alkaline batteries for longer life.

⚠ **Precaution on battery use**

Incorrect installation may cause battery leakage and corrosion that will damage the remote control transmitter, please follow the precautions below to replace battery.

1. Batteries should always be replaced as a pair. Always use new batteries when replacing the old set.
2. Do not combine a used battery with a new one.
3. Do not mix battery types(for example: Zinc Carbon with Alkaline)
4. Do not attempt to charge, short-circuit , disassemble, heat or burn used batteries.
5. Battery replacement is necessary when the remote control acts sporadically or stops operating the Plasma Display.

DATA
Select Data source

VIDEO
Select Video source

NUMBERS 0~9
Individually select TV channels

100
Quickly enter channel number greater than 100

MTS
Change TV sound mode

MUTE
Turn sound on or off

UP/DOWN/LEFT/ RIGHT
Move on OSD Menu

Volume Up/Down
Increase/decrease sound output

DISPLAY
Display active source and sleep timer

FREEZE
Freeze/Unfreeze image

PIP/POP
Turn on/off Main/PIP/POP/POP3

ACTIVE
Select main picture in PIP/POP mode

SWAP
Swap main and sub picture in PIP/POP mode

POSITION
Change PIP position

POWER
Turn the plasma display on or off(stand by)

Previous Channel
Back to previous channel

SLEEP
Select sleep mode

MENU/EXIT
Activate or Exit the On Screen Display Menu

OK
Confirm the selection on OSD

CHANNEL UP/DOWN
Channel up/down in TV mode

FORMAT
Change display format

ZOOM
Enlarge image

Channel **UP/DOWN** in favorite TV channel list

REMOVE current channel from favorite channel list

ADD current channel into favorite channel list

SOURCE
VIDEO   DATA   POWER

1   2   3
4   5   6
7   8   9
100   0   P.CH

MTS   SLEEP
MUTE   MENU/EXIT

OK

VOL   CH

DISPLAY   FREEZE   ZOOM   FORMAT

PIP/POP   POSITION

ACTIVE   SWAP

PIP/POP   FAVORITE CH

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Control Panel

■ Front Control Panel

The control keys and LED indicator light are in the front display as illustrated below.

Power Indicator

Volume Adjustment

Push the volume Up or down button to increase or decrease the sound volume level.

Select Input Source

Main Power On/ Off Switch
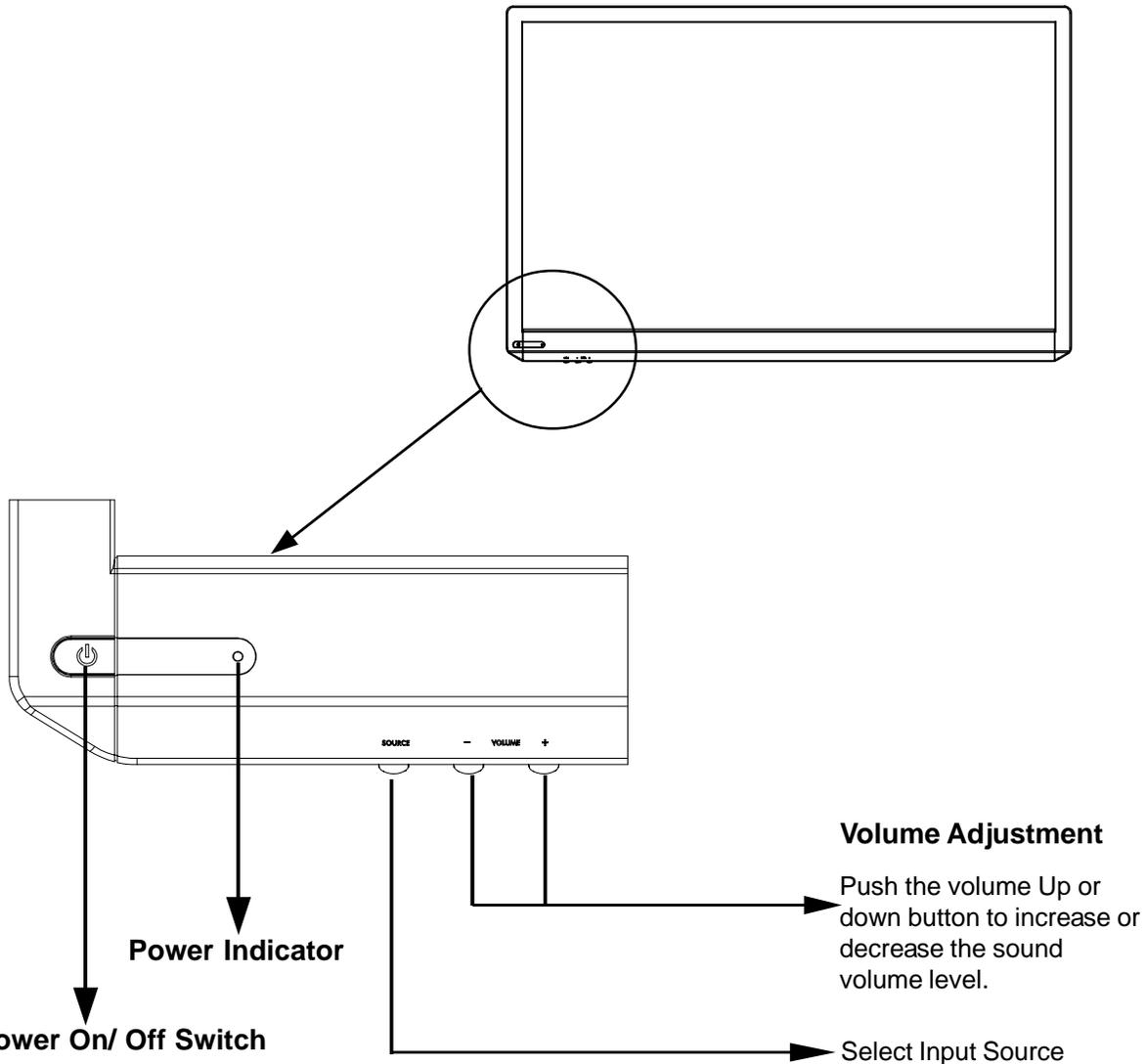
The Power Indicator will light under below condition.
- ■ Power- OFF......Indicator not illuminated (The unit will still consume some power as long as the power cord is still inserted into the wall outlet.)
- ■ Stand-by......Red
- ■ Power-ON......Green
- ■ fan unwork......Flash red

Control Panel

■ Back Control Panel

SPEAKER Terminals (R)

S-Video & Composite Video & Audio input Terminals

SPEAKER Terminals (L)

Audio Input terminal for computer, HDTV YPbPr

Digital input Terminal for computer

Component Terminals

Analog input terminal for computer or HDTV YPbPr input

Antenna Terminal

Audio Output Terminals

Connect to PC analog or HDTV YPbPr output

This terminal is for after service purpose only

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Connections

This unit can receive and display programs and signal from VHS, DVD, HDTV, video game and etc. Here we list and explain some kinds of familiar apparatus. Please ensure the correct connection between display and external equipment.

How to connect the Cable TV or Antenna

Use Antenna cable to connect **ANTENNA** socket of F connector with 75 Ohms impedance.
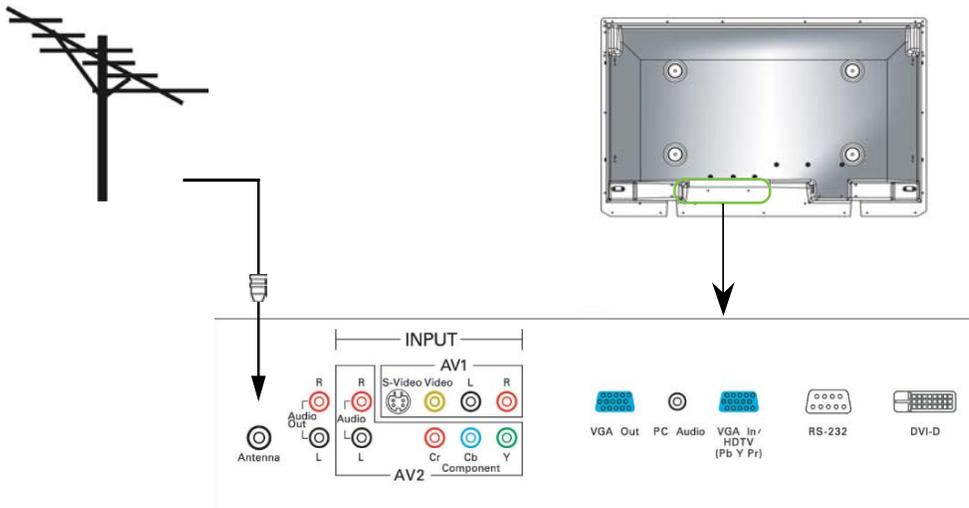
How to connect the computer

If you want to connect with computer, you may use the rear input terminal - VGA IN or DVI for Video input and PC Audio for Audio input

12
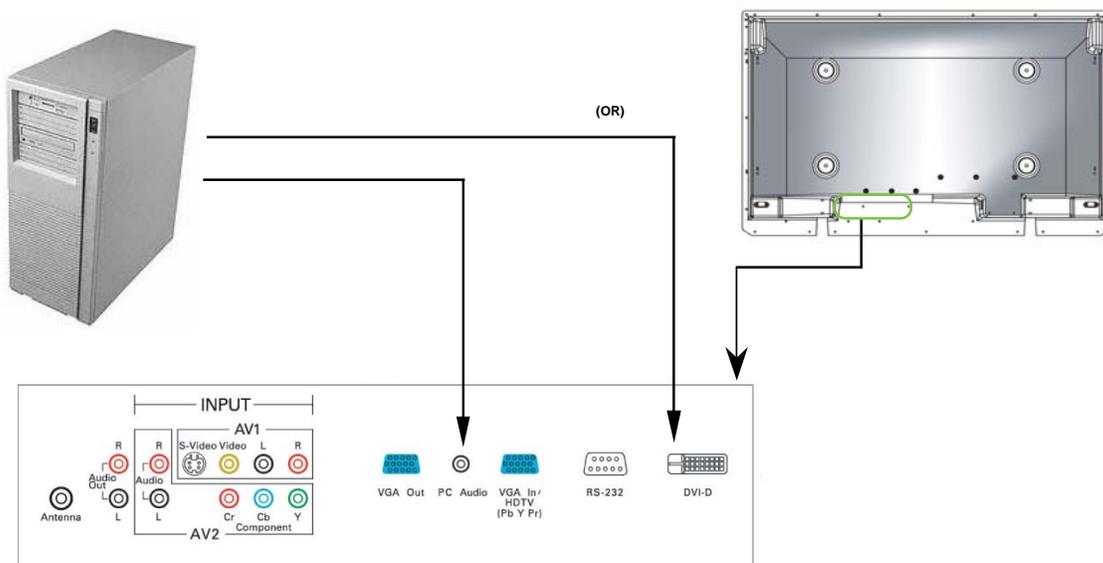
How to connect the VHS

If your VHS does not support S-Video output, you may use three RCA audio cables(Video, L/R audio channels) and connect with AV1.
If your VHS supports S-Video output, you may use S-Video input and two RCA audio cables(L/R audio channels).
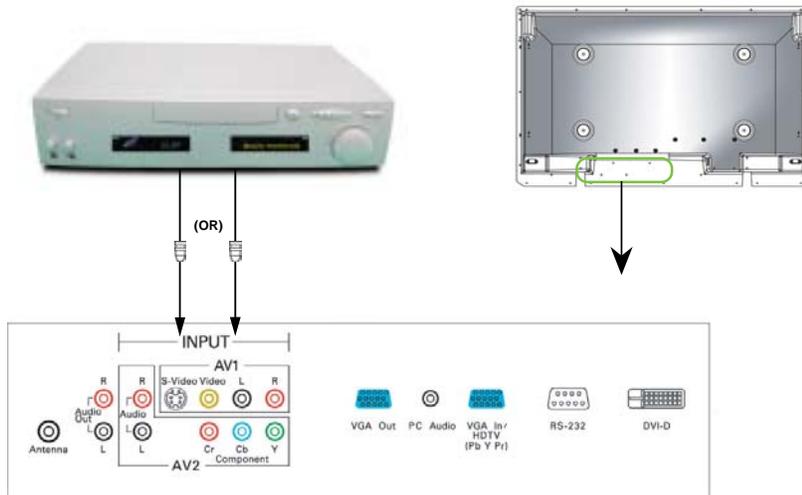

N O T E

- AV1 S-Video input priority is always higher than Composite video, we strongly suggest not to connect S-Video and Video in the same AV terminal at the same time.
- Connect TV game set to Display is the same as VHS connection.

How to connect the DVD player

Most of DVD player can support various input types, and this unit can support all kinds of output types as well. Before connecting to DVD, please check the input type first.
1. Use Y, Cb, Cr input (AV2), it could have higher signal quality. Here you have to connect to five sockets, including three image control sockets(Y, Cb, Cr) and two audio control sockets(L/R audio channel.
2. Use S-Video input, it could have secondly signal quality. Here you have to connect three sockets, including S-Video input and two audio control sockets(L/R audio channel).
3. Use regular AV input. Here you have to connect to three sockets, including Video input and two audio control sockets. (L/R audio channel)
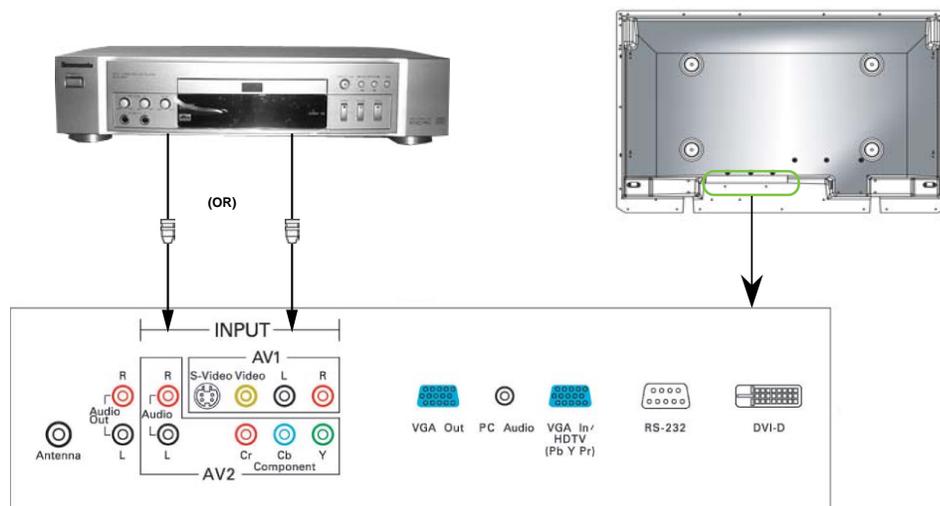
Connections

How to connect the HDTV

For HDTV Tuner or D-VHS user, please connect Y, Pb, Pr cable to VGA IN/HDTV input.
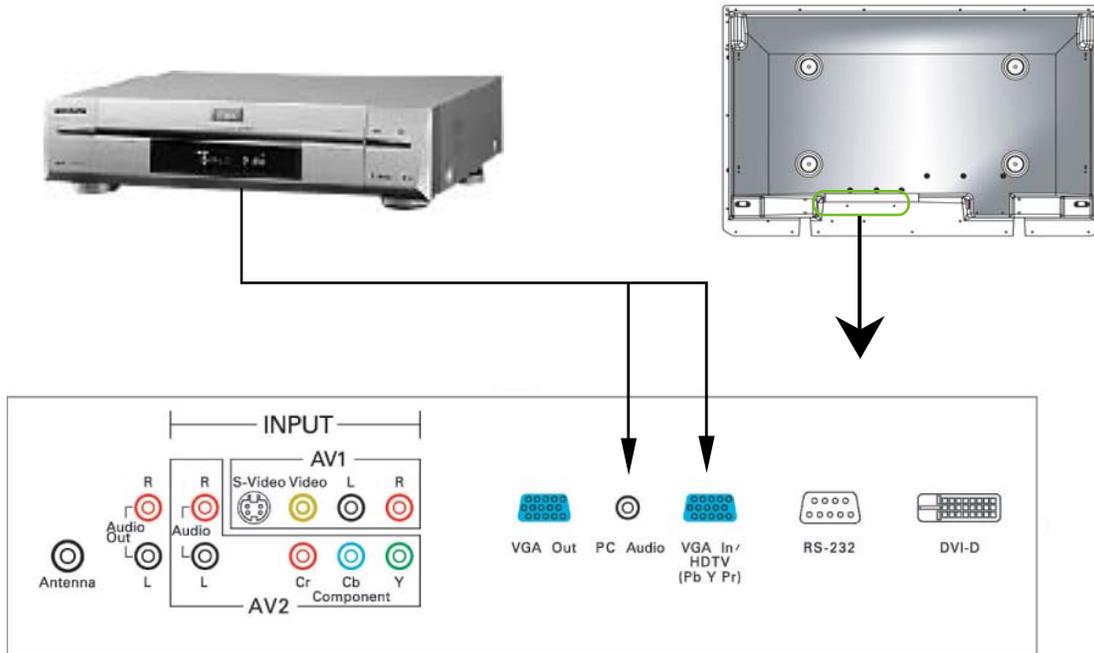
N O T E

■ You may need a VGA-to-Y,Pb,Pr adapter to connect VGA IN/ HDTV input with HDTV .
■ For better picture quality, please use YCbCr connector for 480i signal.

How to connect the speakers (Optional)

1. If you have purchased our optional speakers, please connect the speaker wires to L/R speaker terminals. These terminals only be suit to use in 6 ohm speaker.

2. You can also connect to other speakers by using Audio out sockets, you need to connect to external amplifier then connect to speaker.

1 (RED) (BLACK)
Remove the tubes from the ends of the speaker cables.

2 (RED) (BLACK)

3 (RED) (BLACK) ①
②

INPUT
AV1
R R S-Video Video L R
Audio Out Audio
Antenna L L
Cr Cb Y
AV2 Component

VGA Out PC Audio VGA In / HDTV (Pb Y Pr) RS-232 DVI-D

Audio Amplifier
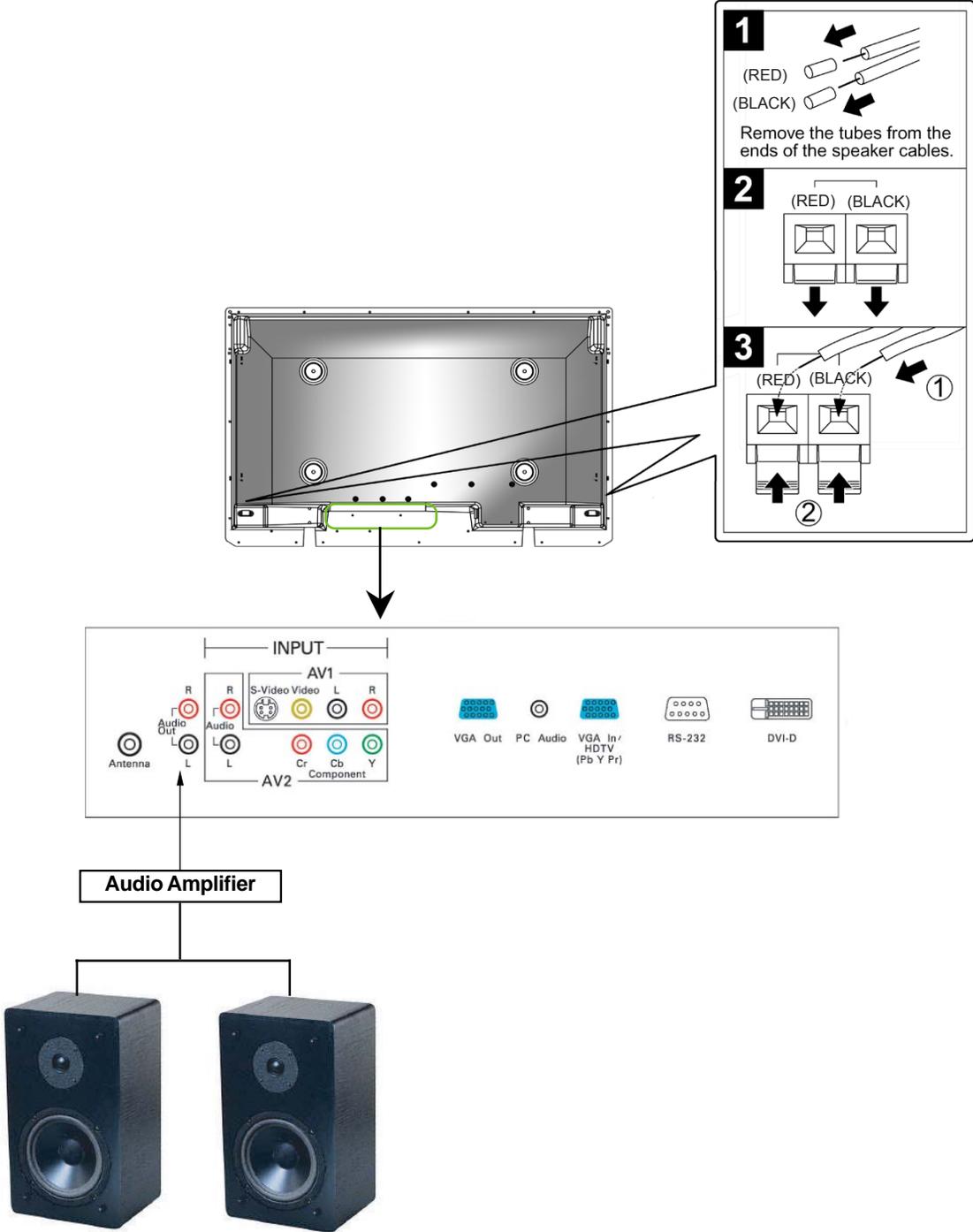
On-Screen Menu

PIP/POP

It is possible to view two programs simultaneously using either the PIP or the POP function. The PIP (Picture-In-Picture) function allows the user to watch two video programs simultaneously, one on the full screen and one on a smaller pop-up screen. The POP (Picture-Outside-Picture) function essentially splits the viewing area into two halves, allowing the simultaneous viewing of two programs in side-by-side windows.

1. Select from OSD Menu
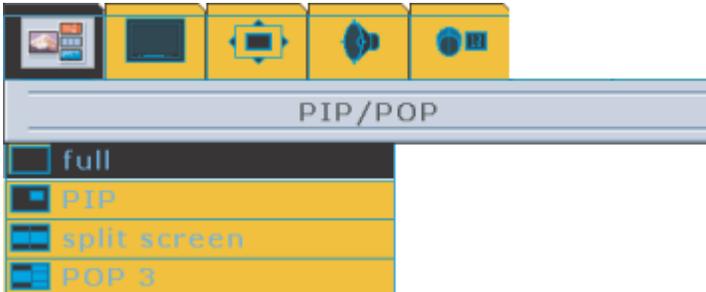
Step 1 :
Press the **MENU/EXIT** button on the remote control ❶ to call up the on screen display to enter **PIP/POP** function list.

Step 2 :
Press the ▼ button to enter the sub-selection and then use ▲▼ button to select your preferable watching format. There are full, PIP, split screen and POP3 selections for selecting, referring the page 17 for more information.

Step 3 :
Press the **OK** button to confirm your selection and then press **MENU/EXIT** to exit sub-menu, re-pressing **MENU/EXIT** to exit main menu. The display mode will activate immediately after selecting.

2. Select from Hot key

Step 1 :
Direct press **PIP/POP** button on the remote control ❷ to call up the function.

Step 2 :
Select your preferable format from the list with re-pressing **PIP/POP** button. The display mode will activate immediately after pressing.
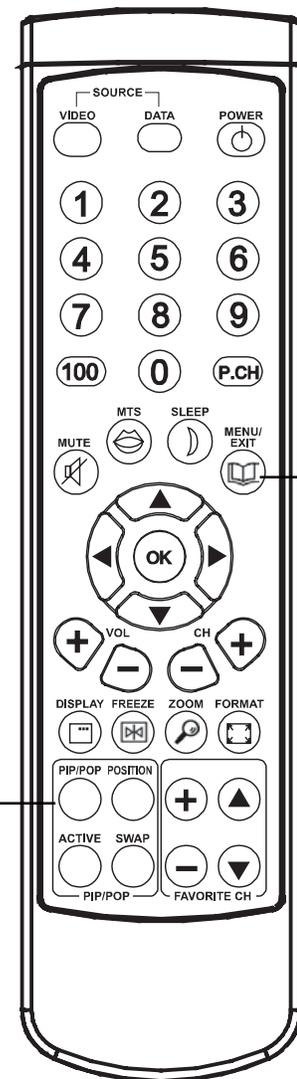
H I N T

1. You can use the above hot keys in PIP/POP area for quick operation. PIP/POP, ACTIVE, POSITION and SWAP. Please refer to page 36 to see the function usage.
2. Some items of adjustment might not be available when PIP or POP function is activated.

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More Information

Full screen

- This function can be spread frame to all screen(1366 x 768).
- It is suitable to watch HDTV and 16:9 format DVD.

PIP(Picture-In-Picture)

- PIP mode lets you view 2 different inputs (picture sources) on your monitor screen at the same time. One source will be large, and another source will show a smaller inset image.
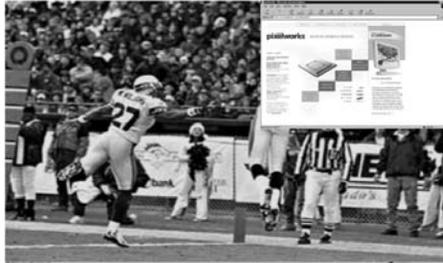

Split screen(side by side)

- Split screen mode lets you view 2 different inputs (picture sources) on your monitor screen at the same time.

POP 3

- This function lets you view 2 different inputs (picture sources) on your monitor screen at the same time.

H I N T

Selecting a Source for the pip, split screen and pop3,
- In TV for main picture, you can select AV1, HDTV/VGA IN and DVI for sub picture.
- In AV1 for main picture, you can select HDTV/VGA IN and DVI for sub picture.
- In AV2 for main picture, you can select AV1, HDTV/VGA IN and DVI for sub picture.
- In HDTV/VGA IN for main picture, you can select TV, AV1 and AV2 for sub picture.
- In DVI for main picture, you can select TV, AV1 and AV2 for sub picture.

N O T E

■ **POP3 sub window only supports max. resolution up to 800x600.**
■ **It is normal if POP3 sub window displays still for 1~2 sec., this causes of source scan circularly.**

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On-Screen Menu

PICTURE

This menu allows the user to modify the individual components of the picture quality or to simply choose from one of several factory-present picture settings or user present settings. **And the different sources input will have different menu function, referring to follwoing menu.**

1. During **Composite, S-Videio and TV** input signal modes
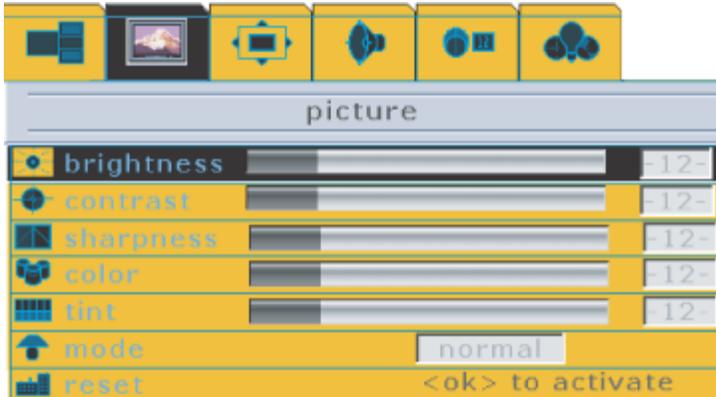
2. During **YCbCr 480i** input signal mode.
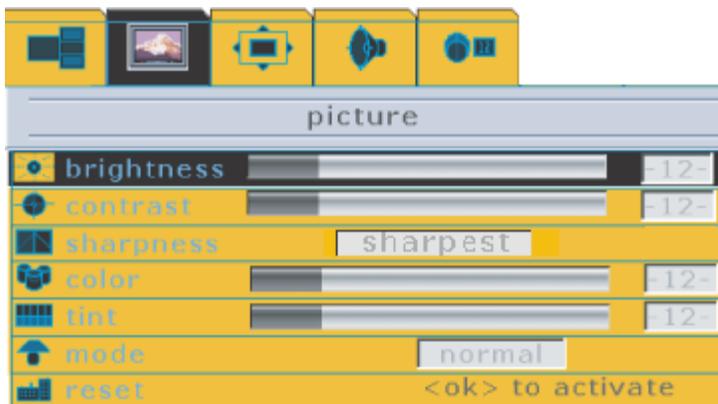
3. During **Analog RGB** input signal mode.
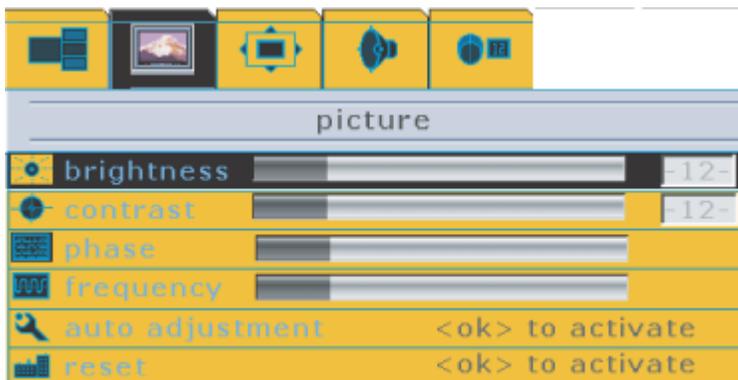
PICTURE

4. During **Digital** RGB input signal mode.

picture

brightness		-12-
contrast		-12-
reset	<ok> to activate	
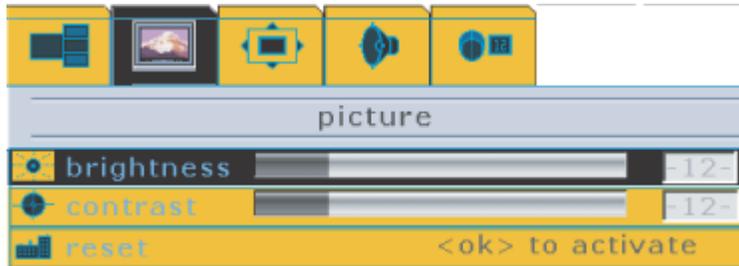
5. During **HDTV** input signal mode.
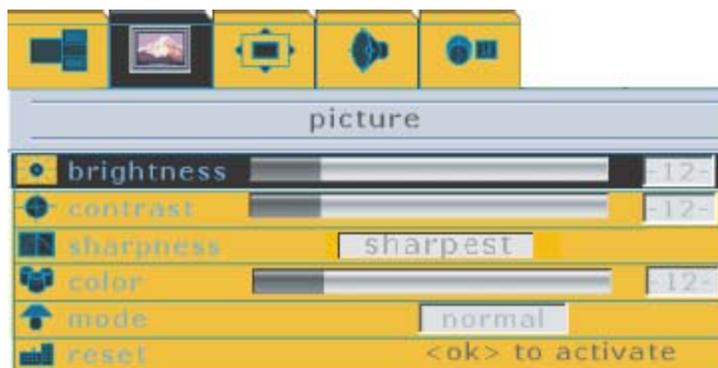
picture

brightness		-12-
contrast		-12-
sharpness	sharpest	
color		-12-
mode	normal	
reset	<ok> to activate	

Step 1 :
Press the **MENU/EXIT** button on the remote control to call up on screen display and then use◄►button to select the **picture** function.

Step 2 :
Press the▼button to enter the sub-selection and then use ▲▼button to select picture items.

Step 3 :
Selecting one of picture items then press◄►button to adjust picture quality. All adjustments made will be automatically saved after adjusting.

Step 4 :
Press **MENU/EXIT** to exit sub-menu, re-pressing **MENU/EXIT** to exit main menu.

N O T E

■ Please refer to next page for detailed OSD operation information.

On-Screen Menu

More Information

Brightness

brightness -12-

Description : Adjust for easier viewing of dark pictures such as night scences and black hair

Steps : Selecting brightness item then press ◄► button to enter the function. The brightness bar appears on the bottom of screen, selecting ◄►button to adjust brightness range from 0 to 63. Re-pressing **MENU/EXIT** to exit adjusting.

Mode : This function operates in every mode.

Contrast

contrast -12-

Description: Adjust the white to black level

Steps: Selecting contrast item then press ◄► button to enter the function. The contrast bar appears on the bottom of screen, selecting ◄►button to adjust contrast range from 0 to 63. Re-pressing **MENU/EXIT** to exit adjusting.

Mode: This function operates in every mode.

Phase

phase

Description: Harmonizes the signals from the plasmas dispaly and the computer

Steps: Selecting contrast item then press ◄► button to enter the function. The phase bar appears on the bottom of screen, selecting ◄►button to adjust phase. Re-pressing **MENU/EXIT** to exit adjusing.

Mode: This function works only in PC analog mode.

Sharpness

sharpness -12-

Description: Adjust the sharpness of image.

Steps: Selecting sharpness item then press ◄► button to enter the function. The sharpness bar appears on the bottom of screen, selecting ◄►button to adjust sharpness range from 0 to 12. Re-pressing **MENU/EXIT** to exit adjusting.

Mode: This function works only in Composite, S-Video and TV modes.

More Information

Sharpness

Description: Adjust the sharpness of image.

Steps: Selecting sharpness item then press ◄► button to select normal, soft, softest, sharp, sharpest. Re-pressing **MENU/EXIT** to exit sub menu.

Mode : This function works only in YCbCr and HDTV modes.

Color

Description: Adjust image lightly to a lighter color.

Steps: Selecting color item then press ◄► button to enter the function. The color bar appears alone on the bottom of screen, selecting ◄►button to adjust color range from 0 to 63. Re-pressing **MENU/EXIT** to exit adjusing.

Mode : This function works only in Composite, S-Video, TV and HDTV modes.

Frequency

Description: Adjust for vaious ambient signal interference.

Steps: Selecting frequency item then press ◄► button to enter the function. The frequency bar appears on the bottom of screen, selecting ◄►button to adjust frequency. Re-pressing **MENU/EXIT** to exit adjusting.

Mode : This function works only in PC analog mode.

Tint

Description: Balance the red and green level of image.

Steps: Selecting tint item then press ◄► button to enter the function. The tint bar appears on the bottom of screen, selecting ◄►button to adjust tint range from 0 to 63. Re-pressing **MENU/EXIT** to back to sub-menu.

Mode : This function works only in Composite, S-Video, TV and HDTV modes.

On-Screen Menu

More Information

Auto adjustment

Description: Automatically center the image on the screen.

Steps: Selecting auto adjustment item then press **OK** button to confirm the selection, re-pressing **MENU/EXIT** to exit sub-menu.

Mode: This function works only PC analog mode.

Mode

Description: Preset picture quality settings.

Steps: Selecting mode item then press ◄► button to select normal, cinerma and bright modes, re-pressing **MENU/EXIT** to exit sub-menu.

Mode: This function works only in Video, TV and HDTV modes.

Reset

Description: Back to factory default value.

Steps: Selecting mode item then press **OK** button to activate reset, re-pressing **MENU/EXIT** to exit sub-menu.

Mode: This function opterates every mode.

SCREEN

This menu allows the user to alter the screen dimensions to suit the image being viewed.

1. During **Video, TV, Digital RGB and HDTV** input signal modes
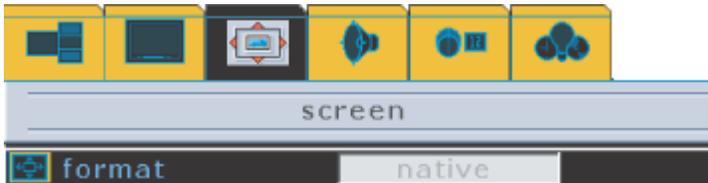
		screen			
format		native			

2. During **Analog RGB** input signal mode
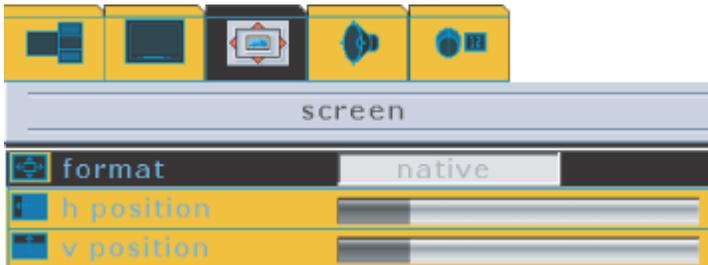
		screen		
format		native		
h position				
v position				

Step 1 :
Press the **MENU/EXIT** button on the remote control to call up on screen display and then use◄►button to select the **screen** function.

Step 2 :
Press the▼button to enter the sub-selection and then use ▲▼button to select screen items.

Step 3 :
Selecting one of screen items then press◄►button to adjust function. All adjustments made will be automatically saved after adjusting.

Step 4 :
Press   **MENU/EXIT** to exit sub-menu, re-pressing **MENU/EXIT** to exit main menu.

NOTE

■ Please refer to next page for detailed OSD operation information.

On-Screen Menu

More Information

Format

Description: Alter the dimentions of the screen image.

Steps: Selecting format item then press ◀▶ button to select full, 4:3, stretch, wide and native selection, re-pressing **MENU/EXIT** to exit sub menu.

Mode: This function operates in every mode.

H I N T

1. Full : The picture will be enlarged to take up the entire screen area, Suitable for HDTV programs and compressed 16x9 DVD programs.
2. Native : Simply displays the picture the way it is being transmitted without any modifications. Unused portions of the screen will be left in black.
3. 4:3 : This format will enlarge picture signals to 1024 x 768 in the center of the screen. Unused portions of the screen will be left in black.
4. Stretch : This format uses **non-linear scaling** to extend a normal 4 x 3 picture signal so that the left and right edges of the picture are stretched to encompass the full width of the screen area.
5. Wide : This format is used to view feature films, which are normally viewed with a screen ratio of 2.35.

H. position

h position

Description: Adjust horizontal position.

Steps: Selecting H. position item then press ◀▶ button to enter the function. The H. position bar appears on the bottom of screen, selecting ◀▶button to adjust horizontal position. Re-pressing **MENU/EXIT** to exit adjusting.

Mode: This function works only in PC analog mode.

V. position

v position

Description: Adjust horizontal position.

**Steps:** Selecting H. position item then press ◀▶ button to enter the function. The H. position bar appears on the bottom of screen, selecting ◀▶button to adjust horizontal position. Re-pressing **MENU/EXIT** to exit adjusting.

Mode: This function works only in PC analog mode.

AUDIO

This menu allows the user to adjust the sound settings to suit the program being viewed or to suit the user preference.

1. During **Video, analog RGB, digital RGB, HDTV** input signal modes
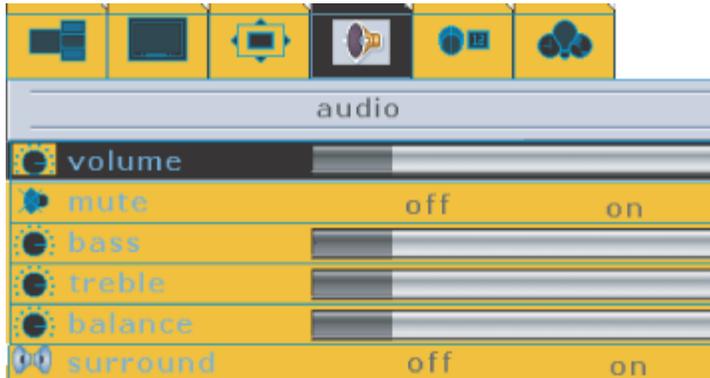
During **TV** input signal mode

Step 1 :
Press the **MENU/EXIT** to call up on screen display and then use◄►button to select the **audio** function.

Step 2 :
Press the▼button to enter the sub-selection and then use▲▼button to select audio items.

Step 3 :
Selecting one of audio items then press◄►button to adjust audio performance. All adjustments made will be automatically saved after adjusting.

Step 4 :
Press **MENU/EXIT** button to exit, re-pressing **MENU/ EXIT** button to exit main menu.

N O T E

■ Please refer to next page for detailed OSD operation information.

On-Screen Menu

More Information

Volume

Description: Allows to increase or decrease sound output.

Steps: Selecting volume item then press ◀▶ button to enter the function. The volume bar appears on the bottom of screen, selecting ◀▶button to adjust volume. Re-pressing **MENU/EXIT** to exit adjusting.

Mode : This function operates in every mode.

Mute

Description: Disable or enable sound output.

Steps: Selecting mute item then press ◀▶ button to select on or off to enable or disable the sound, re-pressing **MENU/EXIT** to exit sub menu.

Mode: This function operates in every mode.

Bass

Description: Enhance or reduce low frequency sound.

Steps: Selecting bass item then press ◀▶ button to adjust bass bar on menu, re-pressing **MENU/EXIT** to exit sub menu.

Mode : This function operates in every mode.

Treble

Description: Enhance or reduce high frequency sound.

Steps: Selecting treble item then press ◀▶ button to adjust treble bar on menu, re-pressing **MENU/EXIT** to exit sub menu.

Mode : This function operates in every mode.

Balance

Description: Adjust the sound allocation between the left and right speakers.

Steps: Selecting balance item then press ◀▶ button to adjust balance bar on menu, re-pressing **MENU/EXIT** to exit sub menu.

Mode : This function operates in every mode.

More Information

Surround

Description: To activate surround mode.

Steps: Selecting suround item then press ◄► button to select on or off to enable or disable the surround mode, re-pressing **MENU/EXIT** to exit sub menu.

Mode: This function operates in every mode.

MTS

Description: Choose the sound mode.

Steps: Selecting MTS item then press ◄► button to select stereo, SAP or mono to changeTV sound mode in NTSC system. To press **MENU/EXIT** to exit sub menu.

Mode: This function works only in TV mode.

N O T E

■ You can also use hot key to select MTS function, please refer to the section of hot key introduction.

On-Screen Menu

SETTINGS

This menu allows the user to modify selections of OSD timeout, language, source select and source enable. Refer to the next page for descriptions.

settings

osd timeout	5 sec 15 sec 60 sec	
language	English	
source enable	<ok> to activate	▷

Step 1 :
Press the MENU/EXIT button to call up on screen display and then use◄►button to select the **settings** function.

Step 2 :

Press the▼button to enter sub-selection and then use▲▼button to select settings items.

Step 3 :
Selecting one of settings items then press◄►button to adjust your preferable setting. All adjustments made will be automatically saved after adjusting.

Step 4 :
Press **MENU/EXIT** button to exit, re-pressing **MENU/EXIT** button to exit main menu.

N O T E

■ Please refer to next page for detailed OSD operation information.

More Information

OSD timeout

Description: Allows on-screen menu to disappear automatically on the screen.

Steps: Selecting OSD timeout item then press ◄► button to select 5 sec., 15 sec. or 60 sec.to change OSD disappear timing on display. To press **MENU/EXIT** to exit sub menu.

Mode: This function operates in every mode.

Language

Description: The menus can be shown on the disaply in the selected language.

Steps: Selecting language item then press ◄► button to select OSD showing in English, French and Spanish, pressing **MENU/EXIT** to exit sub menu.

Mode: This function operates in every mode.

Source enable
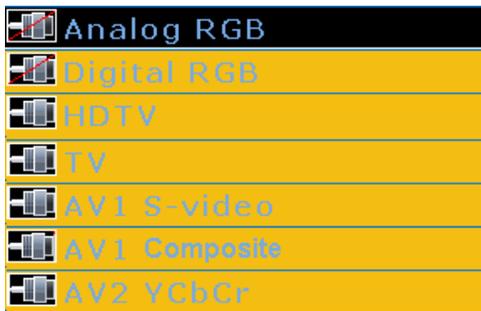
Description: Allows to enable or disable sources input.

Steps: Selecting source enable item then press **OK** to activate selection, pressing ▲▼button to select sources of analog RGB, digital RGB, HDTV, TV, AV1 or AV2 YCbCr. Press **OK** to disable source, pressing again **OK** to enable source. To press **MENU/EXIT** to exit source selection and sub menu.

Mode: This function operates in every mode.

On-Screen Menu

OPTIONS

This menu allows the user to turn on/off the closed caption, select the text mode, and block the TV program with particular rating. Refer to the next page for descriptions.

1. During **Composite** input signal mode

2. During **TV** input signal mode

Step 1 :
Press the **MENU/EXIT** to call up on screen display and then use◄►button to select the **options** function.

Step 2 :
Press the▼button to enter sub-selection and then use▲▼button to select options items.

Step 3 :
Selecting one of options items then press◄►button to adjust your preferable setting. All adjustments made will be automatically saved after adjusting.

Step 4 :
Press **MENU/EXIT** button to exit, re-pressing **MENU/ EXIT** to exit main menu.

More Information

Close caption

Description: Allows to close texts on the display.

Steps: Selecting close caption item then press ◄► to select off, on or on mute to change caption on display. To press **MENU/EXIT** to exit sub menu.

Mode: This function works only in composite (AV1) and TV modes.

Close caption mode

Description: Allows to set texts mode on the display.

Steps: Selecting close caption mode item then press ◄► to select cc1, cc2, t1 or t2 to change caption mode on display. To press **MENU/EXIT** to exit sub menu.

Mode: This function works only in composite (AV1) and TV modes.

Content blocking
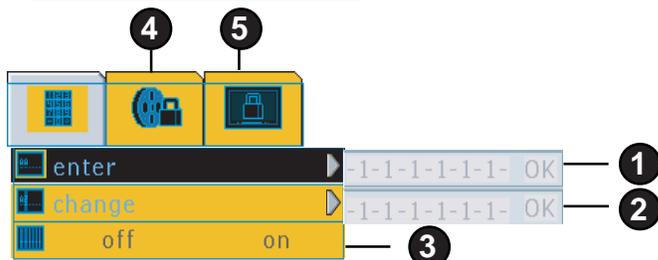
Description: Some TV programs and movies may contains inappropriate material for viewers at all ages, therefore, are rated base on the following and be categorised in different levels : violence (V), Sexual situation (S), coarse language (L), or suggestive dialogue (D). Content blacking feature (V-chip) can detect the programs or movie rating signal and block accordingly.

Steps : To enable or disable this function, please enter 6-digit password (default: 000000) with pressing ▲▼◄► button then press **OK** to confirm entry. Complete password setting, the other functions just can be called up as follows.
- Enter password as 1: Enter password every time if you want to activate content blocking
- Change password as 2 : To change your password.
- Blocking enable/disable as 3 : Enable or disable the selected TV blocking or movie blocking.
- Movie blocking as 4 : Select the blocking programs from MPAA rating list
- TV blocking as 5 : Select the blocking programs TV rating list

Mode: This function works only in TV mode.

N O T E

■ When the close caption mode function is activated, 3D comb filter will be no function.
■ If password forgotten case occured, please use universal password- 000000 to re-enter, but original password will be reset.

On-Screen Menu

More Information

Movie blocking

Description :   Independent rating system for movies.

Steps :   Press ▲▼button to highlight the desired rating then press **MENU/EXIT** to exit selection. Move to blocking enable/disable item to activate function.

| MPAA Rating	Description
G	General Audiences-All ages admitted
PG	Parental Guidance Suggested
PG-13	Parents Strongly Cautioned - Content may be inappropriate for children under 13
R	Restricted - Under 17 requires accompanying parent or adult guardian
NC-17	No one under 17 is admitted
X	Restricted to adults only
NR	No rating

More Information

TV blocking

Description :   Independent rating system for broadcasters.

Steps :   Press ▲▼button to highlight the desired rating then press **MENU/EXIT** to exit selection. Move to blocking enable/disable item to activate function.

TV Rating	Description
Y	All Children- This program is designed to be appropriate for all children
Y7	Directed to Older Children- This program is designed for children age 7 and above
G	General Audience- Most parents would find this program suitable for all ages
PG	Parental Guidance Suggested- This program contains material that parents may find unsuitable for younger children
TV-14	Parents Strongly Cautioned- This program contains some material that many parents would find unsuitable for children under 14 years of age
MA	Mature Audience Only- This program is specially designed to be viewed by adults and therefore may be unsuitable for children under 17

On-Screen Menu

TUNER

This menu allows the user to make channel fine tune, channel source type selection and channel search/edit. Refer to the next page for descriptions.

During **TV** input signal mode

tuner		
auto fine tune	off	on
fine tune		-12-
type	antenna	cable
autoset	<ok> to activate	
edit channel	add	remove
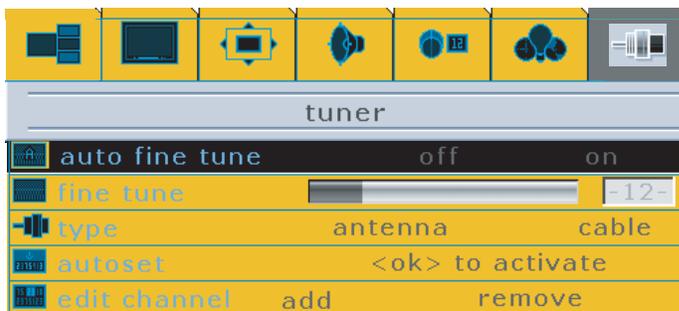
Step 1 :
Press the **MENU/EXIT** to call up on screen display and then use◄►button to select the **tuner** function.

Step 2 :
Press the▼button to enter sub-selection and then use▲▼button to select tuner items.

Step 3 :
Selecting one of options items then press◄►button to adjust your preferable setting. All adjustments made will be automatically saved after adjusting.

Step 4 :
Press **MENU/EXIT** to exit, re-pressing **MENU/EXIT** to exit main menu.

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NOTE

■ Please note Tuner feature only works in TV mode.

More Information

Auto fine tune

Description: Select correct tune set to channels automatically

Steps: Selecting auto fine tune item then press ◄► button to select on or off to correct tune set automatically, re-pressing **MENU/EXIT** to exit sub menu.

Mode: This function works only in TV mode.

Fine tune

▒ fine tune ███▬▬▬▬▬▬▬▬▬ -12-

Description: Select correct tune set to channels manually.

Steps: Selecting fine tune item then press **OK** to activate function. The bar appears on the bottom of display, selecting ◄►button to correct tune set to channels . Re-pressing **MENU/EXIT** to exit.

Mode : This function works only in TV mode.

Type

Description: Select channels source from antenna or cable.

Steps: Selecting type item then press ◄►button to select antenna or cable source. Pressing again **MENU/EXIT** to exit sub menu.

Mode : This function works only in TV mode.

Auto set

Description: Search for available TV channels automatically and memorize the channels.

Steps: Selecting autoset item then press **OK** to activate function, pressing **MENU/EXIT** to exit sub menu.

Mode : This function works only in TV mode.

Edit channel

Description: Allow to add or erase channels manually.

Steps: Selecting edit channel item then press ◄►button to select add or erase channel, pressing again **MENU/EXIT** to exit sub menu.

Mode : This function works only in TV mode.

Hot Key Functions

There are some hot key functions on remote control. It helps easy and quick to use these functions.

MTS

Change TV sound mode in NTSC system if available.There are Mono, SAP, and Stereo mode for selecting.

FREEZE

Freeze the image to look at the detail content. This function only works on full screen mode. Do not freeze the image for a long time. It may cause after-image (please refer to the trouble-shooting page).

N O T E

After the freeze, only the keys of **Zoom, UP, Left, Right, Down, Power, Mute and Vol +/-** will function normally. And only pressing the freeze key could unfreeze the situation.

DISPLAY

Three lines information will show up on the right upper corner. The first line is the source selection: TV, AV1, AV2, HDTV, Digital, and Analog. The second line is the connector type, channel number, or the resolution of the image. The third line is the remaining time to enter into sleep mode.

PIP/POP

PIP/POP

Toggle among full screen, PIP, POP, and POP3.

ACTIVE

To select an active window on PIP/POP mode and the volume activates along with the active window only. Please notice the OSD menu can be called up when the active window is on POP

POSITION

To change the position of the sub image among four corners in PIP mode. This function does not support HDTV, anglog and digital.

SWAP

To swap the main and sub images in PIP/POP mode. This function does not support some PIP/POP/POP3 combinations, reading the
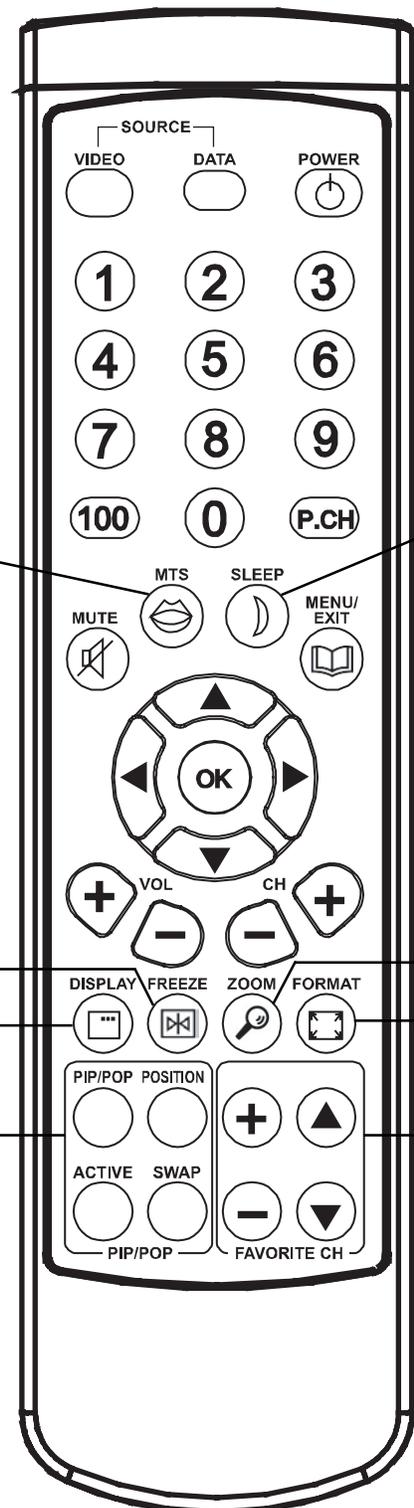
SLEEP
Preset a sleep timer to automatically shut off the display after the specified time(in minutes). Range among 0min, 30min, 60min, 90min and 120min. Sleep timer is off when 0 min is selected.
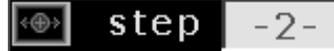
ZOOM `⊕ step -2-`
Enlarge image. The image can be magnified to 2x, 4x, 9x and 16x.
This function only works on full screen mode.
STEP
Press ZOOM button to enlarge image; press ◄►button to pan to the left and right sides.

FORMAT
Change current display format.
There are Full, Native, 4:3, stretch and wide mode for selecting.(About Format description, please refer to page 21)

FAVORITE

ADD
To add current TV channel to available favorite TV channel list.

ERASE
To remove current TV channel from TV favorite channel list.

UP
To switch to next upward channel on the favorite channel list.

DOWN
To switch to next downward channel on the favorite channel list.

Appendices

Troubleshooting

If you experience problems with the Plasma High Definition Display as below items, please refer to the following suggestions. If the problems still occur continuously, please contact with your seller or local dealer.

Problems	Solutions
No Power	• Make sure A/C Power is supplied at the wall and/or if a power tap is used, power is available at the tap. • Manually press the Power button located under the front panel controls. • Check the batteries on the remote control
No Image and No Sound	• Check whether the Monitor is turned on. • Power cord inserted into wall outlet? • Plug another product's power cord into the wall outlet where the Monitor's power cord was plugged in to verify the power supply.
Image OK but No Sound	• Press the Volume button. • Sound muted? Press Mute button.
No Image but Sound OK	• If a signal with a non-applicable color system format, or frequency is input, only the input terminal indication is displayed.
No Color but Sound OK	• Color controls set an minimum level.
The remote control doesn't work	• Check to see if there is any object between the Plasma Display and the remote control causing obstruction. • Check to see if the batteries are installed with the correct polarities.
Some parts of the screen do no light up	• The plasma display panel is manufactured using an extremely high level of precision technology, however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a malfunction.
After- images appear	• Do not allow a still picture to be displayed for an extended period, as this can cause a permanent-image to remain on the High Definition Plasma Display. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode **Note:** **The permanent after-image on the Plasma Display resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time.**
Whirring sounds can be heard from the display unit	• The display unit is fitted with a cooling fan to dissipate heat geerated during normal use. The whirring sound is caused by rotation of the fan and is not a malfunction.
Only green image appear in HDTV mode	• Select HDTV source by pressing "VIDEO" button on remote control.
Display turns into stand by mode and LED is flashing red	• Contact the dealer where you purchased the High Definition Plasma Display. Fans could be failed.
Other	• Contact the dealer where you purchased the High Definition Plasma Display.

N O T E

■ System will be in stand by modes if there is no any singal input.

Appendices

Specifications

Dimmensions		
Input AC	100 ~ 120V	
Power Consumption		
Normal use	535W (maximum)	
Stand-by condition	<3W	
Plasma Display		
Panel	Drive method AC type 50-inch, 16:9 aspect ratio	
Contrast Ratio	3000:1	
Brightness Capability	Panel only : 500 cd/m^2 As a set : 280 cd/m^2	
Screen size	50" (127cm) Diagonal wide WXGA PDP module	
Operating Condition		
Temperature	Operating : +0ºC~40ºC ; Storage : -20ºC~+60ºC	
Humidity	Operating : 20%~90% RH (non-condensing) Storage : 20%~90% RH (non-condensing)	
Applicable Signals		
Color system	NTSC/ PAL / SECAM	
Scanning format	480i, 480p, 720p, 1080i	
PC signals	WXGA display VGA, SVGA, XGA, SXGA, UXGA (compressed) Horizontal scan frequency : 31.5 ~ 91 KHz Vertical refresh frequency : 56 ~85 Hz	
Connection Terminals		
PC	DVI-D	Digital RGB Signal input
	VGA IN	1. Analog RGB signal input or 2. Surrport HDTV/YPbPr signal via through D-sub to RCA cable
	VGA OUT	1. Analog PC signal output or 2. HDTV/YPbPr output
	Serial RS-232	For after service only
	PC Audio input	1. PC audio input or 2. Support HDTV/YPbPr audio input
AV (cartridge)	AV1	S-Video in Composite in (RCA x 1) Audio in L/R (RCA x 2)
	AV2	Y/Cb/Cr (RCA x 1) Audio in L/R (RCA x 2)
	Antenna	RF input (F connector) x 1
	Audio Out	Audio output L/R (RCA x 2)
Speaker Terminal	Speaker Out	Speaker out terminal (6 Ohm, 8W) x 2
Dimmensions(WxDxH)	216.2mm x 764.6mm x100.3mm	
Weight	Net weight : 38 kgs (without optional pedestal) Gross weight : 43 kgs	

Appendices

VESA Monitor Timing Spec

Standard	Resolution	Refresh rate (Hz)	Horizontal Frequency (KHz)	Pixel rate (MHz)	Analog	Digital
VGA	640x480	60	31.5	25.18	Y	Y
		72	37.9	31.50	Y	Y
		75	37.5	31.50	Y	Y
		85	43.3	36.00	Y	Y
SVGA	800x600	56	35.1	36.00	Y	Y
		60	37.9	40.00	Y	Y
		72	48.1	50.00	Y	Y
		75	46.9	49.50	Y	Y
		85	53.7	56.25	Y	Y
XGA	1024x768	60	48.4	65.00	Y	Y
		70	56.5	75.00	Y	Y
		75	60.0	78.75	Y	Y
		85	68.7	94.50	Y	Y
SXGA	1280x1024	60	64.0	108.00	*Y (compress)	*Y (compress)
		75	80.0	135.00	*Y (compress)	N
		85	91.0	157.50	**Y (down sampling)	N
UXGA	1600x1200	60	75.0	162.00	**Y (down sampling)	N

* The signal has been resized to meet panel's true resolution; some detail information might be lost during this process.

** These two modes are made possible to display by down sampling the original analog signal. Some detail information might be lost during this process and might cause some artifacts.