

HP PL4245N 42" HD-Ready Plasma TV

User's Guide

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Safety

First:

- Read all instructions before installing and operating the TV.
- Keep this user guide in a safe place for future reference.
- To reduce the risk of bodily injury, electric shock, fire, and damage to the TV, observe all warnings and precautions in this user guide.
- Follow all instructions in this user guide.
- Do not use attachments that are not recommended by HP with this product. Use of inadequate attachments may result in damage to the product or personal injury.

Opening the package:

- Due to the size and weight of the TV, it is recommended that a minimum of two people move it.
- Whenever possible, use the handles on the back of the TV for transport.
- If speakers are attached to the TV, do not lift the TV by the speakers; instead, use the handles and the area under the screen.
- The protective glass and the glass substrate are installed on the front of the TV. Because both glasses can be broken and scraped easily, move the product gently. Never place the TV with the glass facing downward, unless it is protected with pads.
- The TV is packaged in a carton with other standard accessories. When opening the carton, check that the TV is in good condition and that all standard accessories and items are included. Any optional accessories come separately in another carton.

Installing the TV:

- A specified technician from the distributor or authorized agent should install the TV. Refer to “Wall Mounting or Stand Replacement” on page 4 for more information.
- Install the TV on a flat surface to avoid tipping. Leave some distance between the back of the TV and the wall for proper ventilation. Never install the unit where the ventilation on the top of the TV is covered. Otherwise, fire or damage to the unit may occur.
- Avoid installing the TV in the kitchen, the bathroom, or any other area with high humidity. Damp conditions may shorten the service life of the electronic components, or may cause fire or electrical shock.
- 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, is provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.
- Do not install the TV in a vehicle; vibrations may damage the unit, or the unit may fall and cause injury.
- Do not install the TV in a ship or a vessel; seawater damages the unit and may start a fire.
- Do not use this TV near water.

- Install the TV horizontally; any 90-degree clockwise or counterclockwise installation may induce poor ventilation and subsequent component damage. Do not hang the TV from the ceiling; the unit may fall and cause injury.
- Do not install near appliances, such as a microwave.
- Do not place the TV on an unstable cart or stand; the unit may fall over and cause injury.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the TV. When a cart is used, use caution when moving the cart/TV combination to avoid injury from tip-over.
- Do not install the TV where it has a protruding edge. For example, do not place the TV where an edge overhangs a table. Do not install the product on a column, where it may accidentally fall.
- If moving the TV from a cold place to a warm place, condensation may occur inside the unit. Allow the condensation to dry before turning on the unit.
- Unplug the TV during lightning storms or when unused for long periods of time.
- Clean only with a soft dry cloth.



CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

Precautions



DANGEROUS VOLTAGE: Do not attempt to repair your television yourself. Removing the back cover of the TV may cause fire or electric shock. An HP authorized service provider should do service needed on components inside the TV.

If the following conditions exist, unplug the TV from the electrical outlet and contact a qualified service professional:

- When the power cord or plug is damaged.
- When liquid was spilled on the product or when objects have fallen into the product.
- When the product does not operate as described in the instructions.
- When the product has been damaged or dropped.
- When the product displays an abnormal condition.
- When the product was exposed to rain or water.
- When the product shows signs of overheating.



CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electrical shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Avoid hot areas: The TV should be placed away from heat sources such as radiators, heat registers, stoves, or other product (including amplifiers).

Avoid wet areas: Never use the TV in a wet location.

Avoid pushing objects into the product: Never pushing objects of any kind into cabinet slots or other openings in the TV. Slots and openings are provided for ventilation. These opening must not be blocked or covered.

Using mounting accessories: Any mounting of the TV should follow the manufacturer's instructions and should use the mounting accessory recommended by the manufacturer.

Adjust the volume: Turn down the volume before using headphones or other audio devices.

Use the correct external power source: The product should be operated only from the type of power source indicated on the electrical ratings label. If you are not sure of the type of power source required, consult your HP authorized service provider or local power company.

Position the power cord carefully: Route the power cord so that it will not be walked on, tripped over, or pinched by items placed upon or against it. Pay particular attention to the plug, electrical outlet and the point where the power cord exits the product.

Overloading: Do not overload an electrical outlet, power strip, or convenience receptacle. The overall system load must not exceed 80% of the power strip input rating.

Observe extension cord ratings: If an extension cord or power strip is used, make sure that the cord or strip is rated for the product and that the total ampere ratings of all products plugged into the extension cord or power strip do not exceed 80% of the extension cord or strip ampere ratings limit.

Using cables and power cords:

- Plug the product into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Do not disable the power cord grounding plug. The ground plug is an important safety feature.
- Disconnect power from the TV by unplugging the power cord from the electrical outlet.
- Do not pull on cords and cables. When unplugging the cord from an electrical outlet, grasp and pull the cord by the plug.
- Do not attempt to power the TV with converter kits sold for appliances.
- Unplug the TV from the electrical outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.



WARNING: Do not place any objects on top of the TV. Spilled water or metal objects may cause short circuit, fire, or electric shock if they penetrate into the housing of the TV.

Never use a damaged power cord. Do not place power cords in areas where they can be pinched, stepped on, or otherwise compromised. Heavy objects, heat, chemicals, or tensile force may damage the power cord and cause fire or electric shock.

Do not change or open the back cover. Removing the back cover of the TV may cause fire or electric shock. Contact the manufacturer when inspection or adjustment is required.

Do not use the TV if any abnormality occurs. If any smoke or odor becomes apparent, unplug the power cord and contact the manufacturer immediately.

Do not try to repair the TV on your own.

Cleaning the TV

Use a dry, soft cloth to remove dust from the TV screen and the chassis.

- Unplug the TV before cleaning the screen.
- A special anti-glare coating is applied to the screen of your TV. Using solvents such as alcohol or abrasive material such as a power towel may affect the screen coating or bezel paint.
- Do not expose the product to volatile gas or fluid such as a pesticide.
- Do not put the TV in contact with vinyl or rubber products for a long period of time. Extended contact may result in the removal of the coating or degradation of the surface.

Preventing Image Retention

Your plasma TV illuminates phosphor to display images, much like a conventional tube-type television. Viewing stationary images for extended periods of time results in uneven aging of the phosphor, causing grayed-out images to permanently appear on the screen.

Permanent image retention can be avoided by taking some basic precautions. Following the recommendations listed below ensures your plasma TV will have longer life and offer better performance:

- Whenever possible, avoid frequently displaying stationary images, such as Web sites, computer graphics, or video games for extended periods of time.
- Display video and images in the widescreen 16:9 ratio format. Use the Aspect button on the remote control to change from 4:3 screen size (such as standard television) to fill the screen in 16:9 ratio. This will prevent potential image retention of sidebars. Refer to "Selecting the screen aspect" on page 23.
- Avoid viewing the on screen display (OSD) menus from DVD players, VCRs, and other components for extended periods of time.
- When watching a movie from a DVD player or VCR, do not leave the same image paused continuously over a long period of time.
- Turn down the contrast and brightness of the screen. High brightness and contrast can accelerate image retention of stationary images.

Image retention and uneven screen aging are not covered by your HP Warranty; refer to the *Warranty and Support Guide* that came with your TV.

Wall Mounting or Stand Replacement

A specified technician from the distributor or authorized agent should install the TV, including stand replacement or wall mounting. Wall mounting brackets are sold separately and are not included with the TV.

Wall mounting the TV requires:

- Removal of the transport handles on the back of the TV.
- Removal of the stand from the TV panel.
- Assembly of the wall mounting bracket and installation of the bracket onto the TV panel.
- Placement and installation of the TV panel with wall bracket onto the wall.

Due to the size and weight of the TV, it is recommended that a minimum of two people move it.

Introduction



The HP PL4245N is a 42" HD Ready plasma television designed to deliver a fantastic high-definition image for an impressive home theater experience. Your new television features a bright and high-contrast high-definition plasma panel, backed by leading edge video processing for rich colors and stunning images. Your television is encased in a stylish piano black cabinet, and can be wall-mounted or used with the included stand.

- **3000:1 Contrast** delivers rich, deep blacks and rich images.
- **Low Angle Interpolation** detects low-angle lines to smooth out staircases and jagged edges — bringing a new tier of realism to sporting events and movies.
- **FilmMode Processing with 3:2 & 2:2 pull down** accurately reproduces film-originated content from video sources.
- **Cross Color Suppression** removes cross color artifacts from composite video sources, delivering consistent, true color every time.
- **Motion Adaptive Noise Reduction** greatly enhances quality of standard definition of off air media and standard definition video.
- **SRS WOW™** creates a bigger, enhanced sound experience by providing three dimensional sound, enhancing musical vocals, and creating the perception of deep, rich bass.
- **BBE High Definition Sound** restores clarity and presence for better speech intelligibility and musical realism.
- **Black Level Enhancement**
- **Picture-in-Picture**
- **Screen orbiting** reduces chance of image retention with static images, such as from console games.
- **Universal Remote Control**, compatible with up to three additional devices, including HP Media Center PCs.

What's in the Box

- Plasma television with attached stand
- Power cord
- Remote control with batteries (two, non-rechargeable, size AA)
- This guide
- External speakers
- External speaker cable
- Warranty and Support Guide
- Antenna cable
- Quick Start Poster

These items are all you need to setup your television for operation in its most basic configuration.

Features

The features you'll enjoy include:

- **42-inch Plasma Display:** Accepts inputs in all major digital television (DTV)* formats (1080i, 720p, 480p and 480i). Native resolution of 720p (1024 x 768 pixels).
- **D-sub 15-pin VGA Input:** Enables connection to a computer for use as a monitor.
- **Input Signals:**
 - Component video (YCbCr/YPbPr)
 - Composite video
 - S-video
 - RGB (D-sub 15-pin)
 - Digital Video Interface (DVI)
 - RS-232 communication port (D-sub 9-pin)
 - TV Tuner
- **16:9 Enhancement:** Widescreen technology that maximizes picture quality when playing widescreen enhanced video.
- **Channel Memory:** User-adjustable channel settings.
- **Picture-in-Picture (PIP):** Simultaneous display of two images from different video sources.
- **Parental Control:** V-chip technology allows parents to block unsuitable programming for underage viewers.
- **DVI:** Digital video interface allows for high-quality display, analog and digital compatible.
- **3-D digital comb filter:** Enhances the color purity of composite video and S-video input sources, reducing cross-color artifacts like dot crawl.
- **Color temperature:** Three options allow user-controlled image optimization.
- **Built-in TV tuner:** Built-in NTSC tuner to receive conventional analog broadcasts; de-interlacing circuit with 3:2 pull-down converts interlaced analog sources to a progressive-scan display, significantly improving picture quality.

- **Wide viewing angle:** More than 160 degrees, both horizontal and vertical.
- **Built-in TV video and all sources audio out:** Outputs TV video /all audio signal to other devices.
- **Speakers:** Stereo speakers with ten watts per channel.
- **Built-in screen move:** Decreases tendencies toward image retention.

* An optional HDTV Tuner is required to receive off-the-air digital television signals.

Overview

Identifying front panel controls and indicators



The front panel controls and indicators are on the lower right corner of the TV. The buttons for each control are directly underneath the TV's edge.

| | Item | Description |
|----------|---------------------------------------|---|
| A | Menu | Press to bring up the onscreen display (OSD). Keep pressing to scroll through the six OSD pages. |
| B | Left and Right arrows (volume) | Press the left arrow button to lower the sound, and press the right arrow button to raise the sound. |
| C | Select | Changes the input signal source for the main picture. |
| D | Down and Up arrows (channel) | Press the down and up buttons to select the next lower or higher channel. |
| E | Power | Press to turn the TV on and off. The Power/standby indicator is blue when the TV is on, and amber when the TV is in standby mode. |
| F | Remote Control Sensor | Aim the remote control within 30 degrees left and right at the Remote control sensor window and press a button to operate the TV. |

Identifying the remote control buttons

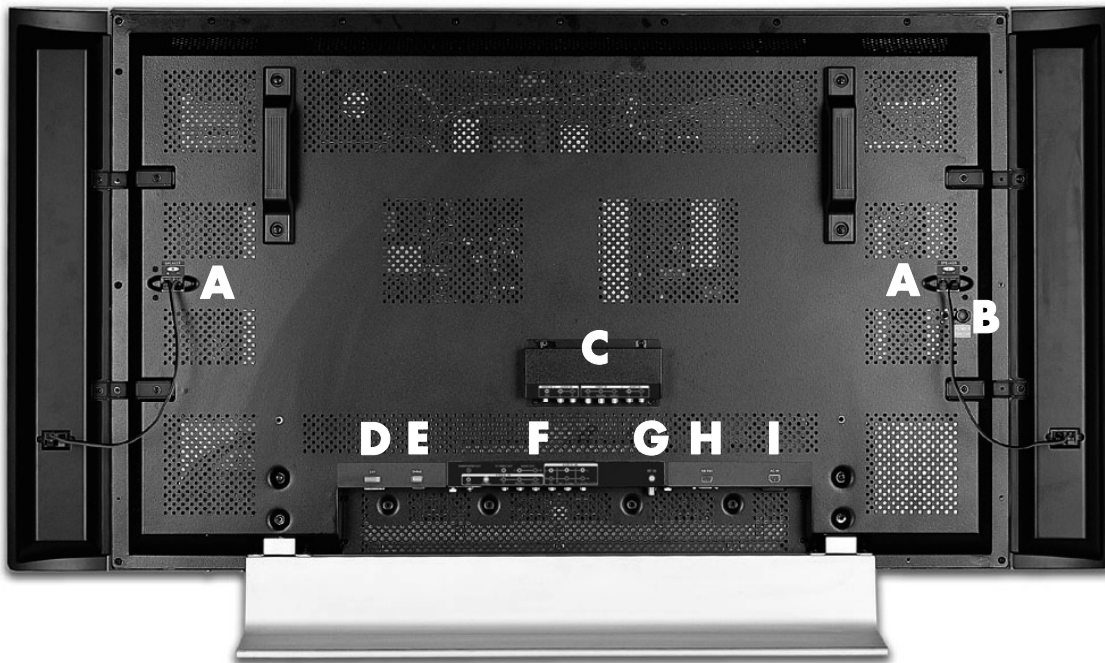
| Remote Control Item | Description |
|---------------------------------------|--|
| Indicator light | The red light blinks once each time a button is pushed. If the red light blinks two times when a button is pushed, the remote control batteries are low and need replacement. |
| Setup | Use the SETUP button when programming the remote control for component control; see "Programming the remote control for component control" on page 33. |
| PWR | Press PWR once to turn on or off the selected home entertainment component. |
| TV, CBL/SAT, DVD/VCR, or HP.PC | <p>Press one of these buttons once to select a home entertainment component to control, and then point the remote control at the component.</p> <p>HP.PC selects the HP Media Center PC (connected to the VGA or DVI connector) and enables the HP MCPC special buttons on the remote. Refer to "Using the HP MCPC with the TV remote control" on page 18 for more information.</p> <p>To program the remote control to operate a cable or satellite set-top-box or a DVD or VCR; see "Programming the remote control for component control" on page 33.</p> |
| Keypad | Use the keypad (0 ~ 9, +100) to directly select channels. |
| Mute | Press MUTE once to turn sound off or on. |
| VOL | Use VOL+ (or VOL-) to raise (or lower) the sound volume. |
| CH. RTN | Press CH. RTN (channel return) once to recall the last channel or to page back one screen in the main menu. |
| HP.MC | Press HP.MC to start Media Center when using the HP Media Center PC. |
| CH | <p>Use CH+ (or CH-) to select the next higher (or lower) channel.</p> <p>Selects TV as the input source.</p> |
| Guide/P. Mode | Use GUIDE to display the program guide for a TV set-top-box or for HP MCPC. Use Picture mode to scroll through the three picture modes Standard, Movie, or Dynamic. |
| EXIT/Back | <p>Use EXIT to exit out of the selected component's menu or guide.</p> <p>Use Back for the HP MCPC.</p> |



| Remote Control Item | Description |
|--------------------------------------|---|
| Arrow buttons | Use the arrow buttons to move the cursor in a program guide or in menu screens. |
| Enter | Press ENTER once after entering channel numbers. Use Enter as the OK button for the HP MCPC. |
| Info/Display | Use INFO to display current channel and program information. |
| Menu | Press MENU to access the on screen menu of your chosen component. Keep pressing to scroll through the six OSD pages. |
| PIP size/Fast reverse | Press PIP SIZE to change the size of the PIP from off, small, medium, and large. Press Fast reverse to rewind when using other components. |
| Play/Audio Swap | Press Play when using other components. Press Audio Swap when using the PIP to switch the audio source between your main display and the PIP. |
| Fast forward/Swap | Press Fast forward when using other components. Press Swap when using PIP to exchange the pictures in the main display and the PIP display. |
| Record/PIP Input | Use PIP Input as the Record button for HP MCPC and other components. Press PIP Input to select the source for PIP. |
| Stop play/PIP Position | Press the Stop play button to stop when using other components. Press the PIP Position button to change the location of the PIP. |
| Freeze/Pause | Press the Freeze button to pause on a frame. When using a VCR or DVD, pressing Freeze again returns you to the exact place you paused. When watching live TV, pressing Freeze again advances you to the current live feed. |
| Zoom+ | Zooms in the screen toward the middle of the display, cutting out the edges. You can Zoom in up to five levels. |
| Zoom- | Zooms out the screen. |
| Replay | Use the Replay button for HP MCPC Replay. When using a DVD, use Replay to go to the beginning of a chapter. |
| Skip | Use the Skip button for HP MCPC Skip. When using a DVD, use Skip to go to the end of a chapter. |
| Aspect | Use the Aspect button to select one of six screen sizes. |
| MTS | Use MTS to select STEREO, MONO, SAP (second audio program) for TV sound. |
| Sleep | Use Sleep to set the timer for the number of minutes before the TV powers off. |
| DVI/VGA, YCbCr, YPbPr, AV, SV | Press one of these buttons one or more times to select the input source for the main picture: DVI/VGA selects the input sources connected to the DVI or VGA (RGB) connectors. YCbCr selects the input source connected to the Component Video Input (YCbCr). YPbPr selects the input source connected to the Component Video Input (YPbPr). AV selects the input sources connected to the Composite Video Inputs. SV selects the input source connected to the S-video Input. |

Rear Panel

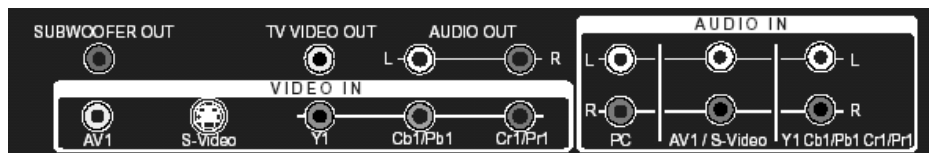
Identifying connectors



| | Item | Description |
|----------|---|--|
| A | External speaker left and right output | Connect the external speakers. |
| B | Main power switch | Turns the AC power on and off. This switch is on from the factory. When this main power switch is off, the TV is fully unpowered; the power/standby indicator light on the front of the TV is off, and neither the front panel power button nor the remote control can be used to turn on the TV. If you turn the main power switch off, wait at least 5 seconds before turning it on again. |
| C | Component Video Inputs | Connect cables for component video input. Use YPbPr/YCbCr Component Input from devices that support High Definition signals such as a progressive scan DVD player, or a digital cable or satellite set-top-box. This connector supports 480i, 480p, 720p, and 1080i format video signals. |
| D | DVI-D with HDCP (29-pin) input | Connect a digital video cable for digital input signals from a PC monitor connector, or from a DVD player, digital cable or satellite receiver set-top-box. |
| E | VGA, a D-sub (15-pin) input | Connect an analog RGB-type cable for analog input signals from a PC monitor connector. See your component user documentation for information about the connector types it supports. |

| | | |
|----------|-----------------------------------|--|
| F | Video and Audio Connectors | <ul style="list-style-type: none"> • Connect composite video cable and left-right audio cables for one or two devices such as a VCR, a DVD player, or a laser disc player. • Connect S-video cable and left-right audio cables for one or two devices such as a VCR, a DVD player, or a laser disc player. • Connect cables for component video input. • Connect the audio cables for a PC. • Connect the audio cables for composite video and S-video. • Connect audio left-right cables for the YPbPr input and the YCbCr input. |
| G | TV Antenna Cable In | Connect broadcasting (terrestrial) antenna or cable TV signal cable here. |
| H | RS232C | This terminal is used for service only. |
| I | AC in connector | Connect the included power cord. |

Lower Video and Audio Connectors



Use these connectors to connect composite devices, S-video devices, component devices, audio receivers, subwoofer out, TV video out, and audio out.



Upper Video and Audio Connectors



Use the green (Y2), blue (Cb2/Pb2), and red (Cr2/Pr2) inputs to connect the video cables from devices that support High Definition signals such as a progressive scan DVD player, or a digital cable or satellite set-top box. This connector supports 480i, 480p, 720p, and 1080i format video signals.

Use the audio inputs to connect the audio cables from the same component.


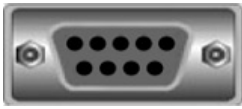
DVI-D and VGA Connectors

| | |
|---|---|
|  | Connect a digital video cable for digital input signals from a PC monitor connector, or from a digital cable or satellite receiver set-top-box. |
|  | Connect an analog RGB-type cable for analog input signals from a PC monitor connector. See your component user documentation for information about the connector types it supports. |

Power Switch

Turns the AC power on and off. This switch is on from the factory. When this main power switch is off, the TV is fully unpowered; the power/standby indicator light on the front of the TV is off, and neither the front panel power button nor the remote control can be used to turn on the TV. If you turn the main power switch off, wait at least 5 seconds before turning it on again.

RF IN and RS232C Connectors

| | |
|---|---|
|  | Connect broadcasting (terrestrial) antenna or cable TV signal cable to the RF IN connector. |
|  | This RS232 terminal is used for service only. |

Setup

This section describes:

- How to attach and connect the external speakers; see page 13.
- How to identify your component cables, see page 14.
- How to connect an antenna or cable TV input; see page 15.
- How to connect a PC to the TV using the VGA or DVI-D connectors; see page 15.
- How to connect a composite video source, such as a VCR; see page 16.
- How to connect an S-video video source, such as a VCR or DVD; see page 16.
- How to connect a component video source, such as a DVD; see page 17.
- How to connect the HP Media Center PC (HP MCPC) and use the remote to operate the HP MCPC; see page 17.
- How to install or replace the batteries in the remote control; see page 18.

Attaching and Connecting External Speakers

External speakers are included with your TV and are not attached. Use the screws and attachment brackets to attach the external speakers to the TV.



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

What you have

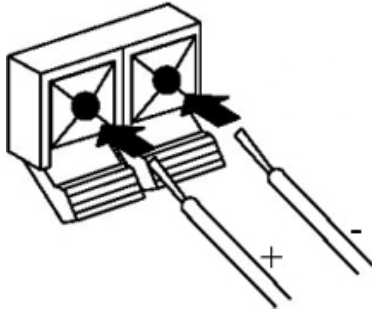
- Two speakers
- Four mounting brackets
- Twelve screws

What else you need

- Phillips head screw driver
- One more person to hold up the speaker while the other tightens the screws

- 1** Place two mounting brackets on each speaker, insert one screw in each bracket and tighten the screw.
- 2** Align the 2 holes in each bracket with the holes on the back of the TV. Have one person hold the speaker in place, while the other person inserts and tightens two screws for each bracket.
- 3** If necessary, strip the ends of the speaker cables to expose the wires.

- 4** Press down the tab for the speaker connector, insert the speaker wire and release the tab to secure the wire:
- Connect the right speaker red (positive +) wire to the right red (+) connector.
 - Connect the right speaker black (negative -) wire to right black (-) connector.
 - Connect the left speaker red (positive +) wire to the left red (+) connector.
 - Connect the left speaker black (negative -) wire to left black (-) connector.



Identifying Your Component's Cables

Where you connect your component into the connectors depends on the type of component and cables you are using. Your TV is compatible with composite, component, S-video, DVI-D, or VGA cables. Use the following chart to determine your component type:

| Type of Component | Description of Cable(s) | Where to Connect |
|-------------------|--|---|
| Composite | One three headed cable: <ul style="list-style-type: none"> • One yellow for video • One red for audio • One white for audio | <ul style="list-style-type: none"> • Insert the yellow cable into the yellow AV video in. • Insert the red and white cables into the red and white audio inputs. |
| S-video | One cable with 4 pins. | Insert the cable into the S-video in. |
| Component | Three or five headed cable: <ul style="list-style-type: none"> • One red for Pr signal • One green for Y signal • One blue for Pb signal Some component cables come with red and white audio cables attached. | <ul style="list-style-type: none"> • Insert the red cable into the red YPbPr video in. • Insert the green cable into the green YPbPr video in. • Insert the blue cable into the blue YPbPr video in. • Insert the red and white audio cables into the red and white YPbPr audio inputs. |
| DVI-HDCP | One cable with 3 rows of 8 pins. | Insert the cable into the DVI video input. |
| VGA | One cable with 3 rows of 5 pins. | Insert the cable into the VGA video input. |

Connecting an Antenna or Cable TV

Connecting an antenna/cable box/satellite dish

Use standard 75-ohm coaxial cable to connect a ground antenna or cable TV signal cable to the TV. Use shielded coaxial cable to reduce radio frequency (RF) interference. To make this connection:

- 1 Turn off the TV.
- 2 Connect the antenna/cable TV coaxial cable/satellite dish to the RF connector on the back of the TV.
- 3 Turn on the TV.
- 4 Select TV as the input source for the main TV picture by using the front panel buttons or the TV remote control. Refer to "Selecting the input source" on page 21.
- 5 Perform the Channel Auto Search procedure; refer to "Setting up your channels" on page 20. This procedure scans and identifies the available channels.

Connecting a HDTV Tuner to the TV

Use a standard DVI-D cable to connect a HDTV Tuner to the TV. To make this connection:

- 1 Turn off the TV and the HDTV Tuner.
- 2 Connect your indoor or outdoor antenna to the RF Input of your HDTV Tuner.
- 3 Connect one end of a DVI-D cable to the DVI Out HDTV Tuner connector, and the other end of the cable to the DVI connector on the back of the TV.
- 4 Turn on the TV and the HDTV Tuner.
- 5 Select a Resolution setting on your HDTV tuner that gives you the best picture (1080i, 720p, or 480p).
- 6 Select Digital RGB as the input source for the main TV picture by using the front panel buttons or the TV remote control. Refer to "Selecting the input source" on page 21.
- 7 Perform the Channel Auto Search procedure; refer to "Setting up your channels" on page 20. This procedure scans and identifies the available channels.
- 8 To set up the TV remote control to operate the HDTV Tuner, refer to "Programming the remote control for component control" on page 33.

Connecting a PC to the TV using the VGA Connector

Use the VGA connector to view your PC on your TV.

To make these connections:

- 1 Turn off the TV and the PC or other equipment.
- 2 Connect one end of the VGA cable to the output connector on the PC or other equipment, and the other end of the cable to the VGA connector on the back of the TV.
- 3 Turn on the TV and the PC or other equipment.
- 4 Select Analog RGB as the input source for the main TV picture by using the front panel buttons or press the DVI/VGA button the TV remote control. Refer to "Selecting the input source" on page 21.

Connecting a PC or other equipment to the TV using the DVI Connector

You may connect the TV to a DVD player, digital set-top box, PC or other equipment with a DVI-D cable. Use a DVI-D 29-pin signal cable when making connections to the DVI connector. Note that the DVI terminal does not support analog RGB input.

NOTE: To maintain display quality, use a DVI-standard cable no longer than 5 meters (16.4 feet).

To make these connections:

- 1 Turn off the TV and the PC or other equipment.
- 2 Connect one end of the DVI cable to the output connector on the PC or other equipment, and the other end of the cable to the DVI connector on the back of the TV.
- 3 Turn on the TV and the PC or equipment.
- 4 Select Digital RGB as the input source for the main TV picture by using the front panel buttons or press the DVI/VGA button the TV remote control. Refer to "Selecting the input source" on page 21.

Connecting a Composite Video Source

Use the yellow, red, and white cables to connect your composite video source to the TV.

To make these connections:

- 1 Turn off the TV and the composite video source.
- 2 Connect one end of the yellow cable to the video output connector on the back of your composite video source, and connect the other yellow end to the Video In on the back of the TV.
- 3 Connect the red and white audio cables from your composite video source to the Audio In on the back of the TV. Be careful to keep the audio right and left channel connections correct for stereo sound.
- 4 Turn on the TV and the composite video source. Insert media into the composite video source and play it.
- 5 Select Composite Video 1 or Composite Video 2 as the input source for the main TV picture (so you see the image playing from the composite video source) by using the front panel buttons or press the AV button on the TV remote control. Refer to "Selecting the input source" on page 21.
- 6 To set up the TV remote control to operate the composite video source, refer to "Programming the remote control for component control" on page 33.

Refer to your composite video source owner's manual for information about your equipment's video output requirements.

Connecting an S-Video Source

Use S-video cable to connect your S-video source to the TV.

To make these connections:

- 1 Turn off the TV and the S-video source.
- 2 Connect one end of the S-video cable to the S-video output connector on the back of your S-video source, and connect the other end to the S-video In on the back of the TV.

- 3** Connect the red and white audio cables from your video source to the Audio In on the back of the TV. Be careful to keep the audio right and left channel connections correct for stereo sound.
- 4** Turn on the TV and the S-video source. Insert media into the S-video source and play it.
- 5** Select S-video as the input source for the main TV picture (so you see the image playing from the S-video source) by using the front panel buttons or press the SV button on the TV remote control. Refer to "Selecting the input source" on page 21.
- 6** To set up the TV remote control to operate the S-video source, refer to "Programming the remote control for component control" on page 33.

Refer to your S-video source owner's manual for information about your equipment's video output requirements.

Connecting a Component (YPbPr or YCbCr) Source

Use YPbPr cables to connect your component video source or other equipment to the component input connectors (YPbPr or YCbCr) on the TV.

To make these connections:

- 1** Turn off the TV and the component input source equipment.
- 2** Connect one end of the red, green, and blue component cables to the YPbPr or YCbCr video output connector on the component video source, and connect the other ends to the YPbPr or YCbCr inputs on the back of the TV.
- 3** Connect the red and white audio cables from your video source to the Audio In on the back of the TV. Be careful to keep the audio right and left channel connections correct for stereo sound.
- 4** Turn on the TV and the component video source. Insert media into the component video source and play it.
- 5** Select YPbPr1, YPbPr2, or YCbCr as the input source for the main TV picture (so you see the image playing from the component video source) by using the front panel buttons or press the YPbPr or YCbCr button on the TV remote control. Refer to "Selecting the input source" on page 21.
- 6** To set up the TV remote control to operate the component video source, refer to "Programming the remote control for component control" on page 33.

Refer to your component video source owner's manual for information about your equipment's video output requirements.

Connecting the HP Media Center PC

You can connect the TV to an HP Media Center PC (HP MCPC) and use the special buttons on the remote control associated with the HP MCPC.

Refer to your HP MCPC documentation to connect the TV to the HP MCPC as:

- A monitor using either a VGA cable or a DVI-D cable.
- A TV using the TV input source connectors for video (composite) inputs, S-video, or component video inputs; see the appropriate procedure in this document.

Using the HP MCPC with the TV remote control

- 1 Turn on the TV and the HP MCPC.
- 2 Press the appropriate TV input source button on the TV remote control to display the image on the main picture (refer to "Selecting the input source" on page 21):
 - Choose the DVI/VGA button when you've connected the TV to the HP MCPC as a monitor using the DVI-D or VGA connectors.
 - Choose the AV button when you've connected the TV to the HP MCPC as a TV using the Video or S-video inputs.
 - Choose the YPbPr or YCbCr button when you've connected the TV to the HP MCPC as a TV using the Component Video inputs.
- 3 Press HP.PC button on the remote control to select the HP MCPC as the controlled device.

Point the remote control at the HP MCPC remote control sensor and press the buttons you want to use. The remote control buttons, such as the guide, channel, volume, and cursor buttons, function along with the special HP MCPC buttons described in the table.

| TV Remote Button | HP MCPC Button Function |
|------------------------------|---|
| YCbCr, YPbPr, AV, or DVI/VGA | Selects the TV input source for the main screen. |
| HP.PC | Selects the HP MCPC as the device controlled by the remote control. |
| HP.MC | Start |
| Back (EXIT) | Back |
| Enter | OK |
| PIP Input | Record |
| Replay/Reverse | Replay |
| Skip/Forward | Skip |

Installing or Replacing Remote Control Batteries

When the batteries are low, the red light on the remote control blinks twice when a button is pushed. Insert two AA non-rechargeable batteries into the remote control ensuring that you place them with the proper polarity.

- 1 Press and open the cover on the back of the remote control.
- 2 Insert the batteries into the remote control, and make sure that you match polarities.
- 3 Close the cover.



CAUTION: Use only the size and type of batteries specified.

Be sure to follow the correct polarity when installing the batteries as indicated in the battery compartment. Reversed batteries may cause damage to the device.

Do not mix different types of batteries together (e.g. alkaline and carbon-zinc) or old batteries with fresh ones.

When not using the remote for a long period of time, remove the batteries to prevent damage or injury from possible battery leakage.

Do not try to recharge batteries that are not intended to be recharged; they can overheat and rupture. (Follow the battery manufacturer's directions for the batteries you are using.)

Always remove batteries as soon as they become weak. Weak batteries can leak and severely damage the unit.

The battery life depends on how much the remote control is used. Replace batteries when remote control operation becomes erratic.

Do not take apart the batteries, heat them, or throw them into a fire.

Using the TV

Basic Operations

Turning on the TV

- 1 Plug the power cord into an active AC power outlet. The Power/standby indicator light on the front panel flashes until the power is completely on; then the light is solid amber.

NOTE: The main power switch (on the back of the TV) is on from the factory. If the Power/standby indicator light is off after you plug in the TV, the main power switch is off. To operate the main power switch, reach around the left side of the front of panel, and press the button on.

If you turn the main power switch off, wait at least 5 seconds before turning it on again.

- 2 Press the Power button on the front panel or on the remote control to turn on the TV. The Power/standby indicator light flashes until the power is completely on; then the light is solid blue.

Setting Up Your Channels

Use the Channel Auto Search feature to set up your channels. The Channel Auto Search scans channels 1 to 125 and adds the channels that return a signal. Use the following steps to run the Channel Auto Search:

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the last icon (Video Format) is highlighted.
- 3 Use the Down arrow button to highlight the TV Channel Setup function, and then press the right arrow button to view the options.
- 4 Select Air or CATV as your input source.
- 5 Press the down arrow button once to highlight Channel Auto Search, and then press the right arrow button to begin the search. Channels 1 to 125 are scanned and the channels that return a signal are added to your channel list.
- 6 Press the EXIT button on your remote control to return to your TV display.



Adding and Deleting Channels

Use the Channel Edit feature to add and remove channels that fit your preference. Use the following steps to add and remove channels:

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the last icon (Video Format) is highlighted.
- 3 Use the Down arrow button to highlight the TV Channel Setup, and then press the right arrow button.
- 4 Press the Down arrow button until Channel Edit is highlighted.
- 5 Use the Left and Right arrow buttons to find a channel to add or erase, and then press the down arrow button.



- 6** Use the Left or Right arrow buttons to highlight Add or Erase. Press the Enter button to add or erase the current channel.
- 7** Press the EXIT button on your remote control to return to your TV display.

Turning off the TV

Press the Power button on the front panel or on the remote control to turn off the TV. The Power/standby indicator light becomes amber. The TV is in standby.

If the TV is not used for an extended period of time, turn off the main power switch.

Selecting the input source

Select the input source for the main picture and the PIP using the front panel buttons or the remote control buttons.

Using the remote control buttons

Press the TV button (below the remote control indicator light) to select the TV as the controlled home entertainment device, and then press one of these input source buttons at the bottom of the remote control:

DVI/VGA selects the input sources connected to the DVI or VGA (RGB) connectors.

YCbCr selects the input source connected to the Component Video Input (YCbCr).

YPbPr selects the input sources connected to the Component Video Inputs (YPbPr).

AV selects the input sources connected to the Composite Video Inputs.

SV selects the input source connected to the S-video Input.

CH (+) (-) selects the input from the TV antenna/cable in the RF connector.

Selecting the main picture input source using the front panel buttons

Press the Select button repeatedly until you see the desired input source.

Selecting the PIP input source using the remote control buttons

Press the TV button (below the remote control indicator light) to select the TV as the controlled home entertainment device, press PIP Input to select the source for PIP.

Adjusting volume

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

Muting sound

Press the Mute button on the remote control to cancel the sound; press it again to restore sound.

Using the sleep timer to turn off the TV

Press the Sleep button on the remote control to set the timer at 30 minutes. Press the button again until you arrive at your desired turn-off time or *Timer Off* to cancel the timer.

The timer cannot be canceled after it starts.

Setting up the V-chip

The V-chip feature requires a password to be entered to view movies and TV programs with unsuitable ratings for some viewers who share the TV. Follow these steps to lock movies and TV programs:

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Video Format icon is highlighted.
- 3 Use the Down arrow button to highlight V-chip, and then press the Right arrow button.
- 4 Enter 1, 1, 1, 1, 1, 1 as the default password to gain access.
- 5 Use the following table to set up your V-chip.



| V-chip | Function | Options |
|------------------------|---|--|
| TV Guidelines blocking | Blocks selected TV-rating and all ratings below it. | TV-Y, TV-Y7, TV-G, TV-PG, TV-14-V, TV-MA |
| MPAA Rating | Blocks selected MPAA-rating and all ratings above it. | G, PG, PG-13, R, NC-17, X |
| Change Password Number | Enter a new password. | |

V: Violence

S: Sexual content

L: Offensive language

D: Dialogue (sexual innuendo)

NOTE: If you forget the password, enter 1, 6, 8, 1, 6, 8 to erase the password.

Selecting the screen aspect

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

Press the Aspect button on the remote control, and if necessary press it again to select the desired screen size.







| Ratio | Description |
|----------------------|--|
| Full | This image is expanded in the horizontal direction. Use this mode for viewing wide screen movies from DVD players. |
| Fill Aspect Ratio | This image is expanded in the horizontal direction. Use this mode for viewing wide screen movies from DVD players. |
| 4:3 to 16:9 | The image is expanded in the horizontal and the vertical directions, maintaining the original proportions. Use this mode to zoom in on the image. |
| LB to 16:9 | The image is expanded in the horizontal and the vertical directions at different ratios. Use this mode to zoom in on the image. |
| LB to subtitles 16:9 | The image is expanded in the horizontal and the vertical directions at different ratios. Use this mode to zoom in on the image. |
| One to One | Normal proportions. |

Using the On Screen Display (OSD) Controls

Your LCD TV comes with a On Screen Display (OSD) menu. Use the remote control to navigate the OSD menu. Press the MENU button to bring up the OSD menu. The two different modes for the OSD are the following:

- **PC Mode:** Displays when the Analog RGB or Digital RGB input is selected.
- **Audio/Video Mode:** Displays when the TV, Composite 1, Composite 2, S-video, YCbCr, YPbPr 1, or YPbPr 2 input is selected.

Depending on which mode you are displaying the following options appear on your OSD menu:

| Icon | Menus | Function |
|--|---------------------------------------|--|
|  | Display | Adjusts the brightness, contrast, horizontal position, vertical position, phase and clock of your display. |
|  | Image | Displays the video format, and adjusts scaling and comb filter. |
|  | Audio | Adjusts the volume, treble, bass, balance, and advanced of your sound. |
|  | Language and Color Temperature | Adjusts the language and shades of red, green and blue. |
|  | OSD Info | Sets the position, timeout, and background of your OSD menu. |
|  | Video Format | Adjusts the screen format, and PIP settings. |

NOTE: Not all functions are included in each mode.

PC Mode

PC Mode Operation

- 1** Press the MENU button on the remote control to display the On Screen Display (OSD) menu.
 - 2** Continue to press the MENU button to highlight each icon on the top row.
 - 3** Use the Up and Down arrow buttons to highlight a function.
 - 4** Press the Left or Right arrow buttons to either scroll through the options of a specific function or change the setting.
 - 5** Press the MENU button to highlight a different icon.
- Or*
- Press the EXIT button to save your changes and return to the TV display.

Display

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Display icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Display settings.

Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

You can make the following adjustments to your Display:

| Display | Function | Options |
|--------------|--|----------|
| Reset | Puts all of your display settings back to their default. | |
| Brightness | Adjusts the darkness and lightness of the display. | 0 to 100 |
| Contrast | Adjusts the color brightness of the display. | 0 to 100 |
| H - Position | Moves image to the left or right. | 0 to 100 |
| V - Position | Moves image up or down. | 0 to 100 |
| Phase | Video timing adjustment. | 0 to 100 |
| Clock | Moves image left and right. | 0 to 100 |



Image

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Image icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Image settings.

Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

You can make the following adjustments to your Image settings:

| Image | Function | Options |
|-------------|---|---------|
| Auto Adjust | Automatically detects optimal video format. | Auto |



Audio

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Audio icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Audio settings.



Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

You can make the following adjustments to your Audio:

| Audio | Function | Options |
|----------|--|--|
| Mute | Turns off the sound. | Enable or disable |
| Volume | Increases and decreases the level of sound. | 0 to 100 |
| Treble | Increases and decreases the level of treble. | 0 to 100 |
| Bass | Increases and decreases the level of bass. | 0 to 100 |
| Balance | Adjusts the left and right sound level. | 0 to 50 |
| Advanced | SRS WOW, BBE, Subwoofer | SRS WOW: On, Off BBE: On, Off Subwoofer: On, Off |

Language and Color Temperature

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Language and Color Temperature icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Language and Color Temperature settings.



Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

You can make the following adjustments to your Language and Color Temperature settings:

| Language and Color Temperature | Function | Options |
|--------------------------------|---|---|
| Language | Set the language for the audio. | English, French, German, Italian, Spanish, Portuguese, Netherlands, Traditional Chinese, Simplified Chinese, and Japanese |
| Color Temperature | Adjusts the level of the color temperature. | Cool, Neutral, Warm, User |

OSD Information

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the OSD Information icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other OSD settings.

Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

You can make the following adjustments to your OSD settings:

| OSD Information | Function | Options |
|------------------|--|---------------------------|
| OSD Position | Moves the OSD to different locations. | Nine different locations. |
| OSD Timeout | Set the number of seconds for OSD to remain displayed before disappearing after final use. | 10 to 255 seconds |
| OSD Background | Set the OSD background to either opaque or transparent. | Opaque or translucent |
| Move Screen Mode | Decreases chance of image retention. | Off, mode1, mode2 |
| Move Screen Time | Adjusts the length of time screen move activates. | 5 ~ 255 seconds |
| System Reset | Sets OSD back to default settings. | |



Video Format

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Video Format icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Video Format settings.

Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.



You can make the following adjustments to your Video Format:

| Video Format | Function | Options |
|---------------|---|--|
| Signal Format | Displays RGB signal information. | |
| PIP Set | Adjust the PIP size, source, position, audio source, and display. | <ul style="list-style-type: none"> • Sets the size: off, small, medium, large. • Select a Source: TV (varies according to video sources connected). • Position: Nine different positions. • Audio Source: Select between the sound of your main picture or PIP. • PIP Display: Adjust the brightness, contrast and saturation. • Swap: Switches your main picture and PIP. • V-chip: Blocks programs unsuitable for certain viewers in the household. |
| Advanced | Adjusts the white pattern and gamma. | Gamma: 0.8, 1.0, 1.2, or 1.4 |
| DPMS | Display Power Management Signal | On or Off |

Audio/Video Mode

Audio/Video Operation

- 1** Press the MENU button on the remote control to display the following On Screen Display (OSD) menu items: Display, AV System, Audio, Language and Color Temperature, OSD Info, and Video Format. (Press the EXIT key to return one level back in the OSD menu.)
- 2** Press the MENU button to highlight each icon on the top row.
- 3** Use the Up and Down arrow buttons to highlight a function.
- 4** Press the Left or Right arrow buttons to either scroll through the options of a specific function or change the setting.
- 5** Press the MENU button to highlight a different icon.
Or
Press the EXIT button to save your changes and return to the TV display.

Display

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Display icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Display settings.

Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

You can make the following adjustments to your Display:

| Display | Function | Options |
|---|--|--|
| Reset | Puts all of your display settings back to their default. | |
| Brightness | Adjusts the darkness and lightness of the display. | 0 to 100 |
| Contrast | Adjusts the color brightness of the display. | 0 to 100 |
| Saturation | Adjusts the level of color. | 0 to 100 |
| Hue | Adjusts the color properties. | 0 to 100 |
| Sharpness | Adjusts the clarity of images. | 0 to 100 |
| Picture Mode (not available with YPbPr 1 and 2) | Select a preset customized picture setting. | <ul style="list-style-type: none">• Standard• Movie• Dynamic |



Image

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Image icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Image settings.

Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.



You can make the following adjustments to your Image settings:

| Image | Function | Options |
|--------------|-------------------------------------|--|
| Scaling | Six different screen sizes. | <ul style="list-style-type: none"> • Full • Fill Aspect Ratio • 4:3 to 16:9 • LB to 16:9 • LB subtitles to 16:9 • One to one |
| Video Format | Automatically detects video format. | Auto |

Audio

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Audio icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Audio settings.

Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

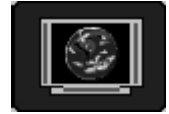


You can make the following adjustments to your Audio:

| Audio | Function | Options |
|----------|--|--|
| Mute | Turns off the sound. | Enable or disable |
| Volume | Increases and decreases the level of sound. | 0 to 100 |
| Treble | Increases and decreases the level of treble. | 0 to 100 |
| Bass | Increases and decreases the level of bass. | 0 to 100 |
| Balance | Adjusts the left and right sound level. | 0 to 50 |
| Advanced | Turns SRS WOW, BBE, Subwoofer on and off. | SRS WOW: On, Off BBE: On, Off Subwoofer: On, Off |

Language and Color Temperature

- 1 Press the MENU button on the remote control to bring up the OSD menu.
 - 2 Continue to press the MENU button until the Language and Color Temperature icon is highlighted.
 - 3 Use the Up and Down arrow buttons to highlight a function.
 - 4 Press the Left and Right arrow buttons to change a setting.
 - 5 Press the Up and Down arrow buttons to select other Language and Color Temperature settings.
- Or
- Press the MENU button to highlight a different icon.
- 6 Press the EXIT button to save your changes and return to the TV display.



You can make the following adjustments to your Language and Color Temperature settings:

| Language and Color Temperature | Function | Options |
|--------------------------------|---|---|
| Language | Set the language for the audio. | English, French, German, Italian, Spanish, Portuguese, Netherlands, Traditional Chinese, Simplified Chinese, and Japanese |
| Color Temperature | Adjusts the level of the color temperature. | Cool, Neutral, Warm, User |

OSD Information

- 1 Press the MENU button on the remote control to bring up the OSD menu.
 - 2 Continue to press the MENU button until the OSD Information icon is highlighted.
 - 3 Use the Up and Down arrow buttons to highlight a function.
 - 4 Press the Left and Right arrow buttons to change a setting.
 - 5 Press the Up and Down arrow buttons to select other OSD settings.
- Or
- Press the MENU button to highlight a different icon.
- 6 Press the EXIT button to save your changes and return to the TV display.



You can make the following adjustments to your OSD settings:

| OSD Information | Function | Options |
|------------------|--|---------------------------|
| OSD Position | Moves the OSD to different locations. | Nine different locations. |
| OSD Timeout | Set the number of seconds for OSD to remain displayed before disappearing after final use. | 10 to 255 seconds |
| OSD Background | Set the OSD background to either opaque or transparent. | Opaque or translucent |
| Move Screen Mode | Decreases chance of image retention. | Off, mode1, mode2 |
| Move Screen Time | Adjusts the length of time screen move activates. | 5 ~ 255 seconds |
| System Reset | Sets OSD back to default settings. | |

Video Format

- 1 Press the MENU button on the remote control to bring up the OSD menu.
- 2 Continue to press the MENU button until the Video Format icon is highlighted.
- 3 Use the Up and Down arrow buttons to highlight a function.
- 4 Press the Left and Right arrow buttons to change a setting.
- 5 Press the Up and Down arrow buttons to select other Video Format settings.



Or

Press the MENU button to highlight a different icon.

- 6 Press the EXIT button to save your changes and return to the TV display.

You can make the following adjustments to your Video Format:

| Video Format | Function | Options |
|------------------|---|--|
| Signal Format | Displays video signal information. | |
| Advanced | Adjusts the white pattern and gamma. | Gamma: 0.8, 1.0, 1.2, or 1.4 |
| PIP Set | Adjust the PIP size, source, position, audio source, and display. | <ul style="list-style-type: none"> • Sets the size: off, small, medium, large. • Select a Source: TV (varies according to video sources connected). • Position: Nine different positions. • Audio Source: Select between the sound of your main picture or PIP. • PIP Display: Adjust the brightness, contrast and saturation. • Swap: Switches your main picture and PIP. |
| V-chip | Requires a password to be entered to view movies and TV programs with unsuitable ratings for some viewers who share the TV. | See "Setting up the V-chip" on page 22. |
| Closed Caption | Displays text. | <ul style="list-style-type: none"> • CC1 • CC2 • TT1 • TT2 • CC background transparent black |
| TV Channel Setup | Choose a TV source, performs an automatic channel search, add and delete channels. | TV Source: TV or CATV Channel Auto Search: Scans channels 1 to 125 for a signal. See "Setting Up Your Channels" on page 20. Add or erase channel: Customize your channel list. See "Adding and Deleting Channels" on page 20. |

Using the Remote Control

The remote control operates the TV, your cable or satellite set-top-box, your DVD/VCR, and your HP Media Center PC (HP PC). Refer to "Identifying the Remote Control buttons" on page 8 for information on the remote control buttons.

NOTE: Use the remote control within a distance of 16.4 feet (5 meters) from the front of the TV remote control sensor window and at the maximum horizontal and vertical angles of 30°.

To use the remote control:

- 1 Press the TV, CBL/SAT, DVD/VCR, or HP.PC button to select the home entertainment component (TV, set-top-box, DVD/VCR, or HP MCPC) to control.
- 2 Aim the remote control at the remote control sensor of the selected home entertainment component, and then press the button you want to use.

Programming the remote control for component control

Programming the component code

- 1 Turn on the TV. Turn on the cable or satellite set-top-box, VCR, or DVD and, if applicable, insert media (a cassette or a disc).

NOTE: Please read steps 2 through 4 completely before proceeding. We recommend highlighting or writing down the codes and device you wish to program before performing step 2.

- 2 On the remote control, press CBL/SAT button or DVD/VCR button once. Press and hold SETUP until the red light blinks twice, then release SETUP.
- 3 Use the Manufacturer's Codes (see listing that follows) to locate the type of component by brand name and then enter the first four-digit code for your component. If performed correctly, the red light blinks twice.

NOTE: If the red light did not blink twice, then repeat steps 2 and 3, entering the code again.

- 4 Aim the remote control at the component and press PWR once. The component should turn off. If it does not respond, repeat steps 2 and 3, trying each code for your brand until you find one that works. If it still does not work, try searching for the code; see "Searching for the component code" on page 34.

NOTE: If the device does not have a power button, press PLAY.

- 5 Repeat steps 1 through 4 for each component you want to control with the remote control.

Searching for the component code

If your device does not respond to the remote control after trying all codes listed for your brand, or if your brand is not listed at all, try searching for your code:

- 1 On the remote control, press CBL/SAT button or DVD/VCR button once.
- 2 Press and hold SETUP until the red light blinks twice, then release SETUP.
- 3 Press the number buttons 9, 9,1. The red light blinks twice.
- 4 Aim the remote control at the set-top-box or the VCR or DVD and slowly alternate between pressing PWR and the component (CBL/SAT or DVD/VCR) button. Stop when the component turns off.

NOTE: In the search mode, the remote control sends codes from its library to the selected device, starting with the most popular code first.

- 5 Press SETUP once to lock in the code.

Checking the component code

If you have set up the remote control to use a component, you may need to find out which four-digit code is operating your component equipment:

- 1 On the remote control, press CBL/SAT or DVD/VCR once.
- 2 Press and hold SETUP until the red light blinks twice, then release SETUP.
- 3 Press the number buttons 9, 9,1. The red light blinks twice.
- 4 For the first digit of the code, press the number button 1 once. Wait 3 seconds, and then count the number of times the red light blinks and write down the number.

NOTE: When you count three blinks, it means the code digit is 3. When a code digit is 0, the red light will not blink.

- 5 Repeat step 4 for the three remaining digits of the code, pressing 2 for the second digit, 3 for the third digit, and 4 for the fourth digit.

Reassigning component buttons

The remote control can be set up to control a second TV or VCR, or any combination of eight home entertainment components.

For example, to control a TV, a Cable Converter, and two VCRs, you need to re-assign a component button to operate the second VCR as follows:

- 1 On the remote control, press and hold SETUP until the red light blinks twice, then release SETUP.
- 2 Press the number buttons 9, 9,1. The red light blinks twice.
- 3 Press DVD/VCR once, then press CBL/SAT once.
- 4 The CBL/SAT button is now ready to be programmed for your second VCR. See "Programming the component code" on page 33.

To re-assign other device keys, repeat steps 1 through 4 by substituting the key sequence from the following table for the most popular components:

| To assign | Use this sequence |
|---------------------------|---------------------------------------|
| TV as 2nd DVD/VCR button | SETUP - 9 - 9 - 2 — DVD/VCR - TV |
| TV as 2nd CBL/SAT button | SETUP - 9 - 9 - 2 — CBL/SAT - TV |
| TV back to TV | SETUP - 9 - 9 - 2 — TV - TV |
| VCR as 2nd CBL/SAT button | SETUP - 9 - 9 - 2 — CBL/SAT - VCR |
| VCR back to VCR | SETUP - 9 - 9 - 2 — VCR - VCR |
| CBL/SAT as 2nd VCR button | SETUP - 9 - 9 - 2 — VCR - CBL/SAT |
| CBL/SAT back to CBL/SAT | SETUP - 9 - 9 - 2 — CBL/SAT - CBL/SAT |

When a re-assignment is done, the red light blinks twice to confirm your choice. Then, you need to program the remote control to control the new component; see "Programming the component code" on page 33.

Changing volume lock

The remote control is set to control volume of a component through your TV while in the TV, DVD/VCR, or CBL/SAT mode. However, in the HP.PC mode you have separate control of the volume.

If you want the volume to be controlled by a different component than the TV, you can change the Volume Lock setting to control volume through a non-associated mode (e.g., through the cable in the TV mode).

To change volume lock to another mode:

- 1** On the remote control, press and hold SETUP until the red light blinks twice, then release SETUP.
- 2** Press the number buttons 9, 9, 3, and then press any mode key once (except TV). The red light will blink twice.
- 3** Now, whenever you press VOL+, VOL-, or MUTE, volume is controlled by your component mode choice.

To change volume lock back to the TV mode:

- 1** On the remote control, press and hold SETUP until the red light blinks twice, then release SETUP.
- 2** Press the number buttons 9, 9, 3, and then press TV. The red light blinks twice.
- 3** Now, whenever you press VOL+, VOL-, or MUTE on the remote control, volume is controlled by your TV.

Troubleshooting the remote control programming

| Problem | Solution |
|---|---|
| Red light does not blink when you press a key. | Replace the batteries with two (2) new AA non-rechargeable batteries. |
| Red light blinks when you press a key, but home entertainment component does not respond. | Make sure the remote control is aimed at your home entertainment component and is not farther than 15 feet away. |
| Remote control does not control home entertainment components or commands are not working properly. | Try all listed codes for the component brands being set up. Make sure they can be operated with an infrared remote control. |
| No volume on a 2nd TV. | Follow instructions in "Changing Volume Lock." |
| CH+, CH-, and CH.RTN do not work for your RCA TV. | Due to RCA design (1983-1987), only the original remote control will operate these functions. |
| Changing channels does not work properly. | If original remote control required pressing ENTER to change channels, press ENTER on the Remote control after entering the channel number. |
| Tried "Search Method" and still could not find a working code. | Try the "Search Method" again after clearing out the component button as follows: Press and hold SETUP until red light blinks twice, then release. Next enter 9 - 9 - 2. Then press and release the component button to be cleared twice. |

Manufacturer's codes

| Manufacturer | Codes for VCR |
|---------------|------------------------|
| Admiral | 0048 |
| Adventura | 0000 |
| Aiko | 0278 |
| Aiwa | 0037, 0000 |
| Akai | 0041 |
| American High | 0035 |
| Asha | 0240 |
| Audiovox | 0037 |
| Beaumarck | 0240 |
| Bell & Howell | 0104 |
| Broksonic | 0184, 0121, 0209, 0002 |
| CCE | 0072, 0278 |
| Calix | 0037 |
| Canon | 0035 |
| Carver | 0081 |
| Cineral | 0278 |
| Citizen | 0037, 0278 |
| Colt | 0072 |

| Manufacturer | Codes for VCR |
|---------------------|--|
| Craig | 0037, 0047, 0240, 0072, 0271 |
| Curtis Mathes | 0060, 0035, 0041, 0162 |
| Cybernex | 0240 |
| Daewoo | 0045, 0278 |
| Denon | 0042 |
| Dynatech | 0000 |
| Electrohome | 0037 |
| Electroponic | 0037 |
| Emerex | 0032 |
| Emerson | 0037, 0184, 0000, 0121, 0043, 0209, 0002, 0278 |
| Fisher | 0047, 0104 |
| Fuji | 0035, 0033 |
| Funai | 0000 |
| GE | 0060, 0035, 0048, 0240 |
| Garrard | 0000 |
| Go Video | 0526 |
| GoldStar | 0037, 0038 |
| Gradiente | 0000 |
| HI-Q | 0047 |
| Harley Davidson | 0000 |
| Harman/Kardon | 0081, 0038 |
| Harwood | 0072 |
| Headquarter | 0046 |
| Hitachi | 0000, 0042, 0041 |
| JVC | 0067, 0041 |
| Jensen | 0041 |
| KEC | 0037, 0278 |
| KLH | 0072 |
| Kenwood | 0067, 0041, 0038, 0046 |
| Kodak | 0035, 0037 |
| LXI | 0037 |
| Lloyd's | 0000 |
| Logik | 0072 |
| MEI | 0035 |
| MGA | 0240, 0043 |
| MGN Technology | 0240 |
| MTC | 0240, 0000 |

| Manufacturer | Codes for VCR |
|---------------------|--|
| Magnasonic | 0278 |
| Magnavox | 0035, 0039, 0081, 0000, 0149 |
| Magnin | 0240 |
| Marantz | 0035, 0081, 0038 |
| Marta | 0037 |
| Matsushita | 0035, 0162, 0454 |
| Memorex | 0035, 0037, 0048, 0039, 0047, 0240, 0000, 0104, 0046, 1162, 1262 |
| Minolta | 0042 |
| Mitsubishi | 0048, 0067, 0043 |
| Motorola | 0035, 0048 |
| Multitech | 0000, 0072 |
| NAP | 0035, 0037, 0039, 0042, 0033 |
| NEC | 0104, 0067, 0041, 0038 |
| Nikko | 0037 |
| Noblex | 0240 |
| Olympus | 0035 |
| Optimus | 0037, 0048, 0104, 0162, 0454, 1062, 1162, 1262 |
| Orion | 0184, 0002 |
| Panasonic | 0035, 0162, 0225, 0454, 1162 |
| Penney | 0035, 0037, 0240, 0042, 0038 |
| Pentax | 0042 |
| Philco | 0035, 0209 |
| Philips | 0035, 0081 |
| Pilot | 0037 |
| Pioneer | 0067 |
| Profitronic | 0240 |
| Proscan | 0060 |
| Protec | 0072 |
| Pulsar | 0039 |
| Quarter | 0046 |
| Quartz | 0046 |
| Quasar | 0035, 0162, 0454, 1162 |
| RCA | 0060, 0035, 0048, 0240, 0042, 0149 |
| Radio Shack | 0000 |
| Radix | 0037 |
| Randex | 0037 |
| Realistic | 0035, 0037, 0048, 0047, 0000, 0104, 0046 |

| Manufacturer | Codes for VCR |
|-----------------------|--|
| Runco | 0039 |
| STS | 0042 |
| Samsung | 0240, 0045 |
| Sanky | 0048, 0039 |
| Sansui | 0000, 0067, 0041, 0271 |
| Sanyo | 0047, 0240, 0104, 0046 |
| Scott | 0184, 0045, 0121, 0043 |
| Sears | 0035, 0037, 0047, 0000, 0042, 0104, 0046 |
| Semp | 0045 |
| Sharp | 0048 |
| Shintom | 0072 |
| Shogun | 0240 |
| Signature | 0035 |
| Singer | 0072 |
| Sony | 0035, 0032, 0000, 0033 |
| Sylvania | 0035, 0081, 0000, 0043 |
| Symphonic | 0000 |
| TMK | 0240 |
| Tatung | 0041 |
| Teac | 0000, 0041 |
| Technics | 0060, 0035, 0039, 0162 |
| Teknika | 0035, 0037, 0000 |
| Thomas | 0000 |
| Toshiba | 0045, 0043 |
| Totevision | 0037, 0240 |
| Unitech | 0240 |
| Vector | 0045 |
| Vector Research | 0038 |
| Video Concepts | 0045 |
| Videosonic | 0240 |
| Wards | 0060, 0035, 0048, 0047, 0081, 0240, 0045, 0000, 0042, 0072, 0149 |
| White Westinghouse | 0278 |
| XR-1000 | 0035, 0000, 0072 |
| Yamaha | 0041, 0038 |
| Zenith | 0039, 0000, 0033 |

| Manufacturer | Codes for cable converter box |
|---------------------|--|
| ABC | 0003, 0008, 0014, 0017, 0007, 0011, 0013 |
| Allegro | 0153, 0315 |
| Archer | 0153, 0797 |
| Bell & Howell | 0014 |
| Century | 0153 |
| Citizen | 0153, 0315 |
| Comtronics | 0040 |
| Contec | 0019 |
| Eastern | 0002 |
| Emerson | 0797 |
| Everquest | 0015, 0040 |
| Focus | 0400 |
| Garrard | 0153 |
| Gemini | 0015 |
| General Instrument | 0476, 0276, 0011, 0810 |
| GoldStar | 0144, 0040 |
| Goodmind | 0797 |
| Hamlin | 0020, 0259, 0009, 0034 |
| Hitachi | 0011 |
| Hytex | 0007 |
| Jasco | 0015, 0153, 0315 |
| Jerrold | 0003, 0012, 0476, 0276, 0014, 0015, 0011, 0810 |
| Magnavox | 0014 |
| Memorex | 0000 |
| Movie Time | 0063 |
| NAP | 0007 |
| NSC | 0063 |
| Oak | 0019, 0007 |
| Optimus | 0021 |
| Panasonic | 0000, 0107, 0021 |
| Paragon | 0000 |
| Philips | 0153 |
| Pioneer | 0144, 0533 |
| Popular Mechanics | 0400 |
| Proscan | 0021 |
| Pulsar | 0000 |
| Quasar | 0000 |

| Manufacturer | Codes for cable converter box |
|---------------------|--------------------------------------|
| RCA | 0021 |
| Radio Shack | 0015, 0315, 0797, 0883 |
| Recoton | 0400 |
| Regal | 0020, 0259 |
| Regency | 0002 |
| Rembrandt | 0011 |
| Runco | 0000 |
| SL Marx | 0040 |
| Samsung | 0144, 0040 |
| Scientific Atlanta | 0008, 0477, 0017, 0877 |
| Signal | 0015, 0040 |
| Signature | 0011 |
| Sprucer | 0021 |
| Starcom | 0003, 0015 |
| Stargate | 0015, 0040, 0797 |
| Starquest | 0015 |
| TV86 | 0063 |
| Televue | 0040 |
| Tocom | 0012, 0013 |
| Toshiba | 0000 |
| Tusa | 0015 |
| Unika | 0153 |
| United Artists | 0007 |
| Universal | 0153, 0191 |
| Viewstar | 0063 |
| Zenith | 0008, 0000, 0015, 0525 |
| Zentek | 0400 |

| Manufacturer | Codes for satellite or DBS receivers |
|---------------------|---|
| AlphaStar | 0772 |
| Echostar | 0775 |
| Expressvu | 0775 |
| General Instrument | 0627, 0361, 0869 |
| HTS | 0775 |
| Hitachi | 0819 |
| Hughes Net. Sys. | 0749 |
| JVC | 0775 |
| Jerrold | 0627, 0361 |
| Magnavox | 0724, 0722 |
| Memorex | 0724 |
| Next Level | 0869 |
| Panasonic | 0701 |
| Philips | 0724, 0722 |
| Primestar | 0627, 0361 |
| Proscan | 0566 |
| RCA | 0566, 0143, 0855 |
| Radio Shack | 0566, 0869 |
| Sony | 0639 |
| Star Choice | 0869 |
| Toshiba | 0790 |
| Uniden | 0724, 0722 |
| Zenith | 0856 |

| Manufacturer | Codes for DVD players |
|---------------------|------------------------------|
| Harman/Kardon | 0582 |
| JVC | 0558 |
| Kenwood | 0534 |
| Magnavox | 0503 |
| Mitsubishi | 0521 |
| Onkyo | 0503 |
| Optimus | 0525 |
| Panasonic | 0490 |
| Philips | 0503, 0539 |
| Pioneer | 0525, 0571 |
| Proscan | 0522 |
| RCA | 0522 |
| Samsung | 0573 |
| Sony | 0533 |
| Technics | 0490 |
| Theta Digital | 0571 |
| Toshiba | 0503 |
| Yamaha | 0490, 0545 |
| Zenith | 0503, 0591 |

Troubleshooting

If the picture quality is poor or you are experiencing another type of problem, check the adjustments and operations before requesting service. See the symptoms listed below, and try the checks and remedies.

| Symptom | Remedy |
|---|---|
| There is no picture or sound. | <ul style="list-style-type: none"> • Make sure the power cord is properly inserted in the power outlet. • Make sure the main power switch of the unit is on. • Make sure another electronic device such as a lamp works in the power outlet. |
| There is no picture from AV. | <ul style="list-style-type: none"> • Make sure the brightness and contrast levels are properly adjusted. • The backlight may have reached the end of its service. • Make sure all the connections are connected properly. |
| There is a picture, but no sound. | <ul style="list-style-type: none"> • Make sure the volume is not set to minimum. • Make sure the sound is not set to mute. • Make sure the speakers are properly connected. |
| There is no picture or sound, just noise. | <ul style="list-style-type: none"> • The reception may be weak. • The state of the broadcast may also be bad. • Make sure the antenna or cable is not disconnected. |
| The picture is not clear. | <ul style="list-style-type: none"> • The reception may be weak. • The state of the broadcast may also be bad. • Make sure the antenna or cable is not disconnected. |
| The picture is light or improperly tinted. | <ul style="list-style-type: none"> • Check the color adjustments. • Check the color system settings. |
| The picture is too dark. | <ul style="list-style-type: none"> • Adjust the brightness setting in the OSD. • The backlight may have reached the end of its service life. |
| The remote control does not work. | <ul style="list-style-type: none"> • Check the batteries. Replace them if they are old. • Make sure the remote control is within operating range. • Check that there are no obstacles between the remote control and the sensor window on the display. |
| The picture is not sharp. | <ul style="list-style-type: none"> • The reception may be weak. • The state of the broadcast may also be bad. • Make sure the antenna or cable is not disconnected. |
| The picture moves. | <ul style="list-style-type: none"> • The reception may be weak. • The state of the broadcast may also be bad. • Make sure the antenna or cable is not disconnected. • Screen move feature in the OSD may be turned on. |

| Symptom | Remedy |
|--|---|
| The picture is doubled or tripled. | <ul style="list-style-type: none"> • Make sure the antenna is facing the right direction. • There may be reflected electric waves from mountains or buildings. |
| The picture is spotted. | <ul style="list-style-type: none"> • There may be interference from automobiles, trains, high-voltage lines, or neon lights. • There may be interference between the antenna cable and the power cable. Try positioning them further apart. |
| There are stripes on the screen or colors fade. | <ul style="list-style-type: none"> • Check that the display is not receiving interference from other devices. • Transmission antennas of radio broadcasting stations and of amateur radio and cellular phones may also cause interference. • Use the units as far as possible from other devices that may be causing interference. |

Specifications

General Specifications

| | |
|-----------------------------|---|
| Model | HP PL4245N 42" Plasma HDTV |
| Plasma Panel Size | 42 inch (Diagonal) |
| Pixel Resolution | 1024 X 768 pixels |
| Display Color | 16.7 millions of colors (R/G/B each 256 scales) |
| Comb Filter | 3D Digital Comb Filter for more accurate color processing on TV and Composite Video |
| Brightness | 1000 Cd/m ² (without filter) |
| Contrast Ratio | 3000:1 |
| Viewing Angle | Over 160 degrees horizontal and vertical |
| Audio Function | External speakers with 10 watts per channel |
| Picture in Picture | Second sub screen to show different input source simultaneously |
| Zoom and Freeze function | Enlarge, minimize, or freeze the image |
| Screen Aspect Ratio Control | 16:9 Widescreen |
| HDTV Signal Compatible | Accepts HDTV signals up to 1080i when using external DTV receiver |
| OSD Language | English |
| Diagonal Screen Size | 29.6 inches |
| Viewable Image Area | 42 inches |
| Screen Opening (W x H) (mm) | 946(W) x 546(H) mm |
| Anti-reflective coating | Yes |

TV Tuner Specifications

| | |
|-----------------------|---|
| TV Tuner | Built-in NTSC TV Tuner with Picture-in-Picture viewing capability (second source required) |
| Tuning Options | <ul style="list-style-type: none"> • Auto channel finder • Intelligent tuning system |
| Channel Coverage | <ul style="list-style-type: none"> • VHF 2 ~ 13 • UHF 14 ~ 69 • CATV 1 ~ 125 |
| Antenna | 75 Ohm External |
| Cable Tuning System | Standard, AIR |
| Closed Caption | Yes (TV only) |
| MTS Sound Processing | Stereo, mono, SAP |
| V-chip | Password protect viewing according to age and content rating, TV rating, and MPAA rating |
| HDTV Supported Inputs | Component Input (YpVPr) and DVI: 1080i/720p/480p/480i |

Audio

| | |
|----------------|-----------------------------------|
| Sound Modes | Standard, SRS WOW, BBE, Subwoofer |
| Audio Power | 10W x 2 |
| Speakers | Removable |
| MTS/SAP | Yes — Stereo, mono, SAP |
| Audio Out | 1 (RCA Pair) |
| Audio Controls | Bass/Treble/Volume/Balance/Mute |

Controls

| | |
|--------------------------|---|
| Universal Remote Control | Programmable universal remote controls TV and three additional devices, including HP Media Center PCs |
| Front Controls | Input Selection, Menu, Channel Up and Down, Volume Up and Down, Power |

Connectors

| | |
|---|-------|
| Antenna input (75 Ohm F connector) | 1 |
| High Definition Component Input (Y, Pb, Pr) | 2 set |
| Composite Video Input (AV) | 2 set |
| S-Video Input | 1 |
| PC Input (RGB-VGA) | 1 |
| DVI-HDCP Interface | 1 |
| HDCP Support | Yes |
| A/V Audio Inputs | 2 set |
| PC Audio Input | 1 set |
| Component Audio Input | 2 set |
| TV Video Out | 1 set |
| Audio Out — RCA Pair | 1 |
| Subwoofer Audio Output | 1 |
| RS-232 (for service) | 1 |

Power Supply Specifications

| | |
|--------------------|---|
| Power Supply | Auto-ranging, 90 to 265 V $\sqrt{}$; internal power supply, 47.5 ~ 63 Hz |
| Power Input | AV 100 V ~ 220 V |
| Frequency | 50 Hz ~ 60Hz |
| Power Consumption | 400 Watts (average) |
| Nominal Current | 3.8A |
| Power Saving Mode | <5W |
| Off Mode | <3W (switch off) |
| Power Cable Length | 70 inches |

Dimensions and Weight Specifications

| | |
|--------------|---|
| Dimension | 49.7"(W) x 28.9"(H) x 11.7"(D) with stand |
| Weight | 75 lbs. (without stand) |
| Display Size | 36.3"(W) x 20.4"(H) |
| Aspect Ratio | 16:9 |

Timing Mode Factory Settings

There are total of 17 default timing modes in factory setting listed in the table below:

Factory Setting Modes (RGB)

| Number | Resolution Horizontal | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Dot Frequency Clock (MHz) | Remark |
|--------|-----------------------|----------------------------|-------------------------|---------------------------|--------|
| 1 | 640×480 | 31.469 | 59.940 | 25.175 | VGA |
| 2 | 640×480 | 37.500 | 75.000 | 31.500 | VESA |
| 3 | 640×480 | 37.861 | 72.809 | 31.500 | VESA |
| 4 | 640×480 | 43.300 | 85.000 | 36.000 | VESA |
| 5 | 720×400 | 31.469 | 70.087 | 28.322 | VGA |
| 6 | 800×600 | 35.162 | 56.300 | 40.000 | VESA |
| 7 | 800×600 | 37.879 | 60.317 | 40.000 | VESA |
| 8 | 800×600 | 46.875 | 75.000 | 49.500 | VESA |
| 9 | 800×600 | 48.077 | 72.188 | 50.000 | VESA |
| 10 | 800×600 | 53.700 | 85.000 | 56.300 | VESA |
| 11 | 1024×768 | 48.363 | 60.004 | 65.000 | VESA |
| 12 | 1024×768 | 56.476 | 70.069 | 75.000 | VESA |
| 13 | 1024×768 | 60.024 | 75.000 | 78.750 | VESA |
| 14 | 1024×768 | 68.700 | 85.000 | 94.500 | VESA |
| 15 | 1280×720 | 45.106 | 60.142 | 76.500 | VESA |
| 16 | 1280×960 | 60.000 | 60.000 | 108.000 | VESA |
| 17 | 1280×1024 | 63.980 | 60.018 | 107.997 | VESA |

- When the input signal exceeds the unit's allowable range, a "Signal out of range" message is displayed.
- Refer to the Video Information menu in the OSD to ensure the correct format of the input signal.

Agency Regulatory Notice

Federal Communications Commission Notice

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 or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett-Packard Company may void the authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

Declaration of Conformity for products marked with the FCC logo – United States only

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, including interference that may cause undesired operation.

For questions regarding your product, contact:

Hewlett-Packard Company
P.O. Box 692000, Mail Stop 530113
Houston, Texas 77269-2000

Or call: 1-800-652-6672

For questions regarding this FCC declaration, contact:

Hewlett-Packard Company
P.O. Box 692000, Mail Stop 510101
Houston, Texas 77269-2000

Or call: (281) 514-3333

To identify this product, refer to the part, series, or model number found on the product.

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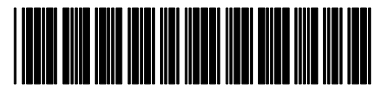
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