42" HD Plasma TV with ATSC Tuner PLA-4248





Table of Contents

Polaroid. Add a little color to your life.

Since 1937, America has turned to Polaroid for their photography needs. Today, families look to Polaroid for consumer electronics that define the digital age: plasma and LCD TVs, portable and standard DVD players, digital cameras. And while our selection has changed, you'll still receive the same friendly, helpful service that made Polaroid an American icon. Congratulations on your new Polaroid Plasma TV purchase. To ensure your new Plasma TV provides you with years of enjoyment, please read this guide carefully.

Table of Contents

Important Information	1
Important Safety Precautions	2
Setup	5
Identification of Controls	8
Connections	11
Basic Operations	17
Memorizing the Channels	18
Channel Selection	20
Setting Picture	21
Setting Sound	22
Time Set and Sleep Timer	23
Viewing Closed Captions	24
Setting Parental Control	25
Screen Setup for VGA(PC) Mode/Component Mode	28
Troubleshooting	29
Care and Maintenance	30
Specifications	31
Programming the Universal Remote Control	32

Important Information

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR

MOISTURE.

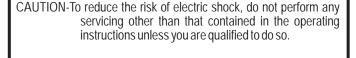


CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.





The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This product utilizes tin-lead solder, and fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eia.org

FCC STATEMENT

FCC Notice

PDP TV: A CLASS B digital device

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 when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC CAUTION:

Pursuant to 47CFR, Part 15.21 of the FCC rules, any changes or modifications to this monitor not expressly approved by the manufacturer could cause harmful interference and would void the user's authority to operate this device.

WARNING: This is a CLASS B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to counter interference.

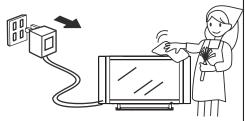
Important Safety Precautions

Electrical energy can perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. But IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your PDP TV product, please read the following precautions carefully before using the product.

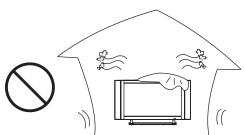
- 1. Read these instructions---All operating instructions must be read and understood before the product is operated.
- 2. Keep these instructions---These safety and operating instructions must be kept in a safe place for future reference.
- 3. Heed all warnings---All warnings on the product and in the instructions must be observed closely.
- 4. Follow all instructions---All operating instructions must be followed.
- 5. Do not use this apparatus near water---for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like. Do not use immediately after moving from a low temperature to high temperature environment, as this causes condensation, which may result in fire, electric shock, or other hazards.



6. Clean only with dry cloth---Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.



7. Ventilation---Do not block any ventilation openings. Install in accordance with the manufacturer instructions. The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.



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



- 9. Grounding or Polarization---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, consult an electrician for replacement of the obsolete outlet.
- 10. Power cord protection---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. Attachments---Only use attachments/accessories specified by the manufacturer. Do not use attachments not recommended by the manufacturer. Use of improper attachments can result in accidents.

Important Safety Precautions (continued)

12. Stand---Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. Do not place the product on an unstable trolley, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting inserious personal injuries as well as damage to the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.

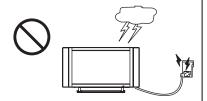


13. Move carefully---When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. Sudden stops, excessive force and uneven floor surfaces can cause the product to fall from the trolley.



14. Lightning---Unplug this apparatus during lightning storms or when unused for long periods of time.

For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.



- 15. Servicing---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.
- 16. Replacement parts---In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
- 17. Overloading---Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.
- 18. Entering of objects and liquids---Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- 19. Damage requiring service---If any of the following conditions occurs, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.
- a. When the power cord or plug is damaged.
- b. When a liquid is spilled on the product or when objects have fallen into the product.
- c. When the product has been exposed to rain or water.
- d. When the product does not operate properly as described in the operating instructions.

Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.

- e. If the product has been dropped or the cabinet has been damaged in any way.
- f. When the product displays an abnormal condition or exhibits a distinct change in performance. Any noticeable abnormality in the product indicates that the product needs servicing.
- 20. Safety checks---Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
- 21. Wall or ceiling mounting---When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer. This is a safety feature.

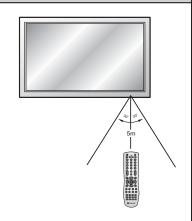
Important Safety Precautions (continued)

22. Power sourceThis product is intended to be supplied by a listed power supply indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the product due to lightning and power line surges. When the unit has to be used with another power supply voltage, the power cable must be changed. Consult your product dealer. The socket outlet should be installed near the equipment and easily accessible. Use only the power cord designated by our dealer to ensure safety and EMC. When connecting other products such as VCRs and personal computers, you should turn off the power of the unit for protection against electric shock.
23. Panel protectionThe PDP panel used in this product is made of glass. Therefore, it can break when the product is dropped or impacted upon by other objects. Be careful not to be injured by broken glass pieces in case the PDP panel breaks.
24.Pixel defectThe PDP panel is a very high technology product, giving you finely detailed pictures. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.

Using the Remote Control

■ Use the remote control by pointing it towards the remote sensor window of the set. Objects between the remote control and sensor window may prevent proper operation.

Note: This illustration is for reference only. The remote sensor may be in different locations on different models.



Cautions regarding use of remote control

- Do not expose the remote control to shock. In addition, do not expose the remote control to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- The remote control may not work properly if the remote sensor window of the main unit is under direct sunlight or strong lighting. In such a case, change the angle of the lighting or PDP TV set, or operate the remote control closer to the remote sensor window.

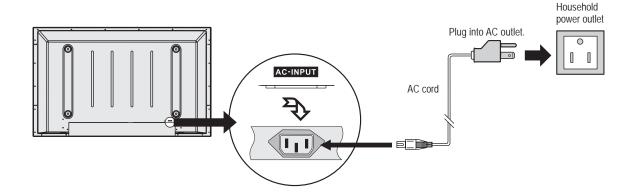
1 Open the battery cover. 2 Insert two size-AA batteries. (Place the batteries with their terminals corresponding to the (+) and (−) indications in the battery compartment.) 3 Replace the cover.

Precaution on battery use

Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.

- Place batteries with their terminals corresponding to the (+) and (–) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are non-operable. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe with a cloth.
- The batteries supplied with the product may have a shorter life expectancy due to storage conditions.
- If the remote control is not used for an extended period of time, remove the batteries from the remote control.

Power connection

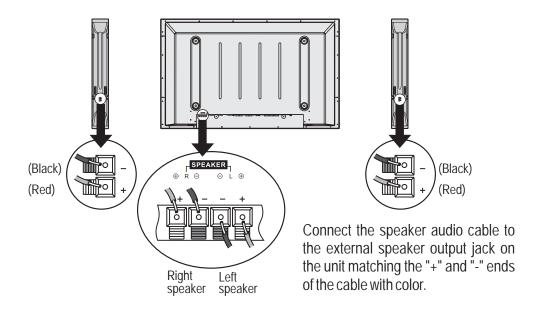


- 1. Connecting the female plug to the AC socket on the unit.
- 2. Connecting the male plug to the wall outlet as illustrated.

Note:

- This product should be operated only from the type of power source indicated on the marking label.
- Always unplug the AC cord from power outlet when not using for a long period of time.

Speaker connection



Note

- 1. Unplug the plasma display and all connected components before connecting the speakers.
- 2. The illustration may be different depending on model.

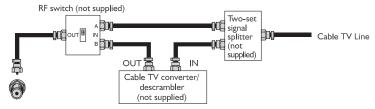
Antenna Connection

Cable TV (CATV) connection

A 75-ohm coaxial cable connector is built into the set for easy hookup. When connecting the 75- ohm coaxial cable to the set, screw the 75-ohm cable to the ANT. Terminal.

Some cable TV companies offer "premium pay channels". Since the signals of these premium pay channels are scrambled, a cable TV converter/descrambler is generally provided to the subscriber by the cable TV company.

This converter/descrambler is necessary for normal viewing of the scrambled channels. For more specific instructions on installing cable TV, consult your cable TV company. One possible method of utilizing the converter/descrambler provided by your cable TV company is explained below. Please note: An RF switch provided with two inputs (A and B) is required (not supplied).



"A" position on the RF switch (not supplied): You can view all unscrambled channels by using the TV's channel keys.

"B" position on the RF switch (not supplied): You can view the scrambled channels via the converter/descrambler by using the converter's channel keys.

Note:

Consult your Dealer or Service Center for the type of splitter, RF switch or combiner that might be required.

Antennas

The antenna requirements for good color television reception are more important than those for black & white television reception. For this reason, a good quality outdoor antenna is strongly recommended.

The following is a brief explanation of the type of connections that are provided with the various antenna systems.

1. A 75-ohm system is generally a round cable with F-type connector that can easily be attached to a terminal without tools (not supplied).

2. A 300-ohm system is a flat "twin-lead" cable that can be attached to a 75-ohm terminal through a 300-75-ohm adapter (not supplied).

75-ohm coaxial cable (round)

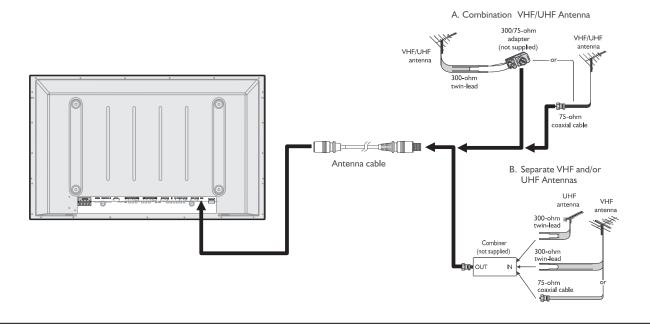
Outdoor antenna connection

Use one of the following two diagrams if you connect an outdoor antenna.

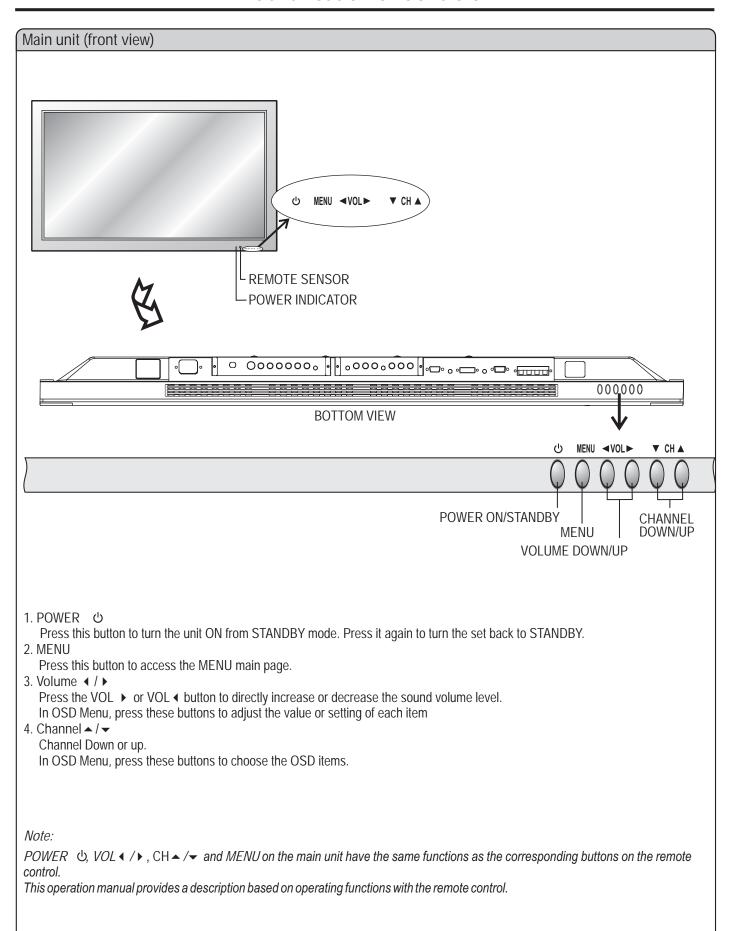
A: Using a VHF/UHF combination outdoor antenna.

B: Using separate VHF and/or UHF outdoor antennas.

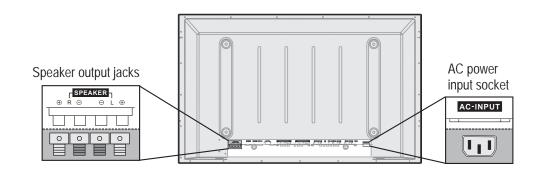
Connect the outdoor antenna cable lead-in to the ANT. terminal on the rear of the TV set.

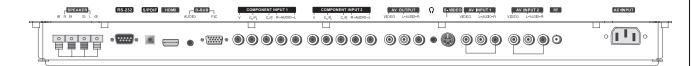


Identification of Controls



Main unit (rear view)





1. Speaker output jacks

2. RS232 control interface

For service only. The user cannot operate the unit through the RS232 terminals.

3. S/PDIF digital audio out terminal (optical)

4. HDMI input

To connect with those equipments with HDMI interface, for example, Set-top box or DVD player.

5. D-Sub interface /Audio in

Connect with those equipments with D-Sub interface, for example, PC.

Connect the audio jacks as well with audio cable.

6. Component inputs 1

Connect to the audio and component output jacks of a DVD player or Set-Top Box.

7. Component inputs 2

Connect to the audio and component output jacks of a DVD player or Set-Top Box.

8. AV outputs

Connect to the VCR input jacks to record programs.

9. Earphone jack

10. S-Video input

Receive a S-Video signal from external source such as VCR or DVD player.

11. AV inputs 1

Receive a video/audio signals from external sources such as VCR or DVD player.

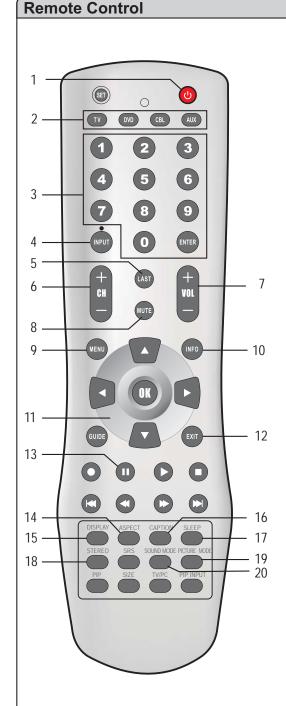
12. AV inputs 2

Receive a video/audio signals from external sources such as VCR or DVD player.

13. Antenna input

Allow you to connect cable or outdoor antenna.

14. AC power input



1. POWER ധ

Turn the unit on or off

- 2. To select additional products to be controlled with remote control Note: This remote control is an universal remote control. If your remote control does not work correctly when you operate the unit, please try to press TV button.
- 3. Direct channel selector/number buttons
 Use these number buttons to select channel or input password.
- 4. INPUT / •

To quickly select input source

DOT (•): used to enter a program number for multiple program channels such as 2-1,2-2, etc.

5. LAST

To quickly return to the previous channel

CH+/-

To select channels upward or downward

7. VOL+/-

Used to adjust volume.

8. MUTE

Sound mute

9. MENU

To access the Menu main page

10. INFO

To display channel status or signal information

- 11. Menu navigation button: ▲ ▼ ◀ ▶
 - ➤ : To move upward or downward in menu operation;
 - ◆ : To move left or right in menu operation;
 To adjust selected menu item in menu operation;

OK button: To confirm or toggle between the settings of the selected menu item.

12. EXIT

Used to exit the menu

13. STILL

To freeze current picture

14. ASPECT

To select screen aspect ratio

15. DISPLAY

To display channel status or signal information

16. CAPTION

To select closed caption mode

17. SLEEP

To set Sleep timer

18. STEREO

To select STEREO, SAP or MONO

19. PICTURE MODE

To select the picture mode

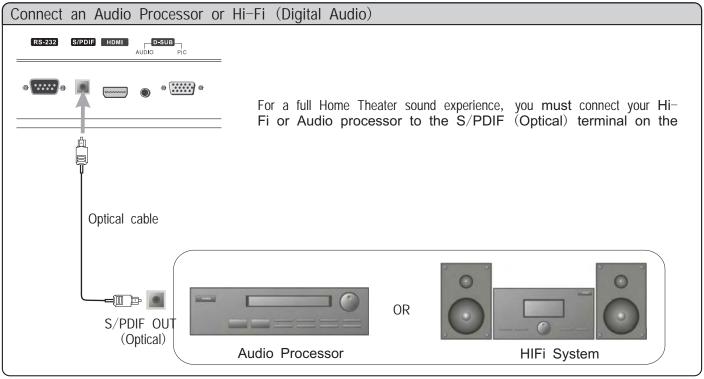
20. SOUND MODE

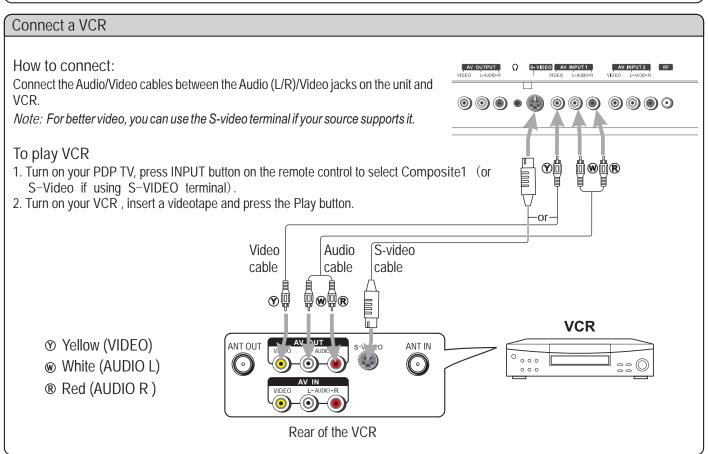
To select the sound mode

Connections

Cautions before connecting

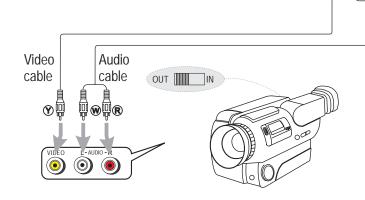
- Carefully check the terminals for position and type before making any connections.
- The illustration of the external equipment may be different depending on your model.
- Loose connectors can result in image or color problems. Make sure that all connectors are securely inserted into their terminals. Refer to the user manual of the external device as well.
- When connecting an external device, turn the power off on the panel to avoid any issues.





Connect a Camcorder

- White (AUDIO L)
- ® Red (AUDIO R)



 $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$

W # R

How to connect:

Connect the Audio/Video cables between the Audio (L/R)/Video jacks on the unit and camcorder.

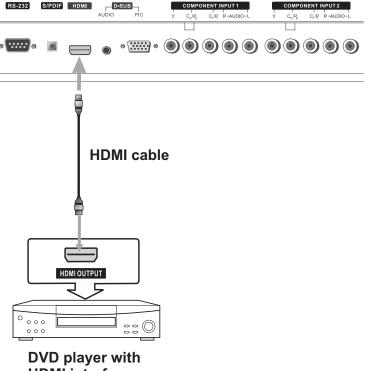
To playback Camcorder

- 1. Turn on your PDP TV , press INPUT button on the remote control to select Composite 2.
- 2. Turn on your VCR, insert a videotape and press the Play button.
- 3. Turn on your camcorder and set it to output mode. (For details, refer to your camcorder user manual.)
- 4. Insert the tape into the camcorder and press Play button.

Note:

The operations of the camcorder may be different and is dependant on your model. Please read the user manual of your camcorder to confirm operation.

Connect a DVD player



HDMI interface

How to connect a DVD Player using HDMI Connection:

Connect the HDMI cable between the HDMI interface on the unit and HDMI output on the DVD player.

To play DVD

- 1. Turn on your PDP TV , press INPUT button on the remote control to select HDMl.
- 2. Turn on your DVD player, insert a DVD disc and press the Play button.

Note:

If the external device has DVI output only, use a DVI to HDMI adapter cable to connect to the HDMI terminal. Connect the audio cable to the AUDIO IN terminal of D-SUB on the TV

Connect a DTV receiver D-SUB S/PDIF HDMI AUDIO ⊚</l></l></l></l></l> ٮٮ R Ü w white (audio L) Video Audio R red (audio R, Pr/Cr) cable cable G Green (Y) B Blue (P_b/C_b) **DTV Receiver** ANT \bigcirc DVI Rear of the DTV receiver

How to connect:

Connect the cable or antenna to the antenna input jack on the DTV receiver.

Connect the Video cable between the Y, Pb, Pr input jacks on the unit and Y, Pb, Pr output jacks on the DTV receiver .

Connect the Audio cable between the AUDIO input jack on the unit and AUDIO output jacks on the DTV receiver.

To Watch DTV

- 1. Turn on your PDP TV , press INPUT button on the remote control to select Component1.
- 2. Turn on your DTV receiver.

Connect a PC RS-232 SIPDIF HDMI AUDIO PIC COMPONENT INPUT Y C₀/P₀ C₀/P₀ R-AUDIO-L D-sub Cable Audio cable

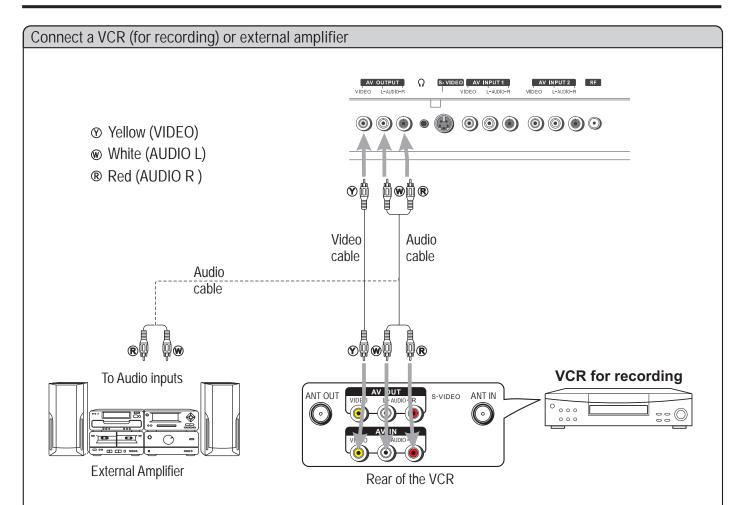
How to connect:

Connect a D-sub cable between the D-sub jack on the PC and the D-sub input jack on the unit.

Connect an Audio cable between the AUDIO output on the PC and AUDIO input jack on the unit.

To Watch the PC screen

- 1. Turn on your PDP TV , press INPUT button on the remote control to select VGA.
- 2. Turn on your PC and check for PC system requirements.
- 3. Adjust the PC screen.



How to connect:

Connect the Audio/Video cables between the Audio (L/R)/Video jacks on the unit and VCR.

Connect the Audio cables between the Audio (L/R) jacks on the unit and external amplifier.

To record program

- 1. Turn on your PDP TV, select a program you wish to record.
- 2. Turn on your VCR, insert a videotape for recording.
- 3. Press the Record button to begin recording.

To enjoy high-quality sound through an external amplifier

Note:

The operations of the amplifier may be different depending on model. Please read the user manual of your amplifier to confirm proper operation.

The AV output terminals output audio/video signal inputted from Antenna input or AV inputs.

Basic Operations

Turning the Unit On and Off

Turning On

Insert the power cord into the wall outlet.

Press the **Power** button on the remote control, the unit will be turned on and you will be ready to use its features.

Turning Off

With the power on, press the **Power** button on the remote control to turn off.

Note: You can also use the **Power** \circlearrowleft button on the control panel on the main unit.

Viewing the Menus and Displays

This unit has a simple, easy-to-use menu system that appears on the screen. This system makes it convenient and fast to use features on the unit. The unit also lets you display the status of many of your TV features.

Menu navigation

- 1 With the power on, press the **MENU** button to display the main menu.
- 2 Press ▲ or ▼ button to select menu page.
- 3 Press OK or ▶ button to enter the menu page.
- Within the menu, use ▲, ▼, ◀ or ▶ to navigate or adjust.
 Press OK or ▶ button to confirm, enter sub-menu or toggle the settings of the selected menu item.
- Press **MENU** button to return to the previous level menu. Press **EXIT** button to exit the main menu and return to your program.

Note: to clearly introduce the menu operations, this operation manual provides a description based on operation with the remote control.

Displaying Status Information

Press the **INFO** button on the remote control, the unit will display current status information such as channel number or signal source, etc.

On-screen Menus Language Selection

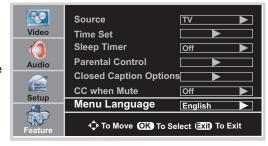
- 1 Press MENU.
- Press ▲ or ▼ to select **Feature** menu, press **OK** or ▶ to access the submenu.
- Press ▲ or ▼ to select **Menu Language** item, press **OK** or ▶ to select your desired language.
- 4 Press **EXIT** button to return to TV viewing.

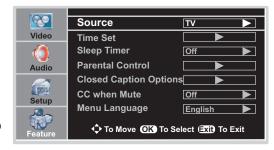
Selecting Input Source Signal

- 1 Navigate to the **Feature** menu and highlight **Source**.
- Press **OK** or ▶ to select your desired input source.

Note: You may directly press **INPUT** button on the remote control to select input source.

Component2-----Select signal from COMPONENT INPUT2 terminals.





```
TV ------Select TV signal.

Composite1-----Select signal from AV INPUT1 terminals.

Composite2-----Select signal from AV INPUT2 terminals.

Component1-----Select signal from COMPONENT INPUT1 terminals.

VGA------Select signal from D-SUB input interface.

HDMI------Select signal from HDMI input interface.

S-Video------Select signal from S-VIDEO input terminal.
```

Memorizing the Channels

This unit can automatically find all channels available through antenna or cable inputs, and store them in memory. **Note**: Be sure to select the **TV** source before operation.

Selecting the Tuning Band

Before your TV can memorize the available channels, you must specify the type of signal source that is connected to the unit. (i.e., an antenna or cable system)

- 1 Press **MENU** to display the menu main page.
- 2 Press ▲ or ▼ repeatedly to select **Setup** menu.
- 3 Press **OK** or ▶ to access the submenu.
- 4 Press ▲ or ▼ to select Tuning Band item.
- 5 Press **OK** or ▶ to select the Tuning Band.

Air, Cable, Cable HRC, Cable IRC and Cable Auto can be selected.

- ♦ If using antenna, select Air;
- ♦ If using cable, select one of Cable/Cable HRC/Cable IRC/Cable Auto according to your local area's cable system. **Normally please select Cable Auto**. (For further band information, contact your cable service provider.)

Auto Channel Search

- 1 Navigate to the **Setup** sub-menu and highlight **Auto Ch Search**.
- Press **OK** or **>** to begin the auto channel search.

 The unit will automatically search for all available TV/DTV (if using antenna), CATV/CADTV (if using cable) program.

Note: if you want to stop the auto-search, press **EXIT** button.

Manual Channel Set

After setting channels into memory, you can add or delete channels from the default channel list as follows:

- 1 Navigate to the **Setup** sub-menu and highlight **Manual Ch Set**.
- Press OK or ▶ to open Manual Channel Set Menu sub-menu.
- 3 Use navigation buttons (♠,♥,♠ or ▶) to navigate and select, use **OK** button to add (the added channel will have a mark) or delete the channel. (If you want to toggle between NTSC and ATSC, use navigation buttons to highlight it, and then use **OK** to toggle.)
- 4 Press **EXIT** button to exit.

Now when you use CH+/- buttons to cycle among the channels, the deleted channels can not be selected.

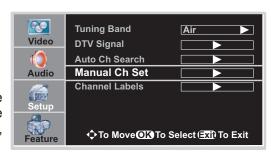
Note:

- For DTV program, you can only delete the programs from the list, you can not add it.
- You can make use of Manual Channel Set Menu to know whether an ATSC channel exists as a sub channel.

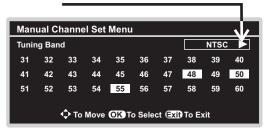








Use OK button to toggle between NTSC and ATSC after highlighted.



Memorizing the Channels (continued)

DTV Signal Strength

You can make use of DTV signal strength monitor to check how strong your DTV signal is and whether you need to adjust your antenna or digital cable input. The higher the signal strength, the less likely you are to experience picture degradation.

- 1 Navigate to the **Setup** sub-menu and highlight **DTV Signal**.
- Press **OK** or ▶ to view the on-screen signal strength monitor to see the quality of the signal being received.





Channel Label Setup

If required, you can give a name to the programs.

Note: if a channel label is provided on the signal from the broadcasting station, the TV displays a short name for a DTV channel even if you didn't setup a label for the channel.

- 1 Navigate to the **Setup** sub-menu and highlight **Channel Labels**.
- Press OK or ▶ to open Channel Labels Menu.
- Within the menu, use ◀ / ▶ to move the highlight or cursor.

 Use ▲/▼ to toggle between NTSC and ATSC, or select channel number, or select character.

 You may use **OK** button to return to the previous level menu.
- 4 To quit, press **EXIT** button.





Channel Selection

Information about USA channel numbering

- ATSC PSIP channel has two part channel number:
 - Major channel number ⇒ Frequency
 - Minor channel number ⇒ Sub channel on frequency
- In USA, the major channel number is same for both analog and digital frequencies. (It is equal to the NTSC channel number for existing broadcasters.)
- In USA, a minor channel number of zero is used for a broadcaster's analog channel.

Channel Numbering Example

- Original NTSC Channels for Des Moines:
 - **—** 5, 8, 11, 13, 17
- Possible NTSC + ATSC Channels for Des Moines:
 - 5-0, 8-0, 11-0, 13-0, 17-0 (channel numbers for existing analog channels, all on original NTSC analog frequencies)
 - 5-1, 5-2, 8-1, 8-2, 8-3,8-4, 13-1 (channel numbers for digital channels on three new digital frequencies)

Channel Selection

Using the Channel up/down buttons (CH+ or CH-)

Press the **CH+** or **CH-** to cycle among available channels found.

Using the direct select buttons (0-9 and dot buttons)

Press the **number buttons (0-9)** and the **dot button (•)** to go directly to a channel.

For example, if you want to select channel 8-3, just key in '8', '•', '3' on the remote control.

Note:

- When you use the number buttons, you can directly select any channel within the channel range.
- In some situations virtual channel numbers have no correspondence to physical frequencies.

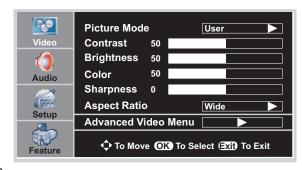
Using the LAST button

Press this button to switch between the current channel and the last viewed channel.

Setting Picture

Customizing the Picture

- 1 Press MENU to display the menu main page.
- Press ▲ or ▼ repeatedly to select **Video** menu.
- Ress **OK** or ▶ to access the submenu.
- ⚠ Within the menu, use ♠, ▼, ♠ or ▶ to navigate or adjust. Press OK or ▶ button to confirm, enter sub-menu or toggle Notes: the settings of the selected menu item.
- 5 Press **EXIT** button to exit.



The OSD illustration shown above is Video menu in RF(TV) mode.

The menu items may be different when the unit works in different mode.

Option		Function	Choice/remarks	
Picture Mode Selects a desired picture mode.		Selects a desired picture mode.	User/Nature/Soft/Bright Note: you may directly press PICTURE MODE but on the remote control to select.	
	Contrast	Adjusts image contrast.	▶ : stronger ∢ : weaker	
Brightness view		Adjusts screen brightness for easier viewing of dark picture such as night scenes and black hair.	▶ : lighter ◀ : darker	
	Color	Adjusts color saturation.	▶ : stronger ∢ : weaker	
	Sharpness	Adjusts image sharpness and displays a sharp image.	 : sharper : softer	
A	Aspect Ratio	Selects screen aspect ratio.	Wide/Cinema/Normal/Zoom Note: you may directly press ASPECT button on the remote control to select.	
Menu	Noise ReductionSpatial Noise ReductionSpeckle Noise ReductionTemporal	Reduces noise in the picture, commonly called snow.	On/Off	
Video N	Tint	Adjusts tint for image.	 : greenish : purplish	
Advanced Vi	Color Temperature	Selects one of three automatic color adjustments. Sets to warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue.		
Ā	3D Y/C	Selects 3D comb filter on/off, normally please select On.	On/Off	

To still the picture

Press the STILL® button to hold on the image on the screen (the video sources are still operating). Press the button again to reactivate the image.

Note:

For the sake of protecting the screen, please do NOT still a picture for a long time.

Setting Sound

Adjusting the Volume

Using the volume buttons (VOL+ and VOL-)

Press the VOL+ or VOL- to increase or decrease the volume.

Using the Mute

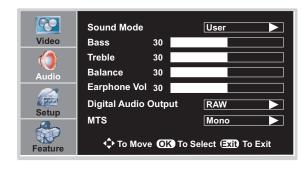
At any time, you can temporarily cut off the sound using the MUTE button.

- 1 Press the **MUTE** button and the sound cuts off.
- 2 To turn mute off, press the **MUTE** button again.

Customizing the sound

- 1 Press **MENU** to display the menu main page.
- 2 Press ▲ or ▼ repeatedly to select Audio menu.
- 3 Press **OK** or ▶ to access the submenu.
- Within the menu, use ▲ , ▼ , ◀ or ▶ to navigate or adjust.

 Press **OK** or ▶ button to confirm, enter sub-menu or toggle the settings of the selected menu item.
- 5 Press **EXIT** button to exit.



(The above menu is shown as an example. It is in TV mode and the signal is analog)

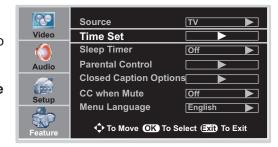
Option	Function	Choice/Range/Remarks
Sound Mode	Selects sound mode.	User/News/Music/Movie Note: you may directly press SOUND MODE button on the remote control to select.
Bass	Adjusts Bass (low sounds)	▶ : stronger ◀ : weaker
Treble	Adjusts Treble (high sounds).	▶ : stronger ◀ : weaker
Balance	Adjusts volume balance (left and right volumes).	▶ :Higher volume from right speaker.◀ :Higher volume from left speaker.
Earphone Vol	Adjusts earphone volume.	▶ : stronger ◀ : weaker
Digital Audio Output	Selects audio output mode from SPDIF. RAW:AC-3 in AC-3 out PCM:AC-3 in PCM out PCM in PCM out	RAW/PCM
MTS (In analog signal only)	Selects MTS (multi-channel TV sound) mode: Mono, Stereo and SAP (Second Audio Program).	The choice may be different in different situation Note: you may directly press STEREO button on the remote control to select.
Audio Language (In digital signal only)	Other languages may be available if a digital signal is provided by the broadcasting station.	The choice may be different in different situation

Notes: the menu items may be different when the unit works in different mode.

Time Set and Sleep Timer

Auto Clock Setup

- The time is set automatically from a digital channel signal.
- The digital channel signal includes information for the current time provided by the broadcasting station.
- Set the clock manually, if the current time is set incorrectly by the auto clock function.
- 1 Press MENU to display the menu main page.
- Press ▲ or ▼ repeatedly to select **Feature** menu, press **OK** or ▶ to access the submenu.
- 3 Highlight Time Set menu item, press OK or ▶ to access the Time
- 4 Highlight Time Set Mode and then use OK or ▶ to select Auto.
- Highlight Time Zone and then use OK or ▶ to select your viewing area time zone: Pacific, Alaska, Hawaii, Eastern, Central, Mountain.
- Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.





Manual Clock Setup

- If current time setting is wrong, reset the clock manually.
- 1 Navigate to the **Feature** sub-menu, highlight **Time Set Mode** and then use **OK** or **>** to select **Manual**.
- Press ▲ or ▼ to select either the Year, Date, or Time option. Once selected, use **OK** or ◀ / ▶ to set the year, date, and time options.
- 3 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Note: if you power off the TV set, the clock will be reset.



Sleep timer

Sleep timer lets you select the amount of time before your TV turns itself off automatically.

Navigate to the **Feature** sub-menu, highlight **Sleep Timer** and then use **OK** or ▶ to select the amount of time. To turn off sleep timer, select **Off**.

Note: you may directly press **SLEEP** button on the remote control to set sleep timer.



Viewing Closed Captions

The unit decodes and displays the closed captions that are broadcast with certain TV shows. These captions are usually subtitles for the hearing impaired or foreign language translations. All VCRs record the closed caption signal from television programs, so home-recorded video tapes also provide closed captions. Most prerecorded commercial video tapes provide closed captions as well. Check for the closed caption symbol in your television schedule and on the tape's packaging: .

Note:

The Caption feature does not work with Component, VGA, HDMI.

Not all the programs and videos will offer closed captioning. Please look for the 🚾 symbol to ensure that captions will be shown.

Analog Broadcasting System Captions

- Select a caption mode for displaying captioning information if provided on a program.
- -Analog caption displays information on the screen usually the program's dialog.

Press **CAPTION** button on the remote control to select caption mode: CC1, CC2, CC3, CC4, TEXT1, TEXT2, TEXT3 or TEXT4.

To turn off closed captioning, press CAPTION repeatedly to select Off.

The Closed Caption broadcasts can be viewed in two modes: CAPTION and TEXT. For each mode, four channels are available.

The [CAPTION] mode shows subscripts of dialogues and commentaries of TV dramas and news programs while allowing a clear view of the picture.

The [TEXT] mode displays various information over the picture (such as TV program schedule, weather forecast, etc.) that is independent of the TV programs.

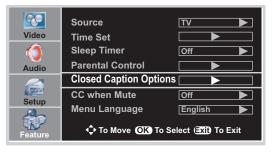
Digital Broadcasting System Captions

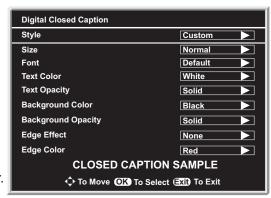
- You may use **CAPTION** button on the remote control to select caption mode.
- ◆ You can customize the digital closed captions that appear on your screen.
- 1 Navigate to the **Feature** sub-menu, highlight **Closed Caption**Options and then use **OK** or ▶ to open the **Digital Closed**Caption sub-menu.
- 2 Highlight Style and then use OK or ▶ to select Custom.
- Press ▲ or ▼ to select your desired item, and then use **OK** or ▶ to customize the Size, Font, etc. to your preference. A preview sample is provided at the bottom of the menu screen for you to see the effect.
 - ♦ Size: Set the size the words will appear in.
 - ◆ Font: Select a typeface for the words.
 - ◆ Text Color: Choose a color for the text.
 - ◆ **Text Opacity**: Specify the opacity for the text color.
 - ◆ Background Color: Select a background color.
 - ◆ Background Opacity: Select the opacity for the background color.
 - ◆ Edge Effect: Select an edge effect.
 - ◆ Edge Color: Select a color for the edges.

Setting CC When Mute

- 1 Navigate to the **Feature** sub-menu, highlight **CC when Mute**.
- Press **OK** or ▶ to select **On** or **Off**.

 When **On** is selected, the unit will automatically display closed caption when you mute the sound.







Setting Parental Control

Parental Control

This function allows TV programs to be restricted and TV usage to be controlled based on FCC data. It prevents children from watching violent or sexual scenes that may be harmful.

Restriction of TV programs includes two ratings that contain information about the program: the MPAA rating and the TV Parental Guidelines. The MPAA rating is restricted by age. TV Parental Guidelines are restricted by age and content.

Since a TV program may use either the MPAA rating or the TV Guidelines, both should be adjusted for complete control.

[1] Movie Rating (MPAA)

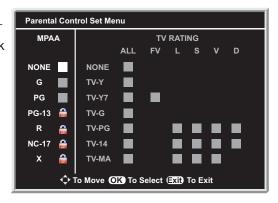
R	ating	
	G	GENERAL AUDIENCES. All ages admitted.
	PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
200	PG-13	PARENTAL STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
age	R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
	NC-17	NO ONE 17 AND UNDER ADMITTED.
	Χ	X Rating is an older rating that is unified with NC-17 but may be encoded in the data of older movies.
	NONE	NOT RATED.

Note:

The Movie rating is only age-based.

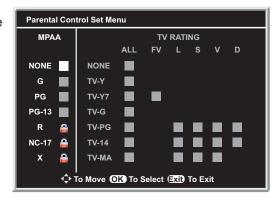
Example 1:

"PG-13" in the age-based rating is blocked, this will automatically block the higher ratings "R", "NC-17", "X" also.



Example 2:

"R" in the age-based rating is blocked, this will automatically block the higher rating "NC-17", "X" also.



Setting Parental Control(continued)

[2] TV Rating

Rating		content based				
		D	V	S	L	FV
	TV-Y (All children)	×	×	×	×	×
0.00	TV-Y7 (Direct to Older Children)	×	×	×	×	•
age	TV-G (General Audience)	×	×	×	×	
	TV-PG (Parental Guidance Suggested)	•	•	•	•	
	TV-14 (Parents Strongly Cautioned)	•	•	•	•	
	TV-MA (Mature Audience Only)		•	•	•	

Content Rating can be set but this Rating is not normally broadcast by TV Station.

D: Sexually Suggestive Dialog

V: Violence

S: Sexual Situation L: Adult Language FV: Fantasy Violence

Content Rating can be set.

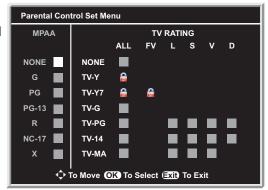
Note:

Age-based ratings can be modified by the content-based ratings but only in the combinations indicated by an ● in

Choosing lower age-based rating blocks the higher age-based ratings regardless of content ratings settings.

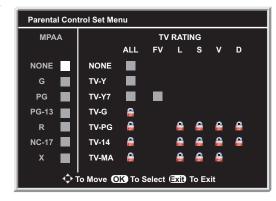
Example 1:

When TV-Y in the age-based rating is set to BLOCK, this will automatically block the higher rating: TV-Y7.



Example 2:

When TV-G in the age-based rating is set to BLOCK, this will automatically block the higher ratings: TV-PG,TV-14,TV-MA.



Setting Parental Control(continued)

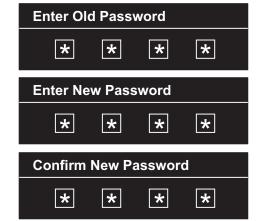
Password Setup

To use the Parental Control function, you first need to set your password.

- 1 Navigate to the **Feature** sub-menu, highlight **Parental Control** and then use **OK** or ▶ to access **Parental Control Menu**.
- 2 Highlight Password Change and then use OK or ▶ to access.
- 3 Input old password (4-digit, the preset password is 0000), then input a new password and then confirm again. Now your new password has been created successfully. Be sure to write down your password and retain it for future use.







MPAA Rating Setup

- 1 Navigate to the **Feature** sub-menu, highlight **Parental Control** and then use **OK** or **>** to access **Parental Control Menu**.
- 2 Highlight Parental Control Set and then use OK or ▶ to access.
- 3 Input your password correctly to access Parental Control Set Menu.
- 4 Within the menu, use ▲, ▼, ◀ or ▶ to navigate, use **OK** to block or unblock the rating.

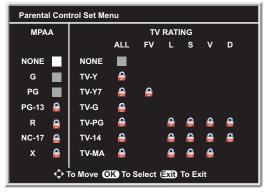
When "PG-13" in the age-based rating is blocked, this will automatically block the higher ratings "R", "NC-17", "X" also.





TV Rating Setup

- 1 Navigate to the **Feature** sub-menu, highlight **Parental Control** and then use **OK** or **>** to access **Parental Control Menu**.
- 2 Highlight Parental Control Set and then use OK or ▶ to access.
- 3 Input your password correctly to access Parental Control Set Menu.
- 4 Within the menu, use ▲, ▼, ◀ or ▶ to navigate, use **OK** to block or unblock the rating.



When TV-Y in the age-based rating is set to BLOCK, this will automatically block the higher rating: TV-Y7.

When TV-G in the age-based rating is set to BLOCK, this will automatically block the higher ratings: TV-PG,TV-14,TV-MA.

Screen Setup for VGA (PC) Mode/Component Mode

- Be sure to select the correct source (VGA or Component) before operation.

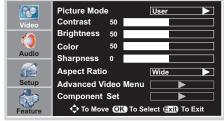
Customizing the picture

- 1 Navigate to the **Video** sub-menu.
- 2 Within the menu, use ♠, ▼, ◀ or ▶ to navigate or adjust.

 Press OK or ▶ button to confirm

Press **OK** or **>** button to confirm, enter sub-menu or toggle the settings of the selected menu item.





3 Press **EXIT** button to exit.

(Video menu in VGA mode)

(Video menu in Component mode)

Option		Function	Choice/remarks	
Picture Mode		Selects a desired picture mode.	User/Nature/Soft/Bright Note: you may directly press PICTURE MODE button on the remote control to select.	
Contrast		Adjusts image contrast.	▶ : stronger ◀ : weaker	
В	rightness	Adjusts screen brightness for easier viewing of dark picture such as night scenes and black hair.	▶ : lighter ◀ : darker	
	Color	Adjusts color saturation.	▶ : stronger ◀ : weaker	
SI	harpness	Adjusts image sharpness and displays a sharp image.	▶ : sharper ◀ : softer	
Aspect Ratio		Selects screen aspect ratio.	Wide/Cinema/Normal/Zoom Note: you may directly press ASPECT button on the remote control to select.	
חר	Noise ReductionSpatial Noise ReductionSpeckle Noise ReductionTemporal	Reduces noise in the picture, commonly called snow.	On/Off	
део Ме	Tint	Adjusts tint for image.		
Advanced Video Menu	Color Temperature	Selects one of three automatic color adjustments. Sets to warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue.	Cool/Warm/Normal	
	3D Y/C	Selects 3D comb filter on/off, normally please select On.	On/Off	
(for PC mode) Component mode)	H-Pos	Adjusts the horizontal position of the image.	▶ : rightward ◀ : leftward	
	V-Pos	Adjusts the vertical position of the image	▶ : upward • : downward	
3A Set Set (for	Clock	Adjusts the sample frequency.		
	Phase	Improves the focussing of stable image.		
V(Component	Setting	Selects and activates Preset to reset the adjusted values to original factor values.		

Troubleshooting

Before calling for repair service, check the following items for possible remedies to an encountered symptom.

Symptoms	Check item
	Check that the AC power cord is plugged into the mains socket.
No power	 Unplug the power cord, wait for 60 seconds. Then re-insert plug into the mains socket and turn on the unit again.
No picture	 Check video connections at the rear of the unit to see if it is properly connected to the unit. Adjust the contrast and brightness settings. Select a correct input. Is a non-compatible signal being input?
Good picture but no sound	Increase the VOLUME.Check that the unit is not muted.
Good sound but poor color	Adjust the contrast, color and brightness settings.
Poor picture	 Sometimes, poor picture quality occurs when an activated S-VHS camera or camcorder is connected while another activated peripheral is connected. In this case, switch off one of the peripherals. Check whether the room is too bright.
Horizontal dotted line	 This may be caused by electrical interference (e.g. hairdryer, nearby neon lights, etc.). Turn off the equipment.
Remote operation fails.	 This remote control is a universal remote control. If the remote control does not work correctly when operating the monitor, try pressing the TV button. Check whether the batteries are working. Replace if necessary. Clean the remote control sensor lens on the unit. Do not use the remote control under strong or fluorescent lighting. The batteries should be inserted with polarity (+, -) aligned.
Snowy picture and noise	• Check the A/V connections.
No stable or not synchronized VGA picture	Check if you have selected the correct VGA mode in your PC.
No output from one of the speakers	• Adjust Balance in the SOUND menu.
Control buttons do not work.	 Unplug the power cord, wait for a few seconds. Then re-plug the power cord and turn on the unit again.

☐ Do not use in hot and cold rooms (locations)

- When the unit is used in rooms (locations) with low temperature, the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the PDP panel to malfunction.

(Storage temperature: $0^{\circ}C$ to $+50^{\circ}C$ Working temperature: $5^{\circ}C$ to $+40^{\circ}C$)

Note:

If your problem is not solved, turn your unit off and then on again. Never attempt to repair a PDP TV yourself.

Troubleshooting / Care and Maintenance

Plasma Display panel

Symptoms	Check item
Some parts of the screen do not 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 after-image to remain on the 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. This product is not designed to display fixed images for extended periods of time.
Snapping sounds may be heard from the display unit.	This sound is produced when the cabinet expands or contracts due to variations in temperature and is not a malfunction.

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 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.

Specifications

Power supply: AC 100-240V 50/60Hz

Power Consumption: 400W Screen: 42" Weight: 86 (lb)

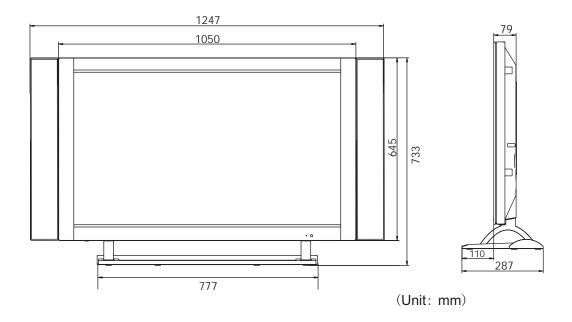
Channel coverage:

VHF UHF CATV CADTV DTV 2-13 14-69 1~125 1~135 2~69

TV system: NTSC-M, ATSC
Accessories Operating manual X 1

Remote control unit X 1

Unit Dimensions (WxHxD) (inch) 49 x 28.8 x 11.3





- 1. Design and specifications are subject to change without notice.
- 2. Weight and Dimensions shown are approximate.
- 3. Specifications and external appearance may be changed for the sake of improvement.

Programming your Remote Control

Introduction

Your remote lets you control four devices with one easy-to-use, compact unit. After installing batteries, you can program the remote to control your Universal TV, VCR or DVD, Cable or Satellite Receivers, Amplifier or Tuner, and Auxiliary devices. To do so, follow the instructions in "Programming a Device". For best results, please read and follow all the remaining instructions. Keep this guide for future reference.

A Quick Look at Programming a Device

To control VCR or DVD, Cable or Satellite Receivers, Amplifier or Tuner, and Auxiliary devices, follow these steps. Before proceeding, find the codes for the devices you want to program in "Manufacturer's Codes" in pages 35-47 and write them down or highlight them.

NOTE: To program a DVD Player, TV/DVD Combo, TV/VCR/DVD Combo, portable DVD player, or mobile DVD player, use the DVD key.

- 1. Turn on the device (for example, DVD player) and, if needed, load media (for example, a DVD).
- 2. Press a device key (VCR/DVD, CBL/ SAT, or AUX).
- 3. Press and hold **SET** until the red LED blinks twice; then release.
- 4. Enter the first five-digit code for your device. The LED blinks once as each digit is entered. If the code is correct, the LED blinks twice.
 - ◆NOTE: If the LED does not blink twice, repeat steps 2 to 4 and try entering the code again.
- Aim the remote at the device and press Power. The device should turn off. If it does not, repeat steps 35, trying each code for your brand until you find one that works. If you cannot find a code that works, see "Searching for Your Code".
- 5. Repeat steps 15 for the other devices you want to control. For future reference, write down each working device code below:

AUX Code:

CBL Code:

CD Code:

DVD Code:

SAT Code:

TNR Code:

VCR Code:

7. Press set to save and exit

Searching for your Code

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

- 1. Press a device key once.
- 2. Press and hold **SET** until the red LED blinks twice; then release.
- Enter 9-9-1, then the device group number (0= Cable, 1= TV, 2= VCR, 3= Audio). The LED blinks twice.
- 4. Aim the remote at the device and press **Power**. The remote sends IR codes from its library to the selected device, starting with the most popular code first. If the device responds, go to step 7.
- 5. If the device does not respond, press CH+. The remote will try the next code. Continue until the device responds.
 - ♦NOTE: Press CH- to try the previous code.
- 6. To search for other device codes, repeat steps 1 to 5.
- 7. Press SET to save and exit.

Checking the Codes

If you have set up the remote using the procedure in "Searching for Your Code", you may need to find out which four-digit code is operating your equipment.

For example, to find out which code is assigned to your TV:

- Press TV once.
- 2. Press and hold **SET** until the red LED blinks twice; then release.
- 3. Enter 9-9-0. The LED blinks twice.
- 4. To view the code for the first digit, press 1. Count the LED blinks (for example, three blinks = 3), and write down the number in the appropriate code listing in step 8 under "Programming a Device".
 - ◆NOTE: If a code digit is 0, the LED does not blink.
- 5. Repeat step 4 for the four remaining digits, using **2** for the second digit, **3** for the third digit, **4** for the fourth digit, and **5** for the fifth digit.
- To check for other device codes, repeat steps 15, substituting the device key for TV.

Changing Volume Lock

The remote comes preset to allow independent volume control of each selected device (Global Volume Unlock). However, you may change the Volume Lock setting to Global Volume Lock so that one device's volume will control volume in all other modes. After that, you can perform Individual Volume Unlock on a selected device to set its volume control for independent operation or Global Volume Unlock to remove all volume locking.

Locking Volume Control to One Mode (Global Volume Lock)

- Press and hold SET until the red LED blinks twice; then release.
 - Enter 9-9-3 and then press the mode key for the device you want to control volume (for example, TV). The LED blinks twice. Now when you press VOL+, VOL-, or Mute, the selected device (for example, TV) will control the volume regardless of the current mode.

Unlocking All Volume Control (Restoring Global Unlock)

- Press and hold SET until the red LED blinks twice; then release.
 - 2. Enter 9-9-3 and then press VOL+. The LED blinks four times.

Volume is now independently controlled for all programmed devices.

Unlocking a Single Device's Volume Control

- Press a device key (TV, VCR/DVD, CBL/ SAT, or AUX).
 - 2. Press and hold SET until the red LED blinks twice; then release.
 - 3. Enter 9-9-3 and then press VOL-. The LED blinks four times.

Volume is now independently controlled for the selected devices.

Troubleshooting

PROBLEM: LED does not blink when you press a key.

SOLUTION: Replace battery with one new 3.3 V 2032 Lithium battery.

PROBLEM: LED blinks when you press a key, but device does not respond.

SOLUTION: Make sure the remote is aimed at your device and is not more than 15 feet away.

PROBLEM: LED blinks one long blink.

SOLUTION: An entry error has occurred (for example, wrong key). Try entry sequence again.

PROBLEM: Remote does not control devices or commands are not working properly.

SOLUTION: Try all listed codes for the device. Make sure the device operates with an infrared remote control.

PROBLEM: CH+, CH-, and LAST do not work for your RCA TV.

SOLUTION: Due to RCA design from 1983 to 1987, only the original remote control will operate these functions.

PROBLEM: No volume on a device. **SOLUTION:** See "Changing Volume Lock".

PROBLEM: Channels do not change properly.

SOLUTION: If the original remote control required you to press **Enter** to change channels, press **Enter** on this remote after entering the channel number.

MANUFACTURER'S CODES

Set Codes for Audio Amplifiers

Bose 30078 GΕ JVC 30331 Marantz 30321 Nakamichi 30321 NEC 30264 30395 Optimus Realistic 30395 Sansui 30321 30264 Shure Sony 30689 Soundesign 30078 Victor 30331 Wards 30078 30354, 30133 Yamaha

Set Codes for Audio Amp/Tuners

ADC 30531

Aiwa 31405, 31243, 30121 Anam 31609, 31074 Audiotronic 31189 Bose 31229 Capetronic 30531 Carver 31189 Coby 31263

Denon 31360, 31142, 30904 **Fonmix** 31360 Glory Horse 31263

Harman/Kardon 30110 31273 Hitachi Inkel 30027 Integra 30135 JBL 30110 JVC 30074, 31263

31313, 31570, 30027 Kenwood

KLH 31428

Magnavox 31189, 31269, 30531

Marantz 31189, 31269, 30039

MCS Onkyo 30842, 30135

31023, 30670, 30531, 31074 31518, 30039 31189, 31269 Optimus

Panasonic Philips

31023, 30150, 30014, 30630, 30531 Pioneer

Proscan 31254 Qisheng 31609 Quasar 30039 RadioShack 31263

RCA 31023, 31609, 31254, 30531, 31074

Sharper Image 31263

Silsonic 30176

Sony 31258, 31759 Soundesign 30670

Stereophonics 31023 Sunfire 31313 Teac 31074, 31267

31308, 31518, 30039 **Technics**

31189 Thorens Victor 30074

30014 Wards 30176, 31276, 31176 Yamaha

Set Codes for Cable Converters

ABC 00003, 00008, 00014

Americast 00899

Bell & Howell 00014

 Bell South
 00899

 Clearmaster
 00883

 ClearMax
 00883

 Coolmax
 00883

Daeryung 01877, 00877, 00477, 00008

 Digi
 00637

 Director
 00476

 Dumont
 00637

Gehua 00476

General Instrument 00476, 00810, 00276, 00003, 00014

GoldStar 00144 Hamlin 00009, 00273

Hitachi 00014

Jerrold 00476, 00810, 00276, 00003, 00012, 00014

KNC 00008 LG 00144 Memorex 00000

Motorola 00476, 00810, 00276, 01254, 01376

MultiVision 00012 Pace 01877, 00237

Panasonic 00000, 00008, 00107

 Panther
 00637

 Paragon
 00000

 Philips
 00317, 01305

Pioneer 01877, 00877, 00144, 00533

Pulsar 00000

 Quasar
 00000

 RadioShack
 00883

 Regal
 00279, 00273

 Runco
 00000

 Samsung
 00000, 00144

Scientific Atlanta 01877, 00877, 00477, 00008

 Sony
 01006

 Starcom
 00003, 00014

 Supercable
 00276

 Supermax
 00883

 Tocom
 00012

 Torx
 00003

Toshiba 00000 Trans PX 00276 00883 Tristar 00003 TS V2 00883 Viewmaster 00883 00883 Vision Vortex View 00883

Zenith 00000, 00525, 00899

Set Codes for CD Players

Aiwa 30157

Burmester 30420

California Audio Labs 30029

 Carver
 30157, 30179

 Denon
 30873

 DKK
 30000

 DMX Electronics
 30157

Dynamic Bass 30179

Fisher 30179 Garrard 30420

Genexxa 30032 Harman/Kardon 30157, 30173 **Set Codes for Cable Converters**

ABC 00003, 00008, 00014

Americast 00899

Bell & Howell 00014

 Bell South
 00899

 Clearmaster
 00883

 ClearMax
 00883

 Coolmax
 00883

Daeryung 01877, 00877, 00477, 00008

 Digi
 00637

 Director
 00476

 Dumont
 00637

Gehua 00476

General Instrument 00476, 00810, 00276, 00003, 00014

GoldStar 00144

Hamlin 00009, 00273

Hitachi 00014

Jerrold 00476, 00810, 00276, 00003, 00012, 00014

KNC 00008 LG 00144 Memorex 00000

Motorola 00476, 00810, 00276, 01254, 01376

MultiVision 00012

Pace 01877, 00237

Panasonic 00000, 00008, 00107

 Panther
 00637

 Paragon
 00000

 Philips
 00317, 01305

Pioneer 01877, 00877, 00144, 00533

Pulsar 00000

Quasar 00000

RadioShack 00883

 Regal
 00279, 00273

 Runco
 00000

 Samsung
 00000, 00144

 Scientific Atlanta
 01877, 00877, 00477, 00008

Sony 01006

 Starcom
 00003, 00014

 Supercable
 00276

 Supermax
 00883

 Tocom
 00012

00003 Torx Toshiba 00000 00276 Trans PX 00883 Tristar 00003 TS 00883 V2 00883 Viewmaster Vision 00883 Vortex View 00883

Zenith 00000, 00525, 00899

Set Codes for CD Players

Aiwa 30157

Burmester 30420

California Audio Labs 30029

 Carver
 30157, 30179

 Denon
 30873

 DKK
 30000

 DMX Electronics
 30157

Dynamic Bass 30179

Fisher 30179 Garrard 30420

Genexxa 30032 Harman/Kardon 30157, 30173 Hitachi 30032 30101 Integra JVC 30072

30826, 30626, 30028, 30037, 30036, 30190 Kenwood

Krell 30157 Linn 30157 30157 Magnavox

30626, 30029, 30157

Marantz MCS 30029 Miro 30000

30157 Mission 30420 MTC NSM 30157 30868, 30101 Onkyo

31063, 30000, 30032, 30037, 30420, 30179, 31075, 30145 Optimus

Panasonic 30029

30420 Parasound

Philips 30626, 30157 Pioneer 31063, 31062, 30032

Polk Audio 30157 Proton 30157 QED 30157

Quad 30157

30029 Quasar RadioShack 31075

31062, 30032, 30420, 30179, 30053 30420, 30179 **RCA**

Realistic Rotel 30157, 30420 30157 SAE 30157 Sansui Sanyo 30179 SAST 30157 Sharp 30861, 30037

30888, 30036 Silsonic Sonic Frontiers 30157

Sony 30490, 30000, 30100 30145

Soundesign

30157

TAG McLaren Tascam 30420 30420 Teac 30029 **Technics** 30072 Victor

Wards 30157, 30053

30888, 30036 Yamaha

30157 Zonda

Set Codes for DVD Players

20641, 21912 Aiwa Akai 20770 Allegro 20869

Apex Digital 20672, 20717, 20797, 21061, 20796, 21056, 21937, 20794, 21020, 21915

Blaupunkt 20717 Blue Parade 20571 Broksonic 20695 Changhong 20627, 21061 CineVision 20869 Coby 21086 Curtis Mathes 21087

CyberHome 21024, 21023, 21129, 20816, 21117

Daewoo 20833, 21172, 20869

Denon 20490 DVD2000 20521 20591, 20675 Emerson

Enterprise 20591 Fisher 21919 Funai 20675 Gateway 21158, 21073 GΕ 20522, 20717

Go Video 20744, 20833, 21099, 20783, 21075, 20869, 21730

Greenhill 20717 Harman/Kardon 20582, 20702 20573, 20664, 21919 Hitachi

Hiteker 20672 20717 Initial 20627, 21924 Integra JBL 20702

JVC 20558, 20623, 20867 20490, 20534 20717, 21020, 21149 Kenwood KLH Koss 20651, 21980

20798 Lasonic

LG 20591, 20869, 20801

Liquid Video 21980

Lite-On 21158, 21058

Loewe 20511

Magnavox 20503, 20539, 21976, 21914, 20675

Marantz 20539

Memorex 20695

Microsoft 20522

Mintek 20717 Mitsubishi 21521, 20521 Nesa 20717 Norcent 21003

20503, 20627, 21924, 20792 Onkyo

Oritron 20651, 21980

Panasonic 20490, 21762, 21990 20503, 20539, 20646, 21914 Philips

20525, 20571 21086, 21061 Pioneer Polaroid Polk Audio 20539 Portland 20770 20522 Proscan Qwestar 20651

20522, 20571, 20717, 20822 **RCA**

Rio 20869 Rotel 20623 Sampo 20752, 20698

20490, 20573, 21932, 21075, 20820 Samsung

20695 Sansui Sanyo 20695 Sharp 20630, 20752 Sharper Image 21117

Sherwood 20770

Shinco 20717

Shinsonic 20533

Sonic Blue 20869, 21099

20533, 20864, 21033, 21904, 21903 Sony

20717 SVA Sylvania 20675 Symphonic 20675

20717, 21984, 20809 Teac

Technics 20490

Theta Digital 20571 20503, 20695 Toshiba **Urban Concepts** 20503

Xbox 20522

Yamaha 20490, 20539, 20545 20503, 20591, 20869 Zenith

Set Codes for Satellite Receivers

AlphaStar 00772 Chaparral 00216 Crossdigital 01109

DirecTV 00392, 00566, 00639, 01142, 00247, 00749, 01749, 00724, 00819, 01856, 01076, 01109, 00099, 01392,

01640, 01442, 01414, 01108 Dish Network System

01005, 00775, 01505 Dishpro 01005, 00775, 01505 01005, 00775, 01505 Echostar

Expressvu 00775 00566 GΕ General Instrument 00869 GOI 00775

Goodmans 01246 Hisense 01535 00819, 00222, 01250 Hitachi

HTS 00775

Hughes Network Systems 01142, 00749, 01749, 01442

01535 I-Lo JVC 00775 LG 01414, 01226

00724, 00722 Magnavox

Memorex 00724

Mitsubishi 00749

Motorola 00869

NEC 01270

Next Level 00869

00247, 00701 Panasonic

00724 Paysat

Philips 01142, 00749, 01749, 00724, 01076, 00722, 00099, 01442

Proscan 00392, 00566

Proton 01535

RadioShack 00869

00392, 00566, 00855, 00143, 01392 **RCA**

Samsung 01276, 01109, 01108

Sanyo 01219 SKY 00856 00639, 01640 Sony Star Choice 00869 Tivo 01142, 01442

00749, 01749, 00790, 01285 Toshiba

UltimateTV 01640, 01392 Uniden 00724, 00722 **US** Digital 01535 USDTV 01535 Voom 00869

Zenith 00856.01856

Set Codes for TVs

10092 Addison 10093, 10463 Admiral Advent 10761, 10842 Aiko 10092 Aiwa 11914

10812, 10702, 10030, 10672, 11903 Akai

10700, 10843 Albatron

America Action 10180

10250, 10180, 10700 Anam Anam National 10250, 10650

Anhua 10051

AOC 10451, 10093, 10180, 10060, 10030, 10178, 10092

Apex Digital 10748, 10765, 10879, 10767, 11943 Audiovox 10451, 10180, 10875, 10092, 10623

Baile 10661 10812, 10661 Beijing Bell & Howell 10154 BenQ 11032 Bradford 10180 Broksonic 10236, 10463, 11911, 11938, 11905, 11935, 11929 Cailing 10748 Candle 10030 10030 Carnivale Carver 10054 Celebrity 10000 Celera 10765 Changcheng 10051, 10661 Changhong 10156, 10765, 11156, 10767 Ching Tai 10092 Chun Yun 10000, 10180, 10700, 10092, 10843 Chung Hsin 10180, 10053 Cinema 10672 Citizen 10180 Commercial Solutions 11447, 10047 Conrowa 10156, 10145, 11156 Contec 10180 Craig 10180 Crosley 10054 Crown 10180 **Curtis Mathes** 10047, 10054, 10154, 10451, 10093, 10060, 10702, 10030, 10145, 10166 10180 CXC Daewoo 10154, 10451, 10180, 10030, 10178, 10672, 11928, 10092, 10661, 11909, 10623, 10700 10661 Dayu Deĺl 11080 Denon 10145 10017 Dumont Durabrand 10463, 10180, 10178, 10171, 11034 Electroband 10000 10154, 10236, 10463, 10180, 10178, 10171, 11944, 11909, 11929, 11905, 11928, 10623, 11911 Emerson Envision 10030 10030 Ether Firstar 10236 10154 Fisher **Fortress** 10093 Fujitsu 10809, 10853 Funai 10180, 10171, 11904 Furi 10145 10180 Futuretech Gateway 11756, 11755 11447, 10047, 11454, 10051, 10451, 10180, 10030, 10178, 11917, 10092, 11907, 11922 GE Gibralter 10017, 10030 GoldStar 10154, 10030, 10178, 11926 Grunpy 10180 Haier 11034 Hallmark 10178 10180, 10030, 10178 Hankook Harley Davidson 11904 Harman/Kardon 10054 Harvard 10180 10093 Havermy Helios 10865 Hello Kitty 10451 10156, 10748, 10145, 11156 Hisense Hitachi 10156, 10030, 10178, 11145, 10145, 10092, 11904, 11156 Hongmei 10093 Huafa 10145 Huari 10145 10051 Huodateji Imperial Crown 10661

Infinity 10054 Inteq 10017 10054 JBL JCB 10000 10156, 10051, 10236, 10092 Jean Jensen 10761 Jiahua 10051 10051 Jinfeng **Jinxing** 10054, 10156, 10145 10053, 11923, 11253 JVC Kangli 10661 KEC 10180 Kenwood 10030 10765, 10767 KLH Kolin 10180, 10150, 10053 **KTV** 10180, 10030 10051, 10661 Kunlun 10060, 10030, 10178, 10856, 10700, 10025 LG Lloyd's 11904 10047, 10054, 10154, 10156, 10178 LXI Magnasonic 11928, 11913 11454, 10054, 10030, 10706, 11931, 11254, 11913, 11904, 11944 Magnavox Magnin 11907 Marantz 10054, 10030, 10704 Matsushita 10250, 10650 Maxent 11755 10700 Megapower 10178, 10145 Megatron 10154, 10463, 10150, 10178, 11911, 11926, 11924, 11920, 11927 Memorex MGA 10150, 10030, 10178, 11907 10047, 10017, 10051 Midland 10154, 10250, 10093, 10236, 10180, 11250, 10150, 10030, 10178, 11917, 10836 Mitsubishi 10843, 10700 Monivision 10093 Motorola MTC 10060, 10030 Mudan 10051 10180 Multitech NAD 10156, 10178, 10866 National 10051 10154, 10156, 10051, 10053, 10030, 10178, 11704 **NEC** 10093, 10178, 10092 10030, 10178, 10092 Newave Nikko Norcent 10748, 10824 NTC 10092 Onwa 10180 10154, 10250, 10166, 10650, 11927, 11924, 11913 **Optimus** 10093 Optonica Orion 10236, 10463, 11929, 11911, 11905 10054, 10250, 10051, 10650, 11941, 11927, 11924 Panasonic Panda 10051, 10706 10047, 10156, 10051, 10060, 10030, 10178, 11926, 11907 Penney 10054, 10180, 10030, 10178 Philco **Philips** 11454, 10054, 10000, 10051, 10030, 10178, 10092, 10690 Pilot 10030 Pioneer 10166, 10866, 10679

 Portland
 10092

 Prima
 10761

 Princeton
 10700

 Prism
 10051

Proscan 11447, 10047, 11922

Proton 10030, 10178 Pulsar 10017 Qingdao 10051

Quasar 10250, 10051, 11924, 10650

RadioShack 10047, 10154, 10180, 10030, 10178, 11920, 11904

RCA 11447, 10047, 11454, 10000, 10030, 10178, 11547, 11922,11917, 10092, 11907, 11948, 10090, 10679 Realistic 10154, 10180, 10030, 10178 10748 Rowa 10017, 10030 Runco Sampo 10154, 10093, 10030, 10178, 10171, 10700, 10650, 11755, 10092 Samsung 10154, 10156, 10060, 10812, 10702, 10030, 10178, 11060, 10814, 10092, 11903, 10090, 10766 Sansui 10463, 11904, 11935, 11929, 11911 10154, 10156, 10180, 10145, 11907 Sanyo Sanyuan 10093 Scotch 10178 Scott 10236, 10180, 10178 Sears 10047, 10054, 10154, 10156, 10178, 10171, 11926, 11904 Shaofeng 10145 Sharp 10093, 10030, 10650, 11917 Shen Ying 10092 Shencai 10145 Sheng Chia 10093, 10236 10180 Skygiant Skyworth 10748 Sony 11100, 10000, 10650, 11925, 11904 10180, 10178 Soundesign 10156, 10051, 10060, 10178, 10092 Sowa Squareview 10171 SSS 10180 Starlite 10180 Studio Experience 10843 10000 Supreme SVA 10748, 10865 Sylvania 10054, 10030, 10171, 11944, 11931 Symphonic 10180, 10171, 11913, 11904 10000, 10451, 10093, 10060, 10178, 10092 Synco Tacico 10178. 10092 10093 Tandy Tashiko 10092, 10650 Tatung 10054, 10154, 10156, 10051, 10060, 11156, 11756, 11254 **Technics** 10250, 10051 Techwood 10051 10051, 10093, 10178, 10092 Teco 10054, 10180, 10150, 10060, 10092 Teknika Telefunken 10702 10030 Tera Thomas 11904 Tiane 10093 **TMK** 10178 **TNCi** 10017 Tobo 10748 Toshiba 10154, 10156, 10060, 10145, 11945, 11704, 11936, 11156, 11935, 10650, 11918 10030, 10092 Tuntex **TVS** 10463 V Inc. 11756, 10885, 10864 Vector Research 10030 Victor 10250, 10053, 10650 10054 Vidikron Vidtech 10178 11755, 10885, 10864 Viewsonic 10054, 10030, 10178, 10866, 11156 Wards Warumaia 10661 Waycon 10156 White Westinghouse 10463, 11909, 10623 Yamaha 10030 Yapshe 10250

10017, 10463, 10178, 11904, 11929, 11911, 11909, 10092

Zenith

Set Codes for VCRs

ABS 21972

Admiral 20048, 20209

Aiko 20278 20037, 20479 Aiwa Alienware 21972 America Action 20278 American High 20035 Amoisonic 20479

Anam 20162, 20037, 20240, 20278

Anam National 20162 Asha 20240 20037, 20278 Audiovox Beaumark 20240 Bell & Howell 20104

Broksonic 20184, 20121, 20209, 20002, 20479

Calix 20037

Canon 20035 Carver 20081

20072, 20278 CCE

20048, 20081 Changhong Citizen 20037, 20278 Colt 20072

Craig 20037, 20047, 20240, 20072 Curtis Mathes 20060, 20035, 20162

Cybernex 20240

CyberPower 21972 Daewoo 20045, 20104, 20278

Dell 21972 20042 Denon DirecTV 20739 20039, 20038 Durabrand Electrohome 20037 Electrophonic 20037

20032 **Emerex**

20035, 20037, 20184, 20240, 20045, 20121, 20043, 20209, 20002, 20278, 20479 Emerson

20047, 20104 Fisher 20035, 20033 Fuji Fujitsu 20045 Gateway 21972

20060, 20035, 20240 GE

General 20045 Go Video 20432

GoldStar 20037, 20209, 20038, 20225

20240 Haojie Harman/Kardon 20081, 20038 Harwood 20072 **Hewlett Packard** 21972 HI-Q 20047

Hitachi 20037, 20042, 20055

Howard Computers 21972 HP 21972 **Hughes Network Systems** 20042, 20739 **IBUYPOWER** 21972 20045, 20067 JVC

KEC 20037, 20278 Kenwood 20067, 20038 KLH 20072 Kodak 20035, 20037

Kolin 20043

LG 20037, 20045, 20042, 20209, 20038

20072 Logik 20037 LXI

20035, 20039, 20081 Magnavox

Magnin 20240 Marantz 20035, 20081

Marta 20037 Matsushita 20035, 20162

Media Center PC 21972

MEI 20035

20035, 20162, 20037, 20048, 20039, 20047, 20240, 20104, 20209, 20479 Memorex

MGA 20240, 20043

MGN Technology 20240 21972 Microsoft Mind 21972 Minolta 20042 Mitsubishi 20067, 20043 Motorola 20035, 20048 MTC 20240

Multitech 20035, 20037, 20048, 20104, 20067, 20038 NEC

20072

Newave 20037 Nikko 20037 20240 Noblex Northgate 21972 Olympus 20035

Optimus 21062, 20162, 20037, 20048, 20104, 20432

20184, 20209, 20002, 20479 Orion

21062, 20035, 20162, 20616, 20225 Panasonic 20035, 20037, 20240, 20042, 20038 Penney

20042 Pentax Philco 20035, 20479

Philips 20035, 20081, 20739, 20618

Pilot 20037

Pioneer 20042, 20067 Polk Audio 20081 Profitronic 20240 Proscan 20060

Protec 20072

Pulsar 20039 Qisheng

20060

Quasar 20035, 20162

20037 Radix Randex 20037

RCA 20060, 20035, 20240, 20042, 20880 20035, 20037, 20048, 20047, 20104 Realistic

ReplayTV 20616 Runco 20039 Sampo 20037, 20048 Samsung 20240, 20045, 20432 Sanky 20048, 20039

Sansui 20067, 20209, 20479

20047, 20240, 20104 Sanyo 20184, 20045, 20121, 20043 Scott

Sears 20035, 20037, 20047, 20042, 20104

Sharp 20048, 20209 Shintom 20072 Shogun 20240

20072 Singer Sonic Blue 20616

20035, 20032, 20033, 20636, 21972 Sony

20042 STS

Sylvania 20035, 20081, 20043 Systemax 21972

Tagar Systems 21972 Tashiko 20037 Tatung 20045, 20067 20035, 20162 **Technics**

20035, 20037, 20048, 20038 Teco Teknika 20035, 20037 20636, 20618, 21503, 20739 Tivo

TMK 20240

20045, 20042, 20067, 20043, 21503, 21008, 21972 Toshiba

Totevision 20037, 20240 Touch 21972 Unitech 20240 Vector 20045 Vector Research 20038 20067 Victor Video Concepts 20045 Videomagic 20037 Videosonic 20240 Viewsonic 21972

20060, 20035, 20048, 20047, 20081, 20240, 20042, 20072 Wards White Westinghouse

20209, 20072

20035, 20072 XR-1000

Yamaha 20038

Zenith 20039, 20033, 20209, 20479

ZT Group 21972

CARE

- Keep the remote dry. If it gets wet, wipe it dry immediately.
- Use and store the unit only in normal temperature environments.
- Handle the remote gently and carefully. Don't drop it.
- Wipe the remote with a damp cloth to keep it looking like new.

[&]quot;Polaroid" and "Polaroid and Pixel" are trademarks of Polaroid Corporation, Waltham, MA, USA.

