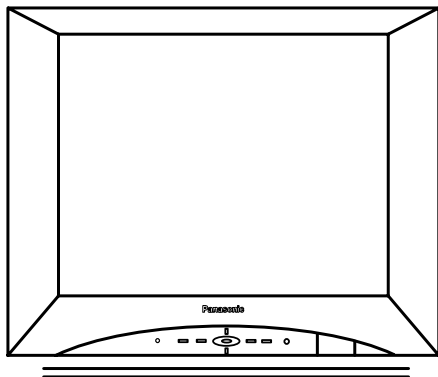


# Panasonic®

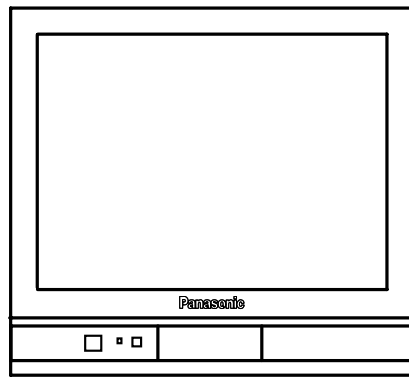
## HDTV Monitor Operating Instructions

## Monitor HDTV Instrucciones de Operación

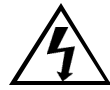
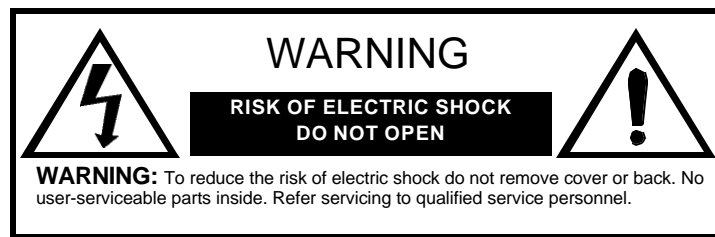
## Écran à haute définition Manuel d'utilisation



**CT-32HL43  
CT-36HL43**



**CT-32HC43  
CT-32HXC43  
CT-36HC43**



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



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

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.



The Class II insulation symbol (square within a square) indicates that this product has been evaluated and tested to comply with Class II insulation requirements.

**FCC CAUTION: ANY CHANGES OR MODIFICATIONS TO THIS TV RECEIVER NOT EXPRESSLY APPROVED BY MATSUSHITA ELECTRIC CORPORATION OF AMERICA COULD CAUSE HARMFUL INTERFERENCE, WHICH WOULD VOID THE USER'S AUTHORITY TO OPERATE THIS EQUIPMENT.**

## FCC INFORMATION

This equipment has been tested and found to comply with the limit for a Class B Digital Device in accordance with the specifications in Part 15 of the FCC Rules. The limits are designed to provide reasonable protection against radio and television 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 interference to radio or television reception (which you can determine by turning the equipment off and on), 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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**ENVIRONMENTAL NOTICE: THIS PRODUCT UTILIZES CATHODE RAY TUBES (CRT) AND OTHER COMPONENTS THAT CONTAIN LEAD. DISPOSAL OF THESE MATERIALS MAY BE REGULATED IN YOUR COMMUNITY DUE TO ENVIRONMENTAL CONSIDERATIONS. FOR DISPOSAL OR RECYCLING INFORMATION PLEASE CONTACT YOUR LOCAL AUTHORITIES, OR THE ELECTRONICS INDUSTRIES ALLIANCE: <[HTTP://WWW.EIAE.ORG](http://www.eiae.org)>**



The Energy Star label, a symbol for energy efficiency, was created by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) to help customers identify products that can save them money and protect the environment by saving energy. Energy Star compliant products generally consume less energy than similar standard products.



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**Note:** The warranty and service center information is located in the back of this manual.

**Read these instructions completely before operating television.**

**Contents are subject to change without notice or obligation.**

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## Congratulations

Your new Panasonic Tau television features state-of-the-art technology for high quality picture and sound with complete audio/video connections for your home theater system. Your TV is designed to give you many years of enjoyment. It was thoroughly tested and tuned at the factory for best performance.

### Customer Record

The model and serial number of this product are located on the back of the TV. You should note the model and serial number in the space provided and retain as a permanent record of your purchase. This will aid in identification in the event of theft or loss. Product registration for U.S. customers is available at: [www.prodreg.com/panasonic](http://www.prodreg.com/panasonic).

Model

Number

Serial

Number

### Care and Cleaning

#### Screen (Turn TV Off)

- Use a mild soap solution or window cleaner with a soft clean cloth. DO NOT USE ABRASIVE CLEANERS.
- Avoid excessive moisture and wipe dry.

**Note:** Do not spray any type of cleaning fluid directly on the screen.

#### Cabinet and Remote Control

- For cabinets and remote control, use a soft cloth dampened with water or a mild detergent solution. Avoid excessive moisture and wipe dry.
- Do not use benzene, thinner or other petroleum based products.

### Specifications

Specifications are subject to change without notice or obligation.

<b>Power Source</b>	CT-32HC43 (3.6A) CT-32HC43U (3.6A) CT-32HL43 (3.6A) CT-32HL43U (3.6A) CT-32HXC43 (3.6A) CT-36HC43 (3.6A) CT-36HC43U (3.6A) CT-36HL43 (3.6A) CT-36HL43U (3.6A)	120V AC, 60Hz
<b>Channel Capability - 181</b>	VHF-12; UHF-56; Cable-113	
<b>Video Input Jacks</b>	1Vp-p, 75 Ohm, Phono Jack Type	
<b>Audio Input Jacks</b>	500mV RMS 47K Ohm	
<b>Video out jack</b>	1Vp-p, 75 Ohm, Phono Jack Type	
<b>Audio Output Jacks</b>	0-2.0V RMS 4.7K Ohm	
<b>DVI Input jack (some models)</b>	1.0 compatible	
<b>Component Input (Y / P<sub>B</sub> / P<sub>R</sub>)</b>	75 Ohm, Phono Jack Type	
<b>S-Video Input Jacks</b>	S-Video (Y-C) Connector	

### Feature Chart

MODELS	CT-32HL43 CT-36HL43	CT-32HC43 CT-36HC43	CT-32HXC43
<b>FEATURES</b>			
<b>MENU LANGUAGE ENG/ SPAN/FR</b>	•	•	•
<b>2 TUNER SPLIT</b>	•	•	•
<b>2RF</b>	•	•	•
<b>CLOSED CAPTIONING</b>	•	•	•
<b>V-CHIP CAPABILITY</b>	•	•	•
<b>DIGITAL SCAN RATE</b>	1080i, 480p	1080i, 480p	1080i, 480p
<b>NTSC LINE-DOUBLER</b>	480p	480p	480p
<b>VIDEO NORM</b>	•	•	•
<b>AUDIO NORM</b>	•	•	•
<b>STEREO</b>	•	•	•
<b>AI SOUND</b>	•	•	•
<b>BASS/BALANCE/TREBLE</b>	•	•	•
<b>SURROUND</b>	•	•	•
<b>SUBWOOFER</b>	•		
<b>BBE VIVA 3D</b>	•		
<b>BBE</b>	•	•	•
<b>A/V IN (REAR/FRONT)</b>	4 (3/1)	4 (3/1)	4 (3/1)
<b>AUDIO OUT</b>	•	•	•
<b>DVI INPUT</b>	•		
<b>S-VHS INPUT</b>	•	•	•
<b>COMPONENT INPUTS</b>	•	•	•
<b>HEADPHONE JACK</b>	•	•	•

## Installation

### Television Location

This unit is intended to be used with an optional stand or entertainment center. Consult your dealer for available options.

- Avoid excessive sunlight or bright lights, including reflections.
- Keep away from excessive heat or moisture. Inadequate ventilation may cause internal component failure.
- Fluorescent lighting may reduce remote control transmitting range.
- Keep away from magnetic equipment, including motors, fans and external speakers.

**WARNING:** Use this television receiver only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/



apparatus combination to avoid injury from tip-over. In order to avoid injury to children, never place your television receiver on a piece of furniture that is capable of being tilted by a child leaning on it, pulling on it, standing on it, or climbing on it. A falling television can cause serious injury or even death.

CT-32HL43, CT-32HL43U:

**CAUTION:** These television receivers for use only with PANASONIC TY-32HL43T stand. Use with other carts (or stands) is capable of resulting in instability causing possible injury.

CT-36HL43, CT-36HL43U:

**CAUTION:** These television receivers for use only with PANASONIC TY-36HL43T stand. Use with other carts (or stands) is capable of resulting in instability causing possible injury.

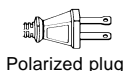
### Optional Cable Connections

Shielded audio and video cables should be used between components. For best results:

- Use 75-ohm coaxial shielded cables.
- Use appropriate input and output connectors, that match your component connectors.
- Avoid long cables to minimize interference.

### AC Power Supply Cord

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT OF AC OUTLET AND FULLY INSERT. DO NOT USE A PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADE CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.



Polarized plug

PROTECT POWER CORDS FROM BEING WALKED ON, ROLLED OVER, CRIMPED, BENT, OR PINCHED, PARTICULARLY AT PLUGS, CONVENIENCE RECEPTACLES, AND THE POINT WHERE THEY EXIT FROM THE APPARATUS.

### Cable / Antenna Connection

For proper reception, either a cable or antenna connection is required.

#### Cable Connection

Connect the cable supplied by your local cablecompany to ANT1 connection on back of television. Select cable mode and ANT1 in the SET UP menu (refer to page 26).

**Note:** A cable converter box may be required for proper reception. Check with your local cable company for compatibility requirements.

Incoming Cable from Cable Company



75 Ohm VHF/UHF on back of TV

#### Antenna Connection

- For proper reception of VHF/UHF channels, an external antenna is required. For best reception an outdoor antenna is recommended.
- Connect home antenna to ANT1 connection on back of television. Select TV mode and ANT1 in the SET UP menu. (refer to page 26)

Incoming Cable from Home Antenna



**Note:** Cable Mode is preset at the factory. Antenna users must change to TV Mode and ANT 1 in the Set Up menu.

### Important Information Regarding The Use Of Video Games, Computers, Or Other Fixed Image Displays.

**WARNING:** The marking or retained image on the picture tube resulting from viewing fixed image is not an operating defect and as such is not covered by Warranty.

The television is designed to display constantly moving images on the screen. Continuous viewing of stationary images such as letterbox pictures on standard screen TVs (with top/bottom bars), non-expanded standard (4:3) pictures on wide screen TVs (with side bars shown on each side of an image), stock market report bars (ticker running at the bottom of the screen), video game patterns, fixed scoreboards, bright station logos, on-line (Internet) or repetitive computer style patterns should be limited.

The extended use of fixed image program material can cause a permanent picture tube damage, shown as a "shadow image" viewable on normal programs. This type of irreversible picture tube deterioration can be limited by performing the following steps:

- Limit the display of fixed image program material to no more than 15% of total viewing time per week.
- Turn the power off when not in use.

## Initial Set Up Menu

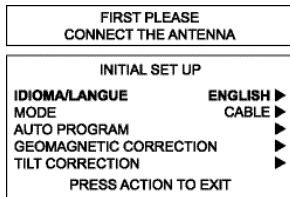
For your convenience, Auto Set up menu will be displayed on screen when the set is turned on for the first time. If needed, follow the menus and procedures for setting up the features.

### IDIOMA/LANGUE

To change menu language to ENGLISH, SPANISH or FRENCH.

#### Procedure

- Press **VOL** ▶ to select English, Spanish or French.

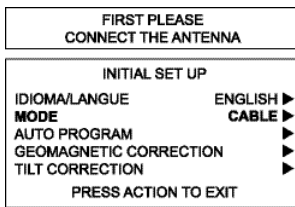


### MODE

To select TV (antenna) or CABLE mode depending on the signal source.

#### Procedure

- Press **VOL** ▶ to select TV or CABLE.

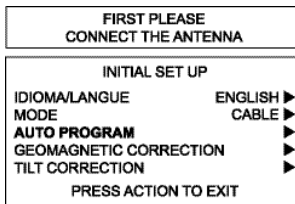


### AUTO PROGRAM

To automatically program all channels with a signal.

#### Procedure

- Press **VOL** ▶ to start Auto Programming.

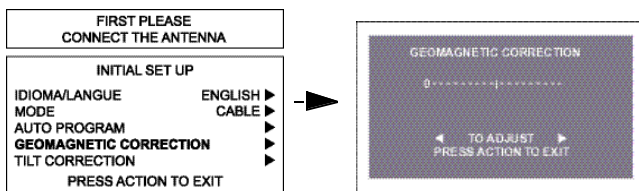


### GEOMAGNETIC CORRECTION

This feature is used to adjust discoloration of the picture due to the earth's magnetic field in the area.

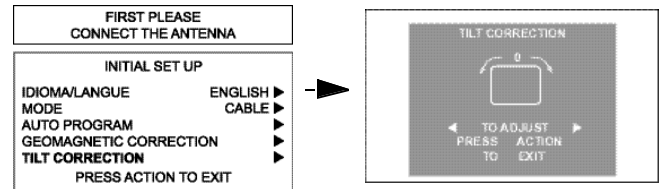
#### Procedure

- Press **VOL** ▶ to display adjustment menu.
- Press ◀ **VOL** or **VOL** ▶ to adjust discoloration in picture.



### TILT CORRECTION

This feature is used to adjust the tilt of the picture due to earth's magnetic field in the area.



#### Procedure

- Press **VOL** ▶ to display adjustment menu.
- Press ◀ **VOL** or **VOL** ▶ to adjust picture tilt.

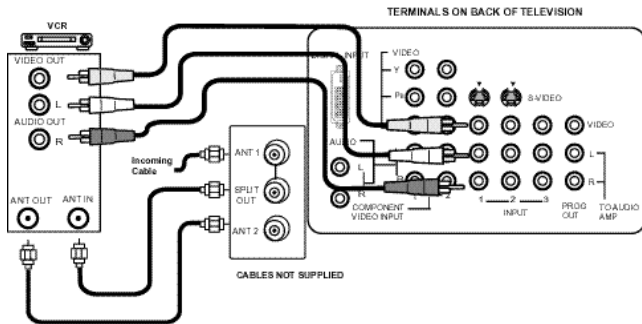
## Optional Equipment Connections

### Notes:

- The remote control must be programmed with supplied codes to operate the optional equipment.
- Models CT-32HC43, CT-36HC43 and CT-32HXC43 do not have DIGITAL INPUT.

### VCR Connection

Follow this diagram when connecting your television to a VCR only.



### Viewing a television program

#### Procedure

- Select ANT1 in the SET UP menu under Prog Chan (Program Channels).
- Tune the television to the program you want to view.

### Viewing a video

#### Procedure

- Option A
  - Select ANT1 in the SET UP menu.
  - Press the **TV/VIDEO** button on the remote control to select the video input (VIDEO 1, VIDEO 2, etc.) connected to your VCR.
  - Begin the video.
- Option B
  - Select ANT2 in the SET UP.
  - Tune the television to Channel 3 or 4, depending on your VCR.
  - Begin the video.

### Recording a television program

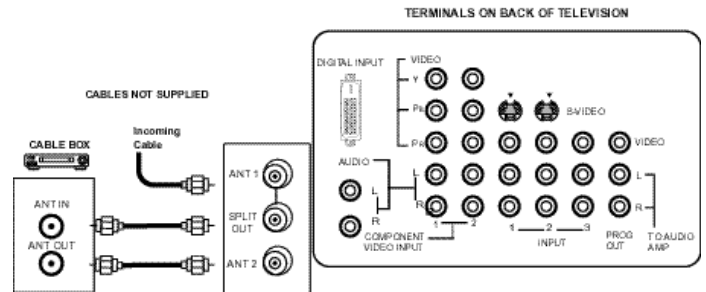
#### Procedure

- Option A (Recording and viewing the same program)
  - Select ANT2 in the SET UP menu.
  - Tune the television to Channel 3 or 4, depending on your VCR.
  - Using the VCR, tune to the television program you want to record.
  - Begin recording.
- Option B (Recording one program while viewing another program)
  - Select ANT1 in the SET UP menu under Prog Chan.
  - Press the **TV/VIDEO** button on the remote control to select the video input (VIDEO 1, VIDEO 2, etc.) connected to your VCR.
  - Using the VCR, tune to the television program you want to record.
  - Begin recording.
  - Press the **TV/VIDEO** button on the remote control to switch back to TV mode.

- Tune the television to the program you want to view.

### Cable Box Connection

Follow this diagram when connecting your television to a cable box only.



### Viewing a premium (scrambled) cable channel

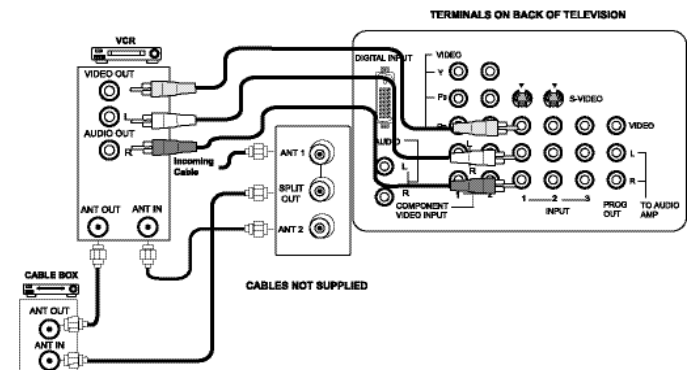
#### Procedure

- Select ANT2 in the SET UP menu.
- Tune the television to Channel 3.
- Using the cable box, tune to the premium cable channel you want to view.

**Note:** To use special features such as Favorite Channels and Channel Captions ANT1 must be selected in the SET UP menu.

### VCR and Cable Box Connection

Follow this diagram when connecting your television to both a VCR and a cable box.



### Viewing a premium (scrambled) cable channel

#### Procedure

- Select ANT2 in the SET UP menu.
- Tune the television to Channel 3.
- Using the cable box, tune to the premium cable channel you want to view.

**Note:** To use special features such as Favorite Channels and Channel Captions ANT1 must be selected in the SET UP menu.

## Optional Equipment Connections (cont.)

### VCR and Cable Box Connection (Cont.)

**Note:** Models CT-32HC43, CT-36HC43 and CT-32HXC43 do not have DIGITAL INPUT.

#### Recording a premium (scrambled) cable channel

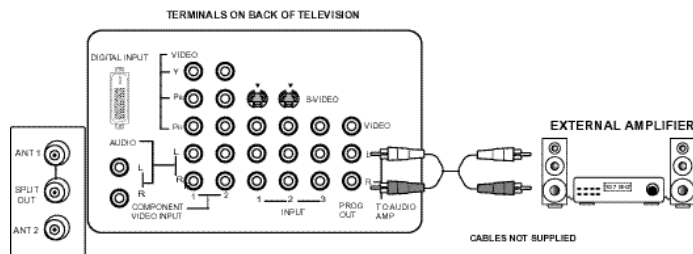
##### Procedure

- Select ANT2 in the SET UP menu.
  - Press the **TV/VIDEO** button on the remote control to select the video input (VIDEO 1, VIDEO 2, etc.) connected to your VCR.
  - Turn the VCR ON.
  - Tune the VCR to Channel 3 or 4, depending on the switch setting on the back of VCR.
  - Using your cable box, tune to the premium cable channel you want to record.
  - Begin recording.
- ☐ To view a different channel while recording:
- Select ANT1 in the SET UP menu.
  - Press the **TV/VIDEO** button on the remote control to TV mode.
  - Tune the television to a program (except another premium cable channel).

### Amplifier Connection (TO AUDIO AMP)

To listen the audio through a separate stereo system, connect an external audio amplifier TO AUDIO AMP outputs on back of television.

**Note:** TO AUDIO AMP terminals cannot be connected directly to external speakers.



#### Audio Adjustments

- Select **SPEAKERS ON** located in the onscreen AUDIO menu.
- Set amplifier volume to minimum.
- Adjust television volume to desired level.
- Adjust amplifier volume to match the television.
- Select **SPEAKERS OFF & VARIABLE AUDIO OUT** from AUDIO menu.
- Volume, mute, bass, treble and balance are now controlled through the television.

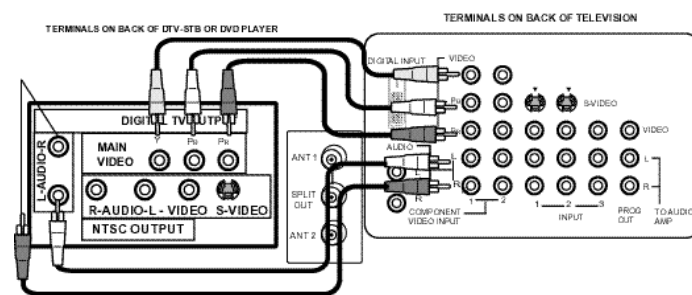
**Note:** Select **SPEAKERS OFF & FIXED AUDIO OUT** to control audio functions through the external amplifier.

### Digital TV - Set-Top Box (DTV-STB) or DVD Connection

This television is capable of displaying 1080i and 480p DTV signals when connected to a DTV tuner set-top-box (STB). In order to view DTV programming, the STV must be connected to the component video inputs (Y,PB,PR) of the television. A DTV signal must be available in your area. Select the output of the STB to either 1080i or 480p.

This television also utilizes a progressive scan doubler, which de-interlaces the NTSC signal and progressively scans the image. This allows you to sit close to the TV and not see the thin black horizontal lines (venetian blind effect) associated with interlaced TV pictures.

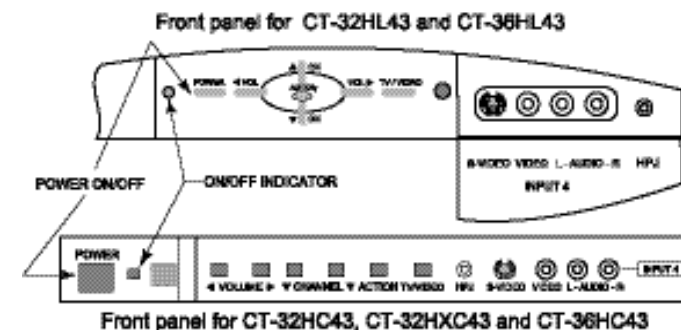
Use this diagram to connect the DTV-STB (Digital TV Set-Top-Box) or DVD player to the back of



### Front Control Panel

The front control panel can be used to access menus and switch video mode when the remote control is not available.

**Note:** The ON/OFF indicator LED (red) will be lit when set is on.



A second VCR, Camcorder, a video disc player, video game equipment or DSS equipment can also be connected to the video inputs. See the optional equipment manual for details.

#### Procedure

- Connect equipment to front Audio/Video input jacks.
- Press TV/VIDEO button to select VIDEO 4 input mode.
- Operate optional equipment as instructed in equipment manual.



## Optional Equipment Connections (cont.)

### DVI (Digital Visual Interface) input connection

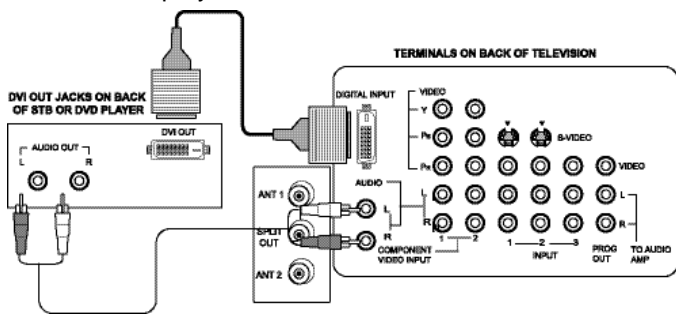
(for models CT-32HL43 and CT-36HL43 only)

The DVI/HDCP<sup>1</sup> input on your TV can accommodate copy protected digital programming. The DVI/HDCP input terminal complies with the EIA-861 Profiles<sup>2</sup> standard and is not intended for use with personal computers. The DVI/HDCP input can be connected to an EIA/CEA 861 compliant consumer electronic device, such as a set top box or DVD player equipped with a DVI output connection<sup>3</sup>. The DVI/HDCP input is designed for best performance with HDTV signals, such as 1080i. The DVI/HDCP input will also accept and display 480i and 480p picture signals.

**Notes:**

1. DVI/HDCP = Digital Visual Interface / High-Bandwidth Digital Copy Protection.
2. EIA/CEA-861 Profiles compliance covers profiles for transmission of uncompressed digital video including high bandwidth digital content protection.
3. Consult your consumer electronics dealer for availability details.

Follow the diagram below to connect the TV to a set top box or a DVD player.



**Procedure**

- Press TV/VIDEO button on the remote control to select DIGITAL-IN input.
- Connect the DVI output from the set top box or a DVD player to the DVI input on the back of the TV.
- Connect the Audio Out signal from the set top box or DVD player to the Audio In input associated with the DIGITAL INPUT.

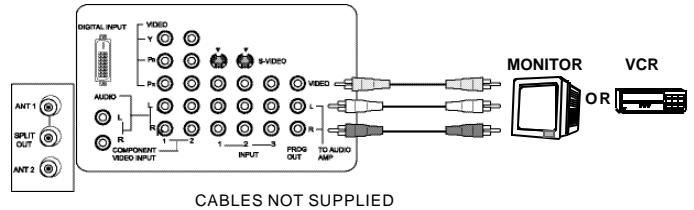
**Note:** This HDTV Monitor is not intended to be used with a PC.

### Program Out Connection (PROG OUT)

To use the television audio and video with optional equipment, connect the PROG OUT and TO AUDIO AMP connections on the back of the television.

**Note:** If the Main Picture signal is Component Video Input, no Program out signal will be available..

TERMINALS ON BACK OF TV



**Procedure**

- Connect optional equipment to PROG OUT and TO AUDIO AMP terminals.
- PROG OUT terminal display is the same as on-screen display.
- See optional equipment manual for further instructions for recording and monitoring.

### Special Remote Buttons

**ASPECT Button**

The **ASPECT** button on the remote control lets you select the picture size ratio to match programming format when using DTV STB or DBS.

**BBE Button**

Press this button to turn the BBE VIVA 3D feature (available in CT-36HL43 and CT-32HL43 only) or BBE<sup>®</sup> sound feature **On** or **Off**.

**SAP Button**

Press this button to let you cycle through different audio modes. If you are receiving a stereo program and you press the SAP button, you can cycle between STEREO and MONO.





## Picture In Picture and Split Operation

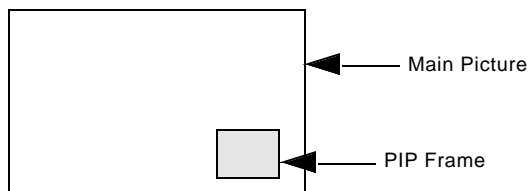
**Note:** The shapes of PIP and SPLIT function buttons may vary depending on the remote control.

### PIP Operation

This television includes a two-tuner Picture In Picture (PIP) feature. This allows you to watch two (2) live broadcasts at the same time with or without an external video source such as a VCR, cable box, etc.

#### Procedure

- Connect incoming cable to ANT 1 input on back of TV.
- Press **PIP** to display PIP frame.
- Select channels for the PIP frame by pressing **PIP CH**  .
- Select channels for the Main picture by pressing **CH**  or **CH**  or use the remote control numeric keypad.
- Press **SWA** to switch the PIP and MAIN PICTURE source.
- Press **RECALL** to view picture source status.
- Press **PIP** to cancel PIP frame.







**Note:** Audio is from Main Picture only.

### Split Operation

This feature lets you watch two different channels side by side with or without an external video source.

#### Procedure

- Press **SPLIT** to display Split screen.
- Select channels for the Split by pressing **PIP CH**  .
- Select channels for the Main picture by pressing **CH**  or **CH**  or use the remote control numeric keypad.
- Press **SWA** to switch the SPLIT SCREEN and MAIN PICTURE source.
- Press **RECALL** to view picture source status.
- Press **SPLIT** to cancel Split screen.

### PIP and Split Operation With a Cable Box

To view premium (scrambled) cable channels through your cable box in the Main Picture:

**Note:** Use this procedure if you want to watch premium cable channels in the Main Picture while viewing a television program or video in the PIP or Split frame.

#### Procedure

- Select ANT 2 in the SET UP menu.
- Tune TV to Channel 3.
- Press **PIP** or **SPLIT** on the remote control to display the PIP or Split frame.

**Note:** Audio is from the Main Picture only.

- Verify the Cable box is ON.
- Choose channels for the Main Picture by tuning the cable box.
- Choose channels for the PIP frame by pressing **PIP CH**

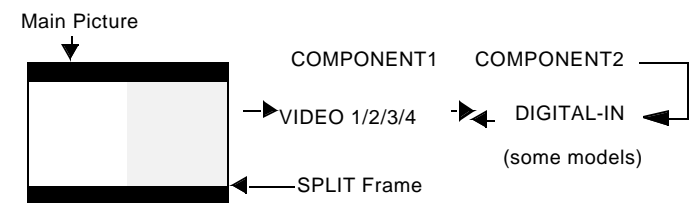
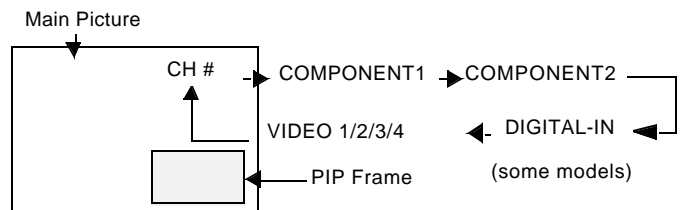


**Note:** Swap is not available when using the cable box to tune channels. If your cable box has video output, it can be connected to the TV to allow you to use all PIP functions. See the equipment manual for more information.

### PIP and Split Operational Buttons

#### TV/VIDEO Button

Press when PIP or Split frame is displayed to select desired input mode.



#### Search Button (PIP and Split)

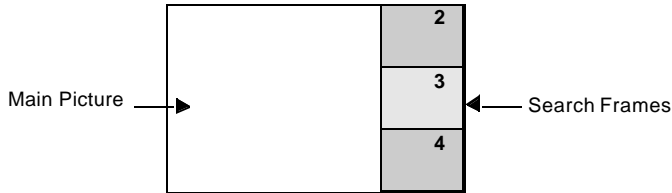
This feature lets you scan through all available channels.

#### Procedure

- Press **PIP** or **SPLIT** to display PIP or Split frame.

PIP Operation (cont.)

- Press **SEARCH** to display search frames.
- Press **SEARCH** again to stop search feature. PIP or Split frame channel will be the last active search frame.
- Press **PIP** or **SPLIT** to cancel PIP or Split frame

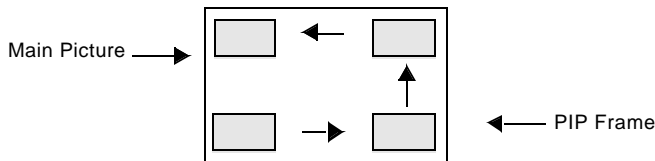


Move Button (PIP only)

This feature is used to move PIP frame to one of four corners.

Procedure

- Press **PIP** to display PIP frame.
- Press **MOVE** to position PIP frame to desired corner.
- Press **PIP** to cancel PIP frame.

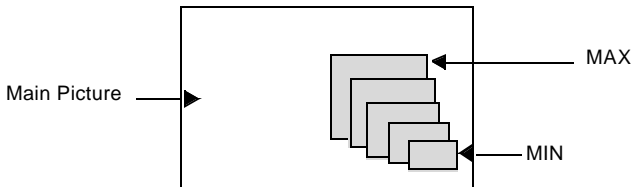


PIP MIN and PIP MAX Buttons

While PIP frame is displayed, press PIP MIN or PIP MAX button to vary the size of PIP frame.

Procedure

- Press **PIP** to display PIP frame.
- Press **PIP MIN** or **PIP MAX** to size PIP frame.
- Press **PIP** to cancel PIP frame.



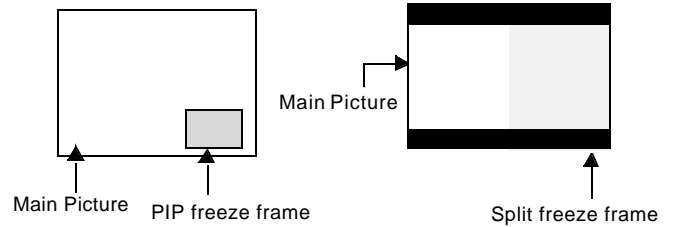
Freeze Button (PIP and Split)

This feature is used to stop action in PIP or Split frame.

Procedure

- Press **PIP** or **SPLIT** to display PIP or Split frame

- Press **FREEZE** to stop PIP or Split frame action.
- Press **FREEZE** again to continue action.
- Press **PIP** or **SPLIT** to cancel PIP frame.



**Note:** Audio is from Main Picture only.

Main Picture Freeze Feature

This feature is used to stop action of the Main Picture and display it on a Split or PIP freeze frame.

Procedure

- To stop action for Main picture, press **FREEZE** while PIP or Split frame is not displayed.
- Main Picture freeze will be displayed in a PIP or Split frame, depending on the selection in the Freeze menu located in Picture Other ADJ. section (refer to page 21).
- Press **FREEZE** again to cancel Main Picture freeze frame.

**Note:** While Main Picture freeze frame is displayed, only MOVE button is active for PIP, all other PIP and Split buttons has no effect (see chart).

PIP, Split and Freeze Mode Buttons Operational chart

This chart indicates the buttons that are operational with PIP, Split or Main Picture Freeze mode.

REMOTE BUTTONS	PIP MODE	SPLIT MODE	MAIN PICTURE FREEZE MODE
<b>PIP MIN</b>	Size Smaller	No Effect	No Effect
<b>PIP MAX</b>	Size Larger	No Effect	No Effect
<b>FREEZE</b>	Freeze PIP frame	Freeze Split Frame	Display or Delete
<b>PIP CH</b>	Change Channel	Change Channel	No Effect
<b>SEARCH</b>	Displays Search Frame	Displays Search Frame	No Effect
<b>PIP</b>	Displays PIP Frame	Displays PIP Frame	No Effect
<b>SPLIT</b>	Displays Split Frame	Displays Split Frame	No Effect
<b>MOVE</b>	Move PIP Frame	No Effect	Move PIP Frame
<b>SWAP</b>	Swap with Main Picture	Swap with Main Picture	No Effect

Remote Control Operation (models CT-32HXC43, CT-32HC43 and CT-36HC43)

ENGLISH

**POWER**  
Press to turn ON and OFF.

**TV VCR DBS/CBL DVD**  
Press to select remote operation.

**ACTION**  
Press to access menus.

**MUTE**  
Press to mute sound. Press to display and cancel CC (Closed Caption).

**TV/VIDEO**  
Press to select TV or input modes.

**BBE MENU**  
BBE - Press to turn on or off.  
MENU - Press to access DBS or DVD menus.

**1 2 3**  
**4 5 6**  
**7 8 9**  
**0**  
Press numeric keypad to select any channel.

**R-TUNE**  
Press to switch to previously viewed channel or input modes.



**SAP**  
Press to access audio modes (Stereo, SAP or Mono)

**VOL VOL**  
Press to adjust TV sound and navigate in menus.

**CH CH**  
Press to select next or previous channel and navigate in menus.

**RECALL**  
Press to display time, channel, sleep timer, and other options.

**SEARCH GUIDE**  
SEARCH - Press for PIP or SPLIT search.  
GUIDE - DBS functions button.

**ASPECT PROG**  
ASPECT - Select picture size (ratio) to match programming format.  
PROG - Press to enter minor number in a compound number.

EUR7613Z40  
\*EUR7613Z80

\*Remote EUR7613Z80 is same as EUR7613Z40, except it has a silver body.

*PIP MIN REW	*SPLIT PLAY	*PIP MAX FF
*SWAP PAUSE	*MOVE STOP	*PIP REC
*FREEZE TV/VCR	*PIP CH VCR /DBS CH	
*Split and PIP function buttons Component function buttons		

**Battery Installation**

**Use two AA batteries:**

Remove battery cover by pushing in and up near arrow. Install batteries matching (+) and (-) polarity signs. Replace the battery cover.

**Note:** Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control

**Precautions**

- Replace batteries in pairs.
- Do not mix battery types (zinc carbon with alkaline).
- Do not recharge, heat, short-circuit, disassemble, or burn batteries.

## Operating Components with Remote Control

**Note:** Refer to page 12 for programming Remote Control procedure.

### Operating a VCR

Program the remote control to use with VCR.

TO DO THIS...	PRESS
Turn on/off	
Select TV Input mode for VCR	
Change Channels up/down	
Record	
Play	
Stop	
Fast Forward	
Rewind the Tape	
Pause	
Change to TV or VCR Mode	
On screen VCR Display	

### Operating a CABLE BOX

Program the remote control to use with Cable Box.

TO DO THIS...	PRESS
Turn on/off	
Select a Channel	
Change Channels Up/Down	
Back to previous channel	

### Operating a DBS

Program the remote control to use with DBS.

TO DO THIS...	PRESS
Turn on/off	
Display DBS menu	
Menu Navigation	
Select a Channel	
Program Information	
Back to previous channel	
Select next page up/down	
Exit menus	
Display program Guide	

### Operating a DVD

Program the remote control to use with DVD

TO DO THIS...	PRESS
Turn on/off	
Next/Previous Chapter	
DVD Display	
Skip Search Reverse	
Skip Search Fast Forward	
Play	
DVD Open/Close	
Stop	
Still	
Slow + / -	

## Programming The Remote

The Universal Remote Control can be programmed to operate many manufacturers' components, using the component function buttons for VCR, DVD, CABLE or DBS. Follow the procedures for programming your Remote Control with or without a code for the component.

Device	Operates	Default
TV	TV (Panasonic Only)	Panasonic Code
DBS/CBL	DBS STB & CBL STB (Preset)	Panasonic DBS Code
VCR	VCR (Preset)	Panasonic Code
DVD	DVD (Preset)	Panasonic Code

**Note:** Determine the manufacturer of the component and look in the table for the code.

## Programming with a Code

### Procedure

- Confirm that the external component is plugged and operating.
- Turn the component off.
- Press **ACTION** and **POWER** together, for at least 5 seconds.
- Press appropriate component button on the Remote Control VCR, DVD, CABLE or DBS.
- Enter the 3-digit component code using the Remote Control numeric keypad (0 ~ 9 buttons).
- Press the Remote Control **POWER** to test the component. If the procedure was successful, the component will turn on.

**Note:** If the component does not operate with the Remote Control, repeat the procedure using another code. (Some brands have multiple codes). If an incorrect code is entered, or if the procedure takes longer than 30 seconds, the programming will fail.

## Programming Without A Code

This procedure searches all codes and is called the "sequence method."

- Confirm that the external component is plugged in and on.
- Turn the component off.
- Press **ACTION** and **POWER** together, for at least 5 seconds.
- Press appropriate component button on the Remote Control.
- Press **VOL ►** to move forward to the next code. Press **VOL ◀** to move backward.
- Press the Remote Control **POWER** to test the component. If the procedure was successful, the component will turn on.

**Note:** Repeat the above steps until the component code is found. It may take many attempts before the correct code is found.

- After the code is found, press **ACTION** to store the code.

## Component Codes

The Universal Remote Control is capable of operating many component brands after entering a code. Some components may not operate because the codes are not available due to limited memory. The Universal Remote Control does not control all features found in each model.

Write the code numbers from tables in this space. This will serve as a reference if you need to program your Remote Control.		
VCR [ ][ ]	CABLE [ ][ ]	DVD [ ][ ]
DBS [ ][ ]		

Component Codes (cont.)

Codes For VCR	
Brand	Code
Admiral	335
Aiwa	332
Akai	314, 315, 316, 329
Audio Dynamic	311, 339
Bell & Howell	305, 313
Broksonic	320, 326
Canon	323, 325
CCE	343
Citizen	306
Craig	305, 306, 329
Curtis Mathes	324, 345
Daewoo	301, 324, 343
DBX	310, 311, 339
Dimensia	345
Emerson	303, 319, 320, 325, 326, 343
Fisher	305, 307, 308, 309, 313
Funai	320, 326, 334
GE	324, 333, 345
Goldstar	306
Gradiente	334
Hitachi	300, 323, 345
Instant Replay	323, 324
Jensen	339
JVC	310, 311, 334, 339
Kenwood	306, 310, 311, 339
LXI	300, 305, 306, 307, 308, 309
Magnavox	323, 324, 331
Marantz	310, 311, 339
Marta	306
Memorex	309, 324
MGA	338, 340, 341, 347, 348
Minolta	300, 345
Mitsubishi	338, 340, 341, 347, 348
Multitech	304, 347
NEC	310, 311, 334, 339
Olympic	323, 324
Optimus	306, 321, 328, 335
Orion	320, 326
Panasonic	321, 322, 323, 324
Penney	300, 305, 310, 311, 324, 339, 345
Pentax	300, 311, 345

Codes For VCR (Contd.)	
Brand	Code
Philco	320, 323, 324, 326, 331, 343
Philips	323, 324, 331
Pioneer	323
Proscan	300, 301, 302, 323, 324, 331, 333, 345, 346
Quasar	321, 322, 323, 324
Radio Shack	305, 309, 324, 333, 336, 340
RCA	300, 301, 302, 323, 324, 331, 333, 345, 346
Realistic	305, 309, 324, 336, 340
Samsung	302, 304, 333
Sansui	320, 326, 339, 352
Sanyo	305, 309, 313
Scott	301, 302, 304, 309, 320, 326, 338, 340, 347, 348
Sears	300, 305, 306, 307, 308
Sharp	335, 336
Shintom	317
Signature 2000	335
Singer	337
Sony	328, 329, 330
Sylvania	331, 324, 331
Tashiro	306
Tatung	310, 311, 339
Teac	310, 311, 339
Technics	321, 322, 323, 324
Teknika	324
Toshiba	301, 346
Vector Research	311
Wards	306, 309, 335, 336, 344
Yamaha	305, 310, 311, 339
Zenith	306, 344

Codes For Cable Box	
Brand	Code
ABC	224
Archer	225, 232
Cableview	205, 232
Citizen	205, 222
Curtis	212, 213
Diamond	224, 225, 232
Eagle	229
Eastern	234
GCbrand	205, 232
Gemini	222
General Instrument/ Jerrold	211, 219, 220, 221, 222, 224, 225, 226, 227
Hamlin	212, 218, 240, 241, 242, 245
Hitachi	203, 224
Macom	203, 204, 205
Magnavox	233
Memorex	230
Movietime	205, 232
Oak	202, 237, 239
Panasonic	209, 210, 214
Philips	206, 207, 228, 229, 230
Pioneer	201, 216
Pulsar	205, 232
Puser	232
RCA	215
Realistic	232
Regal	212, 218, 240, 241, 242, 245, 249
Regency	234
Rembrandt	205, 232, 237
Samsung	205
Scientific Atlanta	211, 212, 213
Slmark	201, 205
Sprucer	205, 210
Stargate	205, 210
Teleview	201, 205
Texscan	244
Tocom	235
Toshiba	204
Unika	225, 232

Codes For Cable Box (Contd.)	
Brand	Code
Universal	222, 232
Videoway	206
Viewstar	229, 230
Zenith	200, 217
Zenith/Drake Satellite	200
Codes For DBS	
Brand	Code
Dish Network (Echostar)	105, 115, 116
Echostar	105
Express VU	105, 115
G. E.	106
G.I. (General Instrument)	108
Gradiente	114
Hitachi	103, 111, 112
HNS (Hughes)	103
Magnavox	101, 102
Panasonic	104
Philips	101, 102
Primestar	108
Proscan	106, 109, 110, 113
RCA	106, 109, 110, 113
Sony	107
Star Choice	103, 108
Toshiba	100
Uniden	101, 102
Codes For DVD	
Brand	Code
Denon	100
Ferguson	101
JVC	109
Mitsubishi	105
Nordmende	101
Panasonic	100
Philips	103
Pioneer	102
RCA	101
Saba	101
Samsung	110
Sharp	108
Sony	104
Technics	100
Thomson	101
Toshiba	103
Yamaha	100
Zenith	107

Remote Control Operation (models CT-32HL43 and CT-36HL43)

ENGLISH

**POWER**

Press to turn ON and OFF.

**ASPECT**

Select picture size (ratio) to match programming format.

**TV/VIDEO**

Press to select TV or input modes.

**MUTE**

Press to mute sound. Press to display and cancel CC (Closed Caption).

**SAP**

Press to access audio modes (Stereo, SAP or Mono).

**LIGHT**

Press to illuminate remote buttons.

**ACTION**

Press to access menus.

Press to select remote operation.

Press to select next or previous channel and navigate in menus.

**RECALL**

Press to display time, channel, sleep timer, and other options.

Press to adjust TV sound and navigate in menus.

**GUIDE**

DBS functions button.

**BBE MENU**

BBE - Press to turn on or off.  
MENU - Press to access DBS or DVD menus.

**PAGE**

DBS page up/down and DVD skip +/- buttons.

**EXIT**

DBS functions button.

**PROG**

Press to enter minor number in a compound number.

Press numeric keypad to select any channel.

**R-TUNE**

Press to switch to previously viewed channel or input modes.

*PIP MIN REW	PLAY	*PIP MAX FF
PAUSE	STOP	REC
*FREEZE TV/VCR	*PIP CH VCR CH	*SEARCH OPEN/CLOSE
*PIP	*SPLIT	*MOVE
*	*	*SWAP
*Split or PIP function buttons Component function buttons		

EUR7603Z90

**Battery Installation**

**Use two AA batteries:**

Remove battery cover by pushing in and up near arrow.  
Install batteries matching (+) and (-) polarity signs.  
Replace the battery cover.

**Note:** Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control

**Precautions**

- Replace batteries in pairs.
- Do not mix battery types (zinc carbon with alkaline).
- Do not recharge, heat, short-circuit, disassemble, or burn batteries.



## Operating Components with Remote Control

**Note:** Refer to page 17 for programming Remote Control procedure.

### Operating a VCR

Program the remote control to use with VCR.

TO DO THIS...	PRESS
Turn on/off	
Select TV Input mode for VCR	<b>TV/VIDEO</b> 
Change Channels up/down	<b>PIP CH</b> <b>VCR CH</b> 
Record	<b>REC</b> 
Play	<b>PLAY</b> 
Stop	<b>STOP</b> 
Fast Forward	<b>FF</b> 
Rewind the Tape	<b>REW</b> 
Pause	<b>PAUSE</b> 
Change to TV or VCR Mode	<b>TV/VCR</b> 
On screen VCR Display	<b>RECALL</b> 

### Operating a CABLE BOX

Program the remote control to use with Cable Box.

TO DO THIS...	PRESS
Turn on/off	
Select a Channel	
Change Channels Up/Down	<b>CH</b> 
Back to previous channel	<b>R-TUNE</b> 
Exit menus	<b>EXIT</b> 

### Operating a DBS

Program the remote control to use with DBS.

TO DO THIS...	PRESS
Turn on/off	
Display DBS menu	<b>MENU</b> 
DBS ASPECT	<b>ASPECT</b> 
Menu Navigation	
Select a Channel	
Program Information	<b>RECALL</b> 
Back to previous channel	<b>R-TUNE</b> 
Select next page up/down	<b>PAGE</b> 
Channel Up/Down	<b>PIP CH</b> <b>VCR CH</b> 
Exit menus	<b>EXIT</b> 
Display program Guide	<b>GUIDE</b> 

### Operating a DVD

Program the remote control to use with DVD.

TO DO THIS...	PRESS
Turn on/off	
Next/Previous Chapter	<b>CH</b> 
DVD Display	<b>RECALL</b> 
Skip Search Reverse	<b>REW</b> 
Skip Search Fast Forward	<b>FF</b> 
Play	<b>PLAY</b> 
DVD Open/Close	<b>OPEN/CLOSE</b> 

**Operating a DTV**

Program the remote control to use with DTV.

TO DO THIS...	PRESS
Turn on/off	
DTV ASPECT	ASPECT 
Select a Channel	
Navigation Left / Right	
Back to previous channel	R-TUNE 
Exit menus	EXIT 

**Operating a Cassette Deck**

To operate a cassette deck, the remote control must be in AUX mode and be programmed with the appropriate code for your equipment.

TO DO THIS...	PRESS
Turn on/off	
Receiver Volume Up/Down	
Deck A/B	R-TUNE 
Record	REC 
Play	PLAY 
Stop	STOP 
Fast Forward	FF 
Rewind the Tape	REW 
Pause	PAUSE 

**Operating a Receiver**

Program the remote to operate audio receiver.

TO DO THIS...	PRESS
Turn on/off	
Audio Mute	MUTE 
RCVR. VOL Up Down	
Tuner Pre-set stations Up/Down	

TO DO THIS...	PRESS
To select AV Inputs or Components:	Press Remote numeric keypad
	AV 1 Press 1
	AV 2 Press 2
	AV 3 Press 3
	AV 4 Press 4
	CD Press 5
	TUNER Press 6
	PHONO Press 7
	TAPE Press 8
AUX Press 9	
Surround VOL Down	PIP MAX 
Surround VOL UP	PIP MAX 
Center CH VOL Up/Down	VCR CH 

**Operating a PVR (Personal Video Recorder)**

Program the remote control to use with a PVR.

TO DO THIS...	PRESS
Turn on/off	
PVR Navigation	
Select a Channel	
Play	PLAY 
Record	REC 
Pause	PAUSE 
Back to previous channel	R-TUNE 
Exit menus	EXIT 
PVR Guide	GUIDE 
Replay Zones	R-TUNE 
Quick Skip	OPEN/CLOSE 
Return to live	PROG 

## Programming the Remote

The Universal Remote Control can be programmed to operate many manufacturers' components, using the component function buttons for VCR, DVD, AUX, RCVR, TV, DTV CABLE or DBS. Follow the procedures for programming your Remote Control with or without a code for the component.




**Default Modes for Remote Control**

Device	Operates	Default
TV	TV (Panasonic Only)	Panasonic TV Code
DTV-STB	DTV (Panasonic Only)	Panasonic DBS Code
CABLE	CABLE (Preset)	Panasonic CABLE Code
DBS	DBS (Preset)	Panasonic DBS Code
VCR	VCR (Preset0)	Panasonic VCR Codes
DVD/CD	DVD and CD (Preset)	Panasonic DVD Codes
AUX	Personal Video Recorders, Tape and VCR2	Panasonic Personal Video Recorder Code
RCVR	Audio receiver (Preset)	Panasonic RCVR code

**Note:** Determine the manufacturer of the component and look in the table for the code.

## Programming with a Code

### Procedure




- Confirm that the external component is plugged and operating.
- Turn the component off.
- Press <sup>ACTION</sup>  and  together, **for at least 5 seconds.**
- Press appropriate component button on the Remote Control VCR, DVD (CD), AUX (VCR2 or TAPE), RCVR, DTV, CABLE or DBS.
- Enter the 3-digit component code using the Remote Control numeric keypad (0 ~ 9 buttons).
- Press the Remote Control  to test the component. If the procedure was successful, the component will turn on.

**Note:** If the component does not operate with the Remote Control, repeat the procedure using another code. (Some brands have multiple codes). If an incorrect code is entered, or if the procedure takes longer than 30 seconds, the programming will fail.

## Programming without a Code

This procedure searches all codes and is called the "sequence method."

### Procedure

- Confirm that the external component is plugged in and on.
- Turn the component off.
- Press <sup>ACTION</sup>  and  together, **for at least 5 seconds.**
- Press appropriate component button on the Remote Control.
- Press **VOL ▶** to move forward to the next code. Press **VOL ◀** to move backward.
- Press the Remote Control  to test the component. If the procedure was successful, the component will turn on.

**Note:** Repeat the above steps until the component code is found. It may take many attempts before the correct code is found.

## Component Codes

The Universal Remote Control is capable of operating many component brands after entering a code. Some components may not operate because the codes are not available due to limited memory. The Universal Remote Control does not control all the features found in each model.

Write the code numbers from tables in this space. This will serve as a reference if you need to program your Remote Control.		
VCR <input type="text"/> <input type="text"/> <input type="text"/>	DVD <input type="text"/> <input type="text"/> <input type="text"/>	DVD (CD) <input type="text"/> <input type="text"/> <input type="text"/>
AUX (VCR2) <input type="text"/> <input type="text"/> <input type="text"/>	AUX (TAPE) <input type="text"/> <input type="text"/> <input type="text"/>	RECEIVER <input type="text"/> <input type="text"/> <input type="text"/>
CABLE <input type="text"/> <input type="text"/> <input type="text"/>	DBS <input type="text"/> <input type="text"/> <input type="text"/>	AUX (PVR) <input type="text"/> <input type="text"/> <input type="text"/>

Component codes

ENGLISH

Codes For VCR	
Brand	Code
Admiral	335
Aiwa	332
Akai	314, 315, 316, 329
Audio Dynamic	311, 339
Bell & Howell	305, 313
Broksonic	320, 326
Canon	323, 325
CCE	343
Citizen	306
Craig	305, 306, 329
Curtis Mathes	324, 345
Daewoo	301, 324, 343
DBX	310, 311, 339
Dimensia	345
Emerson	303, 319, 320, 325, 326, 343
Fisher	305, 307, 308, 309, 313
Funai	320, 326, 334
GE	324, 333, 345
Goldstar	306
Gradiente	334
Hitachi	300, 323, 345
Instant Replay	323, 324
Jensen	339
JVC	310, 311, 334, 339
Kenwood	306, 310, 311, 339
LXI	300, 305, 306, 307, 308, 309
Magnavox	323, 324, 331
Marantz	310, 311, 339
Marta	306
Memorex	309, 324
MGA	338, 340, 341, 347, 348
Minolta	300, 345
Mitsubishi	338, 340, 341, 347, 348
Multitech	304, 347
NEC	310, 311, 334, 339
Olympic	323, 324
Optimus	306, 321, 328, 335

Codes For VCR (cont.)	
Brand	Code
Orion	320, 326
Panasonic	321, 322, 323, 324
Penney	300, 305, 310, 311, 324, 339, 345
Pentax	300, 311, 345
Philco	320, 323, 324, 326, 331, 343
Philips	323, 324, 331
Pioneer	323
Proscan	300, 301, 302, 323, 324, 331, 333, 345, 346
Quasar	321, 322, 323, 324
Radio Shack	305, 309, 324, 333, 336, 340
RCA	300, 301, 302, 323, 324, 331, 333, 345, 346
Realistic	305, 309, 324, 336, 340
Samsung	302, 304, 333
Sansui	320, 326, 339, 352
Sanyo	305, 309, 313
Scott	301, 302, 304, 309, 320, 326, 338, 340, 347, 348
Sears	300, 305, 306, 307, 308
Sharp	335, 336
Shintom	317
Signature 2000	335
Singer	337
Sony	328, 329, 330
Sylvania	331, 324, 331
Tashiro	306
Tatung	310, 311, 339
Teac	310, 311, 339
Technics	321, 322, 323, 324
Teknika	324
Toshiba	301, 346
Vector Research	311
Wards	306, 309, 335, 336, 344
Yamaha	305, 310, 311, 339
Zenith	306, 344

Codes For Cable Box	
Brand	Code
ABC	224
Archer	225, 232
Cableview	205, 232
Citizen	205, 222
Curtis	212, 213
Diamond	224, 225, 232
Eagle	229
Eastern	234
GCbrand	205, 232
Gemini	222
General Instrument/ Jerrold	211, 219, 220, 221, 222, 224, 225, 226, 227
Hamlin	212, 218, 240, 241, 242, 245
Hitachi	203, 224
Macom	203, 204, 205
Magnavox	233
Memorex	230
Movietime	205, 232
Oak	202, 237, 239
Panasonic	209, 210, 214
Philips	206, 207, 228, 229, 230
Pioneer	201, 216
Pulsar	205, 232
Puser	232
RCA	215
Realistic	232
Regal	212, 218, 240, 241, 242, 245, 249
Regency	234
Rembrandt	205, 232, 237
Samsung	205
Scientific Atlanta	211, 212, 213
Slmark	201, 205
Sprucer	205, 210
Stargate	205, 210
Televue	201, 205
Texscan	244
Tocom	235
Toshiba	204
Unika	225, 232
Universal	222, 232
Videoway	206
Viewstar	229, 230
Zenith	200, 217
Zenith/ Drake Satellite	200

Codes For DBS	
Brand	Code
Dish Network (Echostar)	105, 115, 116
Echostar	105
Express VU	105, 115
G. E.	106
G.I. (General Instrument)	108
Gradiente	114
Hitachi	103, 111, 112
HNS (Hughes)	103
Magnavox	101, 102
Panasonic	104
Philips	101, 102
Primestar	108
Proscan	106, 109, 110, 113
RCA	106, 109, 110, 113
Sony	107
Star Choice	103, 108
Toshiba	100
Uniden	101, 102
Codes For DVD	
Brand	Code
Denon	100
Ferguson	101
JVC	109
Mitsubishi	105
Nordmende	101
Panasonic	100
Philips	103
Pioneer	102
RCA	101
Saba	101
Samsung	110
Sharp	108
Sony	104
Technics	100
Thomson	101
Toshiba	103
Yamaha	100
Zenith	107

Component Codes (Cont.)

Codes For Cassette Decks	
Brand	Code
Aiwa	223, 224, 225
Denon	231
Fisher	203
Jensen	214
JVC	229, 230
Kenwood	200, 207
Marantz	202
Nakamichi	205
Onkyo	208, 209, 213
Panasonic	216, 218
Philips	222
Pioneer	204
RCA	226, 227, 228
Sansui	205, 210
Sharp	231
Sony	219, 220
Teac	210, 211, 215
Technics	216, 218
Yamaha	201, 202

Codes For Receivers	
Brand	Code
Admiral	120
Aiwa	125, 126
Denon	134, 135, 136
Fisher	104
Garrard	113

Codes For Receivers (cont.)	
Brand	Code
Harman Kardon	115, 123
Jensen	129
JVC	132, 133
Kenwood	100, 108
Magnavox	127
Marantz	124
McIntosh	116
Nakamichi	106
Onkyo	109, 114
Optimus	103, 127, 130, 131
Panasonic	118, 119, 121
Philips	123
Pioneer	105, 107
Quasar	118, 119, 121
RCA	103, 105, 127, 130, 131
Sansui	103, 111, 139
Sharp	134, 137
Sony	122
Soundesign	138
Teac	111, 112, 113
Technics	118, 119, 121
Victor	132, 133
Yamaha	101, 102

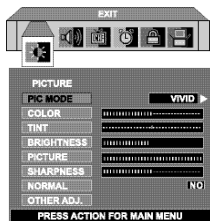
Codes For CD Player	
Brand	Code
Admiral	226
Aiwa	233, 235
Carver	229
Denon	242
Emerson	239
Fisher	205
Harman/Kardon	219, 220, 221, 223
Hitachi	207
Jensen	234
JVC	240, 241, 245
Kardon	223
Kenwood	200, 201, 211, 245
LXI/Sears	236
Magnavox	229, 232
Marantz	229
McIntosh	221
Nakamichi	210
Onkyo	214, 215
Optimus	208, 218, 220, 222
Panasonic	224, 225, 227
Philips	229, 230
Pioneer	208
Quasar	224, 225, 227
RCA	231, 237, 238, 247
Sansui	210, 246
Sanyo	205
Scott	210, 246
Sharp	242, 243
Sherwood	220
Sony	228
Soundesign	244
Teac	212, 216, 218
Technics	224, 225, 227
Victor	240, 241, 245
Yamaha	202, 203, 204

Codes For Personal Video Recorders	
Brand	Code
Panasonic Replay TV	100
Philips Tivo	101
Sony Tivo	102

Basic Menu Navigation

ENGLISH

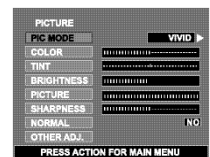
Press  to display the Main Menu.



Press  to choose the desired icon.

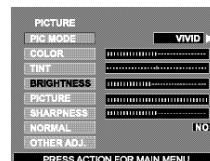


Press  to enter the sub-menu field.

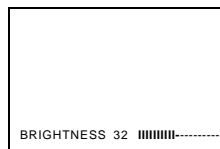


sub Menu Field


Press  to select desired sub-menu.

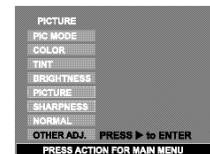



Press  to select or adjust desired sub-menu.

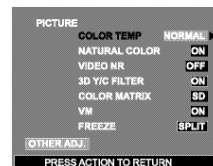


Note: For sub -menu with OTHER ADJ.

Press  to select OTHER ADJ.

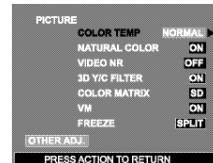



Press  to enter sub sub-menu field.



sub sub- Menu Field

Press  to select desired sub sub-menu.



Press  to select or adjust desired sub sub-menu.



Note: To EXIT menus.

Press  repeatedly until Main Menu icon is highlighted.



Main Menu Icon

Press  to exit Main Menu.



NORMAL PICTURE

## Icon Menu Operation

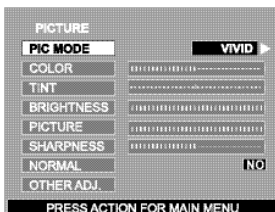
### PICTURE

**Note:** While sub-menu features are highlighted, press **VOL ▶** to adjust or activate.

- PIC MODE** - Lets you choose one of three pre-set Picture Modes that best suits the program you are viewing. Selecting this feature will also affect Color Temperature setting.
  - **VIVID** - This is the default mode, It provides enhanced picture contrast and sharpness for viewing in a well-lit room.
  - **STANDARD** - Recommended for normal viewing conditions with subdued room lighting.
  - **CINEMA** - Select this mode for watching movies in a darkened room. It provides a soft, film-like picture.

**Note:** Each mode has its own picture settings (Color, Tint, Brightness, Picture and Sharpness).

- COLOR** - Adjusts desired color intensity.
- TINT** - Adjusts natural flesh tones.
- BRIGHTNESS** - Adjusts dark areas of picture.
- PICTURE** - Adjusts white areas of picture.
- SHARPNESS** - Adjusts clarity of outline detail.
- NORMAL** - Reset adjustments to factory default settings.



#### OTHER ADJ.

Highlight OTHER ADJ. and press **VOL ▶** to display the sub sub-menu.

**Note:** While sub sub-menu features are highlighted, press **VOL ▶** to select or activate.



- **COLOR TEMP** (temperature) - To increase or decrease WARM (red) and COOL (blue) colors to suit personal preferences.
- **NATURAL COLOR** - To increase the color reproduction range with natural color gradation and highly delicate hues.
- **VIDEO NR** - Reduces noise in the channel, commonly called snow.
- **3D Y/C FILTER** - Minimizes noise and cross color in the picture.
- **COLOR MATRIX** - Available only with 480p signal. Select HD or SD to automatically adjust color parameters for HD (high definition) and SD (standard definition). This feature is not selectable when viewing regular TV (NTSC) program.

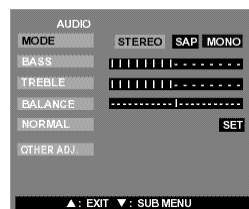
**Note:** When viewing a non-standard DTV signal format, you can change color parameters manually for the best picture quality.

- **VM (VELOCITY MODULATION)** - Increases picture sharpness and provides crisp white to black transitions
- **FREEZE** - This feature is used to freeze main picture and display it in a PIP or SPLIT frame, when the FREEZE button on the remote control is pressed. Press FREEZE again to delete frame. SWAP, SIZE, SEARCH, PIP MIN and PIP MAX buttons are not functional in this mode.

### AUDIO

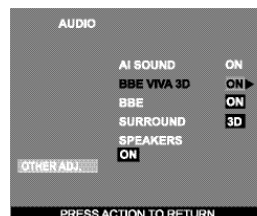
**Note:** While sub-menu features are highlighted, press **VOL ▶** to adjust or activate.

- MODE** - Select STEREO, SAP (Second Audio Program) or MONO. (Use MONO when stereo signal is weak).
- BASS** - Increase or decrease the bass response.
- TREBLE** - Increase or decrease the treble response.
- BALANCE** - Emphasize the left/right speaker volume.
- NORMAL** - Reset BASS, TREBLE and BALANCE adjustments to factory default settings.



#### OTHER ADJ.

**Note:** While sub sub-menu features are highlighted, press **VOL ▶** to adjust or activate.



- **AI SOUND** - Equalize overall volume levels across all channels. (AI sound is not available in VIDEO mode).
- **BBE®** - Sound technology enhances speech intelligibility and restores the dynamic range of musical passages to provide outstanding natural sound.
- **BBE VIVA 3D** - BBE VIVA provides a musically accurate natural 3D image with hi-fi sound. The clarity of the sound is improved by BBE while the width, depth and height of the sound image are expanded by BBE's proprietary 3D sound processing. BBE VIVA is compatible with all TV programs including news, music, dramas, movies and sports as well as electronic games. BBE VIVA enhances the surround sound effect, while maintaining the clarity of dialogue.

**Note:** BBE VIVA 3D is only used in models CT-32HL43 and CT-36HL43.

**AUDIO (cont.)**

**OTHER ADJ.**

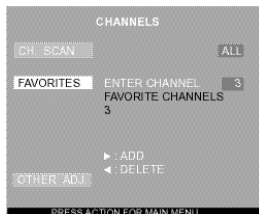
- SURROUND - Enhances audio response when listening to stereo.
- SPEAKERS - This feature is used when connecting to an external amplifier.
  - ON - TV speakers operate normally.
  - OFF & Variable Audio Out - TV speakers off - audio adjustable by television.
  - OFF & Fixed Audio Out - TV speakers off - audio adjustable by the external amplifier only.

**CHANNELS**

**CHANNEL SCAN** - Select FAV or ALL.

**Note:** Use remote numeric keypad to select desired FAV channels.

**FAVORITES** - To enter up to 16 favorite channels. Use remote control numeric keypad to select desired channels.



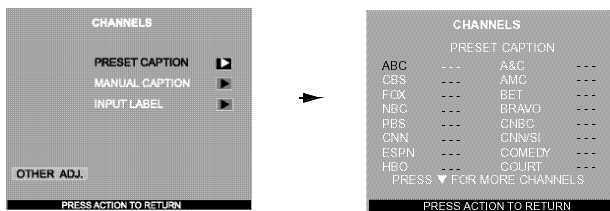
**OTHER ADJ.**

Highlight OTHER ADJ. and press **VOL** ► to display the sub sub-menu.

- PRESET CAPTION - To enter channel numbers for popular TV stations.

**Procedure**

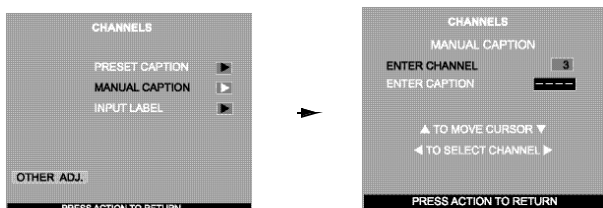
- Press **CH** ▼ to select desired preset caption.
- Then use the remote numeric keypad to select desired channel (refer to your local TV guide).



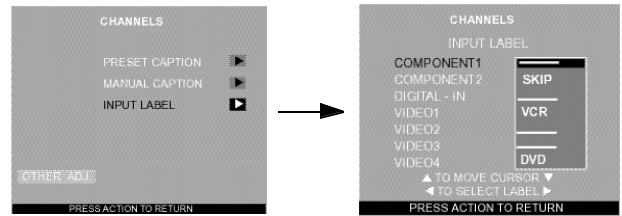
**Note:** To delete a channel, press **VOL** ◀ while channel number is highlighted.

- MANUAL CAPTION - To enter numbers and captions manually.

**Note:** Use the remote numeric keypad to select desired channel (refer to your local TV guide).



- INPUT LABEL - To label video input connections for onscreen display.



**Procedure**

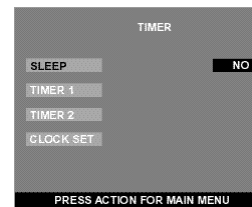
- Press **CH** ▲ or **CH** ▼ to select the desired Video input.
- Press **VOL** ◀ or **VOL** ► to select desired preset input label (see chart below).

**INPUT LABEL CHART**

PRESET LABELS	REASON FOR SELECTING
VCR	Select when VCR is connected to video input.
DVD	Select when DVD is connected to video input.
SKIP	Select to skip unused video input when pressing TV/VIDEO button.
CABLE	Select when CABLE box is connected to video input.
DBS	Select when DBS is connected to video input.
DTV STB	Select when digital TV set-top-box is connected to video input.
PVR (Personal Video Recorder)	Select when a personal video recorder is connected to video input.
GAME	Select when Video GAME is connected to video input.
AUX	Select when other components are connected.
---	Select to delete input label.

**TIMER**

**Note:** Use **CH** ▲ or **CH** ▼ to highlight and use **VOL** ◀ or **VOL** ► to select.



- ☐ **SLEEP** - Select to turn TV off in 30, 60, or 90 minutes. Select NO to turn sleep timer off.
- ☐ **TIMER 1 and TIMER 2** - Select one or both timers to turn the TV on and off at selected times, on selected channel, and on selected days.

**Notes:**

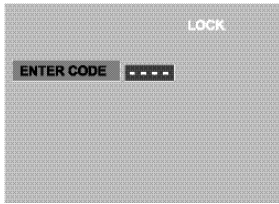
- The television automatically turns OFF after 90 minutes when turned ON by the TIMER. If the OFF time is selected or if a key is pressed, the automatic OFF after 90 minutes will be cancelled.
- The TIMER is active when the television is OFF or ON. The television will switch to the selected channel at the selected time set in the TIMER.

- ☐ **CLOCK SET** - Set the time of the day and the day of the week.

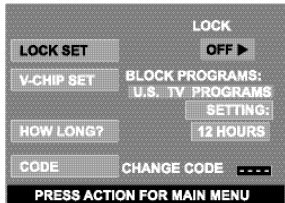


## LOCK

- ❑ **ENTER CODE** - Use the remote numeric keypad to enter a four-digit secret code (Use a code that is easy to remember and record it in a safe place).



- ❑ **LOCK SET** - To prevent video games, VCR tapes and all channels and video modes from being viewed.

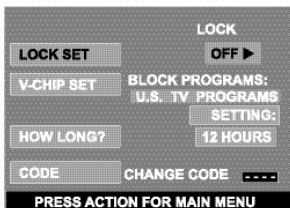


### Notes:

- If you do not remember your code, LOCK will unlock in 12, 24, or 48 hours, depending on the current setup. Be cautious when selecting ALWAYS. If ALWAYS is selected, and you forget your secret code, the TV must be serviced by a qualified technician to clear the LOCK setup.
- If you select CHANGE CODE, and you change your code from the one used in the LOCK menu, your new code becomes the controlling code.

### Procedure

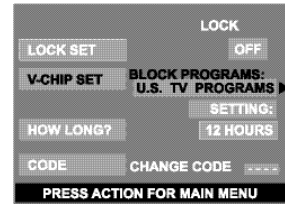
- Press **VOL ▶** to select.
  - OFF - Turns Lock function off.
  - GAME - Lock CH 3, 4 and Video inputs.
  - CHANNEL - Lock up to four channels.
  - ALL - Locks all channels and video inputs.



- Press **ACTION** then **CH ▼** to highlight HOW LONG?.
- Press **VOL ▶** to select 12 Hours, 24 Hours, 48 Hours or ALWAYS.

**Note:** If **GAME**, **CHANNEL** or **ALL** is selected, and if a blocked channel or video input is selected, the message **LOCKED** displays in the upper left corner of the TV screen.

- ❑ **V-CHIP SET** - V-Chip technology allows parents to use the TV rating codes to block programs that they feel are inappropriate for their children to watch.

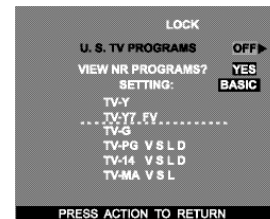


### Procedure

- Press **CH ▼** to highlight Enter Code.
- Use the numeric keypad to enter your four digit code. **(Use a code that is easy to remember and record it in a safe place.)**
- Press **CH ▼** to highlight V-CHIP SET.
- Press **◀ VOL** or **VOL ▶** to select desired mode, U.S. TV Programs, U.S. Movies, Canadian English or Canadian French mode.
- Press **CH ▼** to highlight SETTING.
- Press **◀ VOL** or **VOL ▶** to display desired rating chart U.S. TV Programs, U.S. Movies, Canadian English or Canadian French.
- Press **VOL ▶** to select ON or OFF.
- Press **CH ▼** to select VIEW NR PROGRAMS? for U.S. TV Programs and U.S. Movies or VIEW E PROGRAMS for Canadian English and Canadian French.
- Press **VOL ▶** to select YES or NO.

### U.S TV Programs

This TV model features the "V-Chip technology" which allows you to use U.S. TV PROGRAMS Guide ratings to block various types of TV programs. PIP will also be blocked automatically.



**Note:** Selecting "Yes", NR programs will be received. Selecting "NO", NR programs will be blocked (See Customer Caution on next page).

### Procedure

- Press **CH ▼** to select SETTING.
- Press **VOL ▶** to select BASIC or DETAILED.
  - BASIC - Allows you to select only general ratings such as TV-Y, TV-PG, etc.
  - DETAILED - Allows you to select both general ratings and content such as V, L, etc.
- Press **CH ▼** or **CH ▲** to move between different ratings.
- Use **◀ VOL** or **VOL ▶** to select ratings you want to block (**RED**) and unblock (**GREEN**).
- Press **ACTION** to return to V-CHIP SET.
- Press **CH ▼** to select HOW LONG?.
- Press **◀ VOL** or **VOL ▶** to select 12, 24, 48 hours or ALWAYS.
- Press **ACTION** to return to Main Menu, then press **CH ▲** to exit.

LOCK (cont.)

U.S TV Programs (cont.)

ENGLISH

**Customer Caution**

The V-Chip system that is used in this set is capable of blocking "NR" programs (non rated, not applicable and none) per FCC Rules Section 15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"

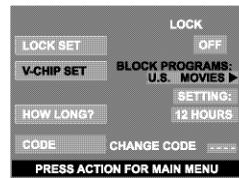
- Emergency Bulletins (Such as EAS messages, weather warnings and others)
- Locally originated programming
- News
- Political
- Public Service Announcements
- Religious
- Sports
- Weather

**U.S. TV Programs Rating Chart Description**

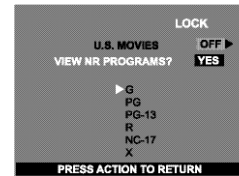
<b>NR</b>	<b>Not Rated. SEE CUSTOMER CAUTION above.</b>
<b>TV-Y</b>	<b>All children.</b> The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
<b>TV-Y7</b>	<b>Directed to older children.</b> Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
<b>TV-G</b>	<b>General audience.</b> It contains little or no violence, no strong language, and little or no sexual dialogue or situations.
<b>TV-PG</b>	<b>Parental guidance suggested.</b> The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
<b>TV-14</b>	<b>Parents strongly cautioned.</b> This program may contain sophisticated themes, sexual content, strong language and more intense violence.
<b>TV-MA</b>	<b>Mature audiences only.</b> This program may contain mature themes, profane language, graphic violence, and explicit sexual content.
<b>FV</b>	<b>FANTASY/CARTOON VIOLENCE</b>
<b>V</b>	<b>VIOLENCE</b>
<b>S</b>	<b>SEX</b>
<b>L</b>	<b>OFFENSIVE LANGUAGE</b>
<b>D</b>	<b>DIALOGUE WITH SEXUAL CONTENT</b>

**U.S. Movies**

This TV model features the "V-Chip technology" which allows you to use Motion Picture Ratings when viewing movies or video tapes. This innovation allows parents to block various types of movies and video tapes at their discretion. PIP will also be blocked automatically.



**Note:** Some movies are not rated for a variety of reasons. Old movies and foreign films are usually not rated.



**Procedure**

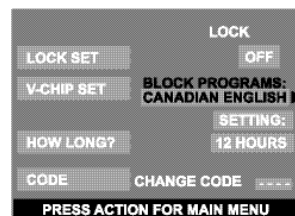
- Press **CH ▼** or **CH ▲** to move between different ratings.
- Use **◀ VOL** or **VOL ▶** to select ratings you want to block (**RED**) and unblock (**GREEN**).
- Press **ACTION** to return to V-CHIP SET.
- Press **CH ▼** to select HOW LONG?
- Press **◀ VOL** or **VOL ▶** to select 12, 24, 48 hours or ALWAYS.
- Press **ACTION** to return to Main Menu, then press **CH ▲** to exit.

**U.S. Movies Rating Chart Description**

<b>NR</b>	<b>CONTAINS NO RATING (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS.</b> Movie has not been rated or rating does not apply.
<b>G</b>	<b>GENERAL AUDIENCES.</b> All ages admitted.
<b>PG</b>	<b>PARENTAL GUIDANCE SUGGESTED.</b> Some material may not be suitable for children.
<b>PG-13</b>	<b>PARENTS STRONGLY CAUTIONED.</b> Some material may be inappropriate for children under 13.
<b>R</b>	<b>RESTRICTED.</b> Under 17 requires accompanying parent or adult guardian.
<b>NC-17</b>	<b>NO ONE 17 AND UNDER ADMITTED.</b>
<b>X</b>	<b>ADULTS ONLY.</b>

**Canadian English**

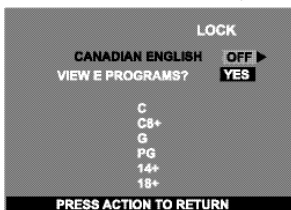
The V-CHIP used in this TV model allows you to block various types of movies and television programs based on the two rating systems used in Canada. PIP will also be blocked automatically.



## LOCK (cont.)

### Canadian English (cont.)

**Note:** E (Exempt) programming includes: news, sports, documentaries and other information programming, talk shows, music videos, and variety programming.



#### Procedure

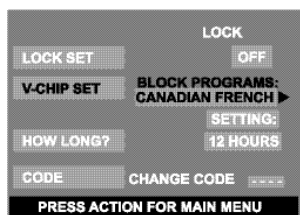
- Press **CH ▼** or **CH ▲** to move between different ratings.
- Use **◀ VOL** or **VOL ▶** to select ratings you want to block (RED) and unblock (GREEN).
- Press **ACTION** twice to return to V-CHIP SET.
- Press **CH ▼** to select HOW LONG?
- Press **◀ VOL** or **VOL ▶** to select 12, 24, 48 hours or ALWAYS.
- Press **ACTION** to return to Main Menu, then press **CH ▲** to exit.

#### Canadian English Rating Description

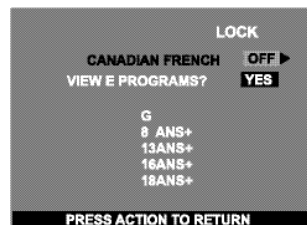
E	Exempt - Exempt programming includes: news, sports, documentaries and other information programming, talk shows, music videos, and variety programming.
c	Programming intended for children under age 8. No offensive language, nudity or sexual content.
C8+	Programming generally considered acceptable for children 8 years and over. No profanity, nudity or sexual content.
G	General programming, suitable for all audiences.
PG	Parental Guidance suggested. Some material may not be suitable for children.
14+	Programming contains themes or content which may not be suitable for viewers under the age of 14. Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens.
18	ADULTS ONLY

### Canadian French

The V-CHIP used in this TV model also lets you block or unblock Canadian French programs according to various ratings categories. PIP will also be blocked automatically.



**Note:** E (Exempt) programming includes: news, sports, documentaries and other information programming, talk shows, music videos, and variety programming.



#### Procedure

- Press **CH ▼** or **CH ▲** to move between different ratings.
- Use **◀ VOL** or **VOL ▶** to select ratings you want to block (RED) and unblock (GREEN).
- Press **ACTION** twice to return to V-CHIP SET.
- Press **CH ▼** to select HOW LONG?
- Press **◀ VOL** or **VOL ▶** to select 12, 24, 48 hours or ALWAYS.
- Press **ACTION** to return to Main Menu, then press **CH ▲** to exit.

#### Canadian French Rating Description

E	Exempt - Exempt programming.
G	General - Programming intended for audience of all ages. Contains no violence, or the violence content is minimal or is depicted appropriately.
8 ans +	8+ General - Not recommended for young children. Programming intended for a broad audience but contains light or occasional violence. Adult supervision recommended.
13 ans +	Programming may not be suitable for children under the age of 13 - Contains either a few violent scenes or one or more sufficiently violent scenes to affect them. Adult supervision strongly suggested.
16 ans +	Programming may not be suitable for children under the age of 16 - Contains frequent scenes of violence or intense violence.
18 ans +	Programming restricted to adults. Contains constant violence or scenes of extreme violence.

**LOCK (cont.)**

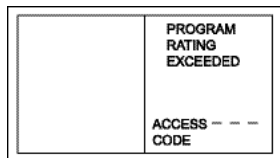
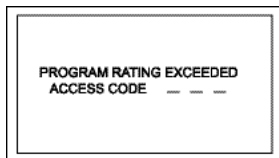
**Main and Split Blocking Message**

If V-Chip is enabled and the program exceeds the rating limit set by you, the blocking message will appear and the audio will be muted. Enter your four-digit secret code if you wish to continue viewing the program. After entering your code, all locks and rating blocks are disabled until the TV is turned off or until all settings are off.

**Note:** If you enter your four-digit secret code to override rating blocks, you must reset all rating blocks by either reprogramming or turning the TV off.

Main Picture

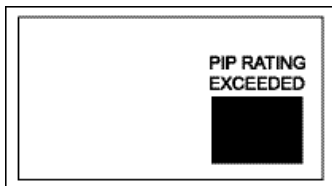
Split Picture



**PIP Blocking Message**

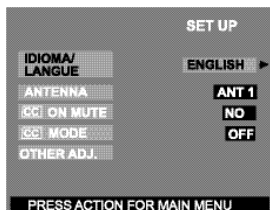
PIP function is available when V-chip feature is activated. If the program being viewed in PIP exceeds the set rating limit, PIP will disappear and a blocking message will appear on screen.

**Note:** If the V-chip feature is activated while PIP is on, PIP will immediately disappear. Enable PIP functions by setting V-CHIP ratings to OFF.

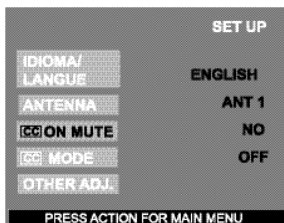


**SET UP**

While the desired sub menu is highlighted, press **VOL ▶** to select or activate feature.



- ☐ **IDIOMA/LANGUE** - Select to change menu language to ENGLISH, ESPAÑOL (Spanish) or FRANÇAIS (French).
- ☐ **ANTENNA** - To select either ANT1 or ANT2.
- ☐ **CC ON MUTE** - Activates the onscreen Closed Caption feature when the **MUTE** button on the remote control is pressed. To deactivate press **MUTE** again.



☐ **CC MODE** - This television contains a built-in decoder that displays **CC** (Closed Captioned) text across the screen (white or colored letters on black background). It allows the viewer to read the dialogue of a television program or other information. The program viewed must include Closed Captioning for the feature to work. Activate the onscreen Closed Caption feature by selecting one of the following modes.

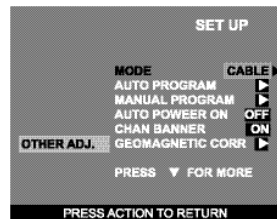
- OFF - When Closed Caption is not desired.
- C1 - For video related information to be displayed, up to 4 lines onscreen at a time. (It does not block relevant parts of the picture). Text may be in any language.
- C2 to C4 - For other modes of video related information.
- T1 to T4 - For program guide and other information to be displayed, when available. (Blocks a large portion of the picture on the television screen).

**Note:** C1 mode is recommended for viewing Closed Caption.

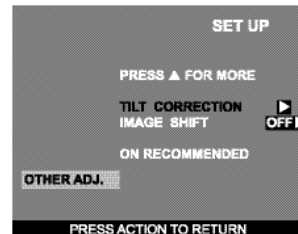
☐ **OTHER ADJ.**

Highlight OTHER ADJ. and press **VOL ▶** to enter sub sub-menu field.

**Note:** While sub sub-menu features are highlighted, press **VOL ▶** to adjust or activate.












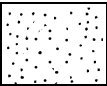












- **MODE** - To select TV (antenna) or CABLE mode depending on the signal source.
- **AUTO PROGRAM** - To automatically program all channels with a signal.
- **MANUAL PROGRAM** - To manually add or delete channels.
- **AUTO POWER ON** - Select SET to power up the TV at the same time as the Cable box or other components or select OFF.
- **CHAN BANNER** - Select ON to display onscreen banner when changing channels.
- **GEOMAGNETIC CORR** - This feature is used to adjust discoloration of the picture due to earth's magnetic field in the area.



- **TILT CORRECTION** - This feature is used to adjust the tilt of the picture due to earth's magnetic field in the area.
- **IMAGE SHIFT** - Selecting ON is recommended for this feature to prevent image retention on screen.

**Troubleshooting Chart**

Before calling for service, determine the symptoms and follow suggested solutions.

AUDIO	VIDEO	Solutions
 Noisy Audio	 Snowy Video	Adjust Antenna Location and Connection
 Noisy Audio	 Multiple Image / Color shift in picture	Adjust Antenna Location and Connection Check Antenna Lead-in Wire
 Noisy Audio	 Interference	Move television from Electrical Appliances, Lights, Vehicles and Medical Equipment
 No Audio	 Normal Video	Increase Volume Check Mute Check television SPEAKERS on/off Change Channel
 Noisy Audio	 No Video with Snow	Set TV or Cable Mode Properly Check Antenna Cables
 No Audio	 No Video / No PIP	Check Power Cord is Plugged into Active Outlet Adjust Brightness and Audio Controls Change Channel Check Cable Connections Program the Remote Control Again Check Second Video Source Operation Make sure that a PC is not connected to DVI (DIGITAL-IN) input. <i>Note: This HDTV Monitor is not intended to be used with a PC.</i>
 Normal Audio	 Picture shifts slightly (vertically) when turned on, changing channels or within a duration of two (2) hours of viewing.	This is a normal condition to prevent image burn-in. This feature can be turned off. However, turning off this feature may result in image retention on screen. (refer pg. 26)
 Normal Audio	 No Color	Adjust Color Settings Change Channel
 Wrong Audio	 Normal Video	Check Audio Is Set To Stereo or Mono, Not SAP
 Normal Audio	 Black Box on Screen	Change CC (Closed Captioning) from Text Mode
 Normal Audio	 Normal Video	Replace Remote Control Batteries
Intermittent Remote Control Operation		

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PANASONIC CONSUMER ELECTRONICS COMPANY,  
DIVISION OF:  
MATSUSHITA ELECTRIC CORPORATION OF AMERICA  
One Panasonic Way  
Secaucus, New Jersey 07094

PANASONIC SALES COMPANY,  
DIVISION OF:  
MATSUSHITA ELECTRIC OF PUERTO RICO,  
INC., Ave. 65 de Infanteria, Km. 9.5  
San Gabriel Industrial Park  
Carolina, Puerto Rico 00985

## Panasonic Color Television Limited Warranty

### Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

TV CATEGORIES	ALL PARTS EXCEPT CRT	CRT	LABOR	SERVICE
31"-36" diagonal	1 (ONE) YEAR	2 (TWO) YEARS	1 (ONE) YEAR	IN-HOME OR CARRY-IN

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry-in your product or arrange for in-home service (in-home service available only for 22" [diagonal] and larger screen), as applicable, during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

### Carry-in or In-Home Service

For Carry-In or In-Home Service (as applicable) in the United States call 1-800-211-PANA(7262) or visit Panasonic Web Site: <http://www.panasonic.com>

For assistance in Puerto Rico call Panasonic Sales Company (787)-750-4300 or fax (787)-768-2910.

In-Home service, if applicable, requires clear, complete and easy access to the product by the authorized servicer and does not include removal or re-installation of an installed product. It is possible that certain in-home repairs will not be completed in-home, but will require that the product, or parts of the product, be removed for shop diagnosis and/or repair and then returned.

**Limited Warranty continued on next page**

**Limited Warranty continued from previous page**

**Limited Warranty Limits And Exclusions**

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage, nor does it cover markings or retained images on the picture tube resulting from viewing fixed images (including, among other things, letterbox pictures on standard 4:3 screen TVs, or non-expanded standard 4:3 pictures on wide screen TV's, or onscreen data in a stationary and fixed location). The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

**THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.** (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, or travel to and from the servicer. The items listed are not exclusive, but are for illustration only.) **ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.

This warranty gives you specific legal rights and you may also have others rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

**PARTS AND SERVICE (INCLUDING COST OF AN IN-HOME SERVICE CALL, WHERE APPLICABLE) WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.**





**For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:**

**1-800-211-PANA (7262), Monday-Friday 9am - 9pm; Saturday-Sunday 10 am - 7pm, EST.**

**Web Site: <http://www.panasonic.com>  
You can purchase parts, accessories or locate your nearest servicer by visiting our Web Site.**

**Accessory Purchases:**

**1-800-332-5368 (Customer Orders Only)**

**Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032**

**(6 am to 5 pm Monday - Friday; 6 am to 10:30 am Saturday; PST)**

**(Visa, MasterCard, Discover Card, American Express, Check)**

**Service in Puerto Rico**

**Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/Factory Servicer:**

**Ave. 65 de Infanteria, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985**

**Phone (787) 750-4300 Fax (787) 768-2910**

---

**Panasonic Consumer Electronics  
Company,  
Division of Matsushita  
Electric Corporation of America**  
One Panasonic Way  
Secaucus, New Jersey 07094  
[www.panasonic.com](http://www.panasonic.com)

**Panasonic Sales Company,  
Division of Matsushita Electric  
of Puerto Rico Inc. ("PSC")**  
Ave. 65 de Infantería, Km 9.5  
San Gabriel Industrial Park Carolina,  
Puerto Rico 00985  
Tel. (787) 750-4300  
Fax (787) 768-2910

**Panasonic Canada Inc.**  
5770 Ambler Drive  
Mississauga, Ontario  
Canada L4W 2T3  
Tel./Tél.: (905) 624-5010  
Fax/Télé.: (905) 624-9714  
[www.panasonic.ca](http://www.panasonic.ca)

# Panasonic®

# Quasar®

## IMPORTANT SAFETY INSTRUCTIONS



### WARNING

**RISK OF ELECTRIC SHOCK.  
DO NOT OPEN.**



**WARNING: To reduce the risk of electric shock do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.**



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



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

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

## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all the instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions
8. Do not install near any heat sources such as radiators, heat registers, stoves, or others apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade and 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. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personal. 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.



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**PRODUCT INFORMATION CARD**

I OWN A:  **Panasonic**®  **Quasar**®  **Technics**®

Model No.	Date of Purchase
Serial No.	

**Yes!**

I would like more information regarding the "Early Bird" discount offer for the manufacturers extended service plan. I understand that you will promptly contact me with more information

(Please Print)

Name \_\_\_\_\_

Address \_\_\_\_\_ Apt. \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

( ) \_\_\_\_\_ A.M. \_\_\_\_\_ P.M.

Phone

Best time to call

# Panasonic

## Panasonic Product Registration

**THREE IMPORTANT REASONS**  
to register your new purchase immediately:

**1. Protect Your New Investment**

Register your new product for insurance purposes in case it is lost or stolen.

**2. Product Safety Notification**

Registering your product can help us to contact you in the unlikely event a safety notification is required under the Consumer Product Safety Act.

**3. Improved Product Development**

Help us continue to design products that meet your needs.

*See details inside...*

Send this card by mail or register via the Internet at:  
<http://www.panasonic.com/register>



**Please send products and other  
correspondence to:**

Panasonic Consumer Affairs  
Panasonic Consumer Electronics Company  
A Division of Matsushita Electric Corporation of America  
One Panasonic Way, 2F-3  
Secaucus, NJ 07094

**Q A A 0 1 - 0 1**



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**QAA01-01**  
Television

1.  Mr.      2.  Mrs.      3.  Ms.      4.  Miss

**First Name** \_\_\_\_\_ **Initial** \_\_\_\_\_ **Last Name** \_\_\_\_\_

**Street** \_\_\_\_\_ **Apt. No.** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **ZIP Code** \_\_\_\_\_

**2. E-mail Address:**

\_\_\_\_\_

**3. Telephone number:**

( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_

**4. Date of purchase:**

\_\_\_\_/\_\_\_\_/\_\_\_\_  
Month Day Year

**5. A. Model #:** (refer to operating manual or box)

\_\_\_\_\_

**B. Serial #:** (refer to the product)

\_\_\_\_\_

**6. Name of store where purchased:**

\_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_

**or website address if purchased via the internet:**

\_\_\_\_\_

**7. Price paid (excluding service contract, shipping and taxes):** \$ \_\_\_\_\_ .00

**8. Did you purchase or receive an extended service contract with your product?**

1.  Yes      2.  No

**9. Is this product:**

1.  The first TV you've ever purchased?  
2.  A replacement for another TV?  
3.  An additional product, already own one other TV?  
4.  An additional product, already own two or more other TVs?

**10. Where did you first learn about this product?**

- |   |   |
|---|---|
| 01. <input type="checkbox"/> Received as a Gift                           | 08. <input type="checkbox"/> Magazine Article/Review      |
| 02. <input type="checkbox"/> In-store Display                             | 09. <input type="checkbox"/> Catalog                      |
| 03. <input type="checkbox"/> Store Advertisement/<br>Store Flyer/Circular | 10. <input type="checkbox"/> Direct Mail Promotion        |
| 04. <input type="checkbox"/> Newspaper Ad                                 | 11. <input type="checkbox"/> Friend/Family Recommendation |
| 05. <input type="checkbox"/> Magazine Ad                                  | 12. <input type="checkbox"/> Salesperson Recommendation   |
| 06. <input type="checkbox"/> TV Advertisement                             | 13. <input type="checkbox"/> Internet                     |
| 07. <input type="checkbox"/> Radio Advertisement                          | 14. <input type="checkbox"/> Other                        |

**11. What were the most important factors that influenced your selection of this product? (check up to 2 responses)**

- |   |   |
|---|---|
| 01. <input type="checkbox"/> Trust in Panasonic | 07. <input type="checkbox"/> Ease of Operation            |
| 02. <input type="checkbox"/> Quality            | 08. <input type="checkbox"/> Salesperson's Recommendation |
| 03. <input type="checkbox"/> Features           | 09. <input type="checkbox"/> Friend/Family Recommendation |
| 04. <input type="checkbox"/> Price              | 10. <input type="checkbox"/> Online Research              |
| 05. <input type="checkbox"/> Size               | 11. <input type="checkbox"/> Other                        |
| 06. <input type="checkbox"/> Appearance/Design  |   |

**12. What were the most important features that influenced your selection of this product? (check up to 3 responses)**

- |  |   |
|--|---|
| 01. <input type="checkbox"/> Picture Quality | 07. <input type="checkbox"/> Picture-in-Picture |
| 02. <input type="checkbox"/> HDTV Monitor    | 08. <input type="checkbox"/> Lighted Remote     |
| 03. <input type="checkbox"/> Comb Filter     | 09. <input type="checkbox"/> On-screen Menu     |
| 04. <input type="checkbox"/> Sound Quality   | 10. <input type="checkbox"/> Parental Controls  |
| 05. <input type="checkbox"/> Surround Sound  | 11. <input type="checkbox"/> Energy Star Rating |
| 06. <input type="checkbox"/> Input Jacks     | 12. <input type="checkbox"/> Other              |

**13. Which of the following brands did you seriously consider before selecting Panasonic? (check all that apply)**

- |  |                                       |
|--|---------------------------------------|
| 01. <input type="checkbox"/> Did not consider any other brands | 09. <input type="checkbox"/> Sampo    |
| 02. <input type="checkbox"/> Apex                              | 10. <input type="checkbox"/> Samsung  |
| 03. <input type="checkbox"/> Hitachi                           | 11. <input type="checkbox"/> Sanyo    |
| 04. <input type="checkbox"/> JVC                               | 12. <input type="checkbox"/> Sharp    |
| 05. <input type="checkbox"/> Mitsubishi                        | 13. <input type="checkbox"/> Sony     |
| 06. <input type="checkbox"/> Philips                           | 14. <input type="checkbox"/> Sylvania |
| 07. <input type="checkbox"/> Pioneer                           | 15. <input type="checkbox"/> Toshiba  |
| 08. <input type="checkbox"/> RCA                               | 16. <input type="checkbox"/> Zenith   |
|  | 17. <input type="checkbox"/> Other    |

**14. Excluding this purchase, what other electronics equipment do you currently own or intend to purchase?**

	(A) If you Currently own	(B) If it's Panasonic or Technics	(C) Intend to buy in next 6 months
TV/DVD Combination	<input type="checkbox"/>	01. <input type="checkbox"/>	01. <input type="checkbox"/>
TV/VCR Combination	<input type="checkbox"/>	02. <input type="checkbox"/>	02. <input type="checkbox"/>
27" or Larger Color TV	<input type="checkbox"/>	03. <input type="checkbox"/>	03. <input type="checkbox"/>
Projection TV	<input type="checkbox"/>	04. <input type="checkbox"/>	04. <input type="checkbox"/>
Digital TV	<input type="checkbox"/>	05. <input type="checkbox"/>	05. <input type="checkbox"/>
Plasma TV	<input type="checkbox"/>	06. <input type="checkbox"/>	06. <input type="checkbox"/>
Digital Camcorder	<input type="checkbox"/>	07. <input type="checkbox"/>	07. <input type="checkbox"/>
Digital Camera	<input type="checkbox"/>	08. <input type="checkbox"/>	08. <input type="checkbox"/>
Digital Satellite System	<input type="checkbox"/>	09. <input type="checkbox"/>	09. <input type="checkbox"/>
DVD Video Player (excluding PC DVD)	<input type="checkbox"/>	10. <input type="checkbox"/>	10. <input type="checkbox"/>
DVD Video Recorder (excluding PC DVD)	<input type="checkbox"/>	11. <input type="checkbox"/>	11. <input type="checkbox"/>
DVD Audio System	<input type="checkbox"/>	12. <input type="checkbox"/>	12. <input type="checkbox"/>
Dolby Digital Receiver (AC-3)	<input type="checkbox"/>	13. <input type="checkbox"/>	13. <input type="checkbox"/>
Home Theater System	<input type="checkbox"/>	14. <input type="checkbox"/>	14. <input type="checkbox"/>
MP3 Player	<input type="checkbox"/>	15. <input type="checkbox"/>	15. <input type="checkbox"/>
900MHz or 2.4 GHz Cordless Phone	<input type="checkbox"/>	16. <input type="checkbox"/>	16. <input type="checkbox"/>
Fax Machine	<input type="checkbox"/>	17. <input type="checkbox"/>	17. <input type="checkbox"/>
Home Computer	<input type="checkbox"/>	18. <input type="checkbox"/>	18. <input type="checkbox"/>
Personal Digital Assistant	<input type="checkbox"/>	19. <input type="checkbox"/>	19. <input type="checkbox"/>
Microwave Oven	<input type="checkbox"/>	20. <input type="checkbox"/>	20. <input type="checkbox"/>

**15. Your date of birth:**

\_\_\_\_/\_\_\_\_/\_\_\_\_  
Month Year

**16. Marital status:** 1.  Married      2.  Single

**17. Not including yourself, what is the GENDER and AGE (in years) of children and other adults living in your household?**

1. <input type="checkbox"/> No one else in household			2. <input type="checkbox"/> Child under 1 year		
Male	Female	Age	Male	Female	Age
1. <input type="checkbox"/>	2. <input type="checkbox"/>	_____ yrs.	1. <input type="checkbox"/>	2. <input type="checkbox"/>	_____ yrs.
1. <input type="checkbox"/>	2. <input type="checkbox"/>	_____ yrs.	1. <input type="checkbox"/>	2. <input type="checkbox"/>	_____ yrs.

**18. Occupation: (check all that apply)**

You	Spouse	
Professional/Technical	<input type="checkbox"/>	1. <input type="checkbox"/>
Upper Management/Executive	<input type="checkbox"/>	2. <input type="checkbox"/>
Middle Management	<input type="checkbox"/>	3. <input type="checkbox"/>
Sales/Marketing	<input type="checkbox"/>	4. <input type="checkbox"/>
Clerical/Service Worker	<input type="checkbox"/>	5. <input type="checkbox"/>
Tradesman/Machine Operator/Laborer	<input type="checkbox"/>	6. <input type="checkbox"/>

**19. Are you or your spouse**

You	Spouse	
A Homemaker? .....	<input type="checkbox"/>	1. <input type="checkbox"/>
Retired? .....	<input type="checkbox"/>	2. <input type="checkbox"/>
A Student? .....	<input type="checkbox"/>	3. <input type="checkbox"/>
Self Employed/Business Owner? .....	<input type="checkbox"/>	4. <input type="checkbox"/>
Working from a Home Office? .....	<input type="checkbox"/>	5. <input type="checkbox"/>
In the Military? .....	<input type="checkbox"/>	6. <input type="checkbox"/>
A Federal Employee? .....	<input type="checkbox"/>	7. <input type="checkbox"/>

**20. Which group describes your annual family income?**

- |  |  |
|--|--|
| 01. <input type="checkbox"/> Under \$15,000    | 08. <input type="checkbox"/> \$75,000-\$99,999   |
| 02. <input type="checkbox"/> \$15,000-\$19,999 | 09. <input type="checkbox"/> \$100,000-\$124,999 |
| 03. <input type="checkbox"/> \$20,000-\$29,999 | 10. <input type="checkbox"/> \$125,000-\$149,999 |
| 04. <input type="checkbox"/> \$30,000-\$39,999 | 11. <input type="checkbox"/> \$150,000-\$174,999 |
| 05. <input type="checkbox"/> \$40,000-\$49,999 | 12. <input type="checkbox"/> \$175,000-\$199,999 |
| 06. <input type="checkbox"/> \$50,000-\$59,999 | 13. <input type="checkbox"/> \$200,000-\$249,999 |
| 07. <input type="checkbox"/> \$60,000-\$74,999 | 14. <input type="checkbox"/> \$250,000 & over    |

**21. Level of education: (check highest level completed)**

1.  Completed High School      3.  Completed Graduate School  
2.  Completed College

**22. Which credit cards do you use regularly?**

1.  American Express, Diners Club      3.  Dept. Store, Oil Company, etc.  
2.  MasterCard, Visa, Discover      4.  Do not use credit cards

**23. For your primary residence, do you:** 1.  Own?      2.  Rent?

**24. Which of the following do you plan to do within the next 6 or 12 months?**

	1-6 Months	7-12 Months
Get Married	<input type="checkbox"/>	1. <input type="checkbox"/>
Have a Baby	<input type="checkbox"/>	2. <input type="checkbox"/>
Buy a House	<input type="checkbox"/>	3. <input type="checkbox"/>
Remodel a Home	<input type="checkbox"/>	4. <input type="checkbox"/>
Move to a New Residence	<input type="checkbox"/>	5. <input type="checkbox"/>
Buy a personal computer	<input type="checkbox"/>	6. <input type="checkbox"/>
Buy/Lease a New Vehicle	<input type="checkbox"/>	7. <input type="checkbox"/>
Buy/Lease a Used Vehicle	<input type="checkbox"/>	8. <input type="checkbox"/>

**25. Please check all that apply to your household.**

- |   |  |  |  |
|---|--|--|--|
| 01. <input type="checkbox"/> Shop by Catalog/Mail             | 04. <input type="checkbox"/> Own a Compact Disc Player | 08. <input type="checkbox"/> Subscribe to an Online/Internet Service | 10. <input type="checkbox"/> Own an Apple/Macintosh Computer |
| 02. <input type="checkbox"/> Member of Frequent Flyer Program | 05. <input type="checkbox"/> Have a Dog                | 09. <input type="checkbox"/> Own an IBM or Compatible Computer       | 11. <input type="checkbox"/> Own a CD-Rom                    |
| 03. <input type="checkbox"/> Donate to Charitable Causes      | 06. <input type="checkbox"/> Have a Cat                |  |  |
|   | 07. <input type="checkbox"/> Own a Cellular Phone      |  |  |

**26. To help us understand our customers' lifestyles, please indicate the interests and activities in which you or your spouse enjoy participating on a regular basis.**

- |  |   |   |  |
|--|---|---|--|
| 01. <input type="checkbox"/> Bicycling                 | 14. <input type="checkbox"/> Needlework/Knitting/Sewing   | 27. <input type="checkbox"/> Health/Natural Foods           | 40. <input type="checkbox"/> Real Estate Investments       |
| 02. <input type="checkbox"/> Golf                      | 15. <input type="checkbox"/> Flower Gardening             | 28. <input type="checkbox"/> Photography                    | 41. <input type="checkbox"/> Stocks/Bonds/Mutual Funds     |
| 03. <input type="checkbox"/> Physical Fitness/Exercise | 16. <input type="checkbox"/> Vegetable Gardening          | 29. <input type="checkbox"/> Attending Cultural/Arts Events | 42. <input type="checkbox"/> Entering Sweepstakes          |
| 04. <input type="checkbox"/> Running/Jogging           | 17. <input type="checkbox"/> Crafts                       | 30. <input type="checkbox"/> Fashion Clothing               | 43. <input type="checkbox"/> Casino Gambling               |
| 05. <input type="checkbox"/> Snow Skiing               | 18. <input type="checkbox"/> Buy Prerecorded Videos       | 31. <input type="checkbox"/> Fine Art/Antiques              | 44. <input type="checkbox"/> Science Fiction               |
| 06. <input type="checkbox"/> Tennis                    | 19. <input type="checkbox"/> Automotive Work              | 32. <input type="checkbox"/> Foreign Travel                 | 45. <input type="checkbox"/> Wildlife/Environmental Issues |
| 07. <input type="checkbox"/> Camping/Hiking            | 20. <input type="checkbox"/> Electronics                  | 33. <input type="checkbox"/> Cruise Ship Vacations          | 46. <input type="checkbox"/> Dieting/Weight Control        |
| 08. <input type="checkbox"/> Fishing                   | 21. <input type="checkbox"/> Home Workshop/Do-It-Yourself | 34. <input type="checkbox"/> Travel in USA                  | 47. <input type="checkbox"/> Science/New Technology        |
| 09. <input type="checkbox"/> Hunting/Shooting          | 22. <input type="checkbox"/> Recreation Vehicles          | 35. <input type="checkbox"/> Gourmet Cooking/Fine Foods     | 48. <input type="checkbox"/> Self-Improvement              |
| 10. <input type="checkbox"/> Horseback Riding          | 23. <input type="checkbox"/> Listen to Records/Tapes/CDs  | 36. <input type="checkbox"/> Wines                          | 49. <input type="checkbox"/> Walking for Health            |
| 11. <input type="checkbox"/> Powerboating              | 24. <input type="checkbox"/> Surf the Internet            | 37. <input type="checkbox"/> Coin/Stamp Collecting          | 50. <input type="checkbox"/> Watching Sports on TV         |
| 12. <input type="checkbox"/> Sailing                   | 25. <input type="checkbox"/> Avid Book Reading            | 38. <input type="checkbox"/> Collectibles/Collections       | 51. <input type="checkbox"/> Home Video Recording          |
| 13. <input type="checkbox"/> Grandchildren             | 26. <input type="checkbox"/> Bible/Devotional Reading     | 39. <input type="checkbox"/> Our Nation's Heritage          | 52. <input type="checkbox"/> Moneymaking Opportunities     |

**27. Using the numbers in the above list, please indicate your 3 most important activities:**

Thanks for taking the time to fill out this questionnaire. Your answers will be used for market research studies and reports. They will also allow you to receive important mailings and special offers from a number of fine companies whose products and services relate directly to the specific interests, hobbies, and other information indicated above. Through this selective program, you will be able to obtain more information about activities in which you are involved and less about those in which you are not. Please check here if, for some reason, you would prefer *not* to participate in this opportunity.

Please check here if you do not want to receive mailings and offers from Panasonic using your E-mail address.

**Send any correspondence about our product to:**

**Panasonic Consumer Affairs, Panasonic Consumer Electronics Company,**

**A Division of Matsushita Electric Corporation of America, One Panasonic Way, 2F-3, Secaucus, NJ 07094**