

# Panasonic®

## Color Video Projection System Operating Instructions

PT-47WX49    PT-56WX51  
PT-47WX51    PT-65WX51



For assistance, please call: 1-888-VIEW-PTV or send  
e-mail to: [consumerproducts@panasonic.com](mailto:consumerproducts@panasonic.com)

TQB2AA0380  
PRINTED IN USA

10330

## WARNING

To move set, push from left side of set. Casters on right side do not pivot in all directions. Set can tip over if moved from right side, with risk of personal injury.

## ADVERTENCIA

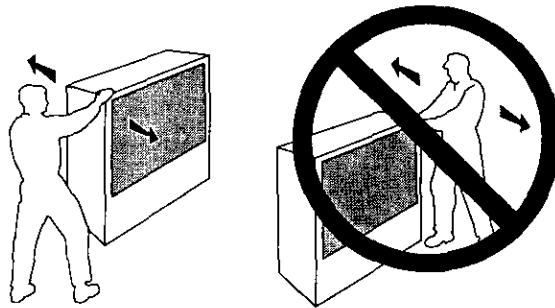
Para mover el conjunto, empuje desde el lado izquierdo del mismo. Los rolanas de la derecha no son pivotantes en todas las direcciones. El conjunto se puede tumbar si se mueve desde el lado derecho, corriendo así el riesgo de sufrir daños personales.



## Mise en garde

Lors du déplacement du téléviseur, le pousser sur son côté gauche. Les roulettes du côté droit ne pouvant tourner dans toutes les directions, l'appareil pourrait tomber s'il est poussé de ce côté et causer ainsi des risques de blessure.

## 警告

移動本機時，請從本機左側推動。推車右側不能旋轉。如從右側移動，則機體可能傾倒並造成傷害。



	<b>WARNING</b> <b>RISK OF ELECTRIC SHOCK</b> <b>DO NOT OPEN</b>	
<b>WARNING:</b> 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 prevent fire or shock hazard, do not expose this appliance to rain or moisture.

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

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

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**Feature Chart**

	MODELS	PT-47WX49	PT-47WX51	PT-56WX51	PT-65WX51
	<b>FEATURES</b>				
<b>SPECIAL FEATURES</b>	MENU LANGUAGE ENG/SPAN/FR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PTOTECTIVE SCREEN		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2 TUNER SPLIT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	VIDEO INPUT SKIP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CLOSED CAPTIONING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	V-CHIP CAPABILITY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	DIGITAL SCAN RATE	1080i, 480p	1080i, 480p	1080i, 480p	1080i, 480p
NTSC LINE - DOUBLER	480p	480p	480p	480p	
<b>AUDIO</b>	VIDEO NORM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	AUDIO NORM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	STEREO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	AI SOUND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BASS/BALANCE/TREBLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A/V JACKS</b>	SURROUND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	DOLBY CENTER CHANNEL IN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A/V PROGRAM OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A/V IN (REAR/FRONT)	4 (3/1)	4 (3/1)	4 (3/1)	4 (3/1)
	AUDIO OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S-VHS INPUT (REAR/FRONT)	2/1	2/1	2/1	2/1	
COMPONENT INPUT	2	2	2	2	

**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 projection 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.

## CONGRATULATIONS

### Congratulations

Your new Projection Television (PTV) features state-of-the-art technology for high quality picture and sound with complete audio/video connections for your home theater system. Your PTV 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 PTV. 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

### Specifications

<b>Power Source</b> PT-47WX49 (4.2A) PT-47WX51 (4.2A) PT-56WX51 (4.2A) PT-65WX51 (4.2A)	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 Output Jack</b>	1Vp-p, 75 Ohm, Phono Jack Type
<b>Audio Output Jacks</b>	0-2.0V RMS 4.7K Ohm
<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

Specifications are subject to change without notice or obligation.

## Care and Cleaning

### Projection Screen (Turn PTV Off) (For Models PT-47WX51, PT-56WX51 and PT-65WX51)

The projection screen is a high precision lens system which has a protective screen. The protective screen is fully washable with the following precautions:

- Use a mild soap solution or window cleaner and a clean cloth.
  - DO NOT USE ABRASIVE CLEANERS.
  - Do not use laundry detergent or automatic dishwasher soap.
  - Do not use alcohol, ammonia, or petroleum based products.
- Avoid excessive moisture and wipe dry.
  - Prevent solution from running into the receiver below.
- Avoid bumping or scraping the screen.

### Projection Screen (Turn PTV Off) (For Model PT-47WX49)

The projection screen is a high precision lens system which does not attract dust.

- Occasional dusting with a feather duster or very soft brush using only up and down motions.
  - Never rub across the screen on a side to side motion.
- Infrequent washing with a very weak solution of dishwashing soap using a soft, lint-free clean cloth.
  - DO NOT USE ABRASIVE CLEANERS.
  - Do not use window or glass cleaner, laundry detergent, automatic dishwasher soap, or abrasive cleaners.
  - Do not use alcohol, ammonia, or petroleum based products.
- Avoid excessive moisture and wipe dry.
  - Prevent solution from running into the receiver below.
- Avoid bumping or scraping the screen.
  - Protect the very fine grooves on the screen which transport the picture.

### 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.

# Installation

## Television Location

This unit can be used as an 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.

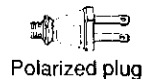
## Optional Cable Connections

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.



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

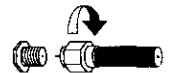
For proper reception, either a cable or antenna connection is required.

### Cable Connection

Connect the cable supplied by your local cable company to ANT1 connection on back of television. Select cable mode and ANT1 in SET UP menu under Prog Chan (Program Channels).

**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

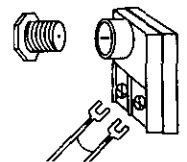



75 Ohm VHF/UHF on back of PTV

### Antenna Connections

- 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 under Prog Chan.

Incoming Cable from Home Antenna

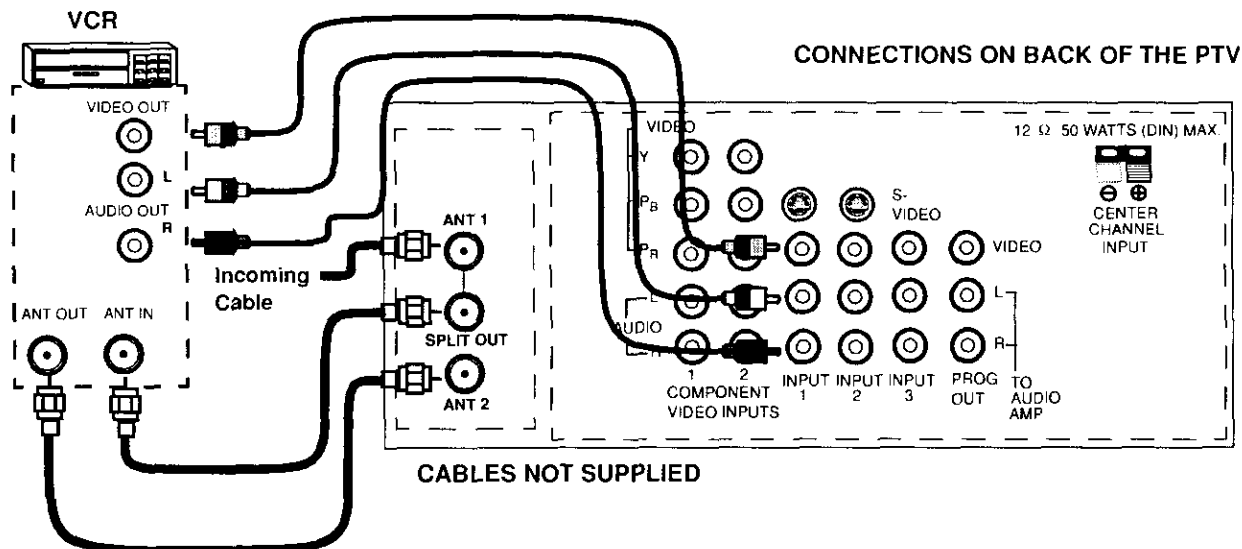


 <b>Cable Preset</b>
Cable Mode is preset at the factory. Antenna users must change to TV Mode and ANT 1 in the Set Up menu.

## Optional Equipment Connections

### VCR Connection

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



**Note:** The remote control must be programmed with supplied codes to operate the VCR. See *Programming the Remote Control* in the **Remote Control Quick Reference Guide**.

### Viewing a television program

#### Procedure

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

### Viewing a video

#### Procedure

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

### Recording a television program

#### Procedure

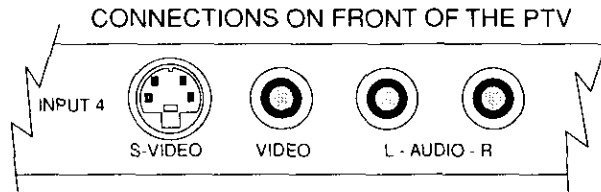
- Option A (Recording and viewing the same program)
  1. Select ANT2 in the SET UP menu under Prog Chan (Program Channels).
  2. Tune the television to Channel 3 or 4, depending on your VCR.
  3. Using the VCR, tune to the television program you want to record.
  4. Begin recording.
- Option B (Recording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



## INSTALLATION

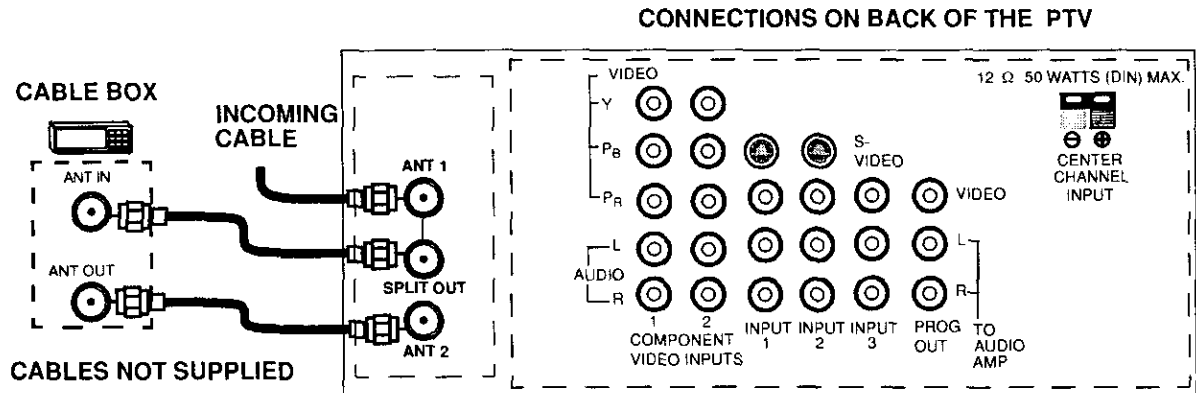
### Optional Equipment Connections (Cont.)

Use front panel for connecting your optional equipment (Palmcorder, VCR, or other video components). Select input 4 mode by pressing **TV/VIDEO** button.



#### Cable Box Connection

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



**Note:** The remote control must be programmed with supplied codes to operate the cable box. See *Programming the Remote Control* in the **Remote Control Quick Reference Guide**.

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

##### Procedure

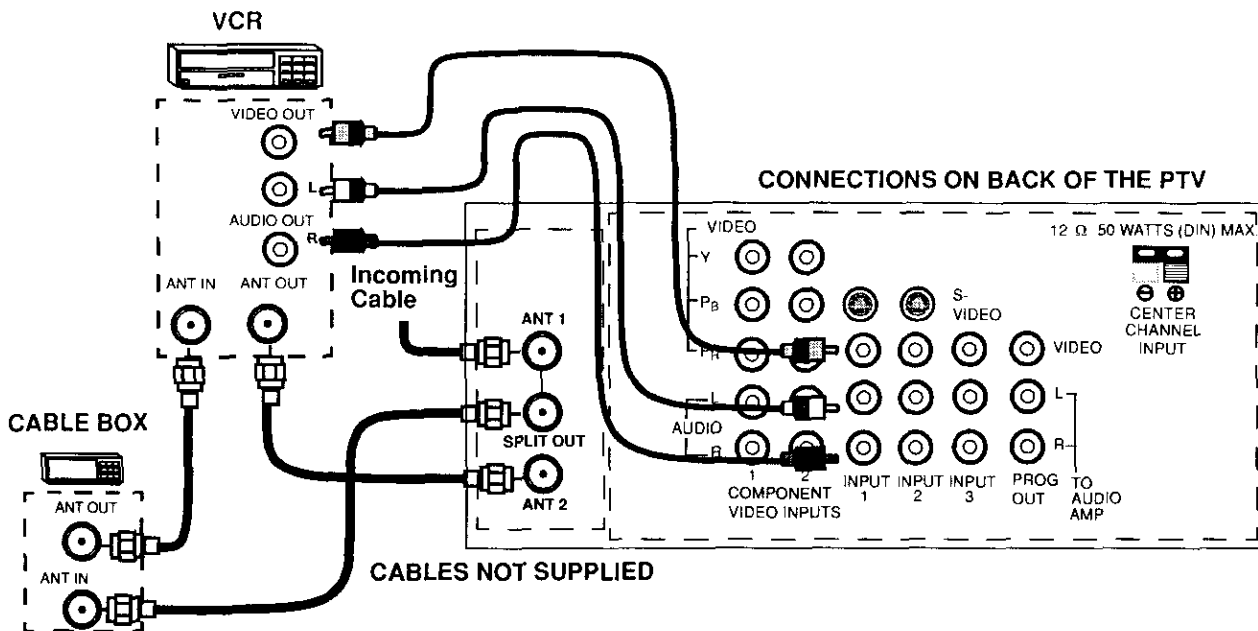
1. Select ANT2 in the SET UP menu under Prog Chan (Program Channels).
2. Tune the television to Channel 3.
3. Using the cable box, tune to the premium cable channel you want to view.

**Note:** To use special features such as *Favorite Channels* and *Channel Captions* (see *Special Features* section for more information), ANT1 must be selected in the SET UP menu under Prog Chan.

## Optional Equipment Connections (Cont.)

### VCR and Cable Box Connection

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



**Note:** The remote control must be programmed with supplied codes to operate the VCR and cable box. See Programming the Remote Control in the **Remote Control Quick Reference Guide**.

### Viewing a premium (scrambled) cable channel

#### Procedure

1. Select ANT2 in the SET UP menu under Prog Chan (Program Channels).
2. Tune the television to Channel 3.
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 (see Special Features section for more information), ANT1 must be selected in the SET UP menu under Prog Chan.

### Recording a premium (scrambled) cable channel

#### Procedure

1. Select ANT2 in the SET UP menu under Prog Chan.
2. Press the **TV/VIDEO** button on the remote control to select the video input (VIDEO 1, VIDEO 2, etc.) connected to your VCR.
3. Turn the VCR ON.
4. Tune the VCR to Channel 3 or 4, depending on your VCR.
5. Using your cable box, tune to the premium cable channel you want to record.
6. Begin recording.

**Note:** To view a different channel while recording:

- Select ANT1 in the SET UP menu under Prog Chan.
- Press the **TV/VIDEO** button on the remote control to select TV mode.
- Tune the television to a television program (except another premium cable channel).

## INSTALLATION

### Optional Equipment Connections (Cont.)

#### Amplifier Connection (TO AUDIO AMP)

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

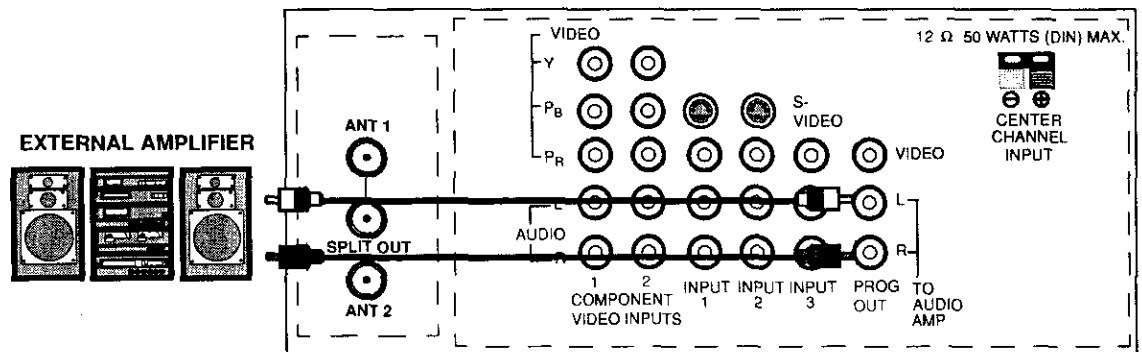
**Note:** TO AUDIO AMP terminals cannot be connected directly to external speakers.

#### Audio Adjustments

1. Select SPEAKERS ON located in the on screen AUDIO menu .
2. Set amplifier volume to minimum.
3. Adjust PTV volume to desired level.
4. Adjust amplifier volume to match the PTV.
5. Select SPEAKERS OFF & VARIABLE AUDIO OUT from AUDIO menu to control speakers from the PTV or select FIXED AUDIO OUT to control speakers from the external amplifier.
6. Volume, mute, bass, treble and balance are now controlled from the PTV, if you select VARIABLE AUDIO OUT mode.

CABLES NOT SUPPLIED

CONNECTIONS ON BACK OF THE PTV

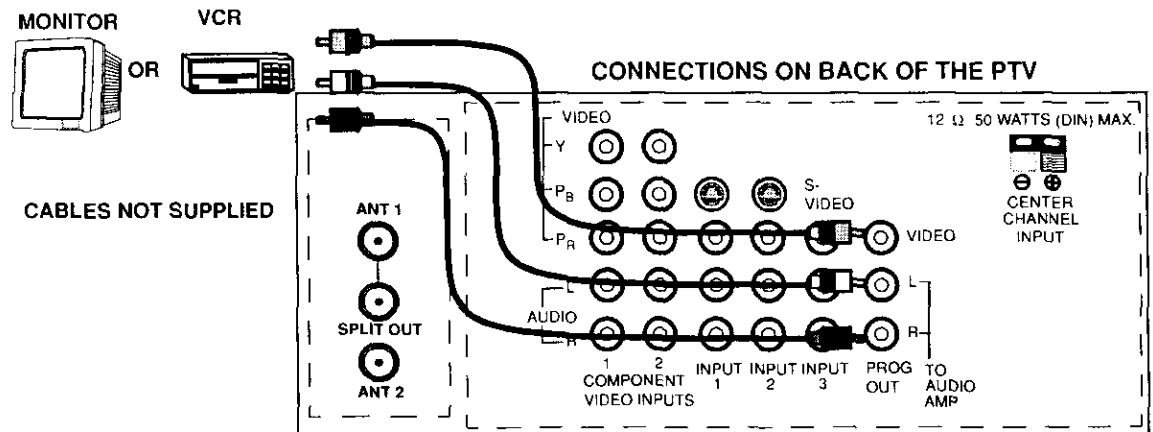


#### Program Out Connection (PROG. OUT)

To use the PTV audio and video with optional video equipment, use PROG. OUT and TO AUDIO AMP terminals on the back of the PTV.

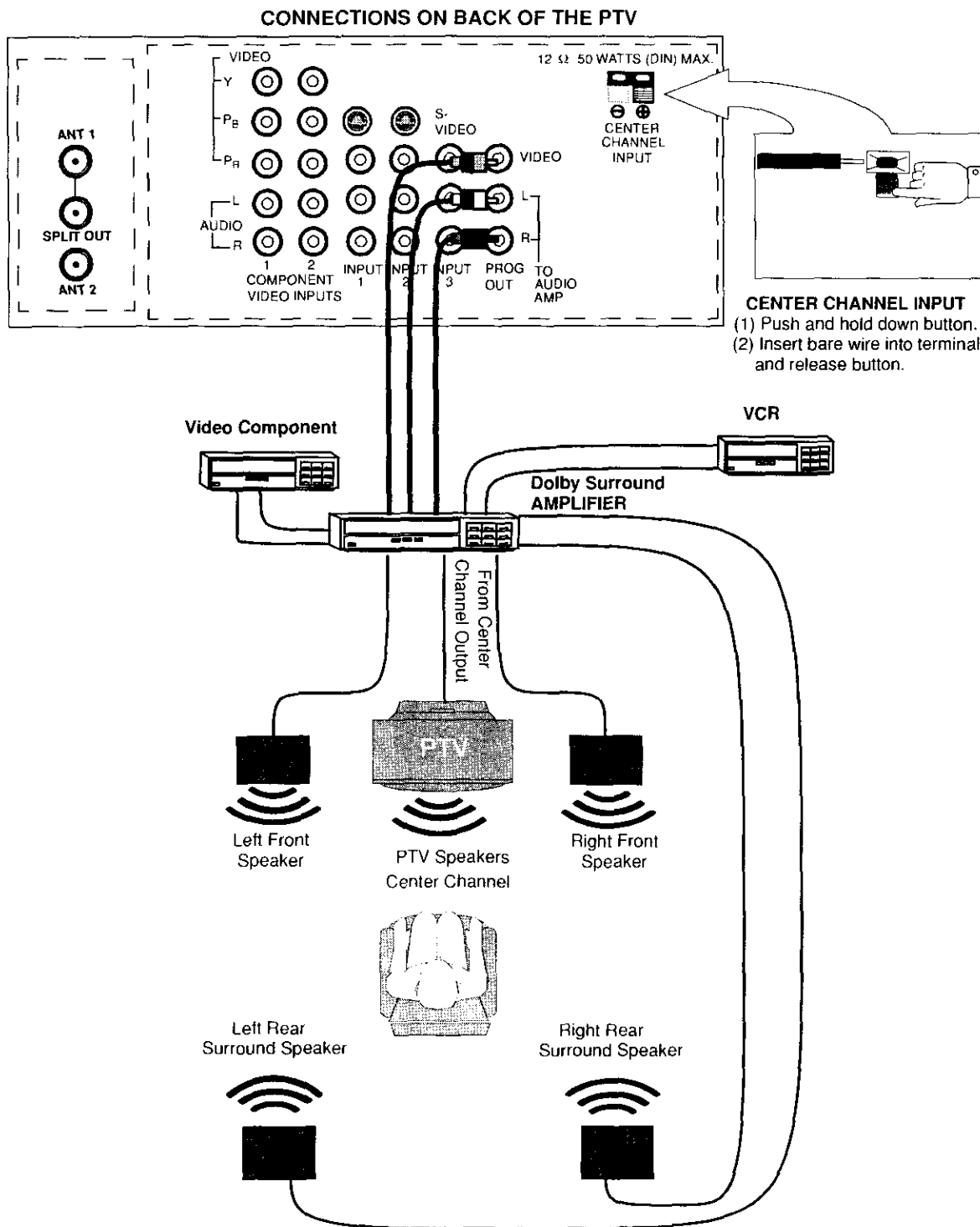
#### Procedure

1. Connect optional video equipment to PROG. OUT video and TO AUDIO AMP R/L Audio terminals.
2. PROG OUT terminal display is the same as the on screen display.
3. See optional equipment manual for further instructions for recording or monitoring.



## Dolby Center Channel Input Connection

Your PTV can be configured to use the PTV speakers as center channel speakers in Dolby® surround sound transmission. Connect a Dolby surround amplifier to CENTER CHANNEL INPUT on the back of the PTV as shown. DOLBY CENTER MODE & FIXED AUDIO OUT must be selected in the AUDIO Roller Guide™\*\* menu under SPEAKERS.



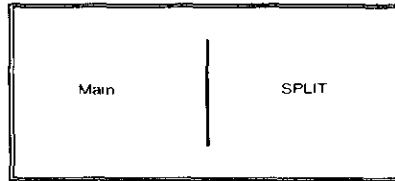
\*\*"Dolby" and "Pro-logic" are the trademarks of Dolby Laboratories Licensing Corporation.

\*\*U.S. Patent Pending

## SPLIT SCREEN OPERATION

### SPLIT Screen Operation

This feature lets you watch two different channels side-by-side with or without an external video source. The audio is from the Main picture only (left side).



### Basic SPLIT Screen Operation

#### Procedure

1. Press the **SPLIT** button on the remote control to display the SPLIT screen.
2. Choose channels for the SPLIT picture by pressing the remote control **SPLIT CH** up/down buttons.
3. Choose channels for the *Main Picture* by pressing the remote control CH up/down buttons or by using the numeric keypad.

**Note:** Press the TV/VIDEO button to select desired input mode for the Split picture.

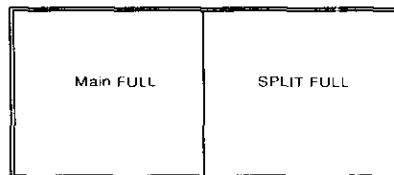
4. While in split screen mode, press the ASPECT button to select one of three modes:
  - NORMAL - Normal Split mode shows two normal pictures side-by-side.
  - P OUT P (Picture-Outside-Picture) - Small picture Outside of main picture.
  - FULL - Main and split picture are stretched vertically.

**Note:** The procedure for selecting channels for Picture-Outside-Picture and FULL mode is the same as in Normal mode.

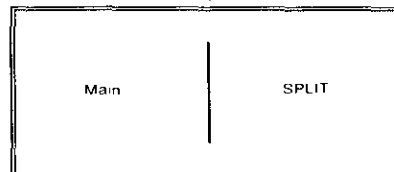
Picture-Outside-Picture



Full



Normal Split Mode



5. Press the SWAP button to switch the left picture with the right picture source.
6. Press RECALL button for on-screen left-and-right picture source status.
7. Press the **ASPECT** button to return to normal picture.

## **SPLIT Screen Operation with a Cable Box**

### **Procedure**

- 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 *SPLIT* frame.

1. Connect cable box to ANT2.
2. Select ANT2 in the SET UP menu under Prog Chan (Program Channels).
3. Tune television to Channel 3.
4. Press the **SPLIT** button on the remote control to display the *SPLIT* on-screen.

**Note:** The audio is from the *Main Picture* only (left side).

5. Verify the cable box is ON.
6. Choose channels for the *Main Picture* by tuning the cable box.
7. Choose channels for the *SPLIT* frame by pressing the **TV** button on the remote control and using the **SPLIT CH** up/down buttons.

**Note:** *SWAP* is not available when using the cable box to tune channels. If your cable box has a video output, it can be connected to the television to allow you to use all *SPLIT* functions. See the equipment manual for more information. (Press the **TV/VIDEO** button to select the video input connected to the cable box).

## DIGITAL TV - SET-TOP BOX (DTV-STB) OR DVD CONNECTION

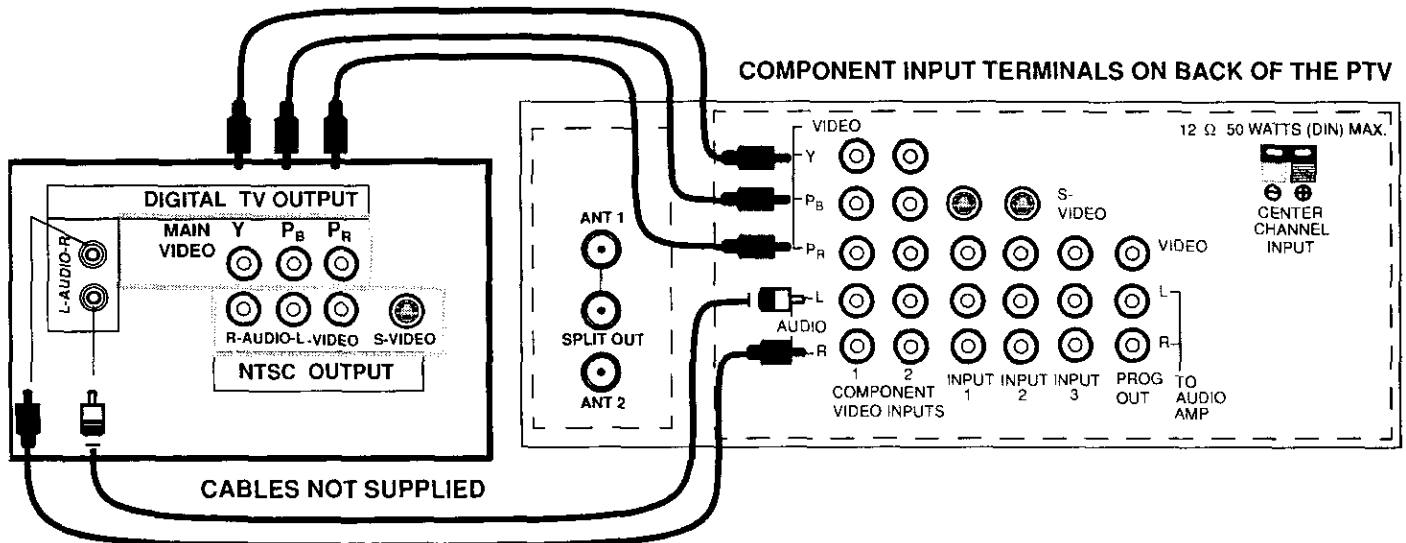
### Digital TV - Set-Top Box (DTV-STB) or DVD Connection

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 STB must be connected to the component video inputs (Y, P<sub>B</sub>, P<sub>R</sub>) 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 providing a clear, crisp picture without visible scan lines.

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

#### TERMINALS ON BACK OF DTV-STB OR DVD PLAYER



**Note:** There are 2 sets of three video inputs, Y, P<sub>B</sub>, and P<sub>R</sub>. Separate component color inputs provide luminance and color separation. Use the L (left) and R (right) audio inputs.

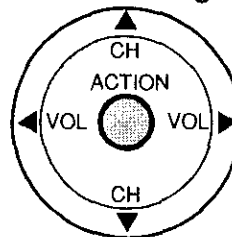
## Roller Guide Menu Navigation



### Procedure

1. Press the **ACTION** button on the Remote Control to display the Roller Guide Menu.
2. Press the **CH** up/down to rotate the Roller Guide to the desired feature.
3. Press the **ACTION** button to display main menus and submenus.
4. Press the **CH** up/down buttons to highlight desired main menu feature.
5. Press the **VOL** right button to enter submenus.
6. Press the **CH** up/down buttons to highlight desired submenu feature.
7. Press the **VOL** right/left button to select or adjust feature.
8. Press the **ACTION** button twice to return to the Roller Guide Menu.
9. To exit the Roller Guide Menu, press the **VOL** left button.

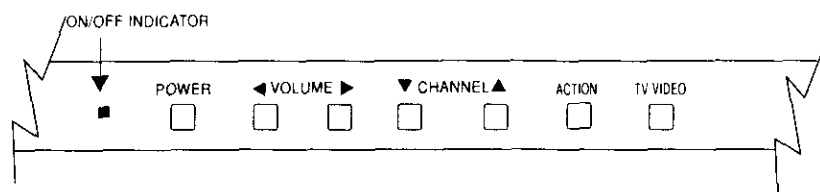
### Remote ACTION / Navigation Button



### Remote Control Guide




The **Remote Control Quick Reference Guide** is located within the package provided with this PTV.

### Front Control Buttons









## Roller Guide Feature Chart

 SET UP	SET UP
<b>LANGUAGES</b>	<input type="checkbox"/> Select English, Spanish, or French menu.
<b>PROG. CHAN</b> (Program Channels)	<input type="checkbox"/> <b>MODE</b> - Select Cable or TV. See Installation section in manual. <input type="checkbox"/> <b>ANTENNA</b> - Select ANT 1 or ANT 2. <input type="checkbox"/> <b>AUTO PROGRAM</b> - Automatically program channels having a signal into memory. <input type="checkbox"/> <b>MANUAL PROGRAM</b> - Manually add or delete channels from memory.
 (Closed Captioning)	<input type="checkbox"/> <b>CC ON MUTE</b> - Activate C1-C4 for Closed Captioning display when the remote MUTE button is pressed. <input type="checkbox"/> <b>CC MODE</b> - Select T1-T4 or C1-C4 for Closed Captioning, program guides and other information.
<b>OTHER ADJ.</b>	<input type="checkbox"/> <b>AUTO POWER ON</b> - Select SET to power up the TV at the same time as the Cable Box or other components or select OFF. <input type="checkbox"/> <b>CONVERGENCE 1</b> - Adjustment may be required when the PTV is moved because of the effects of the Earth's magnetic field on the projection tubes. <input type="checkbox"/> <b>CONVERGENCE 2</b> - Adjustment may be required after setting Convergence 1.
 AUDIO	AUDIO
<b>AUDIO ADJ.</b> (Adjustments)	<input type="checkbox"/> <b>MODE</b> - Select STEREO, SAP (Second Audio Program) or MONO. (Use MONO when stereo signal is weak.) <p><i><b>Note:</b> STEREO, SAP or MONO can also be selected by pressing the SAP button on the Remote Control.</i></p> <input type="checkbox"/> <b>BASS</b> - Increase or decrease the bass response. <input type="checkbox"/> <b>TREBLE</b> - Increase or decrease the treble response. <input type="checkbox"/> <b>BALANCE</b> - Emphasize the left/right speaker volume. <input type="checkbox"/> <b>NORMAL</b> - Reset BASS, TREBLE and BALANCE to factory default.

Roller Guide Feature Chart (Cont.)

<p><b>OTHER ADJ.</b> (Adjustments)</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>AI SOUND</b> - Automatically adjust volume to maintain a comfortable listening level. (AI sound is not available in VIDEO mode).</li> <li><input type="checkbox"/> <b>BBE</b> - Sound technology enhances speech intelligibility and restores the dynamic range of musical passages to provide outstanding natural sound.</li> </ul> <p><i>Note: BBE can also be switched ON/OFF by pressing the BBE button on the Remote Control.</i></p>
<p><b>SURROUND</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>MODE</b> - Enhances audio response when listening to stereo.</li> </ul>
<p><b>SPEAKERS</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>ON</b> - PTV speakers operate normally.</li> <li><input type="checkbox"/> <b>OFF &amp; VARIABLE AUDIO OUT</b> - PTV speakers off - audio adjustable by PTV.</li> <li><input type="checkbox"/> <b>OFF &amp; FIXED AUDIO OUT</b> - PTV speakers off — audio adjustable only by the external amplifier.</li> <li><input type="checkbox"/> <b>DOLBY CENTER MODE &amp; FIXED AUDIO OUT</b> - PTV speakers provide center speakers for Dolby sound transmission available on video or laser disc. (See Installation section in manual.)</li> </ul>
<div style="text-align: center;">  <p><b>TIMER</b></p> </div>	<p style="text-align: center;"><b>TIMER</b></p>
<p><b>CLOCK SET</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Set the time and the day of the week. (Time will display onscreen after turning on the television, pressing the <b>RECALL</b> button or changing channels).</li> </ul>
<p><b>SLEEP</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Set timer to turn off PTV in 30, 60 or 90 minutes. Select <b>NO</b> to turn timer off.</li> </ul>
<p><b>TIMER 1</b> <b>TIMER 2</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Set one or both timers to automatically turn television on and off at selected times, on selected channels, and on selected days. (Clock must be set to use Timer features).</li> </ul>
<div style="text-align: center;">  <p><b>PICTURE</b></p> </div>	<p style="text-align: center;"><b>PICTURE</b></p>
<p><b>VIDEO ADJ1</b> (Adjustments)</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>COLOR</b> - Adjust desired color intensity.</li> <li><input type="checkbox"/> <b>TINT</b> - Adjust natural flesh tones.</li> <li><input type="checkbox"/> <b>BRIGHTNESS</b> - Adjust dark areas for crisp detail.</li> <li><input type="checkbox"/> <b>PICTURE</b> - Adjust white areas of picture.</li> <li><input type="checkbox"/> <b>SHARPNESS</b> - Adjust clarity of outline detail.</li> <li><input type="checkbox"/> <b>NORMAL</b> - Reset all picture adjustments to factory default settings.</li> </ul>

**Roller Guide Feature Chart (Cont.)**

VIDEO	RECEIVER FEATURES
<p><b>VIDEO ADJ2</b> (Adjustments)</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> COLOR TEMP NORMAL - Adjust white balance to COOL (blue), WARM (red) or NORMAL.</li> <li><input type="checkbox"/> NATURAL COLOR - Expands the color reproduction range resulting in vivid pictures with natural color gradation and highly delicate hues.</li> <li><input type="checkbox"/> VIDEO NR - Reduces noise in the channel, commonly called snow. Remains off when receiving strong signal.</li> <li><input type="checkbox"/> 3D Y/C FILTER - Minimize noise and cross color in the picture.</li> </ul>
<p><b>OTHER ADJ</b> (Adjustments)</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> SCAN MODE - Select TV and clarity. Select GAME (line doubling) to optimize picture when playing complex, fast action video games.</li> <li><input type="checkbox"/> COLOR MATRIX - Select HD or SD to automatically adjust color parameters for HD (high definition) and SD (standard definition) transmissions.</li> <li><input type="checkbox"/> V - POSITION - Press the ASPECT button on the remote control to select Zoom mode, then adjust the vertical position by pressing the VOL left or right button.</li> </ul> <p><b>Note:</b> Refer to your Remote Guide under Special Remote button for information on ASPECT button.</p>
	<p><b>CHANNELS</b></p>
<p><b>FAVORITES</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> CHANNEL SCAN - Select FAV (16 favorites) or ALL channels to scan channels using the up/down CH buttons.</li> </ul>
<p><b>CAPTION</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> PRESET CAPTION - Enter channel numbers for preset captions.</li> <li><input type="checkbox"/> MANUAL CAPTION - Enter channel numbers and captions manually.</li> <li><input type="checkbox"/> INPUT LABEL - Label video connections for onscreen display of optional equipment.</li> </ul> <p><b>Note:</b> This receiver has a video input skip feature, which will allow the user to skip Input modes when pressing TV/VIDEO button.</p>
	<p><b>LOCK</b></p>
<p><b>MODE</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Lock All, Channels or Game with a secret code.</li> </ul> <p><b>Note:</b> For more information about Block Programs, see the V-CHIP Parental Lock manual provided with the TV package.</p>
<p><b>HOW LONG?</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Select the period of time (12, 24, 48 hours or ALWAYS) for your option to be locked.</li> </ul>

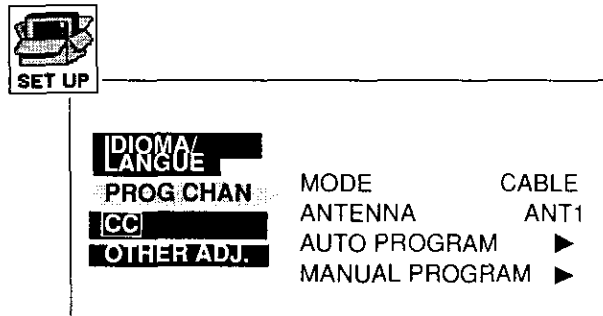
## Special Features

### SET UP

#### Prog Chan (Program Channels)

In SET UP menu under PROG CHAN select:

- MODE to select TV (antenna) or CABLE mode depending on the signal source.
- ANTENNA to select either ANT1 or ANT2.
- AUTO PROGRAM to automatically program all channels with a signal.
- MANUAL PROGRAM to manually add or delete channels.



#### **CC** (Closed Captioning)

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 Close Captioning for the feature to work.

#### **CC** Mode

- In SET UP Menu, select **CC** (Closed Caption).
- Select **CC** MODE.
- Select OFF, C1, C2, T1, T2, C3, C4, T3 or T4:
  - 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 - For program guide and other information to be displayed, when available. (Blocks a large portion of the picture on the television screen).
  - T2 to T4 - For other modes of information. (Blocks a large portion of the picture on the television screen).
- Press ACTION to return to submenu options, and exit menus.

#### **CC** On Mute

Activates the onscreen Closed Caption feature when the MUTE button on the remote control is pressed.

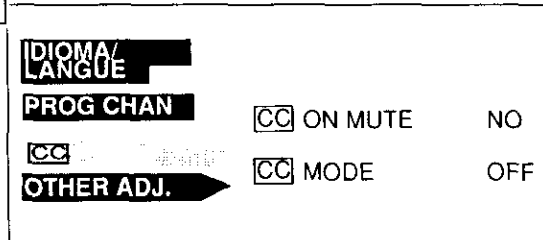
**Note:** This feature only functions when the Closed Caption Mode is OFF. The program being viewed must be broadcast with Closed Captioning. (Refer to your local TV guide).

- In SET UP Menu, select **CC** (Closed Caption).
- Select NO, C1, C2, C3, or C4.
- Recommended set up for Closed Caption when using the MUTE button:
  - **CC** ON MUTE: C1
  - **CC** MODE: OFF
- Press ACTION to return to submenu options, and exit menus.

## SPECIAL FEATURES

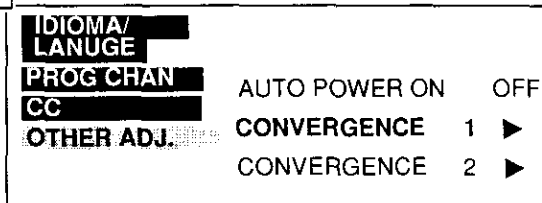
### **CC** On Mute (cont.)

- Press the MUTE button to activate the Closed Caption feature.
- Press the MUTE button again to deactivate the feature.



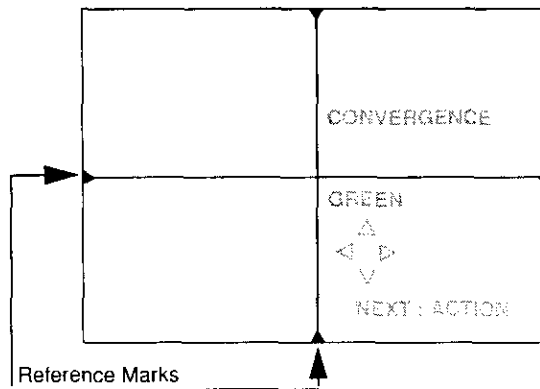
### Convergence 1

In SET UP menu select CONVERGENCE under OTHER ADJ. only after moving the PTV to adjust for the effects of the earth's magnetic field on the projection tubes.

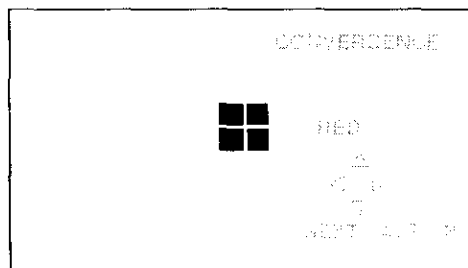


**Note:** Convergence seldom needs adjusting except after moving the PTV.

Use the navigation buttons to align the horizontal and vertical green lines on screen with the outside reference marks, as shown below. Press the **ACTION** button to move the RED CONVERGENCE screen.




Use the navigation buttons to align the red cross with the white cross pattern at the center of the screen. Press the **ACTION** button to continue to the blue convergence adjustment screen and repeat.



**Convergence 1 (cont.)**

**Note:** To prevent picture tube damage do not leave test pattern on for an extended period of time.



**Convergence Adjustment**


---

An adjusted cross pattern appears white with a minimum of color fringing.

**Convergence 2**

In SET UP menu select CONVERGENCE 2 under OTHER ADJ.

**Note:** Only converge this after CONVERGENCE 1 is adjusted properly.



IDIOMA / LANGUE

PROG CHAN

CC

OTHER ADJ.

AUTO POWER ON OFF

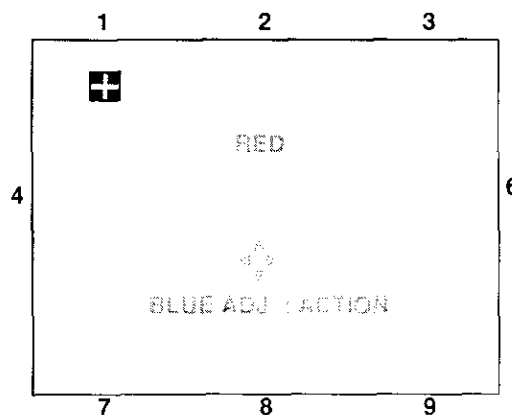
CONVERGENCE 1 ▶


CONVERGENCE 2 ▶

**Procedure**

- Press the 1 through 9 keyboard buttons on the remote control to select the desired convergence point.
- Use the navigation buttons to align the RED cross with the white cross pattern.
- Press the **ACTION** button to continue to the BLUE convergence adjustment screen and repeat.

**Note:** Remote Control must be in TV mode.





**Convergence Adjustment**

---

An adjusted cross pattern appears white with a minimum of color fringing.

## SPECIAL FEATURES

### TIMER

#### Sleep

In TIMER menu, select SLEEP to turn PTV off in 30, 60 or 90 minutes. Select NO to turn off timer.



<b>CLOCK SET</b>	HOW LONG?	30
<b>SLEEP</b>		
<b>TIMER 1</b>		
<b>TIMER 2</b>		

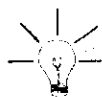
#### Timer 1 and Timer 2

In TIMER menu, select one or both timers to turn the television on and off at selected times, on selected channels, and on selected days.

**Note:** TIME must be entered in CLOCK SET to operate TIMER features.

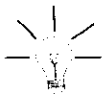


<b>CLOCK SET</b>	DAY	SAT
<b>SLEEP</b>	ON TIME	__:
<b>TIMER 1</b>	OFF TIME	__:
<b>TIMER 2</b>	ENTER CHANNEL	__
	<b>SET TIME FIRST</b>	



#### Turn Off After 90 Minutes

The PTV 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.



#### TIMER Activation

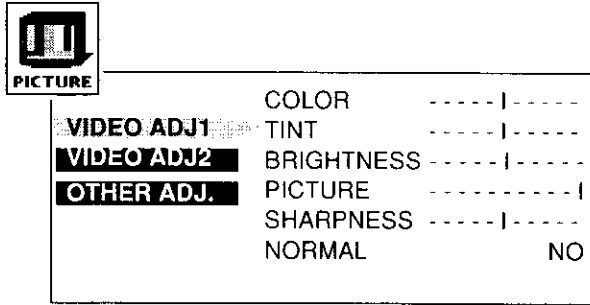
The TIMER is active when the PTV is OFF or ON. The PTV will switch to the selected channel at the selected time set in the TIMER.

PICTURE

**VIDEO ADJ1**

In Picture menu under VIDEO ADJ1 select:

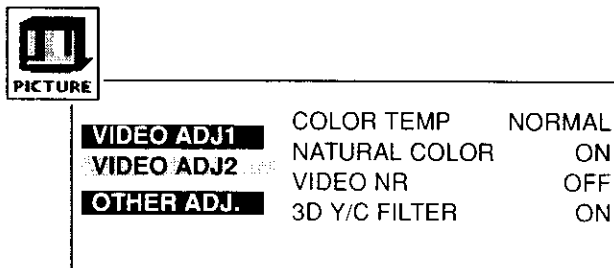
- COLOR - Adjust desired color intensity.
- TINT - Adjust natural flesh tones.
- BRIGHTNESS - Adjust dark areas for crisp detail.
- PICTURE - Adjust white areas of picture.
- SHARPNESS - Adjust clarity of outline detail.
- NORMAL - Reset all picture adjustments to factory default settings.



**VIDEO ADJ2**

In Picture menu under VIDEO ADJ2. select:

- 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. Remains off when receiving strong signal.
- 3D Y/C FILTER - Minimizes noise and cross color in the picture.





## SPECIAL FEATURES

### Other Adjustments

In Picture menu under OTHER ADJ. select:

- SCAN MODE - Select TV mode (frame doubling) for optimum detail and clarity. Select GAME (line doubling) to optimize picture when playing complex, fast action video games.
- COLOR MATRIX - Select HD or SD to automatically adjust color parameters for HD (high definition and SD (standard definition) transmissions.
- V - POSITION - Press the ASPECT button on the remote control to select Zoom mode, then adjust the vertical position by pressing the VOL left or right button.



<b>VIDEO ADJ1</b>	SCAN MODE	OFF
<b>VIDEO ADJ2</b>	COLOR MATRIX	HD
<b>OTHER ADJ.</b>	V - POSITION	0

## AUDIO

### Dolby Center Mode & Fixed Audio Out

In AUDIO menu under SPEAKERS, select DOLBY CENTER MODE & FIXED AUDIO OUT to operate PTV speakers as center speakers for Dolby sound transmission. (See Installation section in the manual.)



<b>AUDIO ADJ.</b>	
<b>OTHER ADJ.</b>	
<b>SURROUND SPEAKERS</b>	DOLBY CENTER MODE & FIXED AUDIO OUT

## CHANNELS

### Favorites

In CHANNELS menu under FAVORITES select:

- CHANNEL SCAN FAV to enter up to 16 favorite channels.
- CHANNEL SCAN ALL to scan all channels when using the CH up/down buttons.

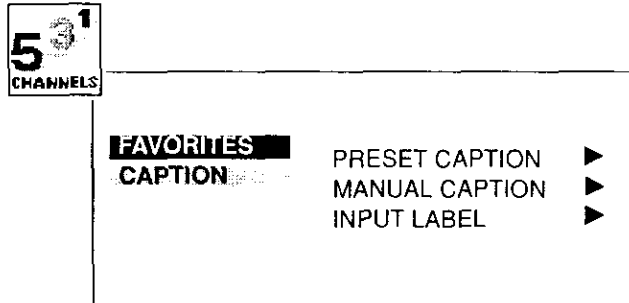


<b>FAVORITES</b>	CHANNEL SCAN	FAV
<b>CAPTION</b>	ENTER CHANNEL	123
	FAVORITE CHANNELS	

**Caption**

In CHANNELS menu under CAPTION select:

- PRESET CAPTION to enter channel numbers for popular TV stations.
- MANUAL CAPTION to enter numbers and captions manually.
- INPUT LABEL to label video input connections for onscreen display.

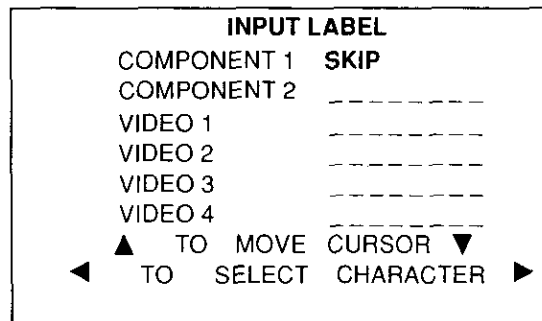


**Video Input Skip**

This receiver has a video input skip feature, which will allow the user to skip desired Input modes when pressing TV/VIDEO button.

- Select desired Video Input mode.
- Press the volume left button while the first character is highlighted to skip selected Video mode.

**Note:** To delete skip feature, press the volume right button while the desired video input mode is highlighted.



## SPECIAL FEATURES

### LOCK

#### MODE

To use LOCK options:

- ENTER CODE FIRST - Use the numeric keypad to enter a four-digit secret code. After entering your secret code for the first time, the onscreen display will change to CHANGE CODE.

**Note:** Use a code that is easy to remember or record it in a safe place.

In MODE submenu select:

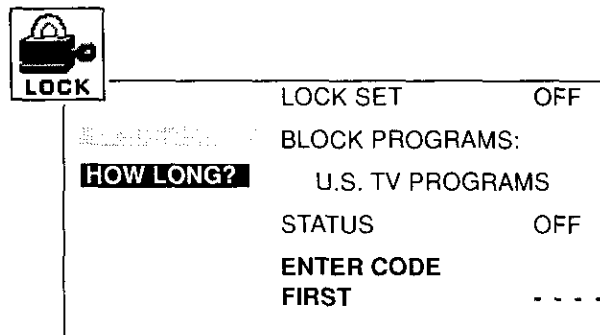
- LOCK SET to choose:
  - OFF - To turn lock function off.
  - ALL - To lock all channels and video inputs.
  - CHANNEL - To lock up to four channels of your choice.
  - GAME - To lock channels 3, 4 and video inputs.
- BLOCK PROGRAMS<sup>\*</sup> - To use Block Programs Ratings.
- CHANGE CODE - Use numeric keypad to change your four-digit secret code.

**Note:** If in CHANGE CODE you enter a different code from the one used previously, the new code becomes the controlling code.

Press the **ACTION** button to return to submenu, then select HOW LONG to choose the period of time you want your option to be locked (12, 24, 48 hours or ALWAYS).

**Note:** Be cautious when selecting ALWAYS. If ALWAYS is selected, and you forget your secret code, the television must be serviced by a qualified technician in order to clear the LOCK setup.

Press the **ACTION** button to return to submenu, and to exit menus.












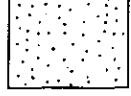










**Note:** If GAME, CHANNEL or ALL is selected, and if a blocked channel or video input is selected, the message PG (Parent Guard) displays in the upper right corner of the television screen

Unlock LOCK SET by reentering the same four-digit secret code and selecting OFF.

**\* For more information about Block Programs, see the V-CHIP Parental Lock manual provided with the PTV package.**

## 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	Adjust Antenna Location and Connection Check Antenna Lead-in Wire
 Noisy Audio	 Interference	Move PTV from Electrical Appliances, Lights, Vehicles, and Medical Equipment
 No Audio	 Normal Video	Increase Volume Check Mute Check PTV SPEAKERS on/off Change Channel
 Noisy Audio	 No Video with Snow	Set PTV 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
 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		

**Panasonic Consumer Electronics Company,  
Division of Matsushita  
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One Panasonic Way  
Secaucus, New Jersey 07094  
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**Panasonic de Mexico, S.A. de C.V.**  
Amores No. 1120  
Col. Del Valle C.P. 03100  
México, D.F.  
Tel. (915 ó 015) 488-1000  
Fax (915 ó 015) 575-6763, 575-6765

**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