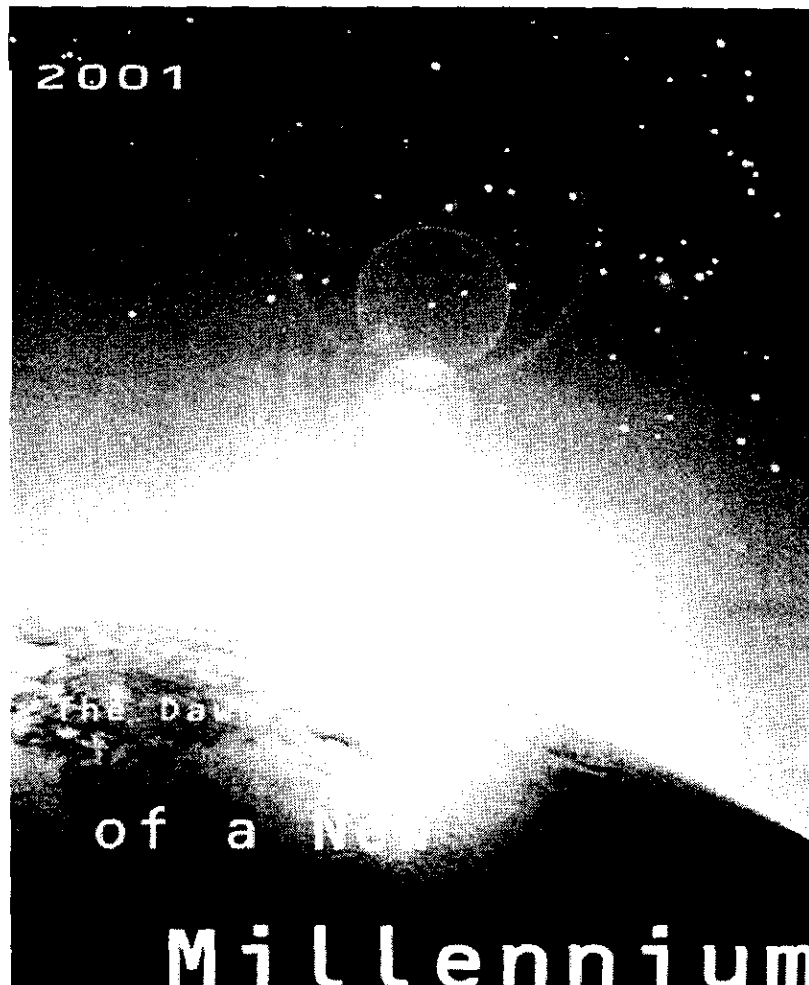


Panasonic®

Color Television Operating Instructions



CT-32HX41 CT-36HX41
CT-32HX41U CT-36HX41U



For assistance, please call: 1-800-211-PANA (7262) or
send e-mail to: consumerproducts@panasonic.com (USA only)

TQB2AA0371
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10306

	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.

Certain audio features of this product are manufactured under a license from Desper Products, Inc. Spatializer® and the circle-in-square device are trademarks owned by Desper Products, Inc. Spatializer U.S. Patents are: 4,308,423; 4,355,203 and 5,412,731.

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Read these instructions completely before operating television.

Contents are subject to change without notice or obligation.

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Feature Chart

		MODELS	CT-32HX41 CT-32HX41U	CT-36HX41 CT-36HX41U
		FEATURES		
SPECIAL FEATURES	MENU LANGUAGE ENG/SPAN/FR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2 TUNER SPLIT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CLOSED CAPTIONING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	V-CHIP CAPABILITY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	DIGITAL SCAN RATE	1080i, 480p	1080i, 480p	1080i, 480p
	NTSC LINE - DOUBLER	480p	480p	480p
	VIDEO NORM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AUDIO	AUDIO NORM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	STEREO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	AI SOUND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BASS/BALANCE/TREBLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SPATIALIZER®	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	DOLBY CENTER CHANNEL IN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A/V PROGRAM OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A/V JACKS	A/V IN (REAR/FRONT)	4 (3/1)	4 (3/1)	4 (3/1)
	AUDIO OUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	S-VHS INPUT (REAR/FRONT)	2/1	2/1	2/1
	HEADPHONE JACK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	COMPONENT INPUT	2	2	2

CONGRATULATIONS

Congratulations

Your new Panasonic Tau television is designed to provide state-of-the-art picture quality and features an innovative PureFlat™ picture tube. The new silver-gray cabinet with compact, elegant styling 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 television. 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.

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

Power Source CT-32HX41/U (3.7A) CT-36HX41/U (3.7A)	120V AC, 60Hz
Channel Capability - 181	VHF-12; UHF-56; Cable-125
Video Input Jacks	1Vp-p, 75 Ohm, Phono Jack Type
Audio Input Jacks	500mV RMS 47K Ohm
Video Output Jack	1Vp-p, 75 Ohm, Phono Jack Type
Audio Output Jacks	0-2.0V RMS 4.7K Ohm
Component Input	75 Ohm, Phono Jack Type
S-Video Input Jacks	S-Video (Y-C) Connector

Specifications are subject to change without notice or obligation.

Installation

Television Location

This unit is intended to be used as part of 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.

CAUTION: 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.



CT-32HX41/U:

CAUTION: This television receiver for use only with PANASONIC TY-32HX40P stand. Use with other carts (or stands) is capable of resulting in instability causing possible injury.

CT-36HX41/U:

CAUTION: This television receiver for use only with PANASONIC TY-36HX40P stand. Use with other carts (or stands) is capable of resulting in instability causing possible injury.

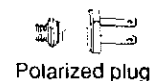
Optional Cable Connections

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.



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.

INSTALLATION

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 ANT or ANT1 connection on back of television. Select cable mode and ANT1 in SET UP menu under Prog Chan (Program Channels).

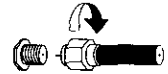
Note: A cable converter box may be required for proper reception. Check with your local cable company for compatibility requirements.

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 under Prog Chan.

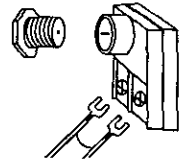
Note: Cable Mode is preset at the factory. Antenna users must change to TV mode and select ANT1 in the Set Up Menu under Prog Chan.

Incoming Cable from Cable Company



75 Ohm VHF/UHF
on back of TV

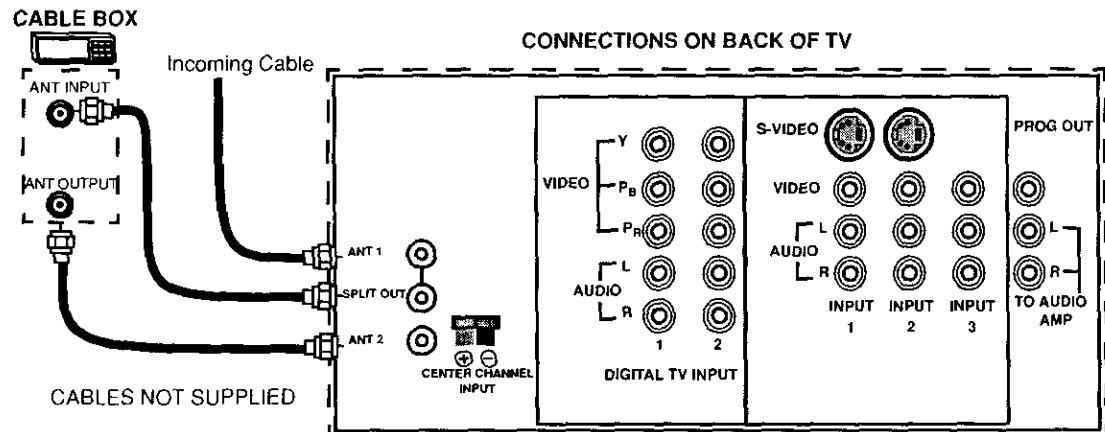
Incoming Cable from Home Antenna



Optional Equipment Connections

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

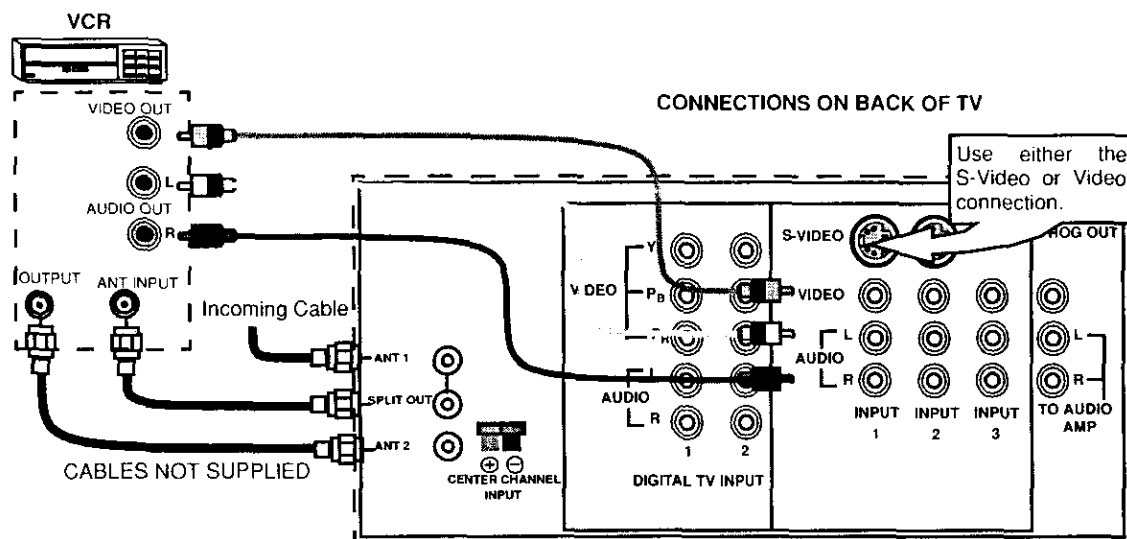
Procedure

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.

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.
 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.
 2. Tune the television to Channel 3 or 4, depending on your VCR.
 3. Begin the video.

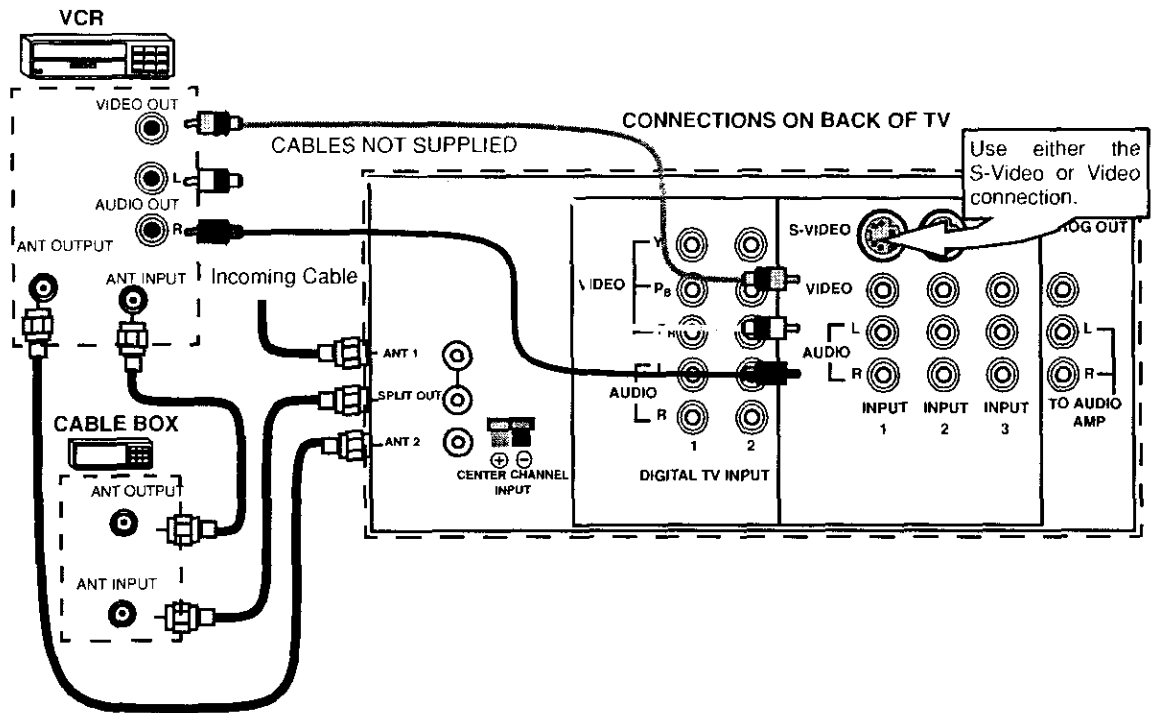
Recording a television program

Procedure

- Option A (Recording and viewing the same program)
 1. Select ANT2 in the SET UP menu under Prog Chan.
 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.
 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.

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 the switch setting on the back of VCR.
5. Using your cable box, tune to the premium cable channel you want to record.
6. Begin recording.

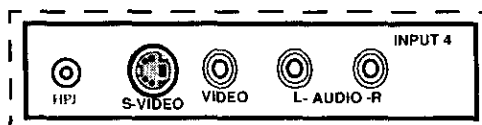
Note: To view a different channel while recording:

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

Additional Equipment Connections

Push to open the front panel of the television to use the Audio/Video input jacks for optional equipment. Press the **TV/VIDEO** button to select VIDEO 4 input mode.

CONNECTIONS ON FRONT OF TV



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

Procedure

1. Connect equipment to rear or front Audio/Video input jacks.
2. Select the corresponding video input by pressing **TV/VIDEO** button.
3. Operate optional equipment as instructed in equipment manual.

Note: *The S-VIDEO connection provides higher quality picture. It overrides other VIDEO connections. Use INPUT 4, AUDIO L and R with S-VIDEO connection.*

IMPORTANT INFORMATION REGARDING USE OF VIDEO GAMES, COMPUTERS, DSS OR OTHER FIXED IMAGE DISPLAYS.

The extended use of fixed image program material can cause a permanent “shadow image” on the picture tube. This background image is viewable on normal programs in the form of a stationary fixed image. This type of irreversible picture tube deterioration can be limited by observing the following steps:

- A. Reduce the brightness/contrast setting to a minimum viewing level.
- B. Do not display the fixed image for extended periods of time.
- C. Turn the power off when not in actual use.

Note: *The marking or retained image on the picture tube resulting from fixed image use is not an operating defect and as such is not covered by Warranty. This product is not designed to display fixed image patterns for extended periods of time.*

Amplifier Connection (TO AUDIO AMP)

To listen through a separate stereo system, connect an external audio amplifier TO AUDIO AMP inputs 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 onscreen AUDIO menu.
2. Set amplifier volume to minimum.
3. Adjust television volume to desired level.
4. Adjust amplifier volume to match the television.
5. Select SPEAKERS OFF & VARIABLE AUDIO OUT from AUDIO menu.
6. 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.*

INSTALLATION

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.

Procedure

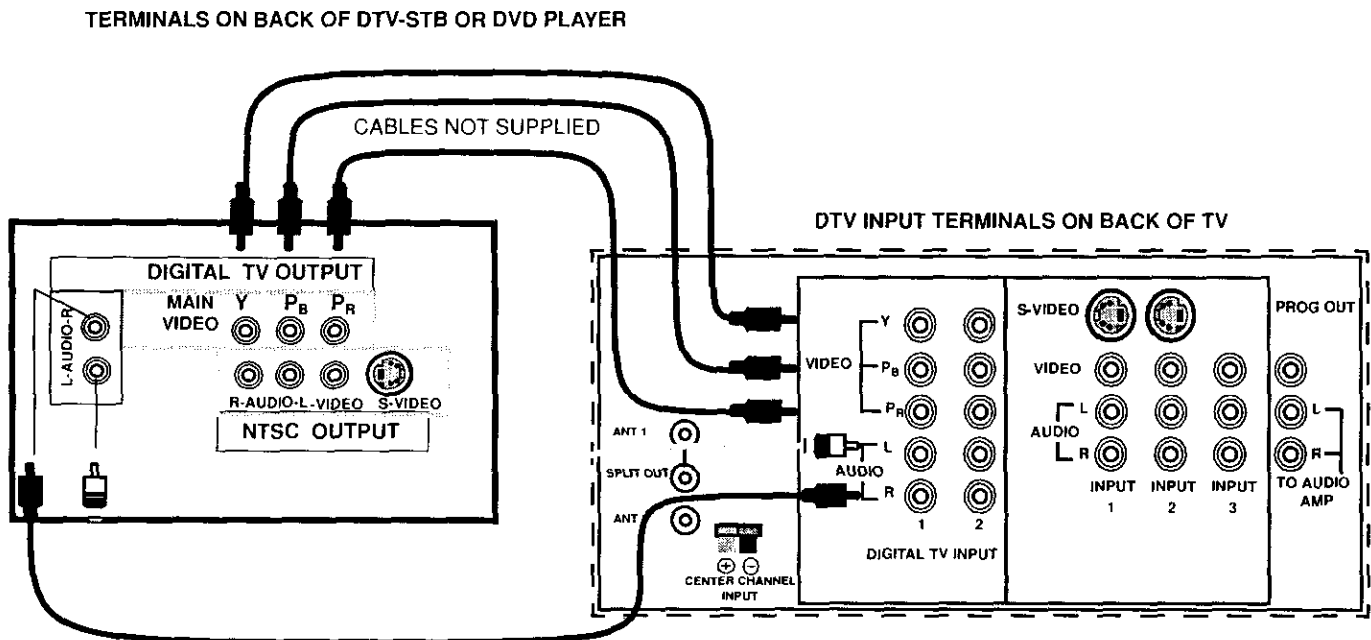
1. Connect optional equipment to PROG OUT and TO AUDIO AMP terminals.
2. PROG OUT terminal display is the same as onscreen display.
3. See optional equipment manual for further instructions for recording and monitoring.

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_B, P_R) 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.

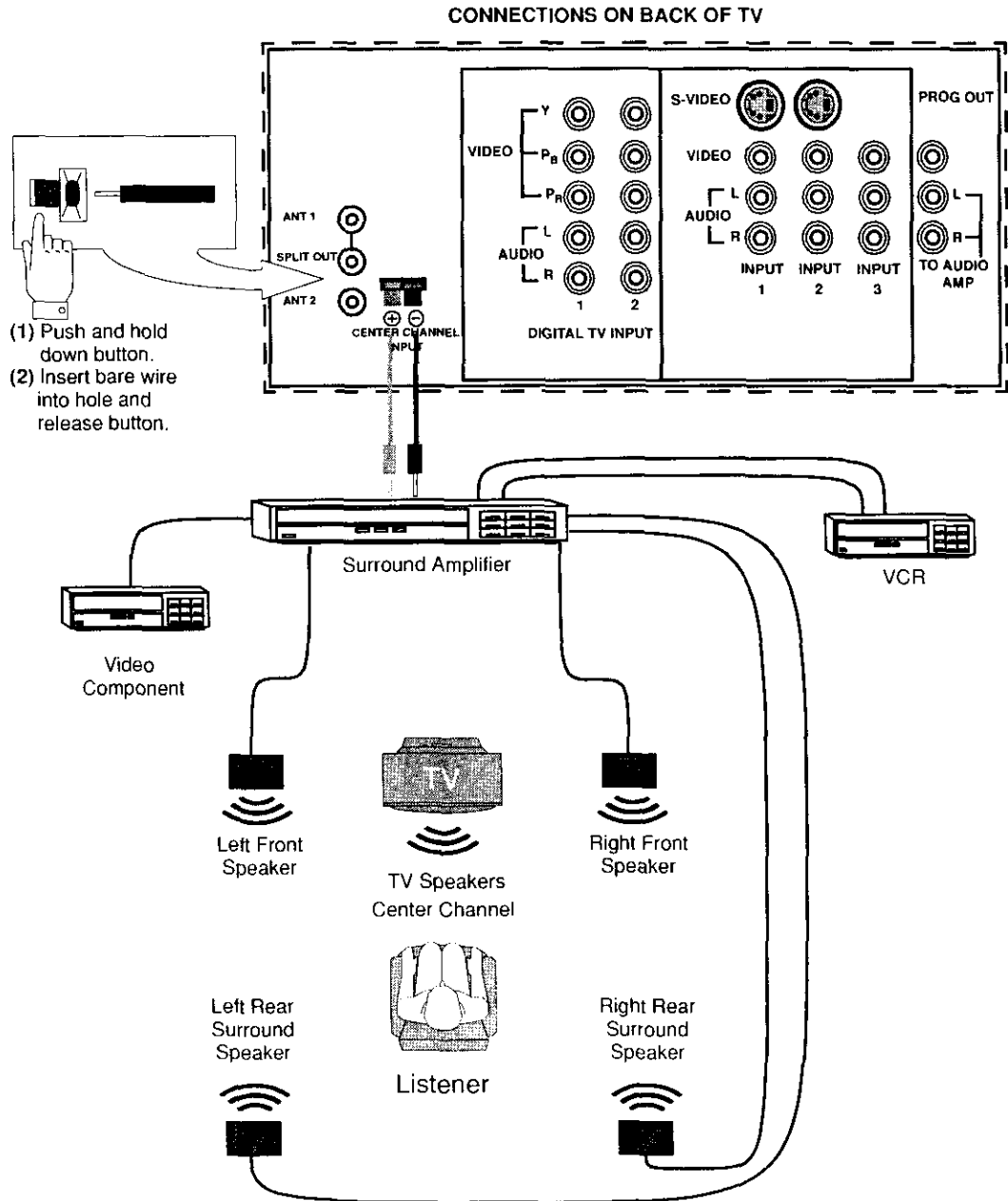
Use this diagram to connect the Panasonic DTV-STB (Digital TV-Set-Top Box) or DVD Player to the back of your TV.



Note: There are 2 sets of three video inputs, Y, P_B, and P_R. Separate component color inputs provide luminance and color separation. Use the L (left) and R (right) audio inputs.

Home Theater Connection

Your television's internal speakers can be connected as the center channel for a surround sound home theater system. Connect a surround sound amplifier (center channel speaker output) to CENTER CHANNEL INPUT on the back of the television, as shown. DOLBY® CENTER MODE & FIXED AUDIO OUT must be selected in the AUDIO Roller Guide Menu™** under SPEAKERS.



*Manufactured under license from Dolby Laboratories. "Dolby", "Dolby Digital", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

**US Patent Pending

PICTURE IN PICTURE (PIP) OPERATION

Picture in Picture (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.

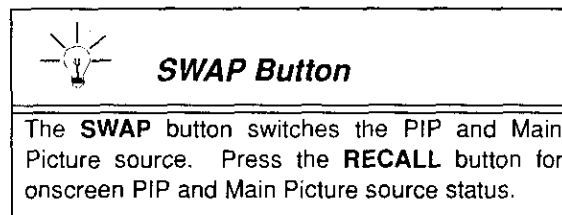
Basic PIP Operation

Procedure

Press the **PIP** button on the remote control to display the *PIP* frame onscreen.

Note: *The audio is from the Main Picture only.*

1. Choose channels for the *PIP* frame by pressing the remote control **PIP CHANNEL** up/down buttons.
2. Choose channels for the *Main Picture* by pressing the remote control **CH** up/down buttons or by using the numeric keypad.



PIP 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 PIP frame.*

1. Select ANT2 in the SET UP menu under Prog Chan (Program Channels).
2. Tune television to Channel 3.
3. Press the **PIP** button on the remote control to display the *PIP* frame onscreen.

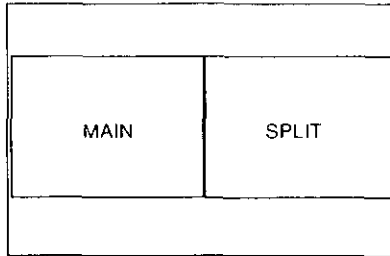
Note: *The audio is from the Main Picture only.*

4. Verify the cable box is ON.
5. Choose channels for the *Main Picture* by tuning the cable box.
6. Choose channels for the *PIP* frame by pressing the **TV** button on the remote control and using the **PIP CHANNEL** 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 PIP functions. See the equipment manual for more information. (Tune the PIP to the video input connected to the cable box).*

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 Operation

Procedure

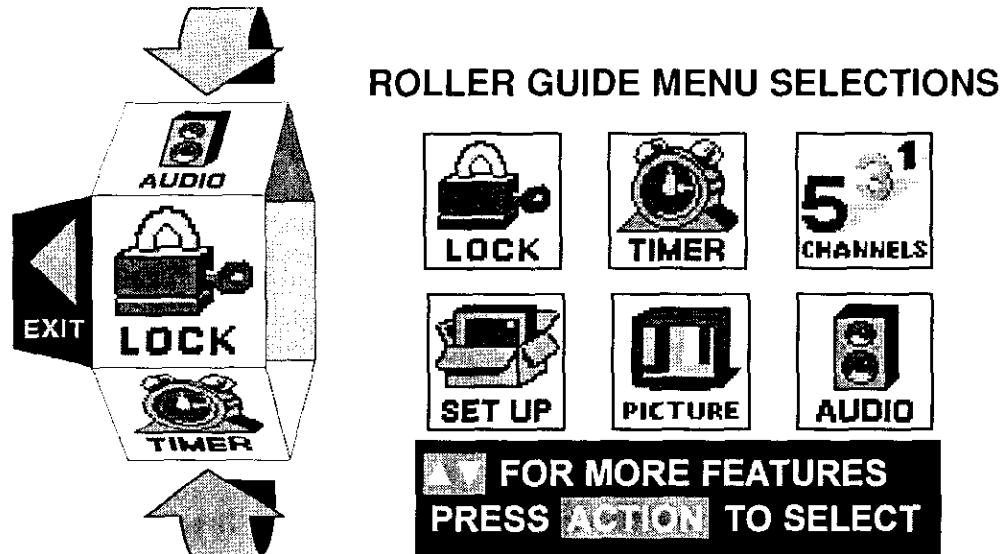
Press the  button on the remote control to display the *SPLIT* screen.

Note: *The audio is from the Main Picture only.*

1. Choose channels for the *SPLIT Picture* by pressing the remote control **PIP CHANNEL** up/down buttons.
2. Choose channels for the *Main Picture* by pressing the remote control **CH** up/down buttons or by using the numeric keypad.
3. The **SWAP** button switches the *SPLIT* and *MAIN Picture* source. Press **RECALL** button for onscreen *SPLIT* and *Main Picture* source status.

ROLLER GUIDE MENU

Roller Guide Menu

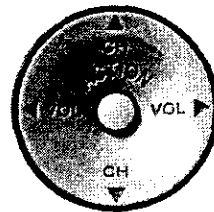


Roller Guide Menu Navigation

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 television.



Roller Guide Feature Chart

	<p>SET UP</p>
<p>LANGUAGES</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Select English, Spanish or French menu.
<p>PROG CHAN (Program Channels)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> MODE - Select TV or Cable mode. See Installation section in Manual. <input type="checkbox"/> ANTENNA - Select ANT1 or ANT2. See Installation section in manual. <input type="checkbox"/> AUTO PROGRAM - Automatically program channels having a signal into memory. <input type="checkbox"/> MANUAL PROGRAM - Manually add or delete channels from memory.
<p> (Closed Captioning)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> CC ON MUTE - Activate C1-C4 for Closed Captioning display when the remote MUTE button is pressed. <input type="checkbox"/> CC MODE - Select T1-T4 or C1-C4 for Closed Captioning, program guides, and other information.
<p>OTHER ADJ (Adjustments)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> AUTO POWER ON - Select SET to power up the TV at the same time as the Cable Box or other components or select OFF. <input type="checkbox"/> GEOMAGNETIC CORR - Special adjustment option that compensates for the earth's geomagnetic field. Adjustment may be required for geomagnetic fields in the area.
	<p>AUDIO</p>
<p>AUDIO ADJ. (Adjustments)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> MODE - Select STEREO, SAP (Second Audio Program) or MONO. (Use MONO when stereo signal is weak). <input type="checkbox"/> BASS - Increase or decrease the bass response. <input type="checkbox"/> TREBLE - Increase or decrease the treble response. <input type="checkbox"/> BALANCE - Emphasize the left / right speaker volume. <input type="checkbox"/> NORMAL - Reset BASS, TREBLE and BALANCE to factory default.
<p>OTHER ADJ. (Adjustments)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> AI SOUND - Equalize overall volume levels across all channels. (AI sound is not available in VIDEO mode).
<p>SURROUND</p>	<ul style="list-style-type: none"> <input type="checkbox"/> SPATIALIZER® - Three dimensional surround sound with two speakers.

Roller Guide Feature Chart (Cont.)

MENU	FEATURES
<p>SPEAKERS</p>	<ul style="list-style-type: none"> <input type="checkbox"/> ON - TV speakers operate normally. <input type="checkbox"/> OFF & Variable Audio Out- TV speakers off - audio adjustable by television. <input type="checkbox"/> OFF & Fixed Audio Out- TV speakers off - audio adjustable by the external amplifier only. <input type="checkbox"/> Dolby Center Mode & Fixed Audio Out - Makes television the surround sound center channel and the audio adjustable by the external amplifier only.
<p style="text-align: center;"></p>	<p style="text-align: center;">TIMER</p>
<p>CLOCK SET</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Set the time and the day of the week. (Time will display onscreen after turning on the television, pressing the RECALL button or changing channels).
<p>SLEEP</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Set timer to turn off television in 30, 60 or 90 minutes. Select NO to turn timer off.
<p>TIMER 1 TIMER 2</p>	<ul style="list-style-type: none"> <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).
<p style="text-align: center;"></p>	<p style="text-align: center;">PICTURE</p>
<p>VIDEO ADJ1 (Adjustments)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> COLOR - Adjust desired color intensity. <input type="checkbox"/> TINT - Adjust natural flesh tones. <input type="checkbox"/> BRIGHTNESS - Adjust dark areas for crisp detail. <input type="checkbox"/> PICTURE - Adjust white areas of picture. <input type="checkbox"/> SHARPNESS - Adjust clarity of outline detail. <input type="checkbox"/> NORMAL- Reset all picture adjustments to factory default settings.

Roller Guide Feature Chart (Cont.)

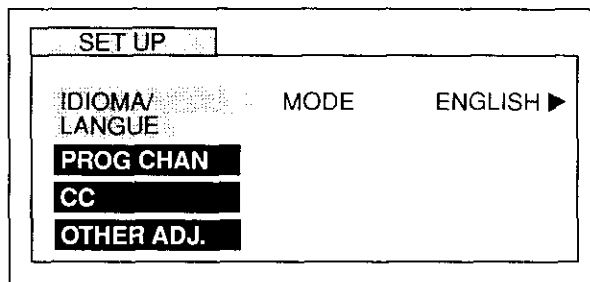
Menu	Description
<p>VIDEO ADJ2</p>	<ul style="list-style-type: none"> <input type="checkbox"/> COLOR TEMP NORMAL - Adjust white balance to COOL (blue), WARM (red) or NORMAL. <input type="checkbox"/> NATURAL COLOR - Expands the color reproduction range resulting in vivid pictures with natural color gradation and highly delicate hues. <input type="checkbox"/> VIDEO NR - Reduces noise in the channel, commonly called snow. Remains off when receiving strong signal. <input type="checkbox"/> 3D Y/C FILTER - Minimize noise and cross color in the picture. <input type="checkbox"/> ASPECT - Select picture size (ratio) to match programming format.
<p>OTHER ADJ. (Adjustments)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> SCAN MODE - Select TV mode (frame doubling) for optimum detail and clarity. Select GAME mode (line doubling) to optimize picture when playing complex, fast action video games. <input type="checkbox"/> COLOR MATRIX - Select HD or SD to automatically adjust color parameters for HD (high definition and SD (standard definition) transmissions.
	<p style="text-align: center;">CHANNELS</p>
<p>FAVORITES</p>	<ul style="list-style-type: none"> <input type="checkbox"/> CHANNEL SCAN - Select FAV (16 favorites) or ALL channels to scan channels using the CH up/down buttons.
<p>CAPTION</p>	<ul style="list-style-type: none"> <input type="checkbox"/> PRESET CAPTION - Assign channel numbers to preset popular television stations. <input type="checkbox"/> MANUAL CAPTION - Enter channel numbers and captions manually. <input type="checkbox"/> INPUT LABEL - Label video connections to display optional equipment.
	<p style="text-align: center;">LOCK</p>
<p>MODE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Lock All, Channels or Game with a secret code.
<p>HOW LONG?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Select the period of time (12, 24, 48 hours or ALWAYS) for your option to be locked.

Special Features

SET UP

Menu Languages

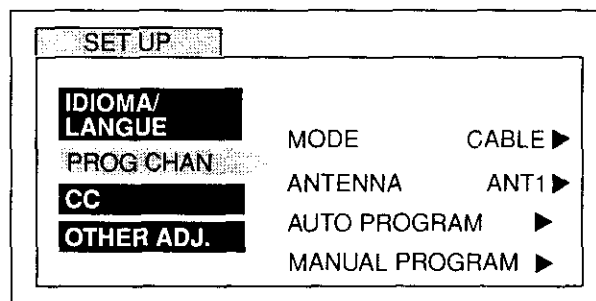
In SET UP Menu, select IDIOMA/LANGUE to change menu language to ENGLISH, ESPAÑOL (Spanish) or FRANÇAIS (French).



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 Closed Captioning for the feature to work.

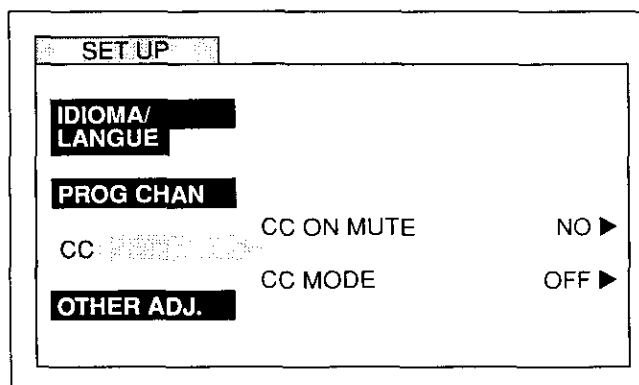
CC On Mute

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).

Procedure

- In SET UP Menu, select **CC** (Closed Caption).
- Select **CC ON MUTE**
- 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 the **ACTION** button to return to submenu options, and exit menus.
- Press the **MUTE** button to activate the Closed Caption feature.
- Press the **MUTE** button again to deactivate the feature.

**CC Mode****Procedure**

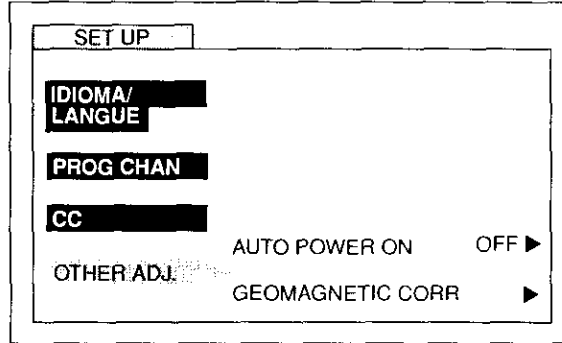
- In SET UP Menu, select **CC** (Closed Caption).
- Select **CC MODE**.
- Select OFF, C1, C2, T1, T2, C3, C4, T3 or T4:
 - OFF - When Closed Caption is not desired.
 - C1 - For video related information to be displayed, up to 4 lines onscreen at a time. (It does not block relevant parts of the picture). 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 the **ACTION** button to return to submenu options, and exit menus.

SPECIAL FEATURES

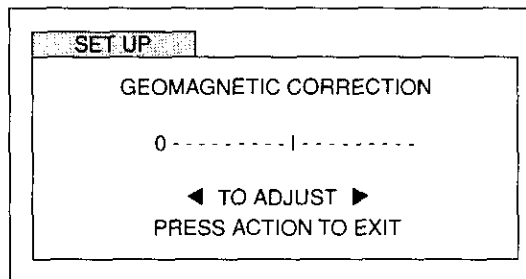
Other Adjustments

In SETUP Menu under OTHER ADJ. select:

- AUTO POWER ON - Select SET to power up the TV at the same time as the Cable box or other components or select OFF.
- GEOMAGNETIC CORR (CORRECTION) - Adjusts to erase the discoloration of the picture due to earth's magnetic field in the area.



GEOMAGNETIC CORRECTION MENU



Note: Geomagnetic Correction may be required at Set Up time or when the TV set moved to a different location.

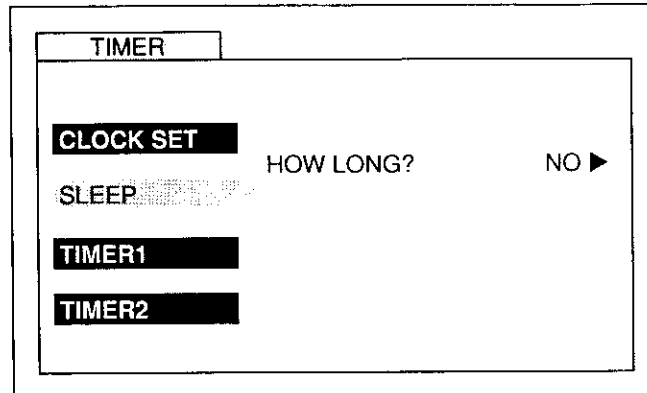
Procedure

- In SET UP Menu, under OTHER ADJ. select GEOMAGNETIC CORR. (CORRECTION).
- Press ▶ button to display the GEOMAGNETIC CORRECTION sub-menu.
- Press ◀ or ▶ button to adjust the vertical bar left or right until the discoloration disappears.

TIMER

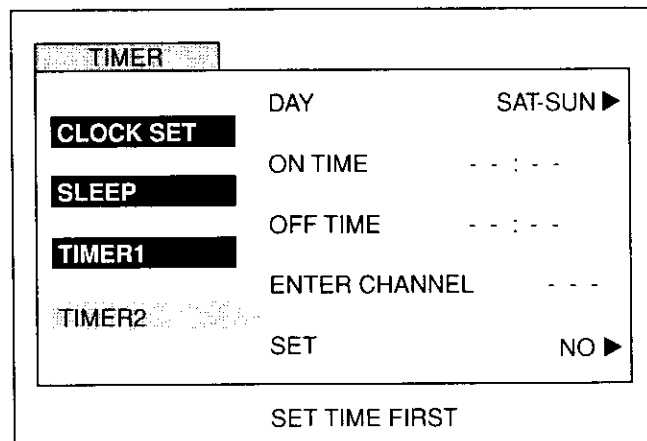
Sleep Timer

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



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 the TIMER features.

Turn Off After 90 Minutes

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.

TIMER Activation

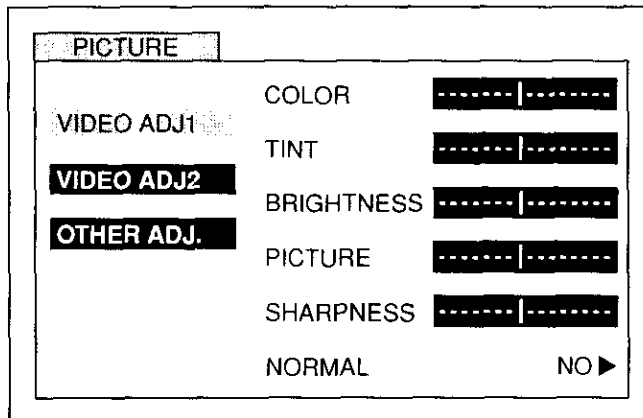
The TIMER is active when the television is OFF or ON. The television will switch to the selected channel at the selected time set in the TIMER.

PICTURE

Video Adjustments 1

In Picture menu under VIDEO ADJ1, select:

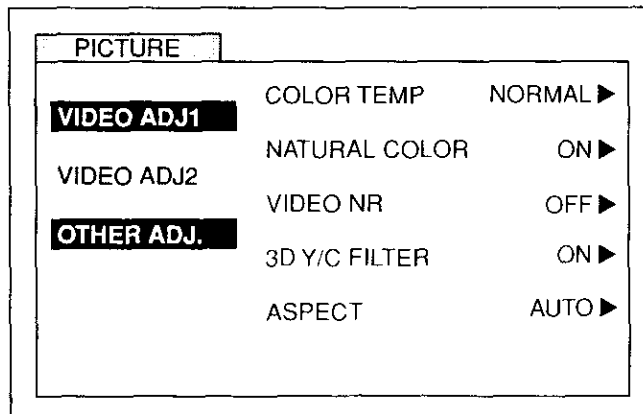
- COLOR - Adjusts desired color intensity.
- TINT - Adjusts natural flesh tones.
- BRIGHTNESS - Adjusts dark areas of picture.
- PICTURE - Adjusts white areas of picture.
- SHARPNESS - Adjusts clarity of outline detail.
- NORMAL - Reset all picture adjustments to factory default settings.



Video Adjustments 2

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.
- ASPECT - Select picture size (ratio) to match programming format.

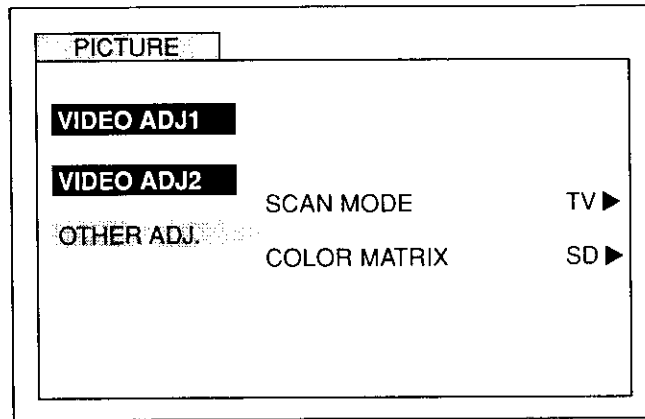


Other Adjustments

In Picture menu under OTHER ADJ. select:

- SCAN MODE - Select TV mode (frame doubling) for optimum detail and clarity. Select Game mode (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).

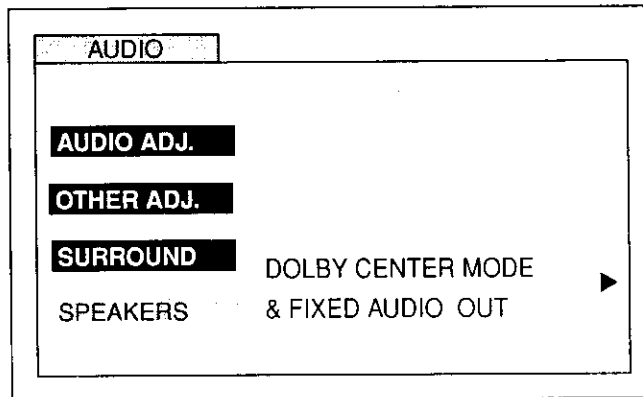
Note: When viewing a non-standard DTV signal format, you can change color parameters manually for the best picture quality.



AUDIO

Dolby Center Mode & Fixed Audio Out

In AUDIO menu under SPEAKERS, select DOLBY CENTER MODE & FIXED AUDIO OUT to make the television the surround sound center channel. (See Installation section for Home Theater Connection).



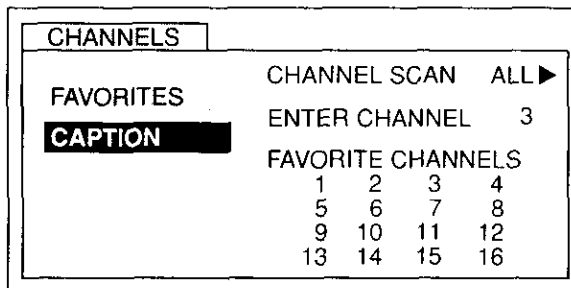
SPECIAL FEATURES

CHANNELS

Favorites

In CHANNELS menu under FAVORITES select:

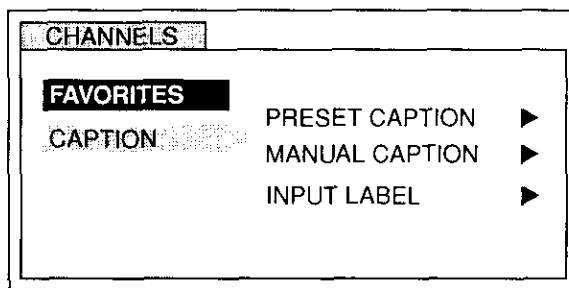
- CHANNEL SCAN FAV to enter up to 16 favorite channels.
- CHANNEL SCAN ALL to scan all channels when using the CH up/down buttons.



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.



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:

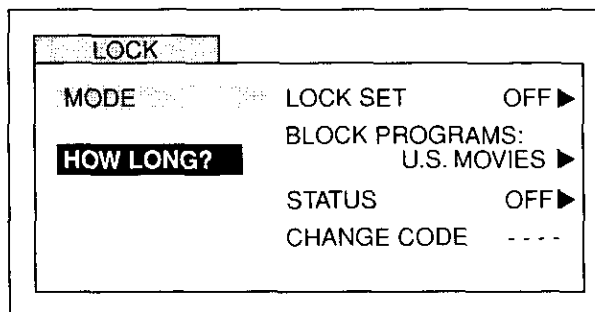
- LOCK SET to choose:
 - OFF - To turn lock function off.
 - ALL - To lock all channels and video inputs.
 - CHANNEL - To lock up to four channels of your choice.
 - GAME - To lock channels 3, 4 and video inputs.
- BLOCK PROGRAMS^{*} -To use Block Programs Ratings.
- CHANGE CODE - Use numeric keypad 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










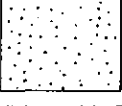




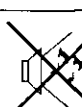
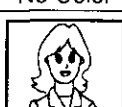

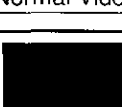
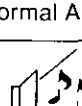
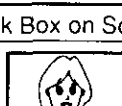
Unlock LOCK SET by reentering the same four-digit secret code and selecting OFF.

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

TROUBLESHOOTING CHART

Troubleshooting Chart

Before calling for service, determine the symptoms and follow suggested 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 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
 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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