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Reference Section

PROSCAN®

So advanced. Yet so simple.™

We're building our reputation on products that are so advanced, they're simple. If you want all the benefits of the latest technology, without the complexity, we have a very simple solution.

It's called ProScan. State-of-the-art technology that real people can use.

Thank you for choosing ProScan. And welcome to our company-wide commitment to your complete satisfaction and viewing enjoyment.



PS35153.

Important Information

WARNING

To reduce risk of fire or shock hazard, do not expose this TV to rain or moisture.

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

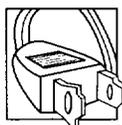
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.



Caution: To reduce the risk of electric shock, match wide blade of plug to wide slot, fully insert.

Attention: Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

Do not defeat the safety feature of the plug. The wide blade fits into the wall socket only one way. If you need an extension cord, make sure it matches the plug of the TV.

Operate TV only on 120 volts, 60 Hz AC power (normal house power).

For safety reasons, make sure any equipment or accessories connected to this product bears the UL listing mark or, if purchased and used in Canada, the CSA certification mark. If in doubt, contact qualified service personnel.

FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Note To Cable TV Installer

This reminder is provided to call your attention to Article 820-40 of the National Electrical Code (Section 54 of the Canadian Electrical Code, Part 1) which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Product Registration

Please fill out the product registration card and return it immediately. Returning this card allows us to contact you if needed.

Keep your sales receipt to obtain warranty parts and service and for proof of purchase. Attach it here and record the serial and model numbers in case you ever need them. The numbers are located on the back of the TV.

Model No. _____

Serial No. _____

Purchase Date: _____

Dealer / Address / Phone: _____

VCR 1 Chan: Off ← Off / Channel Number
 VCR 2 Chan: Off ← Off / Channel Number
 Cable Chan: Off ← Off / Channel Number

So Advanced. Yet So Simple.

Your ProScan television is more than state-of-the-art technology. It's technology tailored to you. Features designed to deliver viewing and listening enjoyment beyond expectations. Innovation and simplicity of operation become one—ProScan.

Improving Your Image

- **A Cleaner Picture:** The Digital Comb Filter extends resolution and minimizes color interference patterns for greater detail.
- **No Glare™ Picture:** Anti-Glare Lithium Silicate Faceplate virtually eliminates glare while enhancing contrast.
- **Increased Clarity:** Up to 560 lines of horizontal resolution,* surpassing the capabilities of all available signal sources.
* through S-VIDEO connector.

Sound Thinking

- **Dolby* Surround Sound** recreates the audio experience of a movie theater by decoding the surround sound signal on most prerecorded VHS/hi-fi tapes (with optional speakers). *For details, see pages 18-19.*
 - **Acoustic Suspension Speaker System** sealed enclosures and high compliance speakers provide higher fidelity and extended bass response.
 - **On-Screen Graphic Equalizer** permits precise adjustment of seven frequency bands to complement your room's acoustics. *For details, see pages 14.*
 - **10 Watts Per Channel ****
 - **dbx*** Noise Reduction**
 - **Second Audio Program (SAP)** *For details, see page 16.*
- * Dolby is a registered trademark of Dolby Laboratories Licensing Corp.
** RMS rating, into 8 ohms, 50 to 20,000 Hz ± 3 db, with less than 1% THD.
*** dbx is a registered trademark of Carillon Electronics Corp.

Creative Entertainment

- **Advanced Color Picture-in-Picture** lets you watch two programs at once (with VCR).
SWAP, MOVE, FREEZE – for viewing convenience.
CHANNEL GUIDE – displays a still picture of 12 channels at one time for a quick review of available programs.
PIX ZOOM – enlarges any desired video image for a closer look.
PIX PAN – lets you move across the enlarged video image to select any portion for viewing.
For details, see pages 8 and 8-10.
- **Channel Labeling** lets you label channel numbers with up to 4-letter names (eg. NBC, VH-1, ESPN). *For details, see page 24.*

One Minute Manual

- **On-Screen Menus** for simple operation of picture, sound, and set-up functions by remote control.
- **AutoProgramming** automatically searches for and stores all active channels. Eliminates the need for manual set-up. *For details, see page 26.*
- **Frequency Synthesis Tuning** automatically and accurately tunes each channel.
- **Automatic VCR Setup** with the push of a button, your TV is ready for VCR play: both TV and VCR turn on and TV tunes to correct channel/input. *For details, see page 28.*
- **Automatic Cable Box Setup** offers convenience when cable company requires you to use cable box. *For details, see page 30.*
- **On-Screen Clock/Channel Display** *For details, see page 11.*
- **Picture Reset** *For details, see page 12.*

Connections

Gold Plated Phono Jacks for Superior Performance:

- **Two Sets of Audio/Video Inputs** for VCR, Laser Disc player, Camcorder etc. *For details, see pages 36-37.*
- **One Set of Audio/Video Outputs** for video dubbing. *For details, see pages 36-37.*
- **One Set of Volume-Controlled Audio Outputs (HI-FI)** to retain remote volume when connected to an external amplifier. *For details, see page 48.*
- **One Set of Volume-Controlled SURR Audio Outputs** to connect the surround sound to an external amplifier. *For details, see page 47.*

Other Connections to Expand Your System:

- **S-Video input connector** for direct input to your S-VHS VCR, Camcorder, etc. *For details, see pages 36-37.*
- **Four Speaker Jacks** to allow hook up of optional external or surround sound speakers. *For details, see pages 48-49.*
- **Dual RF Inputs** to allow direct connection of up to two basic cable, cable box, or other RF sources. *For details, see pages 36.*
- **Front-Mounted Stereo Headphone Jack** for private listening with optional headphones. *For details, see page 11.*

At Your Command

- **The PROSCAN Universal Remote** is preprogrammed so there's no need to teach additional or new codes. Operation is as easy as entering a channel. It operates all major ProScan TV and VCR functions. Operates the basic functions of 81 different VCR brands and 39 different brands of cable boxes, eliminating the need for additional remotes.
- **The PROSCAN Simple Remote**—6 buttons control everyday TV functions for the ultimate in simplicity.

At Your Service

Our Human Touch policy offers all these valuable benefits:

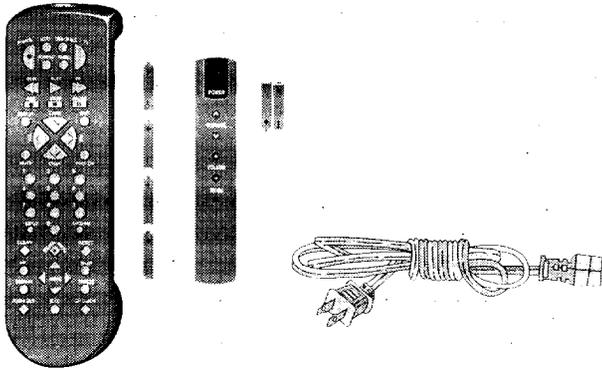
- **1-800-PROSCAN** Call our information service any time Monday - Friday, 9:00 A.M. to 6:00 P.M. EST.
- **Nationwide Independent Authorized Service Centers**
- **PROSCAN Limited Warranty for U.S.A.** In-home service of all parts and labor for one year, picture tube for two years. *For details, see page 52.*

First-Time Operation

The steps below will help you get your TV connected and working quickly. The page numbers on which you can find detailed instructions for each of these steps are also listed for your convenience.

1 Unpack TV and accessories.

The accessories that came packed with your TV include two remote controls, six AAA batteries, power cord, and antenna adapter.



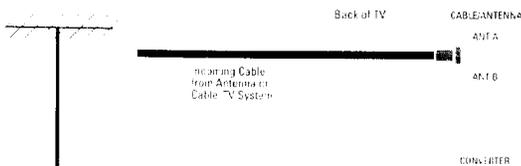
2 Important Information: Optional Stand

A matching stand has been designed to be used with this TV receiver. The recommended stand, Model RB3510, is provided with hardware to secure the TV to the stand so that it cannot be pulled off easily or tipped over.

This stand is available from your local PROSCAN dealer. This item is not available by mail order. To locate your nearest PROSCAN dealer, call this toll-free number: 1-800-PROSCAN.

Caution: If you choose not to use the recommended stand for your TV receiver, take precautions that the stand or other furniture on which the TV is placed is properly located and of adequate strength to prevent the TV from being tipped over accidentally or pulled off the stand. Tipping the TV over or pulling it off the stand could cause both damage to the set and personal injury.

3. Connect antenna or cable-TV system.

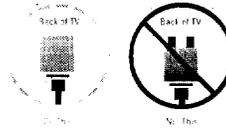


Most antenna or cable-TV systems can be connected as shown here.

- Details for connecting a home antenna to your TV are on page 38.
- Details for connecting a cable-TV system to your TV are on pages 39-40.
- Details for connecting a VCR to your TV are on pages 43-44.

4 Attach power cord.

First attach the flat end of the power cord completely into the connector on the back of your TV, and then plug the other end into a wall outlet. Be sure to insert the plug completely.

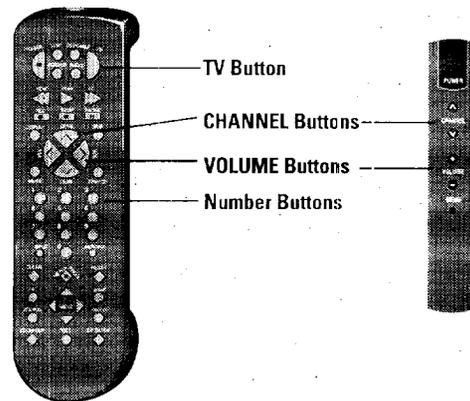


5 Install batteries in remote control.

Details are on page 4.

6 Turn on TV, adjust the volume, and select a channel.

- 1 To turn on the TV, press the TV button on the master remote or press the POWER button on the simple remote.



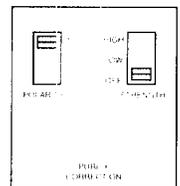
- 2 Press the VOLUME up or down button to adjust the volume to a desired level.
- 3 Press the CHANNEL up or down button to select the next channel in memory. You can also press two number buttons to select a channel. Channels 2-13 and 91 were programmed into the channel memory at the factory, so pressing CHANNEL up or down stops at these channels only. When you start the autoprogramming feature (described next), your set will automatically scan through all channels and place the active channels for your area into its channel memory.

7 Adjust PICTURE TILT switches if necessary.

Select models have an extra large color picture tube. The effects of geomagnetism (Earth's magnetic field) may cause the picture to tilt slightly. The POLARITY and STRENGTH switches on the back of the TV let you compensate for this effect. If the picture appears tilted, follow these steps to improve it.

- 1 Make sure the STRENGTH switch is in the OFF position.

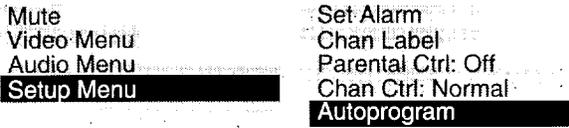
- 2 Move the STRENGTH switch to the LOW position. If this improves the tilt but it is still not satisfactory, move the STRENGTH switch to the HIGH position. If moving the STRENGTH switch makes the tilt worse, go to the next step.



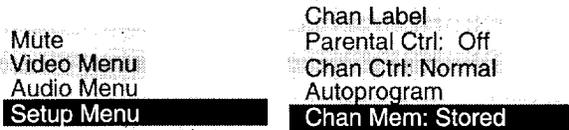
3 Change the position of the POLARITY switch. If this improves the tilt but it is still not satisfactory, move the STRENGTH switch to the HIGH position. This should correct the situation. You may need to reset the POLARITY and STRENGTH switches if the TV is moved or repositioned in the room, especially if the TV will be facing a different direction.

8 AutoProgram the TV's channel memory.

1 To start the TV autoprogramming itself, press the MENU button repeatedly to select the SETUP MENU and then press the + button to display the setup functions. Press MENU again to select the AUTOPROGRAM function, then press +. *Details are on page 26.*

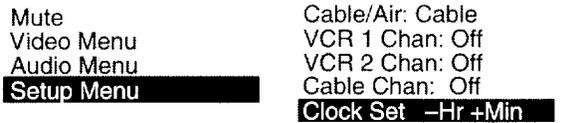


2 You can also add and delete channels from memory as desired. Press MENU repeatedly to select the SETUP MENU, then press + to display the setup functions. Press MENU repeatedly to select the CHAN MEM function, then select the desired channel number and press + to add or - to erase the channel. *Details are on page 27.*



9 Set the clock.

1 Repeatedly press the MENU button to select the SETUP MENU and then press +. Press MENU repeatedly again to select the CLOCK SET display.



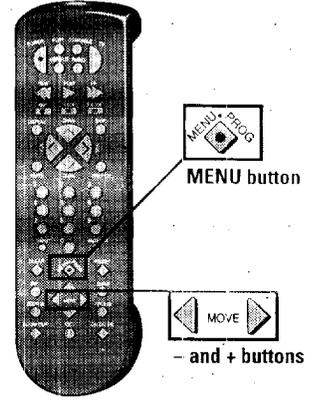
2 Press and hold the - button to select the correct hour. Then press and hold the + button to select the correct minute.

3 The correct time will now appear on the screen whenever you change channels or press the DISPLAY button.

Note: If power is interrupted for an extended time, you will need to reset the clock.

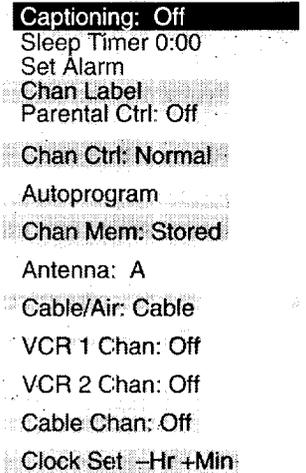
10 Review menus.

1 To see the video menu, repeatedly press MENU button to select VIDEO MENU and then press +. Repeatedly press MENU to select desired function and then press + or - to adjust it. *Details are on page 12.*



2 To see the audio menu repeatedly press MENU to select the AUDIO MENU and then press +. Repeatedly press MENU to select desired function and then press + or - to adjust it. *Details begin on page 13.*

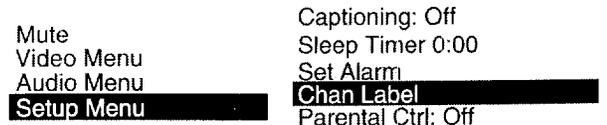
3 To see the setup menu, repeatedly press MENU to select SETUP MENU and then press +. Repeatedly press MENU to select desired function and then press + or - to adjust it. *Details begin on page 20.*



11 Label channels if desired.

The labeling feature lets you add names (or labels) to channels as desired.

1 To label a channel, repeatedly press MENU to select the SETUP MENU and then press +. Repeatedly press MENU to select the CHAN LABEL display, and then press + to enter the function.



2 Select the channel number you want to label. Repeatedly press VOL up or down on the remote control to select the desired character, and then press + to move to the next character block. When the first name is finished, you can select another channel to label. *Details are on page 24.*

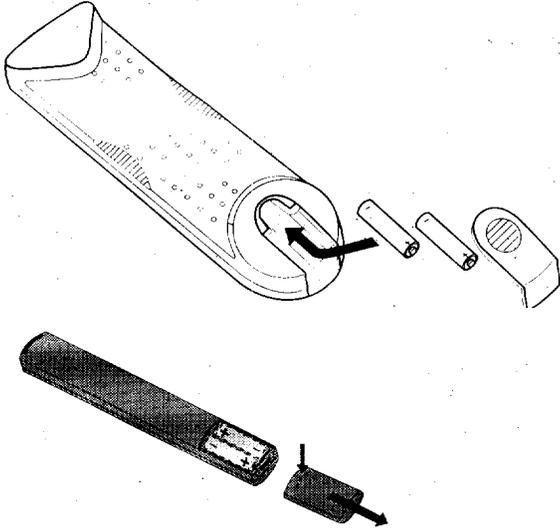
Remote Control: TV Functions

Operating Remote Control

Before attempting to operate either one of the remote controls, install the batteries as shown below.

Installing/Replacing Batteries

- 1 Turn the remote control face down.
- 2 Press down on the ridged area of each battery cover and slide it off.



- 3 Install the batteries in the compartment as shown.
- 4 Replace the cover and turn remote over (face up).

Notes: Replace the batteries when the TV fails to respond to the remote control.

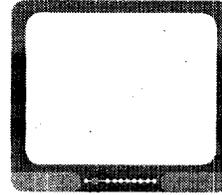
If you programmed the master remote to control other components, you may have to reprogram the code numbers when you change batteries. Try not to press any buttons while changing batteries.

Never place anything heavy on top of the remote control or lay it upside-down. This may accidentally depress the buttons for a long time and discharge the batteries.

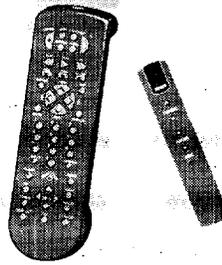
Do not mix new and used batteries or different brands of batteries.

Effective Range of Remote Controls

Aim the remote control at your TV's remote control sensor. The remote control produces an invisible (infrared) beam that travels in a straight line much as the beam of a flashlight. For this reason, when operating the remote control, you must point it directly at the front of the TV without objects between that can block the infrared light beam.

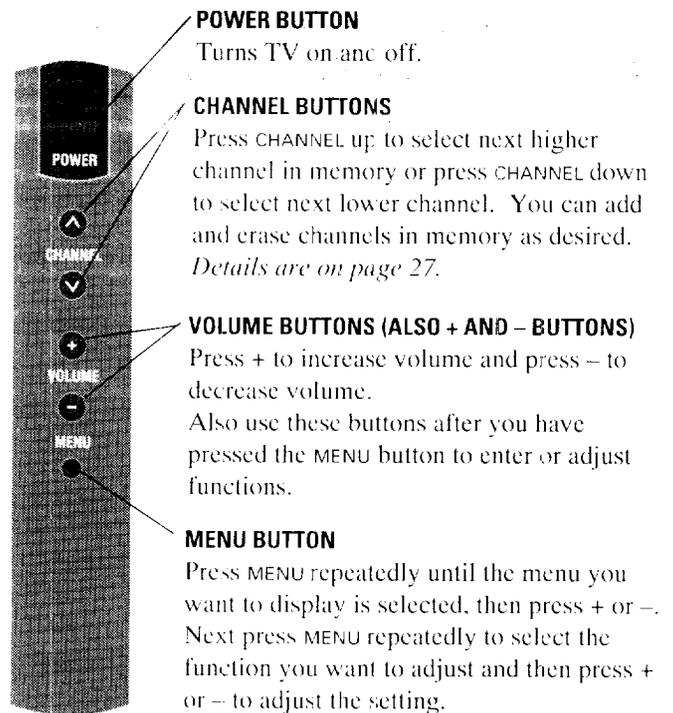


Aim remote at your TV's remote control sensor.



Simplified Remote

This remote can be used to operate the basic functions of your TV.



Remote Control: TV Functions

Basic Operation Theory

Step 1: Component Buttons

First press one of these five component buttons to tell remote which component you want to control. You can program each of these buttons to control your brand of equipment.*

Step 2

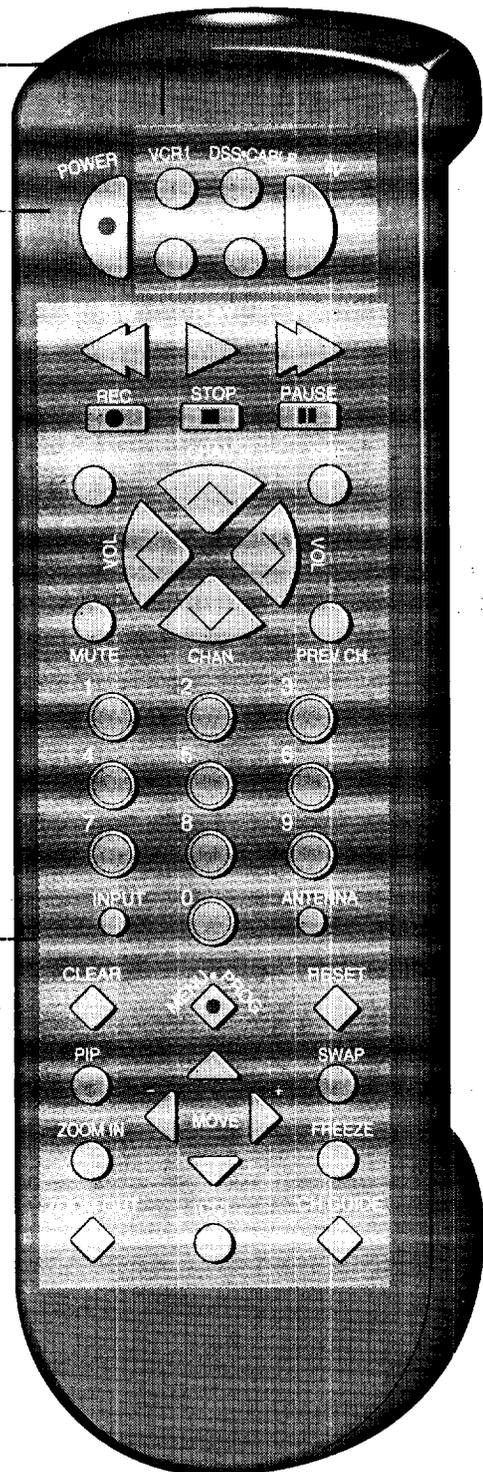
Then press *POWER* button to turn on that component.

Note: The TV and some other components will automatically turn on when you press the component button in step 1. Press this button to turn the component off.

Step 3: Function Buttons

These function buttons can now be used to control the basic functions of the component you selected in step 1. To control a different component, first press its component button (*VCRI*, *VCR2•LD*, *DSS•CABLE*, *AUDIO*, or *TV*), and then press the desired function button.

Note: Not all components have functions that can be controlled by these buttons, but you can experiment with your particular models to discover exactly which buttons will control it.



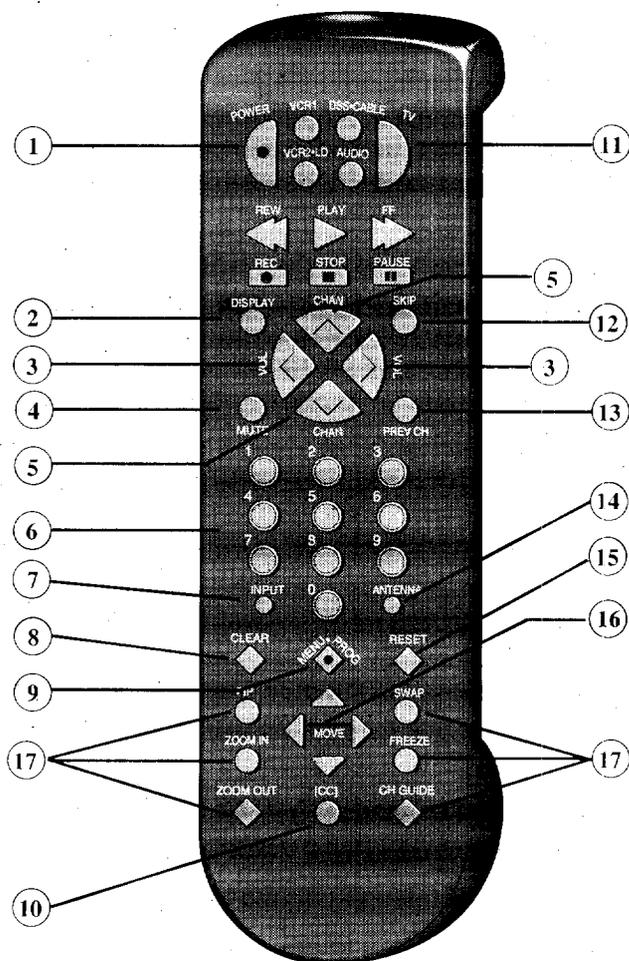
* The *TV* button automatically controls your TV – no additional programming is required. Details for programming the *VCRI* and *VCR2•LD* buttons to control other brands of VCRs are on pages 31-32. Details for programming the *AUDIO* button to control audio equipment are on page 33. Details for programming the *DSS•CABLE* button to control a DSS™ Digital Satellite System receiver or a cable box are on page 41. DSS is a trademark of DIRECTV, Inc., a unit of GM Hughes Electronics.

Remote Controls: TV Functions *continued*

The ProScan universal remote that came packed with your TV also controls most brands of VCRs, cable-TV boxes, and selected RCA audio equipment.

The remote is easy to use. The buttons shown below can be used to operate your TV. The rest of the buttons are used to control VCRs and cable boxes and are *explained on pages 31-32, and 41.*

For added convenience, the simplified 6-button remote also lets you control the basic operation of the TV (shown on the previous page).



1 POWER BUTTON turns off the TV.

2 DISPLAY BUTTON displays time (if clock has been set) and channel number on the TV screen. Also quickly removes menus and displays from the screen.

3 VOLUME BUTTONS
Press VOLUME up to increase volume, or press VOLUME down to decrease volume. The volume display will automatically appear on the screen when you press the VOLUME buttons.

4 MUTE BUTTON
Press MUTE to quickly reduce sound to its minimum level without affecting the picture. This is very useful during telephone calls or other interruptions. When sound is muted, the word MUTE will appear on the screen. To restore sound, press MUTE again, or press VOLUME up.

5 CHANNEL BUTTONS
Press CHANNEL up to see the next higher channel in memory, or press CHANNEL down to see the next lower channel in memory. Channels 2 through 13 and 91 were programmed into the channel memory for you at the factory. Your TV will automatically program active channels for your area into memory when you start the AutoProgram feature *described on page 26.*

6 NUMBER BUTTONS let you select channels directly instead of using the CHANNEL buttons. Always press two number buttons (first one, then the other) to select a channel. For example, press 0 then 6 for channel 6.

To select a 3-digit cable channel (like 127), press and hold number button 1 until "1 - -" appears on the screen. Then press the other two numbers. Your TV will tune up to cable channel number 128 when the CABLE/AIR function is set to CABLE. Check with your cable company to determine which channels are available in your area.

7 INPUT BUTTON lets you quickly view signals from the INPUT jacks. Pressing this button switches the TV from its current channel directly to channel 90, then channel 91, then channel 92. Channel 90 lets you see the signals coming from a device that is connected to the S-VIDEO connector. Channel 91 accesses the INPUT 1 jacks, and channel 92 accesses the INPUT 2 jacks.

8 CLEAR BUTTON
Pressing CLEAR quickly clears the screen of all on-screen display messages (except mute and parental control). It is also used to cancel the Commercial Skip count-down clock and to erase channel labels.

9 MENU•PROG BUTTON
Press MENU•PROG (called MENU in this Owner's Manual) repeatedly until the menu you want to display is selected, then press + or -. Next press MENU repeatedly to select the function you want to adjust and then press + or - to adjust the setting. *Details about using each function begin on page 12.*

10 [CC] CLOSED CAPTIONING BUTTON
Once you have selected a captioning mode through the Setup men, press [CC] to turn the captioning on and off.

11 TV BUTTON turns on TV and puts remote in "TV Mode" so that the other remote buttons will control the TV. Also displays time (if clock has been set) and channel number on the TV screen.

12 SKIP BUTTON
Use this button when you want to scan other channels during a commercial break. When a program break occurs, press SKIP once before changing channels. The TV will count down 30 seconds on the screen and then automatically switch back to the original channel you were watching.

Press SKIP twice if you want the TV to count down 60 seconds. Each additional press will add another 30 seconds to the count-down time (up to five minutes) and then each additional press will add another 60 seconds to the countdown time (up to 60 minutes).

To cancel, press CLEAR. The countdown clock will disappear from the screen, and the TV will stay tuned to the channel it was on when you pressed CLEAR.

13 PREV CH (PREVIOUS CHANNEL) BUTTON
Pressing the PREV CH button causes the TV to change back to the last-tuned channel.

To operate, select the first channel you want to watch. Then select the other channel by pressing two number buttons. The TV will now change back and forth between the two channels each time you press the PREV CH button.

14 ANTENNA BUTTON
Because your TV has two different antenna inputs on the back (labeled ANT A and ANT B) you can connect more than one antenna or signal source. Press the ANTENNA button to switch from one input to the other.

The color of the channel number on the screen indicates which antenna input you are watching. The channel numbers are blue for ANT A and yellow for ANT B. If the channel numbers are blue, you are watching whatever is connected to the ANT A input on the back of the TV. If the channel numbers are yellow, you are watching whatever is connected to the ANT B input on the back of the TV. *Details are on page 29.*

15 RESET BUTTON
Resets the TV back to its original factory settings.

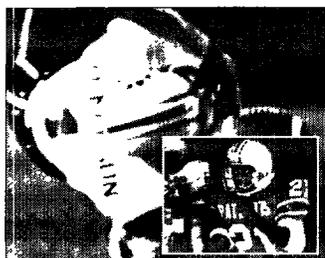
16 MOVE + AND - BUTTONS
Use the MOVE + and - buttons (called + and - in this Owner's Manual) to enter or adjust functions after you have pressed the MENU button.

17 PIP (PICTURE-IN-PICTURE) BUTTONS are used to display two pictures on the TV screen at once. The small picture can be moved, frozen, or switched with the big picture. Use the ZOOM IN/ZOOM OUT buttons to make the picture bigger. Use the CH GUIDE button to display several channels simultaneously. Use the FREEZE button to freeze the picture. Press again to return to an action picture.

Important Note: Most buttons on the remote control will not control the TV unless the remote is in the "TV Mode". If another component button (such as VCR1) is pressed, the remote will no longer be in the "TV Mode". To get back into the "TV Mode", simply press the button labeled TV. The remote will go back into the "TV Mode" and will control the TV again.

Picture-in-Picture (PIP) Operation

After you connect another video source (like a VCR) to your TV, you'll be able to display two different programs on the TV at the same time. For example, two different football games as shown below. You can also connect a video camera or camcorder to use as a surveillance system for a baby's room.



Two Football Games

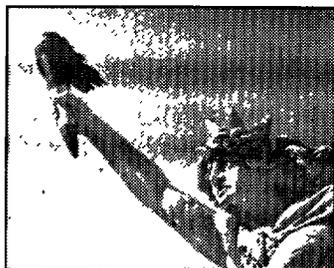


Surveillance System

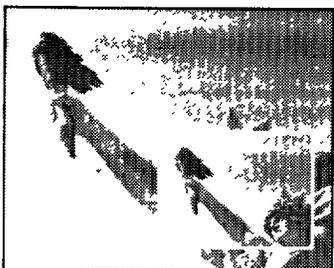
- If the other source is connected to the TV's INPUT 1 jacks, select TV channel 91 to see the signal. If you have programmed the VCR1 (or VCR2) button to automatically select channel 91 as described on page 21, press VCR1 (or VCR2).
- Select channel 92 if the other source is connected to the TV's INPUT 2 jacks. If you have programmed the VCR1 (or VCR2) button to automatically select channel 92 as described on page 21, press VCR1 (or VCR2).
- Select channel 90 if the other source is connected to the TV's S-VIDEO connector. (Remember to also connect the regular video cable to the VIDEO INPUT 1 jack for picture-in-picture viewing.). The TV automatically minimizes any annoying differences in tint between the small and large picture by electronically coupling the S-VIDEO input to the INPUT 1 input. If you have programmed the VCR1 (or VCR2) button to automatically select channel 90 as described on page 21, press VCR1 (or VCR2).

Starting Picture-in-Picture (PIP)

- 1 Connect another video source (such as a VCR or camcorder) to INPUTS 1 or INPUTS 2 on your TV (as shown on pages 43-45).
- 2 Turn on TV and select the TV channel you want to watch.



- 3 Press the PIP button on the remote. A little picture will appear on the screen. The little picture and the big picture will be the same.



Note: The remote must be in the "TV mode" when you press the PIP button. To put remote in "TV mode", press the TV button.

- 4 To get a picture from the other source (VCR, camcorder, etc.), first turn on the other source, and then select TV channel 90, 91, or 92 (explained at top of next column). The picture from the other source will appear in the little picture.

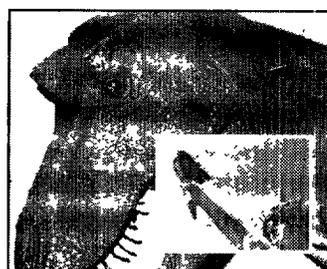


Picture from TV

Picture from VCR

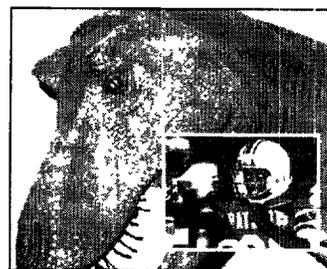
Changing Channels (PIP)

To change channels on the picture from the TV, press the TV button on the remote, and then press either the CHANNEL up or down button or two number buttons.



Picture from TV

To change channels on the picture coming from the VCR, press the VCR1 or VCR2 button (if you've programmed one of these buttons to control the VCR as described on page 29) and then press either the CHAN up or down button or two number buttons. You can also change the VCR's picture by pressing the CHANNEL buttons on the front of the VCR.



Picture from VCR

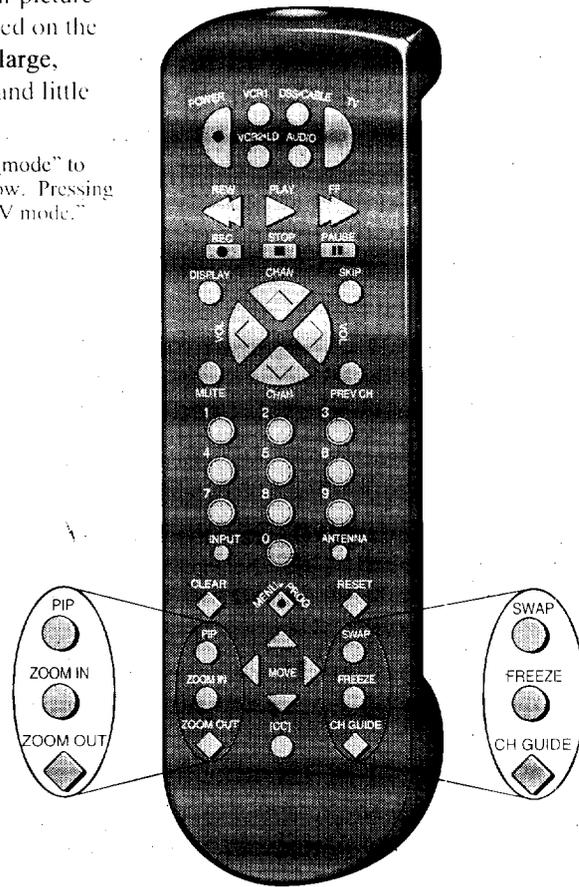
Additional Features (PIP)

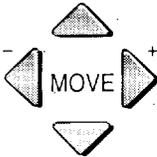
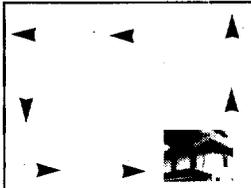
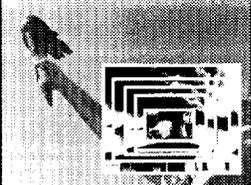
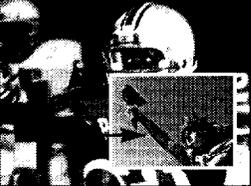
Whenever the picture-in-picture feature is activated, the small picture can be moved, frozen, or switched with the main picture as desired. *Details are on the next page.*

Caution: When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Whenever you have the picture-in-picture (PIP) feature activated as described on the previous page, you can move, enlarge, reduce, freeze, or switch the big and little pictures as desired.

Note: The remote must be in the "TV mode" to operate the special features shown below. Pressing the TV button puts the remote in the "TV mode."



PIP Buttons	What they do when TV is in PIP mode
	 <p>Press and hold one of the four MOVE arrow keys to move the small picture in that direction.</p>
 	 <p>Repeatedly press ZOOM IN to enlarge the small picture. Five sizes are available. Repeatedly press ZOOM OUT to reduce the size of the small picture back to the smallest size.</p>
	 <p>Press SWAP to switch the small picture with the main picture.</p>
	 <p>Press FREEZE to freeze the small picture. Press FREEZE again to return to an action.</p>

Channel Guide

Starting Channel Guide (with remote only)

To start channel guide, press the CH GUIDE button.

- The screen will display all the channels that are programmed into Channel Memory, 12 at a time.
- Each little screen will display a stop-action picture that will be continuously updated.
- To stop the screens from updating, press FREEZE.
- While the 12 channels are on the screen, you can use the ZOOM IN button to enlarge the picture and then use the arrow buttons to move around the screen. To return to normal size, press ZOOM OUT.

Note: When using the ZOOM IN feature, you will see a mosaic pattern as the picture is made larger.



- To select one of the channels being displayed in the channel guide, press the two corresponding number buttons for that channel.

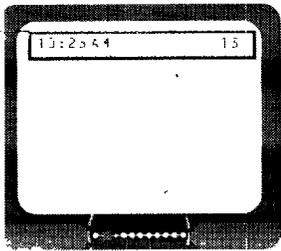
Note: Channels 2-13 and 91 were programmed into the Channel Scan Memory at the factory. These are the channels that will appear during channel guide unless you autoprogram the channel memory or add and erase channels as described on pages 26.

Stopping Channel Guide

- To select one of the channels being displayed in the channel guide, press the two corresponding number buttons for that channel. That will stop channel guide and take you directly to the channel you selected.
- Or, stop channel guide by pressing CH GUIDE again.

Front Panel Controls

TIME AND CHANNEL NUMBER DISPLAYS show the current time (once set) and channel number whenever you turn on the TV, change channels, or press the remote's DISPLAY button. These displays also appear whenever you change volume with the VOLUME buttons on the front of the TV.

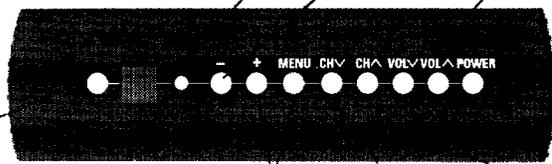


REMOTE CONTROL SENSOR receives commands from the remote control. When using the remote control, point it toward this sensor.

POWER INDICATOR lights whenever the TV is turned on.

VOLUME BUTTONS

Press VOLUME up to increase volume, or press VOLUME down to decrease volume. The volume display will automatically appear on the screen when you press the VOLUME buttons.



POWER BUTTON

Press once to turn on TV. Press again to turn off TV.

CHANNEL BUTTONS

Press CHANNEL \wedge to see the next higher channel in memory, or press CHANNEL \vee to see the next lower channel in memory. Your TV will automatically program channels into the channel memory for you when you start the AUTOPROGRAM feature described on page 26. You can also add or erase individual channels as desired as described on page 27.

STEREO HEADPHONE JACK lets you connect an optional headphone to enjoy private listening without disturbing others. If the plug on your headphones does not fit this jack, adapters are available from your local electronics supply store.

Plugging in headphones will not automatically mute the sound from the TV. This special feature enables someone with a hearing impairment to attach a set of headphones with separate volume control and enjoy a program with others in the same room listening at a lower volume. You can also enjoy private listening if desired. Here's how to completely mute the sound except for what's coming through the headphones.

- 1 Change the SPEAKERS ON/OFF function to the OFF setting as described on page 13.
- 2 If an optional amplifier is connected to the TV, turn off the amplifier to prevent sound from coming through it.

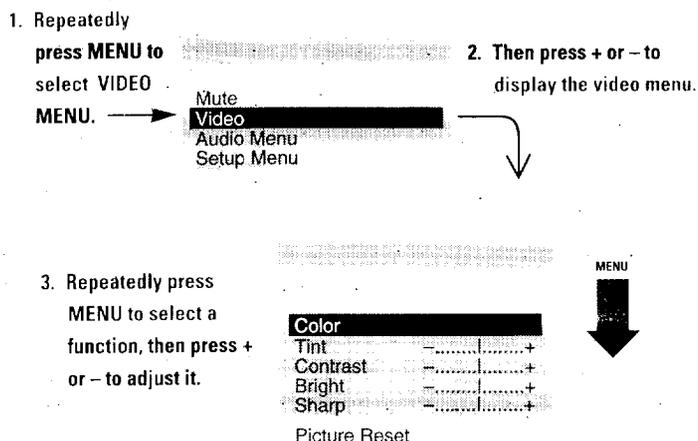
MENU BUTTON

Press MENU repeatedly until the menu you want to display is selected, then press + or -. Next press MENU repeatedly to select the function you want to adjust, and then press + or - to adjust the setting. *Details about using each function begin on page 6.*

- AND + BUTTONS

Use these buttons to enter or adjust functions after you have pressed the MENU button.

Video Menu: Basic Functions



Pressing **MENU** moves down the screen (one item per press).

The video menu will automatically disappear from the screen if you do not press **+** or **-** within a few seconds.

Via remote control, your TV will “remember” which function you displayed last, even after the menu has disappeared from the screen. So, if you want to adjust the same function again, simply press the **+** or **-** button on the remote control. The last function you adjusted will reappear on the TV screen.

Custom Picture Memory for Input Channels

The channel numbers you select to see signals from components (like a VCR) that are connected to the **INPUT** jacks on the back of the TV are called **input channels**. Selecting channel 90 lets you see the signal coming from whatever component is attached to the **S-VIDEO** connector, channel 91 lets you see the signal from the **INPUT 1** jacks, and channel 92 lets you see the signal from the **INPUT 2** jacks. Your TV is equipped with a custom picture memory for these input channels. When the TV is tuned to one of these channels (90, 91, 92), you can change the picture settings for that component's signal as desired without changing the settings of any other channel. This is very useful because you will be able to adjust for the best picture from each of your components and the TV will remember those settings automatically the next time you tune that input channel.

COLOR adjusts the amount of color in the picture. Press **+** to increase color or press **-** to decrease color.

TINT adjusts the color of flesh tones. Press **+** to add more red tint or press **-** to add more green tint.

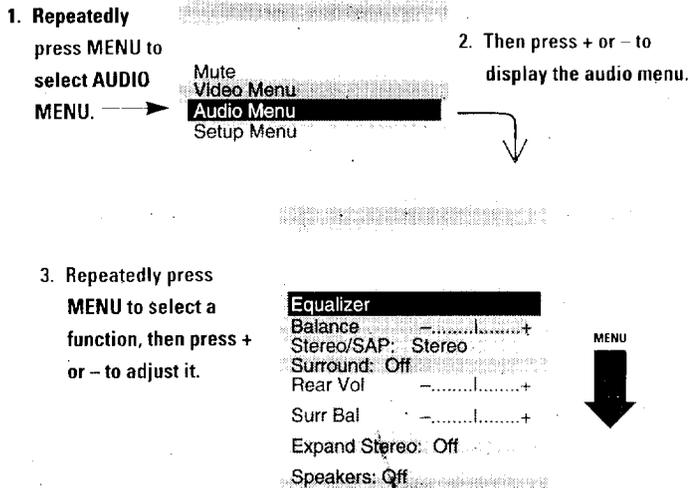
CONTRAST adjusts the overall brightness and contrast of the picture. Press **+** to increase contrast or press **-** to decrease contrast.

BRIGHTNESS adjusts the brightness of the dark portions of the picture. Press **+** to increase brightness or press **-** to decrease brightness.

SHARPNESS adjusts picture sharpness. Press **+** to increase sharpness or press **-** to decrease sharpness.

PICTURE RESET lets you quickly change all the video functions shown above back to the factory settings. Press either **+** or **-** to reset the video functions.

Audio Menu: Basic Functions



Pressing MENU moves down the screen (one item per press).

The audio menu will automatically disappear from the screen if you do not press + or - within a few seconds.

Via remote control, your TV will “remember” which function you displayed last, even after the menu has disappeared from the screen. So, if you want to adjust the same function again, simply press the + or - button on the remote control. The last function you adjusted will reappear on the TV screen.

The **EQUALIZER** function lets you display an on-screen graphic equalizer so you can remotely adjust audio bandwidths for different environments or individual tastes. Press + to display graph, then press MENU to select bandwidth. Press + to increase or press - to decrease setting. *Details are on pages 14-15.*

The **BALANCE** function adjusts the left/right balance of sound from the speakers. When adjusting the balance, sit in your normal viewing seat while pressing the - or + button until the sound seems to originate from a point halfway between the speakers.

The **STEREO/SAP** function lets you choose either monaural or stereo audio and SAP (Second Audio Program) audio when it is available by pressing the + or - button. Normally, you can leave this function set to stereo, and your TV will automatically produce either monaural or stereo audio—whichever is broadcast. *Details about stereo and SAP are on page 16.*

The **SURROUND** function lets you choose one of five types of surround sound modes: OFF, DOLBY, MATRIX, HALL, or STADIUM. *Details are on pages 18-19.*

The **REAR VOLUME** display lets you adjust the volume level of external surround speakers that are connected to the **SURROUND SPEAKER** jacks on the back of the TV. It also controls the level of volume coming out of the **SURROUND** jacks when connected to an amplifier. *Details are on pages 18-19 and 48.*

The **SURROUND BALANCE** display allows you to optimize the surround out audio to compensate for program sources with unbalanced right and left audio. When adjusting this function, the internal speakers (or the speakers connected to the **EXTERNAL SPEAKERS** terminals) will be muted so that you only hear the surround sound audio. *Details are on pages 18-19.*

The **EXPANDED STEREO** feature can be turned on or off by pressing + or -. This feature adds greater depth and dimension to stereo broadcasts. *Details about expanded stereo are on page 17.*

The **SPEAKERS ON/OFF** function lets you turn off the TV’s speakers by pressing + or -. You will probably want to leave the TV’s speakers turned on unless you desire private listening through the headphone jack or unless you connect an amplifier (with its own set of speakers) to the appropriate jacks on the back of the TV as described on page 50. Turning this function off, turns off not only the TV’s internal speakers but also any external speakers connected to the TV’s **EXTERNAL SPEAKERS** terminals. Sound will then only come through the speakers connected to the amplifier and any speakers connected to the TV’s **SURROUND SPEAKERS** terminals. *Details are on page 48.*

Graphic Equalizer

The EQUALIZER function lets you display an on-screen graphic equalizer so you can remotely adjust audio bandwidths for different environments or individual tastes.

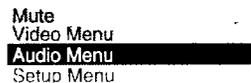
Adjusting the graphic equalizer is primarily a matter of personal taste. The adjustments can be thought of as more precise tone controls that allow certain characteristics of the audio to be changed without affecting others. For example, if someone enjoys sharp, clean horns (brass), increasing the 4.5 kHz control can bring them out. Using a conventional treble control would also increase vocals and high-frequency noise, which might be an undesirable side-effect.

The equalizer also gives control of the center range that bass and treble controls do not affect. Since vocal frequencies are in these center ranges, tone controls have little effect on them. The center bands not only give control of vocals, but allow selective vocal ranges to be controlled. For example, reducing the 400 Hz and 1 kHz bands can soften a strident male vocalist, and increasing the 2 kHz and 4.5 kHz controls can bring a subtle female voice forward. Adjusting the 1 kHz and 2 kHz bands can add intelligibility to a speaker or singer under certain circumstances.

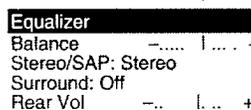
The equalizer can also be used to compensate for either deficiencies or excesses in the way the system or room reproduces the music. Most common problems are “dull” and “live” rooms that have too little or too much treble and “live” rooms of certain sizes that have standing waves that boom. Experimentation can help find the nearest band to correct such problems. A room with a sofa and many drapes, for example, might benefit from increasing the 4.5 kHz and 10 kHz bands. Live rooms with wood floors and few furnishings commonly boom or resonate in the upper bass range. Adjusting the 150 Hz band could control that without taking away good, deep bass that a conventional bass control would reduce.

Adjusting Graphic Equalizer

- 1 Press the MENU button repeatedly to select the AUDIO MENU and then press + to display the audio menu.



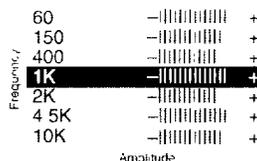
- 2 The EQUALIZER function is selected since it is the first item in the AUDIO MENU.



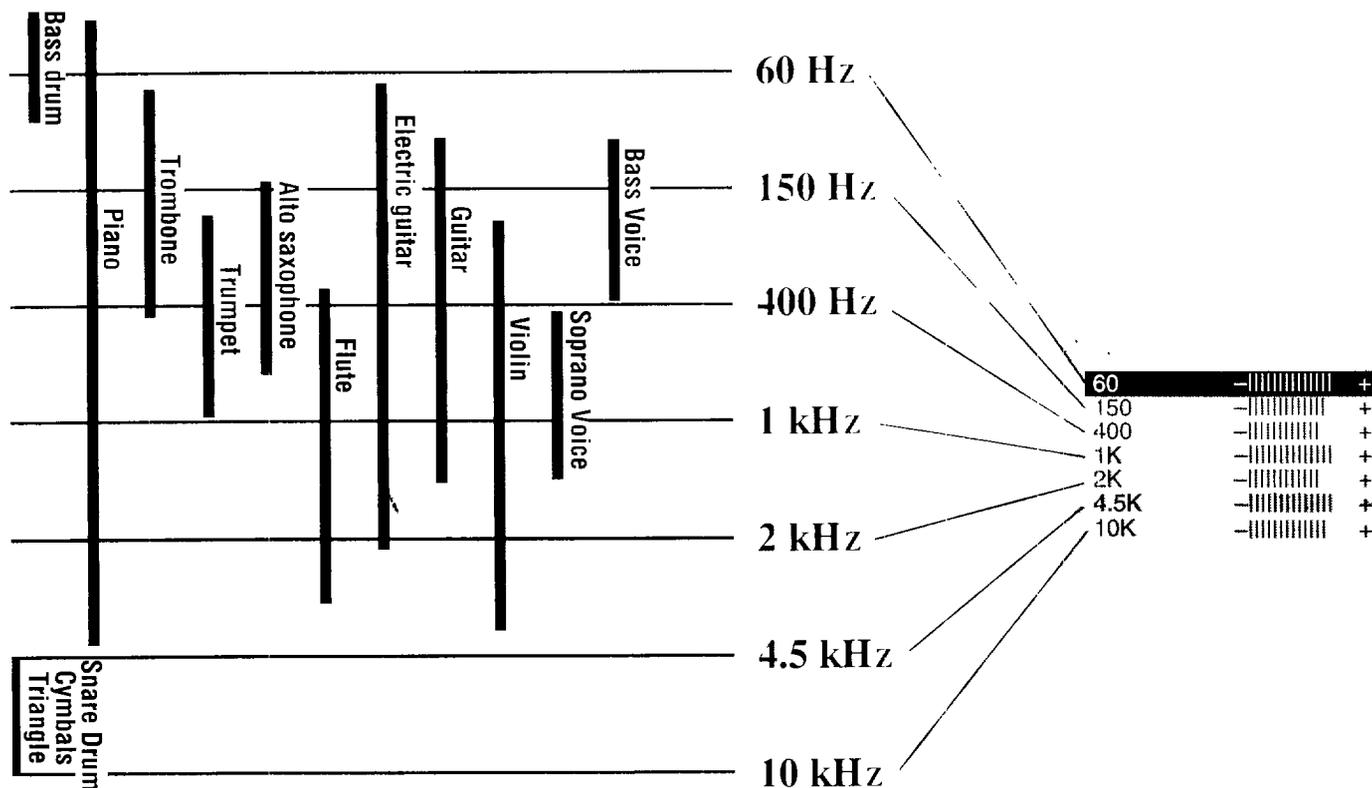
- 3 Press + or – to enter the function and display the various bandwidths on the screen.



- 4 Repeatedly press MENU to select the bandwidth you want to adjust.



- 5 Press + to boost the amplitude, or press – to cut (lower) the amplitude.
- 6 When finished, the display will disappear automatically in a few seconds if no buttons are pressed. To exit the graphic equalizer more quickly press the CLEAR button.



60 Hz...Gives these low, "real" bass sounds more or less impact. This area is where many systems and/or programs are weak. Increasing this control can overcome such deficiencies, lowering it can reduce "muddiness".

150 Hz...Affects the loudness of bass. These mid-bass frequencies sound the loudest, and most systems reproduce them well. Increasing the control gives the bass more "punch", lowering it can help reduce "booming".

400 Hz...Affects the fullness of some instruments and lower vocals. Since this is the basic frequency range of music, increasing this control adds fullness to these sounds, reducing it makes them sound thinner.

1 kHz...Strongly affects the "forwardness" and "presence" of vocals and most instruments. Increasing this control can help project these sounds or make a vocalist easier to understand. Reducing it can soften strident music.

2 kHz...Strongly affects the harmonics (overtones) of voices and some instruments. This frequency is most easily heard by the ear. Increasing this control will project most instruments and vocals; reducing it helps control brilliance and allows more subtle sounds in the other ranges to be heard

4.5 kHz...Affects harmonics (overtones) of voices and some instruments, particularly brass and strings. Increasing this control makes these instruments and vocals sharper and brighter. Reducing it can help control excessively "lispy" vocals or shrill instruments.

10 kHz...Affects the highest, most delicate harmonics of some instruments such as strings and the overall content of others such as cymbals and drum snares. Increasing this control brings out this "crispness" in cymbals and "sweetness" in strings and gives the music "atmosphere". Reducing it can help control noise and hiss.

Receiving Stereo Broadcasts

Your TV is fully capable of reproducing stereo sound from TV stations transmitting stereo sound in your area. All you have to do to enjoy stereo sound is to make sure the TV's STEREO/SAP function is set to STEREO so the TV can receive stereo broadcasts.

Normally this function can be left in the STEREO mode. Your TV will then automatically reproduce either stereo or monaural sound, whichever is broadcast.

In some fringe viewing areas, however, the stereo signal may not be strong enough for quality reception. The signal may drift, or the reproduction may become noisy. Should that occur, change the STEREO/SAP function to the MONO mode to receive clearer, cleaner sound.

Helpful Hint: Some television stations transmit a "pilot" signal that makes your TV think it's receiving stereo, even though the broadcast signal is monaural. The "pilot" signal will make the stereo indicator appear on the screen next to the channel number, however, you will not be able to hear stereo sound. If the stereo indicator appears but you can not hear stereo sound, check with the television station to inquire whether the program being broadcast is in true stereo or monaural audio.

Resetting the Audio Function to Receive Stereo *with or without remote*

- 1 Press the MENU button repeatedly to select the AUDIO MENU and then press + to display the audio menu.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 Press the MENU button repeatedly to select the STEREO/SAP function.

```
Equalizer
Balance -.....|.....+
Stereo/SAP: Mono
Surround Off
Rear Vol - . | ... +
```

- 3 Press either + or - repeatedly until the word STEREO appears at the right.

Note: Each time you press the + or - button, the on-screen display will change from STEREO to MONO. (The word SAP may also appear if SAP audio is present) *SAP is explained at the right.*

```
Stereo 12
```

Note: When the STEREO/SAP function is set to the STEREO mode, your TV will let you know when a channel is being broadcast and received in stereo by displaying the word STEREO next to the channel number on the screen. (Press the TV or DISPLAY button to see the channel number.)

Receiving SAP Broadcasts

Some TV stations that broadcast stereo also broadcast another audio program called SAP. SAP stands for Second Audio Program and is sometimes used to broadcast a second audio track for a bilingual movie.

Because SAP is only available with stereo broadcasts, the TV's STEREO/SAP function must be in the STEREO mode to see if SAP audio is available. After you have set the STEREO/SAP function to the STEREO mode, your TV will display the word STEREO next to the channel number when stereo audio is being received. If SAP audio is also available, your TV will display an asterisk (*) after the word STEREO (STEREO*).

You can then listen to the SAP audio by changing the STEREO/SAP function to its SAP setting as explained below. Although SAP audio is transmitted with the stereo signal, it is not broadcast in stereo. That means the SAP audio will be monaural sound.

Your TV will reproduce SAP audio until you change channels.

Turning on SAP Channel *with or without remote control*

- 1 Press the MENU button repeatedly to select the AUDIO MENU and then press + to display the audio menu.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 Repeatedly press the MENU button until STEREO/SAP is selected.

```
Equalizer
Balance -.....|.....+
Stereo/SAP: Mono
Surround Off
Rear Vol - . | ... +
```

- 3 Repeatedly press either + or - until the word SAP appears at the right.

Notes: Each time you press the + or - button, the function will change from STEREO to SAP to MONO (if SAP is available). If SAP is not available, the function will change from STEREO to MONO.

The word SAP will appear next to the channel number when you are listening to SAP audio. (Press the TV or DISPLAY button to see this display.)

- 4 To turn off SAP, change the channel.

Expanded Stereo

Your TV includes an Expanded Stereo feature which adds greater depth and dimension to stereo broadcasts. Your TV electronically increases the audio separation perception of the speakers so you perceive an “expanded” more spacious stereo sound effect.

Although you can easily turn the expanded stereo feature on and off as desired, you may prefer to leave it turned on. That way your TV will automatically process and expand the stereo signals whenever a stereo broadcast is received (or whenever a stereo tape is played through a stereo VCR connected to the TV’s audio/video jacks labeled INPUT).

Because this feature expands stereo sound, it processes only stereo signals. If a TV program is broadcast in mono instead of stereo, your TV will automatically reproduce monaural audio. You will not be able to hear Expanded Stereo because expansion has no effect on monaural audio.

Stereo expansion enhances the ambience of music and program material. Dramatic effects of spatial enhancement can be experienced with music. Talk shows with background crowd noise also benefit from expansion by engulfing the listener in a wider sound field than would be experienced without expanded stereo. The effect will vary with program material.

The perception of greater stereo separation is created by cancelling the cross-coupled sound from the right speaker that arrives at the left ear (and the left speaker that arrives at the right ear). Like stereo headphones, stereo expansion isolates the left and right signals that arrive at the ears. As a result, the speakers seem to be farther away from the TV.

Notes: The Expanded Stereo feature will have no effect unless the program is broadcast in stereo.

When the Expanded Stereo feature is turned on, some sound will be heard from each speaker regardless of the BALANCE control setting.

Resetting the Audio Function to Hear Expanded Stereo with or without remote

- 1 Press the MENU button repeatedly to select the AUDIO MENU and then press + to display the audio menu

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 Press the MENU button repeatedly to select the EXPAND STEREO display.

Equalizer	Equalizer
Balance	Balance
Stereo/SAP: Stereo	Stereo/SAP: Stereo
Surround: Off	Surround: Off
Rear Vol	Rear Vol
Surr Bal	Surr Bal
Expand Stereo: Off	Expand Stereo: On
Speakers On	Speakers On

- 3 Press either + or – to turn on Expanded Stereo. Each time you press the + or – button, the on-screen display will change from ON to OFF, etc

To Hear Expanded Stereo

- 1 The STEREO/SAP function must be set to STEREO. You will not hear expanded stereo if this function is set to MONO or SAP. *Details are on page 14*

```
Equalizer
Balance
Stereo/SAP: Stereo
Surround: Off
Rear Vol
```

- 2 The EXPAND STEREO function must be set to ON. You will not hear expanded stereo if this function is set to OFF

```
Equalizer
Balance
Stereo/SAP: Stereo
Surround: Off
Rear Vol
Surr Bal
Expand Stereo: On
```

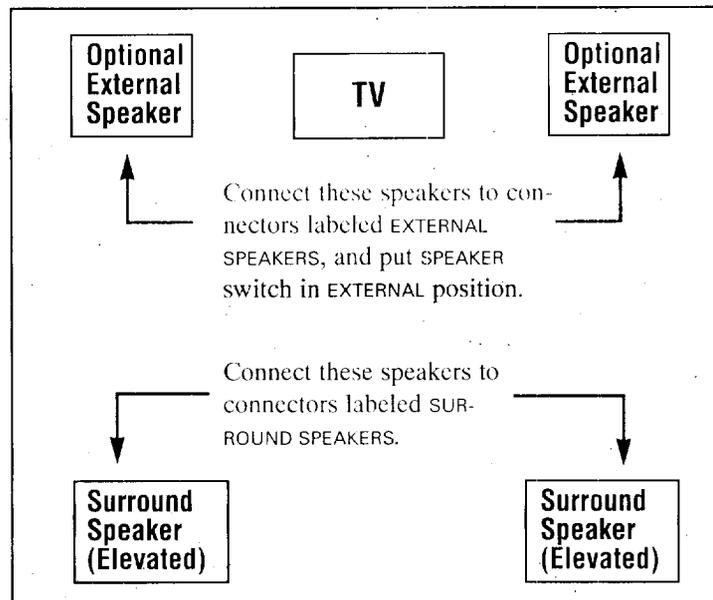
- 3 A stereo signal must be present. You will not hear expanded stereo on TV programs if the TV station is broadcasting monaural audio. You can, however, hear expanded stereo if you play a stereo tape on a stereo VCR that is connected to the TV’s audio/video jacks labeled INPUT.

Normally, you can leave the STEREO/SAP function set to STEREO and the EXPAND STEREO function set to ON. Your TV will then automatically produce either expanded stereo or monaural sound, whichever is broadcast

Adjusting for Best Surround Audio

Your TV has an array of sophisticated audio menus that you can adjust for your personal preference. These three displays (SURROUND, REAR VOL, and SURR BAL) are specialized for use with external surround speakers that are placed at the back of the viewing area. The instructions below will help you adjust the settings to obtain the best surround audio performance.

General Recommended Speaker Placement for Best Surround Sound



1 Decide what front speakers to use.

If you want to use external speakers for the front, position them as shown in the recommended placement diagram above. Connect them to the connectors on the back of the TV labeled EXTERNAL SPEAKERS, and put the SPEAKER switch (also on back of TV) in the EXTERNAL position. If you do not want to use external speakers, place the SPEAKER switch in the INTERNAL position to turn on the TV's internal speakers. *Details about connecting speakers are on pages 48-49.*

2 Set up the rear (surround) speakers.

Place rear (surround) speakers as shown above. We recommend elevating them to about standing head height for a better surround output. Connect them to the speaker terminals on the back of the TV labeled SURROUND SPEAKERS.

Note: If you can not get enough volume out of the set as it is connected in the above diagram you can connect the HI FI OUT jacks on the back of the TV to an amplifier with its own speakers. This would replace the internal speakers (or the speakers connected to the EXTERNAL SPEAKERS terminals). You can also connect the SURR OUT jacks on the back of the TV to an amplifier with its own set of speakers to replace the speakers connected to the SURROUND SPEAKERS terminals. *Details are on pages 48-49.*

3 Begin listening to the program you want to enjoy in surround sound.

It may be a TV program or an external source (VCR, etc.). Stereo programs give the best surround results.

4 Make initial adjustments.

Note: To adjust the audio displays shown on the next page and mentioned below, repeatedly press MENU to select AUDIO MENU, press +, and then repeatedly press MENU to select desired display. Press + or - to adjust it.

- Adjust EQUALIZER and BAL (left/right balance) displays to your preference. *Details are on pages 14-153.*
- Set STEREO/SAP to STEREO.
- Set the SURROUND display according to the type of program you are viewing. If you are viewing a videotape, laserdisc, or TV source that is Dolby® Surround encoded, select DOLBY. If you are viewing a regular stereo program or a movie that is not surround encoded, select HALL or STADIUM. (STADIUM delays the rear sound longer than HALL which gives you the feeling of being in a larger area). If the program is mono, select the MATRIX mode. The DOLBY, HALL, and STADIUM modes require stereo signals, so no sound will be heard from the rear speakers in those modes with a mono signal.
- Set REAR VOL and SURR BAL to center positions.
- Set EXPAND STEREO to OFF, if it is ON.
- Set SPEAKERS to ON if you are using the set's speakers or speakers connected to the EXTERNAL SPEAKER jacks. Set it to OFF if you are using an external amplifier *as shown on page 46.*

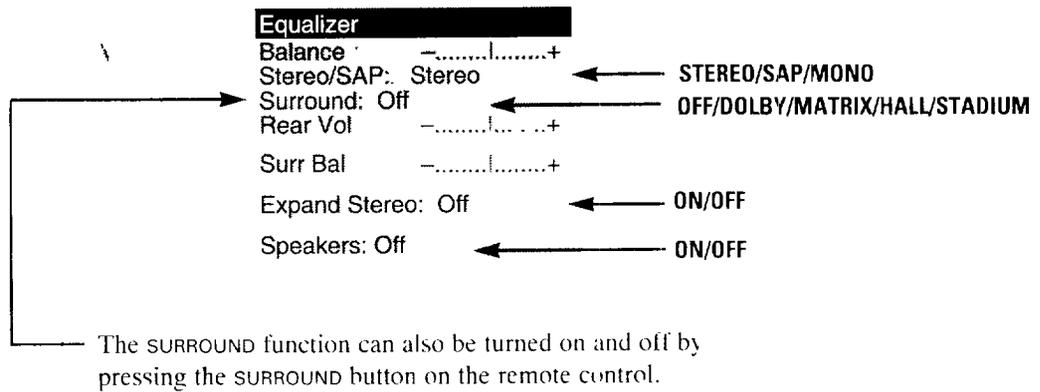
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Audio Displays

Repeatedly press the MENU button to select AUDIO MENU and then press + to display the audio menu. Repeatedly press MENU to select desired function, and then press + or – to adjust it.

Mute
Video Menu
Audio Menu
Setup Menu



Surround
Audio

5 Adjust the SURR BAL Display.

The SURR BAL (surround balance) is used to balance the left and right audio signals coming into the set for optimum surround sound performance. Most of the time you will want to leave this at mid scale. If the sound coming from your surround speakers has a lot of voices (instead of mostly background ambience) you may want to adjust the SURR BAL to minimize the voices. To adjust the surround balance select SURR BAL in the audio menu. Press + or – to adjust it. Try to minimize the actor's voice (dialog). If you are viewing a concert or other program that is predominantly music, try to minimize the singer's voice and make the rear sound as "distant" and "echo-y" as possible.

Note: The first time the + or – button is pressed, the front sound will temporarily go off so that the rear sound can be heard better.

6 Make final adjustments to suit your personal taste.

Adjust the REAR VOL display to your preference—it should be more of a fill-in sound than noticeably loud. Changing the master volume will cause all volumes to track together.

7 If desired, you can turn on the EXPAND STEREO display.

Try this function both on and off to determine which setting you prefer.

Note: If your front speakers are located close together, the EXPAND STEREO function may improve the sound. However, if your speakers are located farther apart, the surround sound imaging will probably be best with the EXPAND STEREO function turned off.

Setup Menu: Basic Functions

1 Repeatedly press **MENU** to select **SETUP MENU**.

Mute
Video Menu
Audio Menu
Setup Menu

2 Then press **+** or **-** to display the setup menu.

3. Repeatedly press **MENU** to select a function, then press **+** or **-** to adjust it.

Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: Off
Chan Ctrl: Normal
Autoprogram
Chan Mem: Stored
Antenna: A
Cable/Air: Cable
VCR 1 Chan: Off
VCR 2 Chan: Off
Cable Chan: Off
Clock Set -Hr +Min



Pressing **MENU** moves down the screen (one item per press). The setup menu will automatically disappear from the screen if you do not press **+** or **-** within a few seconds.

Via remote control, your TV will “remember” which function you displayed last, even after the menu has disappeared from the screen. So, if you want to adjust the same function again, simply press the **+** or **-** button on the remote control. The last function you adjusted will reappear on the TV screen.

CLOSED CAPTIONING lets you display the audio portion of a program as text on the TV screen. *Details are on page 21.*

SLEEP TIMER lets you program your TV to turn itself off after a certain period of time. This is useful whenever you want to watch TV for a selected length of time before going to sleep. Press the **+** or **-** button to select the length of time you want the TV to stay on. *Details are on page 22.*

The **ALARM** function lets you program your TV to turn on and/or off at the time you choose. *Details are on page 23.*

CHANNEL LABELING lets you program names (or labels) for the channel numbers. The names you select will then appear on the screen whenever the channel number is displayed. *Details are on page 24.*

The **PARENTAL CONTROL** feature lets you lock out any channels between 1 and 99 that you don't want your children to watch. Pressing **+** or **-** switches this function from **OFF** to **ON**. When this function is set to **ON**, channels that have been locked out with the **CHAN CTRL** function cannot be viewed. When this function is set to **OFF**, all channels can be viewed. *Details are on page 25.*

The **CHANNEL CONTROL** function works hand-in-hand with the **PARENTAL CONTROL** function. It lets you select the channels between 1 and 99 that you want to lock out. First select the channel number you want to lock out and then press **+** or **-** to change this function from **NORMAL** to **LOCKED**. When the **PARENTAL CONTROL** function is set to **ON**, the channels you locked with this function cannot be viewed. *Details are on page 26.*

AUTOPROGRAM commands the TV to automatically cycle through all channels and place only active channels for your area in its channel memory. Pressing the **CHANNEL** up or down buttons will then only stop on active channels. *Details are on page 27.*

CHANNEL MEMORY is the list of channels the TV will stop on when you press the **CHANNEL** up or down button. This display lets you add or erase channels as desired. *Details are on page 28.*

ANTENNA A/B – Because your TV has two separate antenna inputs on the back labeled **ANT A** and **ANT B**, you can connect two different signal sources, if desired. By pressing **+** to change this display, you can switch back and forth between the two signal sources. Each time you press **+**, the antenna input will change. *Details are on page 29.*

The **CABLE/AIR** function tells your TV whether you have a cable-TV system or a home antenna connected to the TV. Your TV is so automatic that you will probably never need to change this function. When your TV autoprograms, it automatically adjusts the **CABLE/AIR** setting for you. If you should ever need to override the automatic setting, press **+** or **-** to change it.

The **VCR 1 CHANNEL** function lets you program to which channel the TV will automatically tune when you press the **VCR1** button on the remote. *Details are on page 28.*

The **VCR 2 CHANNEL** function lets you program to which channel the TV will automatically tune when you press the **VCR2** button on the remote. *Details are on page 28.*

The **DSS/CABLE CHANNEL** function lets you program to which channel the TV will automatically tune when you press the **CABLE** button on the remote. *Details are on page 39.*

CLOCK SET allows you to set the clock so you'll be able to see the on-screen time display whenever you change channels or press the **TV** or **DISPLAY** button on the remote control. To set the clock, first press and hold the **-** button until the correct hour appears. Then press and hold the **+** button until the correct minute appears.

Using Closed Captioning

The CAPTIONING feature lets you display the audio portion of a program as text on the TV screen. This is useful to the hearing impaired or anyone who wants to watch a program without the sound.

Four types of closed captioning are available: CAPTIONS 1, CAPTIONS 2, TEXT 1 AND TEXT 2. Select CAPTIONS 1 for complete text of the primary language in your area; select CAPTIONS 2 for secondary language translation or alternate service, such as a simplified English. When captioning is on, the mute and skip on-screen displays appear briefly, then are removed to allow captioning information to be displayed.

The TEXT modes, TEXT 1 AND TEXT 2, display on-screen boxes containing the text of general information not necessarily related to the program being watched.

Once you have selected a captioning mode, you can press the [CC] button on the remote to turn the captioning off and on as you watch TV.

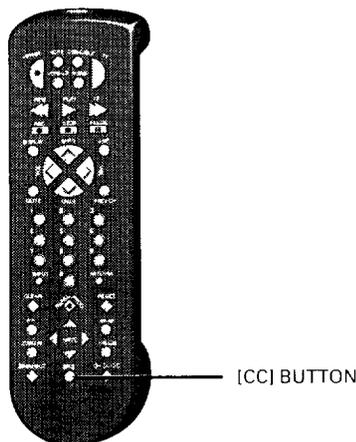
Notes. Closed Captioning is not available on all channels at all times. Only specific programs encoded with Closed Captioning information (CC) are applicable.

When CAPTIONS 1 is available, the word "Captioned" appears on the screen when you change channels or press the TV or DISPLAY buttons on the remote. The word "Captioned" does not appear to tell you if CAPTIONS 2 or either Text mode is available.

Setting Closed Captioning

with remote

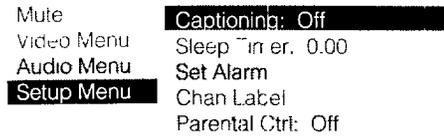
- 1 Once you have selected a captioning mode in the Setup menu, press the [CC] button to turn the captioning off and on as you watch TV.



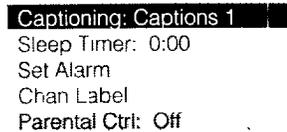
Setting Closed Captioning

with or without remote

- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions. CAPTIONING is highlighted since it is the first function in the setup menu.



- 2 Press the + or - button to select the captioning mode. Off, Captions 1, Captions 2, Text 1 or Text 2.



When finished, the display automatically disappears from the screen in a few seconds. Press the CLEAR button to make the display disappear more quickly.

- 3 The screen begins to display the TV program's audio as text written on the screen.



Turning Off Closed Captioning

To turn the captions off, press the [CC] button repeatedly or enter the CAPTIONING function and press the + or - button until the screen shows "Off"

Setting the Sleep Timer

With the Sleep Timer, you can program your TV to turn itself off after a period of up to four hours. This is useful when you want to watch TV for a selected length of time before going to sleep.

Setting Sleep Timer *with or without remote*

- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 The SLEEP TIMER should be selected. If not, repeatedly press the MENU button to select it.

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: Off
```

- 3 Press the + or – button to select the length of time (up to four hours) you want the TV to stay on. Each press of the button increases the time 30 minutes (up to four hours). Then the time display will start over with 0:00.

```
Captioning: Off
Sleep Timer 1:30 ← 1 hour and 30 minutes
Set Alarm
Chan Label
Parental Ctrl: Off
```

- 4 The display will automatically disappear from the screen in a few seconds. It will disappear more quickly if the DISPLAY or CLEAR button is pressed.

- 5 The Sleep Timer will begin to count down to zero. The word SLEEP will appear on the screen whenever you change channels or press the TV button to let you know the Sleep Timer is activated.

```
10 41PM          12
Sleep
```

The amount of time remaining before the TV shuts itself off will appear in the SLEEP TIMER menu whenever you press the MENU button to select the SETUP MENU and then press +.

```
Captioning: Off
Sleep Timer 1:28 ← 1 hour and 28 minutes remaining
Set Alarm
Chan Label
Parental Ctrl: Off
```

- 6 When the Sleep Timer counts down to 0:00, the SLEEP TIMER display will appear on the screen for a few seconds. Then the TV will turn itself off. If you want the TV to stay on when this display appears, press the TV button on the universal remote. The Sleep Timer will be cancelled. To add more time to the Sleep Timer when this display appears, press the + button.

Clearing Sleep Timer

To cancel the sleep timer, enter the Sleep Timer function and then press the + or – button until the screen shows 0:00.

Setting the Alarm

By setting the alarm, you can program the TV to turn on and/or off by itself. After the ON TIME is set and the ALARM ON/OFF function is set to ON, the TV will automatically turn on each day at the time you selected and remain on until the OFF TIME is reached. If no OFF TIME has been programmed, the TV will remain on until you turn it off.

The ALARM ON/OFF function lets you easily deactivate or reactivate the alarm without having to reset the ON TIME and OFF TIME.

When the alarm time is reached, the set will turn on at whatever volume you left it when you last turned it off. So if you want the TV to come on loudly at the ON TIME, be sure the TV is playing loudly when you turn off the TV for the last time.

When the ALARM ON/OFF function displays SET CLOCK, you will need to set the clock time before you will be able to turn on the alarm function. *Details for setting the clock are on page 3.*

Note: During extended power failures the alarm function will be disabled. The alarm ON TIME and OFF TIME will stay set but the ALARM ON/OFF function will reset to OFF and will display SET CLOCK to inform you that the clock must be reset to the correct time. Once the clock has been reset, you can reactivate the ALARM function by changing the ALARM function to ON.

Setting the Alarm

- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 Repeatedly press the MENU button to select the SET ALARM function. Then press + or – to display the alarm settings

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: Off
```

```
Alarm: Off
On Time: Disabled
Off Time: Disabled
Channel: 12
```

- 3 When the first ALARM function is selected, pressing + or – will switch the setting between ON and OFF. Set this function to ON if you want to activate the alarm. When this function is

```
Alarm: On
On Time: Disabled
Off Time: Disabled
Channel: 12
```

set to OFF, the alarm is deactivated and the TV will not turn on or off by itself.

Note: If SET CLOCK is displayed next to ALARM, you will need to set the clock time before you will be able to turn on the alarm function. Details for setting the clock are on page 3.

- 4 Press MENU to select the next function called ON TIME. If you want the TV to turn on by itself, enter the desired time by pressing – to select the hour (including AM and PM) and

```
1:23 PM 12
```

```
Alarm: On
On Time: 6:30AM
Off Time: Disabled
Channel: 12
```

then pressing + to select the minutes. If you only want the TV to turn off by itself and not turn on, you can disable the ON TIME by pressing – until the word DISABLED appears.

Note: Remember to check the AM/PM setting. Midnight is 12:00 AM and noon is 12:00 PM

- 5 Press MENU to select the next function called OFF TIME. If you want the TV to turn off by itself, enter the desired time by pressing – to select the hour (including AM and PM) and

```
1:23 PM 12
```

```
Alarm: On
On Time: 6:30AM
Off Time: 11:00PM
Channel: 12
```

then pressing + to select the minutes. If you only want the TV to turn on by itself and not turn off, you can disable the OFF TIME by pressing – until the word DISABLED appears.

- 6 Press MENU to select the next function called CHANNEL. This function lets you program which channel the TV will tune when it turns on at the ON TIME. Press CHANNEL up or down to select the channel, and then press + or – to enter it into the CHANNEL function.

```
Alarm: On
On Time: 6:30AM
Off Time: 11:00PM
Channel: 12
```

Note: The TV will change to the channel that you select. This will help you to confirm that it is indeed the channel you want the TV to turn on to.

Setup Menu: Basic Functions *continued*

Labeling Channels

The labeling feature lets you program names (or labels) for the channel numbers. The name you programmed will then appear on the screen below the channel number whenever the channel number is displayed. Each name can contain up to four characters, and you'll be able to assign up to 64 names.

Listed below are the letters and characters from which you'll be able to choose when programming the channel labels:

A B C D E F G H I J K L M

N O P Q R S T U V W X Y Z

(blank space) ! " # \$ % & ' () * + , - / .

0 1 2 3 4 5 6 7 8 9

: ; < = > ? @

Labeling Channels

with or without remote

- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 Repeatedly press the MENU button to select CHAN LABEL.

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: Off
```

- 3 Press + to enter the CHAN LABEL function. Four blank letter frames will appear under the channel number.

```
■■■■
↑
```

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label Use Vol
Parental Ctrl: Off
```

- 4 Select the channel number you want to label by pressing the CHANNEL up or down button (or by pressing two number buttons).

```
10:52          07
                ■■■■
                ↑
```

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label Use Vol
Parental Ctrl: Off
```

- 5 Press and hold the VOLUME up or down button on the remote control until the letter or character you want appears on the screen. Pressing VOLUME up sequences through the characters in alphabetical order. Pressing VOLUME down sequences the letters in reverse order.

```
10:53          07
                H ■■■
                ↑
```

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label Use Vol
Parental Ctrl: OFF
```

- 6 Then press + to move to the next letter frame. Pressing - moves you back to the previous letter frame.

```
10:56          07
                HB ■■
                ↑
```

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label Use Vol
Parental Ctrl: Off
```

- 7 Repeat steps 5 and 6 until the name is complete. You can now label another channel, if desired, by selecting the channel number and repeating steps 5 and 6.

- 8 When finished, the display will automatically disappear from the screen in a few seconds. Your labels will remain in memory until you erase them.

Erasing Channel Labels

To erase a channel label, first follow steps 1-4 and then press CLEAR on the remote control.

Parental Control

The PARENTAL CTRL and CHAN CTRL functions let you lock out any channels between 1 and 99 that you choose so they cannot be viewed by your children.

Channels that have been locked out can be viewed only when the PARENTAL CTRL function is set to OFF. This can only be done with the remote control—it can not be changed with the buttons on the front of the TV. Therefore, after you turn on PARENTAL CTRL, you simply hide the remote control so that your children can not watch the locked-out channels.

The locked-out channels will remain unviewable even if the TV is unplugged or the channels are autoprogrammed again. The only way to view locked-out channels is to use the remote control to set the PARENTAL CTRL function to OFF.

Activating Parental Control with remote only

The PARENTAL CTRL and the CHAN CTRL functions work hand-in-hand. The instructions below will first tell you how to turn parental control on or off with the PARENTAL CTRL function and then how to lock out desired channels with the CHAN CTRL function.

- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions.
- 2 Repeatedly press MENU to select the PARENTAL CTRL function.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

Pressing + or – changes this function between ON and OFF.

```
Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: On
```

- When this function is set to ON, PARENTAL CTRL is activated and any channels you locked out with the CHAN CTRL function will not be viewable.
- When this function is set to OFF, PARENTAL CTRL is deactivated and all channels are viewable.

- 3 To lock out channels, press the MENU button to select the CHAN CTRL function.

```
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: On
Chan Ctrl: Normal
```

Select a channel you want to lock out by pressing CHANNEL up or down. Then press + or –. The CHAN CTRL setting will change from NORMAL to LOCKED when that channel is locked-out.

```
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: On
Chan Ctrl: Locked
```

Repeat step 3 for each channel you want to lock out.

If the PARENTAL CTRL function is set to ON while you are locking out channels, each channel will go blank as you lock it out.

When the PARENTAL CTRL function is set to ON and a channel which has been locked out is tuned, the TV will display the words PARENTAL CONTROL to let your children know you have locked it out.

```
Parental Control
```

Note: You may want to lock out the same channels in both ANTENNA A and ANTENNA B modes. This prevents someone from moving the cable to the ANT B input to watch channels locked out in the ANTENNA A mode.

Setup Menu: Basic Functions *continued*

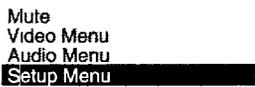
Programming Channel Memory

The quickest way to program the Channel Memory is to use the **AUTOPROGRAM** function. Your TV automatically cycles through and places active channels into Channel Memory.

Follow the instructions below to autoprogram channels, then add or erase individual channels as desired.

AutoProgramming Channels into Channel Memory *with or without remote*

- 1 Connect home antenna(s) or cable-TV to your set.
- 2 Repeatedly press the **MENU** button to select **SETUP MENU** and press **+** to display the setup functions.



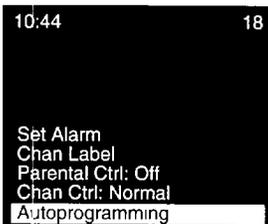
Mute
Video Menu
Audio Menu
Setup Menu

- 3 Repeatedly press the **MENU** button until the **AUTOPROGRAM** menu is selected.



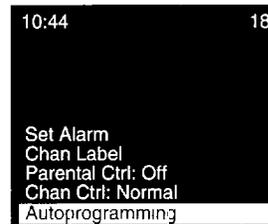
Set Alarm
Chan Label
Parental Ctrl: Off
Chan Ctrl: Normal
Autoprogram

- 4 Press either **+** or **-** to begin programming. The TV will cycle thru available channels in your area and place active channels into memory.

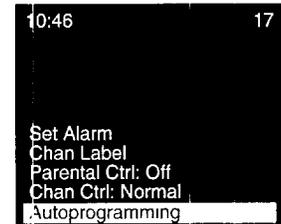


10:44 18
Set Alarm
Chan Label
Parental Ctrl: Off
Chan Ctrl: Normal
Autoprogram

The TV first programs all channels for **ANT A** input and then all channels for **ANT B** input (even with one antenna input connected).



10:44 18
Set Alarm
Chan Label
Parental Ctrl: Off
Chan Ctrl: Normal
Autoprogram



10:46 17
Set Alarm
Chan Label
Parental Ctrl: Off
Chan Ctrl: Normal
Autoprogram

- 5 When the TV finishes cycling, you can check which channels are in memory by pressing the **CHANNEL** up or down button. Your set will stop on each of the channels in memory.

Your TV will remember which channels are in memory until you erase them or until you autoprogram channels again. Extended power failures have no effect on the channel memory.

Erasing/Adding Channels in Channel Memory with or without remote

- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 Repeatedly press the MENU button until CHAN MEM is selected.

```
10:48      12      10:48      12
          /
Parental Ctrl: Off
Chan Ctrl: Normal
Autoprogram
Chan Mem: Stored
Antenna: A
          \
Parental Ctrl: Off
Chan Ctrl: Normal
Autoprogram
Chan Mem: Erased
Antenna: A
```

- 3 To erase a channel, first press the CHANNEL up or down button until the channel number you want to erase appears on the screen. Then press -.

To add a channel, first enter two number buttons for the channel you want to add. For example, press "0" then "6" for Channel 6. (If the remote is not handy, you can press the CHANNEL up or down button on the TV to select the channel you want to add). Then press +.

- 4 Repeat step 3 for each channel you want to erase or add.

Note: The menu will automatically disappear from the screen a few seconds after you have finished erasing or adding channels. You can make it disappear more quickly by pressing the CLEAR button on the remote control.

Adding Video Input Channels to Channel Memory with or without remote

As an added convenience, you can also add video input channels (90, 91, and 92) to memory. If you have a video device such as a VCR, camcorder, laser disc player, etc.) connected to the S-VIDEO or INPUT jacks on the back of the TV, you can view its signal either by directly selecting Channel 90 (for S-VIDEO connector), Channel 91 (for INPUT 1), or Channel 92 (for INPUT 2) with the number buttons or by adding those channels to the Channel Memory.

Adding Channels 90, 91, and 92 to the Channel Memory allows access to the video inputs at the TV by pressing the CHANNEL up or down buttons as well as by using the remote control.

VCR Channel Setup

The VCR 1 CHAN function lets you program to which channel the TV will automatically tune when you press the VCR1 button on the remote. This is handy if you connect a VCR to your TV. You will no longer have to remember to which input jacks the VCR is connected because the TV will remember for you.

For example, if you connect a VCR's AUDIO/VIDEO OUT jacks to the TV's INPUT 1 jacks (as shown on page 40), you will no longer have to remember to select channel 91 on the TV to see what the VCR is playing. By entering channel 91 next to the VCR 1 CHAN function, the TV will automatically tune to channel 91 each time you press the VCR1 button on the remote.

This function is especially convenient if you have a compatible VCR that can be operated by the VCR1 button on the remote. Pressing VCR1 will then not only turn on the VCR but also automatically tune the TV to the proper channel for viewing the picture from the VCR. You can program most brands of remote-controllable VCRs to respond to the VCR1 button *as described on page 28*.

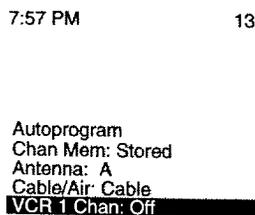
The VCR 2 CHAN function works the same way. It lets you program to which channel the TV will automatically tune when you press the VCR2 button on the remote. You can program most brands of remote-controllable VCRs to respond to the VCR2 button *as described on page 28*. Pressing the VCR2 button will then not only turn on the VCR but also automatically tune the TV to the proper channel for viewing the picture from the VCR.

Setting Up VCR Channels *with or without remote*

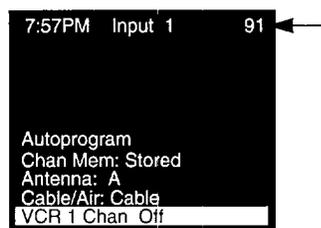
- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions.



- 2 Repeatedly press MENU to select the VCR 1 CHAN function.

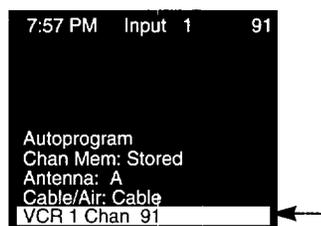


- 3 Enter the channel number you want to program by pressing two number buttons on the remote control. (The channel number you enter is the channel to which the TV will tune automatically when you later press the VCR1 button on the remote.) See the notes below if you are unsure about which channel number to enter.

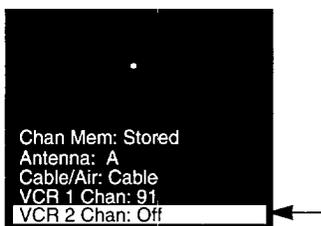


- 4 Press the + button to program the channel number you selected into the TV's memory.

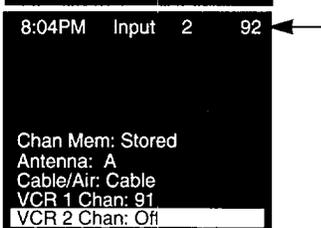
Note: Pressing the - button here will turn off this feature and display VCR 1 CHAN: OFF again.



- 5 If you have another VCR connected to the TV, press MENU to select the VCR 2 CHAN function.

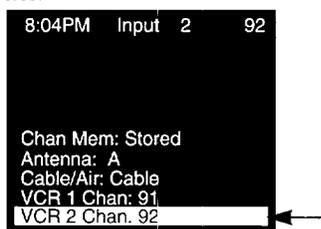


- 6 Enter the channel number you want to program by pressing two number buttons on the remote control. (This is the channel number to which the TV will tune automatically when you later press the VCR2 button on the remote.) See the notes below if you are unsure about which channel number to enter.



- 7 Press the + button to program the channel number you selected into the VCR 2 CHAN function memory.

Note: Pressing the - button here will turn off this feature and display VCR 2 CHAN: OFF again.



Notes about Entering Channel Number:

- Enter channel 91 if your VCR is connected to the TV's audio and video INPUT 1 jacks
- Enter channel 92 if your VCR is connected to the TV's audio and video INPUT 2 jacks.
- Enter channel 90 if you have a Super-VHS VCR that is connected to the TV's S-VIDEO connector and INPUT 1 audio jacks (labeled L and R/MONO).
- Enter channel 03 (or 04) if you did not use any audio/video cables and connected the VCR to the TV's round antenna connector labeled CABLE/ANTENNA. Enter the same channel number (03 or 04) as the position of the VCR's CH3/CH4 switch. This is the channel to which you must tune your TV for viewing signals from your VCR.

Changing Antenna Input

Your TV has two separate antenna inputs on the back (labeled ANT A and ANT B) that allow you to connect two different signal sources if desired. For example, you can connect a cable-TV system to one input and a home antenna to the other input.

By pressing the ANTENNA button on the remote control, you can switch back and forth between the two signal sources.

Listed below are some other common uses of the two antenna inputs:

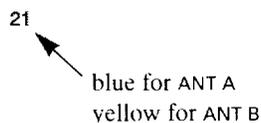
- 1 Connecting a cable-TV system (or antenna) to one input and a VCR to the other.
- 2 Connecting a cable-TV system (or antenna) to one input and a video game to the other.
- 3 Connecting a double-trunk cable system to both inputs.
- 4 Connecting a cable-TV converter/decoder box that scrambles only premium channels and cannot be controlled by remote control. *Connection details are on pages 39.*

The Channel Memory is the list of channel numbers your TV will stop on when you press the CHANNEL up or down buttons. Your TV provides two separate channel memories (one for ANT A input and one for ANT B input). This allows you to add or delete channels into each channel memory as desired.

When you use the AUTOPROGRAM function, the TV automatically checks both inputs and sets up a separate channel memory for each.

Changing Antenna Input with remote

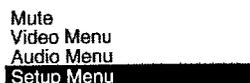
- 1 Press the ANTENNA button on the remote control to switch from ANT A input to ANT B input. The color of the channel numbers will change from blue to yellow to let you know you are now watching whatever signal is connected to the ANT B connector on the back of the TV.



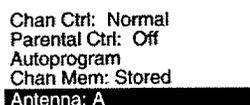
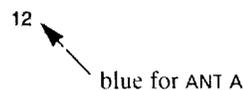
- 2 Press the ANTENNA button again to switch back to ANT A. The color of the channel numbers will change back to blue to let you know you are now watching whatever signal source is connected to the ANT A connector.

Changing Antenna Input without remote

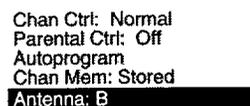
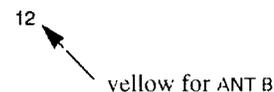
- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the setup functions.



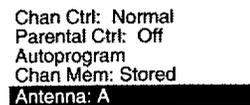
- 2 Repeatedly press the MENU button to select ANTENNA. A/B.



- 3 Press the + or - button to change the setting. The screen display will change from A to B to let you know you are now watching whatever signal is connected to the ANT B connector on the back of the TV.



- 4 Press the + or - button again to switch back to ANT A. The screen display will change to ANTENNA A to let you know you are now watching whatever signal source is connected to the ANT A connector on the back of the TV.



Cable Box Channel Setup

The CABLE CHAN function lets you program to which channel the TV will automatically tune when you press the DSS-CABLE button on the remote. This is handy if you have to connect a cable box to your TV. You will no longer have to remember the output channel of the cable box because the TV will remember for you.

For example, if you connect a cable box to the TV's CABLE/ANTENNA connector (as shown on page 35), you will no longer have to remember to select channel 2, 3, or 4 on the TV to see what's coming from the cable box. By entering the cable box's output channel (usually 02, 03, or 04) next to the CABLE CHAN function, the TV will automatically tune to that channel each time you press the CABLE button on the remote.

This function is especially convenient if you have a remote-controllable cable box that can be operated by the DSS-CABLE button on the remote *as described on page 41*. Pressing the DSS-CABLE button will then not only switch the remote to cable mode but will also automatically tune the TV to the proper channel for viewing the picture from the cable box.

Setting Up Cable Box Channel

with or without remote

- 1 Repeatedly press the MENU button to select SETUP MENU and then press + to display the set up functions.

```
Mute
Video Menu
Audio Menu
Setup Menu
```

- 2 Repeatedly press MENU to select the CABLE CHAN function.

```
8:27PM          13
```

```
Antenna: A
Cable/Air Cable
VCR 1 Chan: 91
VCR 2 Chan: 92
Cable Chan: Off
```

- 3 Enter the channel number you want to program by pressing two digit buttons on the remote control. (The channel number you enter is the channel to which the TV will tune automatically when you later press the CABLE button on the remote). The TV will change to the channel you select. This will help you to confirm that it is indeed the channel you want the TV to automatically tune. Most cable boxes output their signals on either channel 02, 03, or 04.

```
8:27PM          03 ←
```

```
Antenna: A
Cable/Air Cable
VCR 1 Chan: 91
VCR 2 Chan: 92
Cable Chan: Off
```

- 4 Press the + button to program the channel number you selected into the CABLE CHAN function memory.

```
8:27PM          03
```

```
Antenna: A
Cable/Air Cable
VCR 1 Chan: 91
VCR 2 Chan: 92
Cable Chan: 03
```

Note: Pressing the – button here will turn off this feature and display CABLE CHAN: OFF again

Controlling ProScan VCRs with Remote

The advanced ProScan universal remote controls your TV and up to two compatible Proscan VCRs or any other brands listed on page 32. The VCR2-LD button can also control a compatible ProScan/RCA laserdisc player.

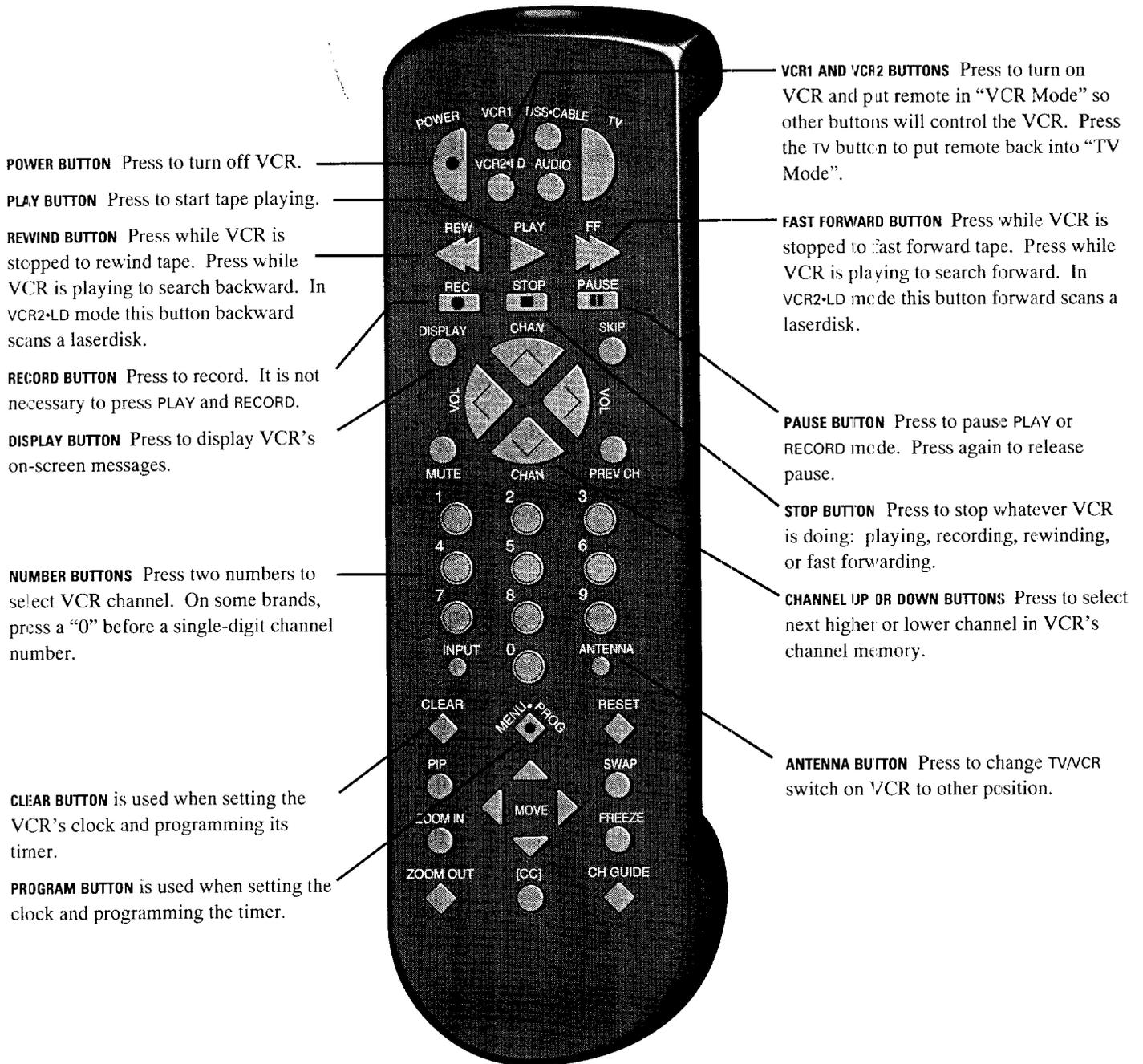
To control a compatible VCR, first press the VCR1 or VCR2-LD button to put the remote in the "VCR mode". The buttons shown below will then control the VCR.

Select models of VCRs have a switch that lets you determine which VCR will be controlled by the VCR1 button, and which VCR by the VCR2 button. Other models have an on-screen menu that lets you determine if

it will be controlled by VCR1 or VCR2. Some older VCRs have a NORM/UNIFIED switch that can also respond to either the VCR1 or VCR2 button on the remote. Place this switch in the UNIFIED position for the VCR to respond to the VCR1 button or in the NORM position for the VCR2 button. In the NORM position, you must program the VCR2 button to respond to code number 05.

The buttons shown below do not operate all functions on all VCRs. You may only be able to control your VCR's basic functions.

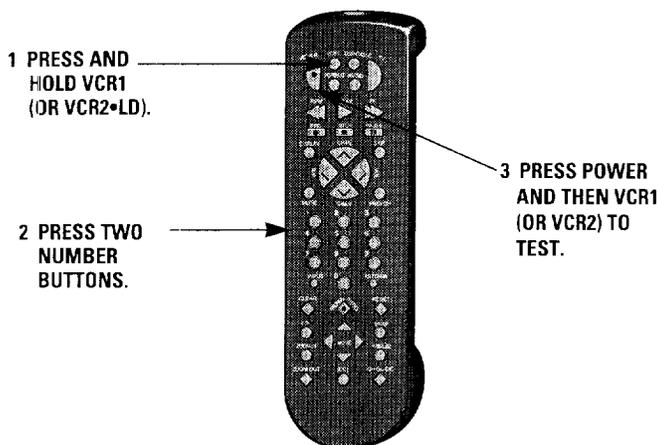
Remote Buttons That Control ProScan VCRs



Controlling VCR with Remote

Controlling Other Brands of VCRs with Remote

To program the remote to control another brand of VCR, just press and hold VCR1 (or VCR2-LD), and enter the two-digit code number for your brand of VCR. Depending on the age, brand, model, and type of VCR, some models may not be able to respond to the remote control.



Programming Remote To Control Other Brands of VCRs

Refer to the chart at the right to find the code number that corresponds to the brand name of your VCR. Keep this number in mind. If more than one number is listed, you may need to try each one separately until you find the one that works.

- 1 Press and hold VCR1 or VCR2-LD button on remote (depending on which button you want to program for that VCR). You can program each button to control a different VCR.
- 2 Press two number buttons (first one, then the other) to enter the code number for your brand of VCR.
- 4 Release the VCR1 button and point the remote at the VCR. Press the POWER button to test the code number. If nothing happens, try pressing VCR1 or VCR2 (whichever button you are programming). If the right number was entered, the VCR should turn on. If the VCR does not react to the remote, repeat steps 1 thru 4 with another code number.

Note: Some older VCRs do not have an OFF/ON switch on their remote controls and cannot be turned on and off remotely. If you have this type of VCR, you can test the code number by pressing the CHANNEL button instead of the POWER button. Make sure the VCR is already turned on when you test the code number.

Operating Notes: After the remote is programmed, it will turn on the VCR whenever you press VCR1 (or VCR2) and then POWER. Some VCRs turn on automatically when you press VCR1 or VCR2. You'll be able to control the VCR whenever the remote is in the "VCR mode". To put the remote in the "VCR mode", press the VCR1 or VCR2 button (depending on which button you programmed). The other VCR buttons (such as PLAY, PAUSE, STOP, REWIND, FF, and RECORD) will control the VCR when the remote is in the "VCR mode". Pressing these function buttons may automatically switch the remote from "TV mode" to "VCR mode". To turn off the VCR, press VCR1 (or VCR2), then POWER. To change channels on the VCR, press VCR1 (or VCR2), then CHANNEL up or down. This remote will control the basic functions of compatible VCRs. It will not be able to control the advanced functions of all brands of VCRs. You may have to reprogram your remote if you change its batteries.

Notes About Controlling Two VCRs

This remote can control two VCRs independently as long as each VCR operates on a different remote transmitting code.

If neither of your VCRs have switchable code capabilities, you still may be able to use the VCR1/VCR2-LD feature to control two VCRs of the same brand since many older VCRs use remote codes that are different than newer VCRs. You may want to experiment to see what works with your particular VCRs.

VCR Brand	Code(s)
Aiwa	15
Akai	03, 17, 22, 23, 63, 66
Audio Dynamics	14, 16
Broksonic	10
Candle	07, 09, 13, 44, 45, 46, 52
Canon	08, 53
Capehart	01
Citizen	07, 09, 13, 44, 45, 46, 52
Colortyme	14
Craig	07, 12
Curtis Mathes	00, 07, 08, 14, 15, 44, 46, 53, 64, 67
Daewoo	13, 45, 52
dbx	14, 16
Dynatech	15
Electrohome	27
Emerson	08, 09, 10, 13, 15, 20, 23, 27, 34, 41, 42, 47, 49, 57, 62, 65, 67, 68, 70
Fisher	02, 12, 18, 19, 43, 48, 58
Funai	15
GE	00, 07, 08, 32, 53
Goldstar	09, 14, 46, 60
Harman Kardon	14
Hitachi	05, 15, 35, 36
Instant Replay	08
JCL	08
JCPenney	02, 05, 07, 08, 14, 16, 30, 35, 51, 53
JVC	02, 14, 16, 30, 46
Kenwood	02, 14, 16, 30, 44, 46
Lloyd's	15
Logik	31
Magnavox	08, 29, 53, 56
Marantz	02, 08, 14, 16, 29, 30, 44, 46, 61
Marta	09
MEI	08
Memorex	08, 09, 12, 15
MGA	04, 27
Midland	32
Minolta	05, 35
Mitsubishi	04, 05, 27, 35, 40
Montgomery Ward	06
MTC	07, 15
Multitech	07, 15, 31, 32
NEC	02, 14, 16, 30, 44, 46, 59, 61, 64
Panasonic	08, 53
Pentax	05, 35, 44
Pentax Research +	46
Philco	08, 29, 53, 56
Philips	08, 29
Pioneer	05, 16, 33 (laserdisc), 50
Portland	44, 45, 52
ProScan	00
Quartz	02
Quasar	08, 53
RCA	00, 05, 07, 08, 28, 35, 37, 54, 69
Radio Shack/Realistic	02, 06, 08, 09, 12, 15, 19, 27, 43, 53
Samsung	07, 13, 22, 32, 42
Sansui	16, 71
Sanyo	02, 12
Scott	04, 13, 41, 49, 68
Sears	02, 05, 09, 12, 18, 19, 35, 43, 48
Sharp	06, 24, 27, 39, 45
Shintom	17, 26, 31, 55
Sony	17, 26, 38
Sylvania	08, 15, 29, 53, 56
Symphonic	15
Tandy	02, 15
Tashiko	09
Tatung	30
Teac	15, 30, 69
Technics	08
Teknika	08, 09, 15, 21
Toshiba	05, 13, 19, 48, 49
Totevision	07, 09
TMK	67
Unitech	07
Vector Research	14, 16, 44
Victor	16
Video Concepts	14, 16, 44
Videosonic	07
Wards	05, 06, 07, 08, 09, 12, 13, 15, 25, 27, 31, 35
Yamaha	02, 14, 16, 30, 46
Zenith	11, 17, 26, 72

Note: Refer to the information sheet packed with your remote control for the latest list of brand names and code numbers.

Programming Remote to Control Audio Equipment

The digital remote control that came packed with your TV is capable of controlling some audio equipment, such as a radio, CD player, tape player, turntable or amplifier. The remote may need to be programmed for your equipment. This remote may not operate all models or brands listed.

To program the remote just press and hold the AUDIO button, then enter the two-digit code number for your brand of audio equipment from the chart below.

- 1 Press *and hold* the AUDIO button on remote.
- 2 Press two number buttons to enter the code number for your brand of audio equipment.
- 3 Point the remote at the audio equipment and press the AUDIO button to test the code number.
 - If the right number was entered, the audio equipment will turn on.
 - The POWER button will turn the device off.

Operating Notes:

After the AUDIO button is programmed, the buttons described on the next page will operate the basic functions of most audio equipment. Depending on the age, brand, model, and type of audio equipment, some models may not be able to respond to all the function buttons listed. You will want to experiment with each button to determine the exact function for your component.

Audio Equipment	Type of Audio Equipment and Code(s)				
	AM/FM	CD	TAPE	PHONO	AUX
Dimensia	03	07	06	05	04
RCA	03	07	06	05	04

Remote Buttons that Control Audio Equipment

After the AUDIO button is programmed, the buttons described below will operate the basic functions of most audio equipment. Depending on the age, brand, model, and type of audio equipment, some models may not be able to respond to all the function buttons listed. You will want to experiment with each button to determine the exact function for your component.

Remote Buttons That Control Audio Equipment

POWER BUTTON Press to turn on component. Press again to turn off. Some components will turn on automatically when you press the AUDIO button.

PLAY BUTTON Press to start component playing.

REWIND BUTTON Press while component is stopped to rewind tape.

RECORD BUTTON Press to start recording.

NUMBER BUTTONS Press two numbers to select a channel directly.

AUDIO BUTTON Press this button to turn on the audio component and put remote in "Audio Mode" so other buttons will control the audio component. Press the TV button to put remote back into "TV mode".

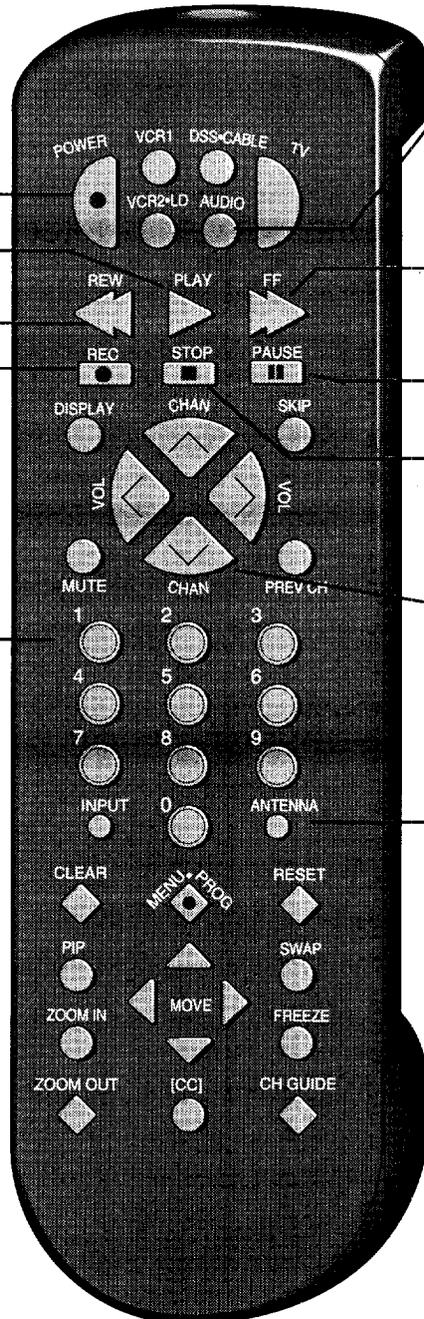
FAST FORWARD BUTTON Press while component is stopped to fast forward tape.

PAUSE BUTTON Press to pause play or record. To release pause, press again.

STOP BUTTON Press to stop whatever the component is doing: playing, recording, rewinding, etc.

CHANNEL UP OR DOWN BUTTONS Press to select the next higher or lower channel in the component's channel memory.

ANTENNA BUTTON Performs various functions depending on the type of equipment. Experiment with this button.



Tips to Read Before Connecting Components

Compatible Components

A wide variety of compatible Video Cassette Recorders (VCRs), camcorders, laser disc players, and audio components are available. Check with your dealer for details.

Other brands of components can also be connected to your TV. Refer to the component's owner's manual for the manufacturer's recommended hookup instructions.

Positioning Components on Shelves

To ensure the best performance from your components, follow these general guidelines when arranging them on the shelves of a component compartment.

Amplifiers, receivers, and VCRs generate heat during operation, so special care should be taken when arranging these components in the compartment. Do not stack an amplifier (or receiver) and a VCR directly on top of each other because each component generates heat and may not provide the best performance if stacked together. Do not stack other components directly on top of an amplifier, receiver, or VCR.

If you include both an amplifier (or receiver) and a VCR, put the amplifier on the top shelf and put the VCR on the bottom shelf. Leave at least four inches of clearance above the amplifier (or receiver) and at least two inches of clearance above other components.

If you have just a VCR and no amplifier (or receiver), position the VCR on the bottom shelf. Do not stack anything else directly on top of the VCR. Leave at least two inches of clearance between the VCR and the shelf above it.

Some VCRs may cause interference in TV sets if they are placed too close to the TV. The ProScan cabinets have a built-in interference barrier to help eliminate this type of interference. If you are using another type of cabinet and interference is present when using your VCR, try placing the VCR on the bottom shelf or try plugging the TV and VCR power cords into different wall sockets.

Turn Off Power Before Connecting Components

Always turn off power to all components before you connect or disconnect any cables. This will protect your components from possible electrical surges that could damage your equipment.

This is a good practice for all your audio and video components – TVs, VCRs, audio systems, computers, etc.

Plugging in Power Cords

Do not plug any power cord into a wall outlet until you are finished making connections.

Many components have “convenience outlets” on their back panels so you can plug power cords from other components into a “convenience outlet” instead of a wall outlet. Usually these outlets will be labeled either “switched” or “unswitched”.

If the outlet is labeled “switched”, that means power to the outlet will be switched off when the component's power button is switched off.

If the outlet is labeled “unswitched”, that means power will always be available at that outlet, even when the component is turned off.

Depending on the size of your system, you may prefer to use an extension cord or a “multiple adapter” to get enough outlets for all your components.

The power cords on your ProScan components are “polarized” (one blade is wider than the other). Be sure the extension cord or multiple adapter is also polarized. The plug should fit in the outlet only one way.

Position Cables to Avoid Hum

The possibility of picking up hum (interference noise) in the audio/video cables will be reduced if you keep them away from the back of the TV. Route the cables to the sides of the TV's back panel instead of straight down the middle.

All cable plugs should be firmly seated in the jacks where they connect to the equipment. If a plug is not connected firmly, audio hum or smeared video may result.

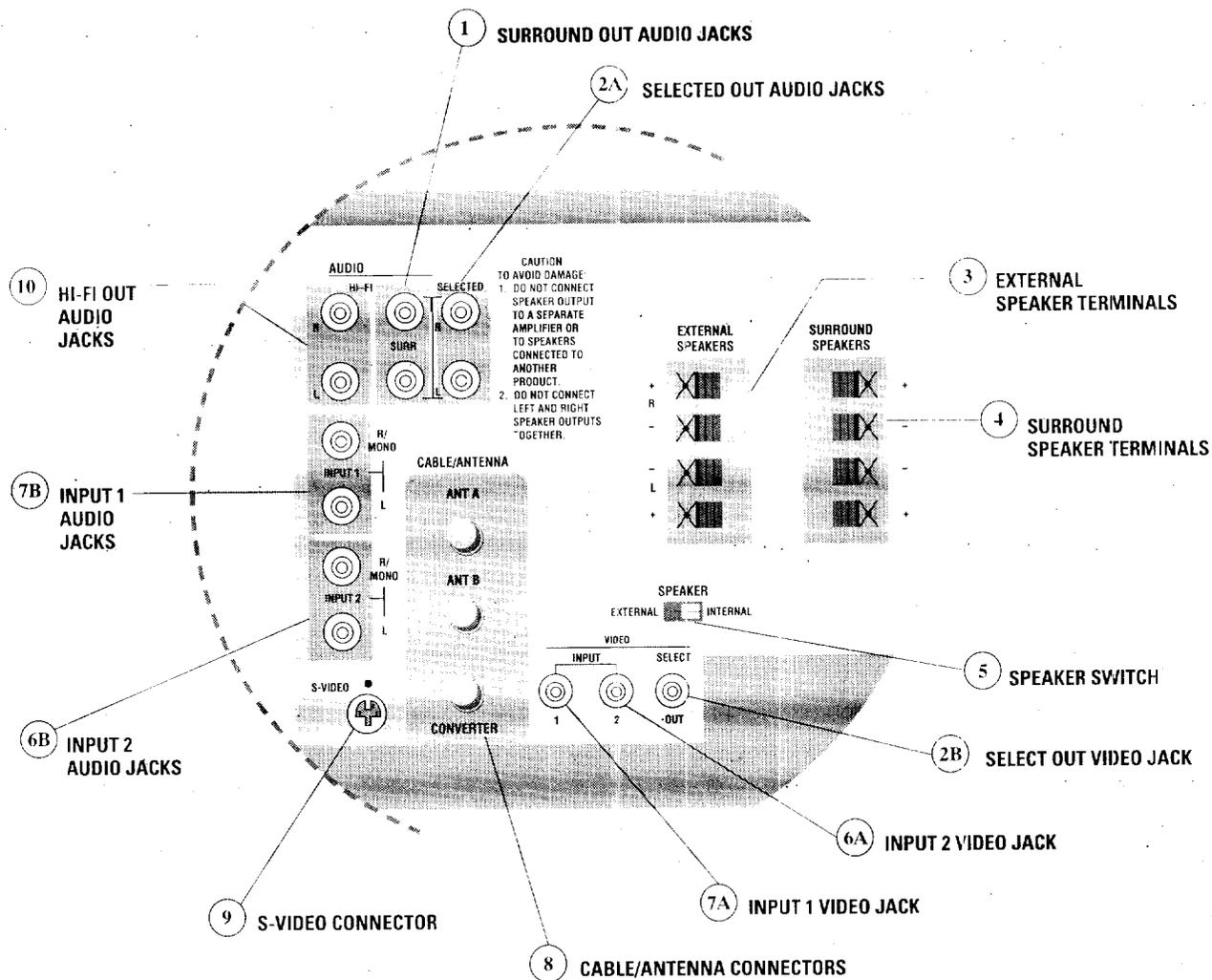
If your antenna cable is flat twin-lead cable, try to keep it away from the audio/video cables as much as possible. Excess flat, twin-lead cable should be cut off instead of coiled behind the TV. Round, coaxial, antenna cable is usually shielded and can be coiled or placed next to audio/video cables without causing interference.

Position Speakers to Avoid Interference

Placing external speakers with unshielded magnets too close to the TV may result in the speaker magnets affecting the quality of the picture. Such speakers should be located at least eight inches away.

If unshielded speakers are too close to the TV, colored streaks will appear along the sides of the picture. If this happens, turn off the TV for several minutes while moving the speakers farther away. Then turn the TV back on.

The ProScan SPK060 speakers are completely shielded and can be positioned next to the TV without affecting the picture.



1 SURROUND OUT AUDIO JACKS feed volume-controlled surround sound audio from whatever is displayed on the TV screen. Allow connection of audio amplifier in case you want to drive the surround speakers louder than the SURROUND SPEAKERS terminals will allow. Surround sound must be turned on for this function to operate. *Details are on page 47.*

2A 2B SELECT OUT JACKS provide fixed level audio and video output from whatever is displayed on the TV screen (except signal from S-VIDEO connector). Provide standard audio and video signals suitable for recording. Can be used for several applications such as:

- VCR editing with two or three VCRs (*page 44*).
- Recording TV programs onto a camcorder (*page 45*).
- Recording cable-TV programs onto a VCR that is not cable ready (*page 44*).
- Recording audio onto an audio cassette tape recorder (*page 46*).

Notes: Remember that the signal coming out of these jacks is whatever you see (and/or hear) on the TV screen. So, whatever you want to record must be displayed on the TV screen during recording. The small inset picture from the picture-in-picture feature and any menus (video, audio, or setup) or displays such as clock and channel that are on the screen can not be recorded.

To record from an S-VHS component connected to the S-VIDEO connector, you must also connect the video cable to the VIDEO INPUT 1 jack and then select channel 91 on the TV screen.

3 **EXTERNAL SPEAKER TERMINALS** permit direct connection of auxiliary speakers. *Connection details are on pages 48-49.*

4 **SURROUND SPEAKER TERMINALS** permit direct connection of auxiliary speakers for surround-sound effects. *Details are on pages 17-18 and 48-49.*

Note: Either 4-ohm or 8-ohm speakers should be used. 8-ohm speakers are preferred.

5 **SPEAKER SWITCH**

This switch lets you turn off TV's internal speakers so that sound will instead come through speakers connected to EXTERNAL SPEAKERS terminals.

Details about connecting speakers to the TV are on pages 48-49.

Important: Always place switch in INTERNAL position if no external speakers are used (or if external speakers are ever disconnected).

6A 6B **INPUT 2 JACKS** provide for direct connection of video devices (like VCRs, camcorders, and laser disc players) or compatible home computers and TV games with video/audio outputs. To see the signals from a device connected to the INPUT 2 jacks, select TV channel 92.

7A 7B **INPUT 1 JACKS** provide for direct connection of video devices (like VCRs, camcorders, and laser disc players) or compatible home computers and TV games with video/audio outputs. To see the signals from a device connected to the INPUT 1 jacks, select TV channel 91.

8 **CABLE/ANTENNA CONNECTORS** are used when attaching either a home antenna and/or a cable-TV system to your TV. *Connection details are on pages 38-40.*

9 **S-VIDEO CONNECTOR** provides for direct S-VHS video connection from S-VHS VCR or camcorder. Remember to also connect the S-VHS VCRs or camcorder's audio jack(s) to the TV's INPUT 1 LEFT and/or R/MONO audio jacks. This is necessary because S-Video cables only carry the super video (picture), not the audio signal. *Connection details are on pages 44-45.*

To see the signals from a device connected to the S-VIDEO jacks, select TV channel 90.

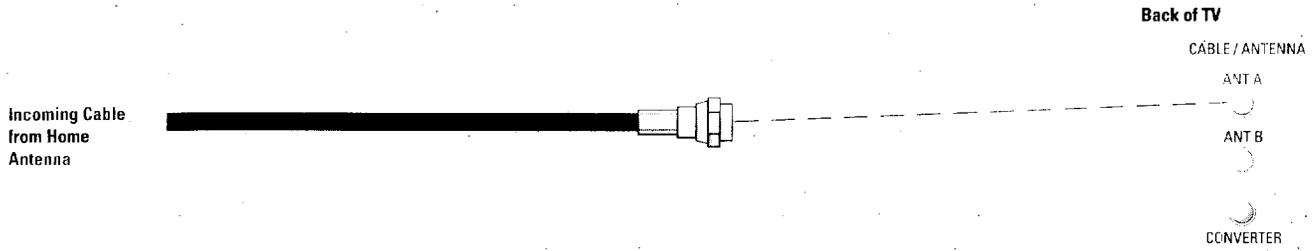
10 **HI-FI OUT AUDIO JACKS** feed volume-controlled stereo audio out from whatever is displayed on the TV screen. Allows connection of audio amplifier so you can adjust sound level with TV's remote. *Connection details are on page 46.*

Caution: When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty because they are the result of misuse.

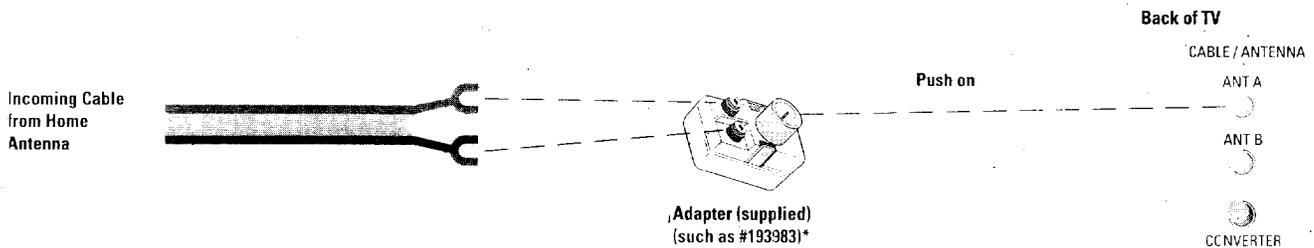
Home Antenna Connections

Follow one of the steps below to connect an indoor or outdoor antenna to your TV *if you do not have a cable-TV system.*

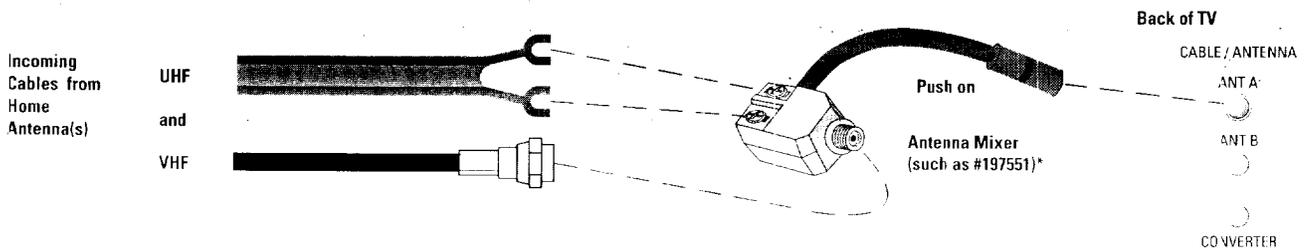
- A.** If your home antenna cable is a 75-ohm, round, coaxial cable that carries only VHF (channels 2-13), only UHF (channels 14-69), or VHF and UHF channels, connect it to your set like this:



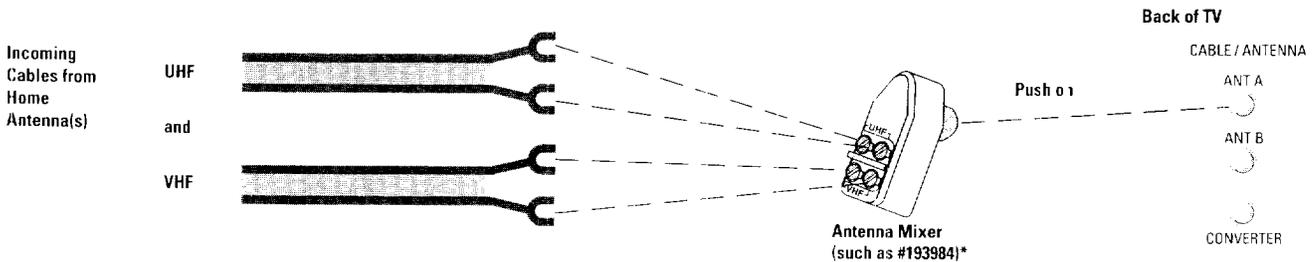
- B.** If your home antenna cable is a 300-ohm, flat, twin-lead cable that carries only VHF (channels 2-13), only UHF (channels 14-69), or VHF and UHF channels, connect it to your set like this:



- C.** If your home antenna cable(s) are a 75-ohm, round, coaxial cable that carries VHF (channels 2-13) and a 300-ohm, flat, twin-lead cable for UHF (channels 14-69), connect it to your set like this:



- D.** If the antenna cables coming from your home antenna(s) are two 300-ohm, flat, twin-lead cables as shown here, connect them to your set like this:



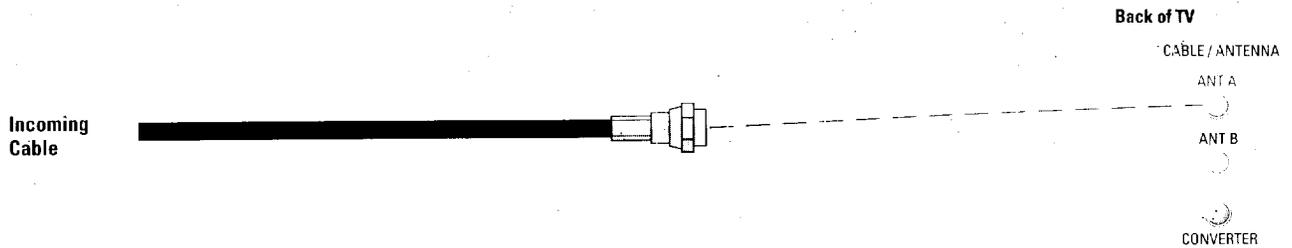
*Optional accessory available from your dealer or electronics supply store. Mail order form is on page 55.

Note: Be sure to connect the UHF antenna cable to the UHF screws on the Antenna Mixer and the VHF antenna cable to the screws marked VHF.

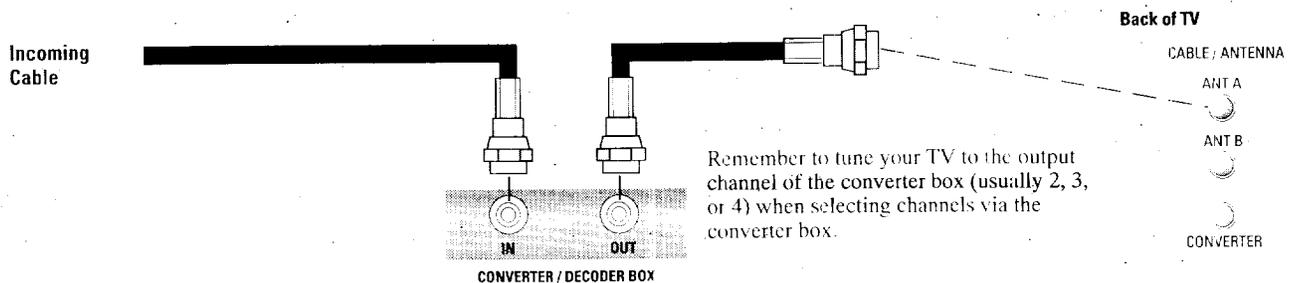
Cable TV Connections

Follow one of these steps to connect a cable-TV system to your TV instead of a home antenna. Since cable-TV systems vary, you may wish to consult your local cable-TV company for additional information.

A. Follow this diagram if your cable company does not require a converter/decoder box (no scrambled channels):



B. Follow this diagram if your cable company requires a converter/decoder box that can be controlled by remote control. Most brands of remote-controllable boxes can be controlled by the remote that came packed with your TV. Details for programming your TV's remote to also control the converter/decoder box are *on page 37*.



C. Follow this diagram if your cable company requires a converter/decoder box that cannot be controlled by remote control:

Scrambled Cable-TV Channels

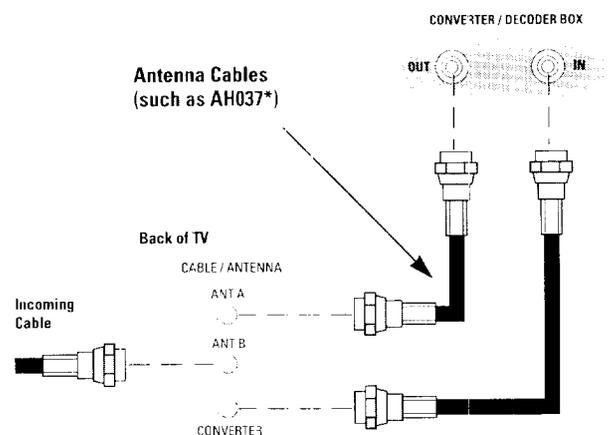
Some cable-TV decoders require that you manually switch from regular to scrambled channels on the decoder whenever you wish to view the premium pay channels. By connecting the decoder to the ANT A input and CONVERTER output on your TV and leaving the decoder box set to the scrambled channel, you can switch between the scrambled and unscrambled channels by using the TV's remote control.

Simply press the ANTENNA button on the remote control to switch between the scrambled and unscrambled channels.

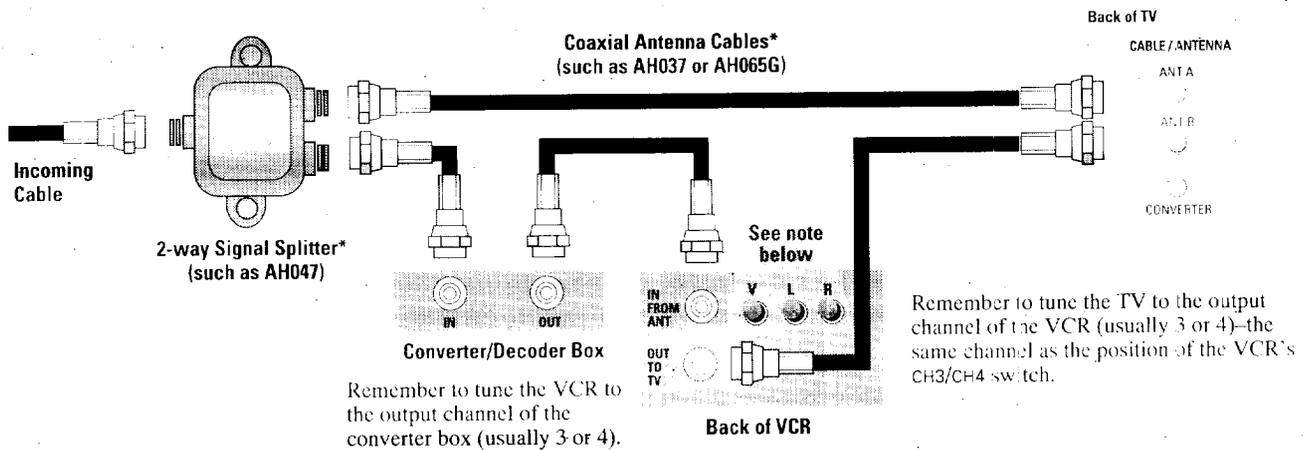
Each time you press the ANTENNA button, the channel numbers will change color on the screen to show which antenna signal you're watching.

Unscrambled cable channels will come through the ANT B input whenever the channel numbers are yellow.

The scrambled channel from the decoder box will come through the ANT A input whenever the channel numbers are blue. Be sure to leave the decoder box set to the scrambled channel, and remember to tune your TV to the output channel of the converter box (usually 2, 3, or 4).



D. Follow this diagram if your cable company requires a converter/decoder box for premium channels and you also want to connect a VCR.



Most cable companies that require use of a converter/decoder box only require the box for scrambled premium channels like HBO or Showtime. All the other cable-TV channels can usually be viewed without the converter box. Therefore, by using a signal splitter, you can send the incoming cable-TV signals directly to the TV and also thru the converter/decoder box and VCR as shown above.

You can easily switch between the signals coming into the ANT A jack and the ANT B jack by pressing the ANTENNA button on the remote control. The channel numbers will change colors to let you know which antenna signals you are watching. When the numbers are blue, you are seeing the ANT A signals. When the numbers are yellow, you are seeing the ANT B signals.

The cable-TV channels that are not scrambled can then be seen whenever the TV is receiving the ANT A signals. The cable-TV channels that are scrambled can then be seen thru the converter box and then thru the VCR whenever the TV is receiving the ANT B signals. Most VCRs will feed the signal thru their antenna jacks even when the VCR is turned off. This allows you to watch scrambled channels from the converter box without having to turn on the VCR.

This connection can be useful because it will let you record a scrambled channel on the VCR at the same time you are watching a non-scrambled channel thru the ANT A jack on the TV.

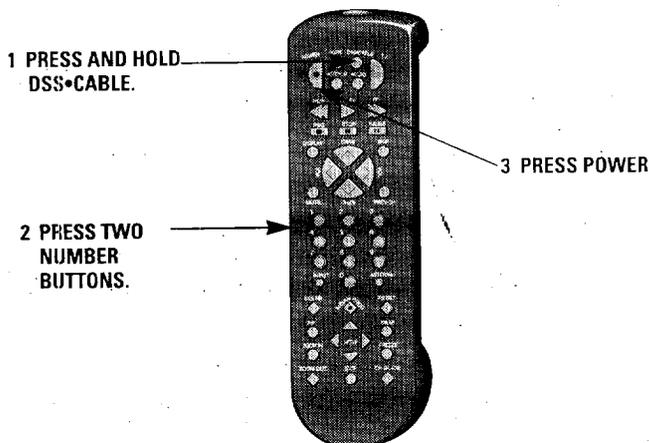
For picture-in-picture viewing, be sure to also connect the audio/video cables from the VCR to the TV as shown on pages 42-43. The VCR must be turned on and tuned to the output channel of the cable box (usually 2, 3, or 4) for picture-in-picture viewing.

*Optional accessory available from your dealer or electronics supply store. Mail order form is on page 55.

Note: Be sure to also connect the VCR's AUDIO and VIDEO OUT jacks to the TV's AUDIO and VIDEO IN jacks as shown on pages 42-43. The audio video connections are necessary for picture-in-picture viewing and for stereo playback from the VCR. To see the signals from the VCR that are going into the TV's INPUT jacks, select TV channel 91 if you connected the VCR to the INPUT 1 jacks or select channel 92 if you connected the VCR to the INPUT 2 jacks. Select TV channel 90 if you have an S-VHS VCR connected to the TV's S-VIDEO connector.

Programming Remote to Control Cable Boxes

If your cable box has its own remote to change channels, you will probably be able to program the TV's remote to control both the TV and the device. To program the remote, just press and hold the DSS-CABLE button, then enter the two-digit code number for your brand of cable box. Refer to the chart below to find the code number for your cable box. Press the POWER button next to confirm operation. You may need to try each of the code numbers listed until you find the one that works.



Brand of Cable-TV Box	Code Number(s)
ABC	22, 46, 53, 54
Anvision	07, 08
Cablestar	07, 08
Diamond	56
Eagle	07, 08
Eastern International	02
General Instrument	46
GI 400	04, 05, 15, 23, 24, 25, 30, 36
Hamlin	03, 12, 13, 34, 48
Hitachi	37, 43, 46
Jerrold	04, 05, 15, 23, 24, 25, 30, 36, 45, 46, 47, 62
Macom	37, 43
Magnavox	07, 08, 19, 21, 26, 28, 29, 32, 33, 40, 41
NSC	09
Oak	01, 16, 38
Oak Sigma	16
Panasonic	03, 27, 39, 61
Philips	07, 08, 19, 21, 26, 28, 29, 32, 33, 40, 41
Pioneer	18, 20, 44
RanItck	07, 08
RCA	00, 27
Regal	03, 12, 13
Regency	02, 33
Samsung	44
Scientific Atlanta	03, 22, 35
Signature	46
Sprucer	27
Starcom	46
Stargate 2000	58
Sylvania	11, 49
Teknika	06
Texscan	10, 11, 59
Tocom	17, 21, 49, 50, 55
Unika	31, 32, 41
Universal	51, 52, 60
Viewstar	07, 08, 19, 21, 26, 28, 29, 32, 33, 40, 41
Warner Amex	44
Zenith	14, 42, 57

Note: Refer to the information sheet packed with your remote control for the latest list of brand names and code numbers. Because this list is constantly growing, the information sheet packed with your remote control may be a later version of this list and contain additional brands and/or code numbers.

After the TV's remote is programmed, you'll be able to turn on the cable box by pressing the DSS-CABLE button, then POWER. You can change channels on the cable box by pressing the CHANNEL buttons whenever the remote is in the "cable" mode. To put the remote in the "cable mode", press the CABLE button. Press the TV button to put the remote back into the TV mode so the remote buttons will control the TV again.

Programming Remote To Control Cable Box with remote only

Refer to the chart at the left to find the code number that corresponds to the brand name of your cable box. Keep this number in mind. If more than one number is listed, you may need to try each one separately until you find the one that works.

- 1 Press and hold DSS-CABLE button on remote.
- 2 Press two number buttons (first one, then the other) to enter the code number for your brand of cable box.
- 3 Point the remote at the cable box and press the power button to test the code number.

- If the right number was entered, the cable box should turn on. Pressing the CHANNEL buttons should then also change channels on the cable box.
- If the cable box does not react to the remote (or if the remote turns on the cable box but does not change channels), repeat steps 1 thru 3 with another code number.

Operating Notes: After the remote is programmed, it will turn on the cable box whenever you press DSS-CABLE and then POWER. To turn off the cable box, press DSS-CABLE, then POWER. To change channels on the cable box, press DSS-CABLE then CHANNEL up or down.

Programming Remote To DSS Receiver with remote only

The TV's remote has been pre-programmed to control the DSS Digital Satellite System receiver.

To control DSS receiver, first press the DSS-CABLE button to put the remote in the "DSS mode". The buttons shown below will then control the DSS receiver.

- 1 Press DSS-CABLE button to put the remote in "DSS mode." Use the MOVE buttons and the MENU-PROG button to navigate through the DSS on-screen menus and features.

Cable-TV Operation

Your new TV is designed to receive up to 181 channels in the U.S.A. including 125 non-scrambled cable channels (see chart at lower right). To use this TV with a cable-TV system, confirm that the cable-TV system is properly connected to your TV. Since cable systems vary, you may wish to consult your local cable-TV company for additional information.

If your cable-TV company follows EIA/NCTA channel-identification standards, most of the channels offered by your cable company will be identified by channel numbers that are identical to those on your TV. For example, if your cable-TV system has programs on cable channel 20, you can choose this channel by selecting channel 20 on your TV.

If your cable company offers cable channels 90, 91, or 92 you can tune them by selecting the TV channels *shown below*:

If your cable company offers this cable channel:	Tune your TV to this channel:
90	126*
91	127†
92	128*

To tune cable channels 100 through 128, press and hold number button 1 until 1-- appears on the screen. Then enter the other two numbers.

Some cable-TV companies do not follow the EIA/NCTA standards and instead assign their own channel identification. For example, some use the standard broadcast channel numbers (2-13) for channels 2-13, but identify their other channels with letters. If your cable company does not follow the EIA/NCTA standards, ask them for a cross reference that shows to which channels you should tune your TV to receive their cable-TV channels.

Not all cable-TV channels will be active on your particular cable-TV system. Also some cable companies may require the use of a decoder with their cable-TV system. Consult your cable company or local dealer for details.

Scrambled Cable-TV Channels

Some cable companies offer "premium-pay" channels in which the signal is scrambled. Descrambling these signals for normal viewing requires the use of a descrambler device (cable box) which is generally provided by the cable company.

How you connect the cable box to your TV depends upon whether or not the cable box can be controlled by remote control. The TV's remote can also control most brands of cable boxes, so if your cable box is remote controllable, you will want to connect it as *shown in Diagram B on page 39*. Instructions for programming the TV's remote to control the cable box *are on page 41*.

If your cable box cannot be controlled by remote control, you will still be able to remotely switch between a scrambled channel and unscrambled channels with the connection *shown in Diagram C on page 39 or in Diagram D on page 40*.

The chart below lists the "total" broadcast (off-air) and cable channel count.

Channels	Off Air	Cable
• Low VHF A-8 (Channel 01)	—	1
• VHF (Channels 2-13)**	12**	12**
• UHF (Channels 14-69)	56	—
• Low Midband A-5 thru A-1 (Channels 95-99)***	—	5***
• Midband (Channels 14-22 or A-1)	—	9
• Superband (Channels 23-36 or J-W)	—	14
• Hyperband (Channels 37-64 or W+1 to W+28)	—	28
• Ultra-band (Channels 65-94 and 100-125 or W+29 to W+84)	—	56
Total Capability	68	125

VHF is only counted once in total channel count because you can receive channels 2-13 on both "off-air" and "cable" channels. Therefore the total channel count for "off-air" and "cable" is 181 channels (68+125-12=181). Channels 95, 96, and 97 are not applicable in Canada. Therefore the total number of channels for Canada is 178 (68+122-12=178).

VCR Connections

Standard VHS VCR (Not S-VHS)

These connections allow you to record TV programs and play back tapes. For picture-in-picture viewing, use the preferred method.

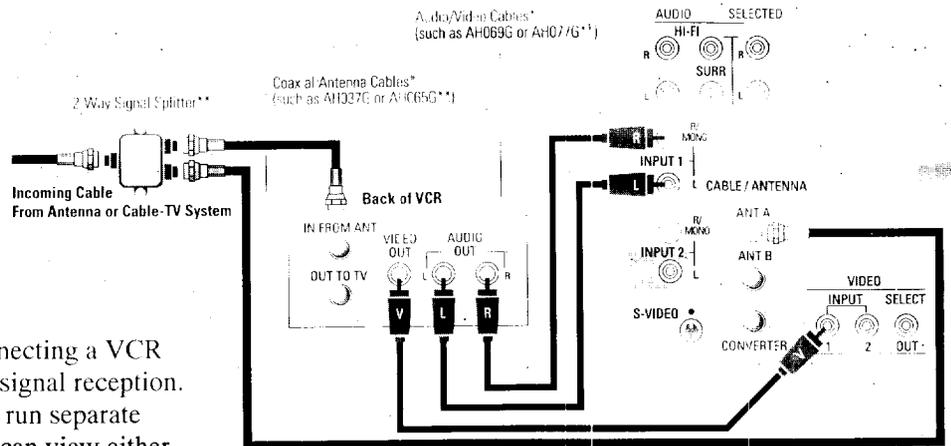
Preferred Method

Shown here is the preferred method of connecting a VCR to your TV if you are in an area with good signal reception. This method uses a 2-way signal splitter to run separate signals to the VCR and TV. This way you can view either TV programs or VCR tapes and not be concerned about the position of the VCR's TV/VCR switch. If your cable company requires a decoder box for premium channels, refer to page 39.

Note: The audio/video connections from the VCR to the TV are required for picture-in-picture viewing and for you to watch tapes being played by the VCR.

Operation: If the VCR is connected to INPUT 1 jacks as shown, select TV channel 91 to view whatever the VCR is playing.

Preferred Method



Note: A second audio/video device can be connected to the INPUT 2 jacks in a similar manner.

If you connect a second audio/video device to INPUT 2, select TV channel 92 to view whatever the second device is playing.

Note: You can program your TV to automatically select the proper VCR input channel (91 or 92) when you press the VCR1 or VCR2/LD button. Details are on page 21.

Simplified Method

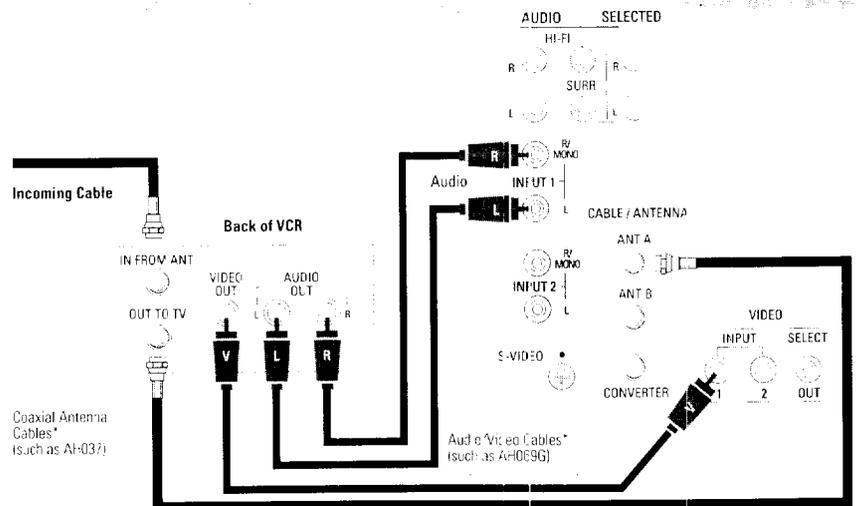
Shown here is a simplified method of connecting a VCR to your TV. This method is best for areas with poor signal reception. If your cable company requires a decoder box for premium channels, refer to page 396.

Note: The audio/video connections from the VCR to the TV are optional; however, these additional connections usually produce a better-quality picture during VCR playback. These connections are required, however, for picture-in-picture viewing and for stereo playback from stereo VCRs.

Operation: If the VCR is connected to INPUT 1 jacks as shown, select TV channel 91 to view whatever the VCR is playing.

If you connect a second audio/video device to INPUT 2, select TV channel 92 to view whatever the second device is playing.

Simplified Method



Note: A second audio/video device can be connected to the INPUT 2 jacks in a similar manner.

*Optional accessories are available from most dealers and electronics supply stores. Mail order form is on page 55.

VCR Connections

Special Recording onto VCR

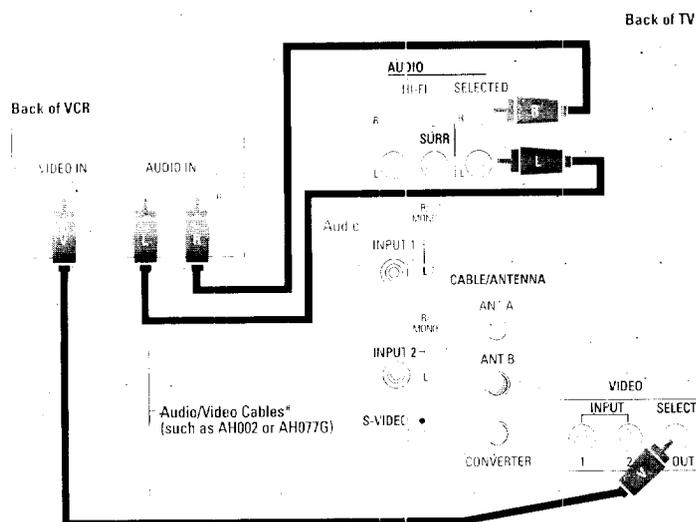
This connection only allows you to record on the VCR whatever is currently being displayed on the TV screen except for menus and special effects. This is not a common application for recording with your VCR, but you may find it useful in certain situations. You'll also be able to record signals from another VCR (or similar device) that is connected to the TV's INPUT 1 or INPUT 2 jacks.

The TV must remain turned on during recording. If you change channels on the TV, the channel change will be recorded on the VCR tape unless you pause the VCR during recording.

Because your TV is cable-compatible, this application may be used to record cable-TV programs from the TV onto a VCR that is not cable-compatible.

You may also want to use this connection to dub or edit VCR tapes with two or three VCRs. By connecting one VCR (or camcorder) to the INPUT 1 jacks and another VCR (or camcorder) to the INPUT 2 jacks, you'll be able to selectively edit and record whatever is playing on the TV screen onto a third VCR (or camcorder) connected as shown here to the SELECT OUT jacks.

If you connect a surveillance system to your monitor, you'll be able to record what the camcorder is displaying on the TV screen by connecting a VCR (or camcorder) to the SELECT OUT jacks as shown here. To see the signal from a device connected to the INPUT 1 jacks, select channel 91. Select channel 92 to see the signal from a device connected to the INPUT 2 jacks.



To see the signal from a device connected to the INPUT 1 jacks, select channel 91. Select channel 92 to see the signal from a device connected to the INPUT 2 jacks.

Note: Signals from the S-VIDEO connector do not come through the SELECT OUT jacks. To record from an S-VHS component, remember to also connect the regular video cable to the VIDEO INPUT 1 jack and then tune to channel 91.

Menus (video, audio, setup), displays like clock and channel, and the inset picture in picture-in-picture do not come through the SELECT OUT jacks.

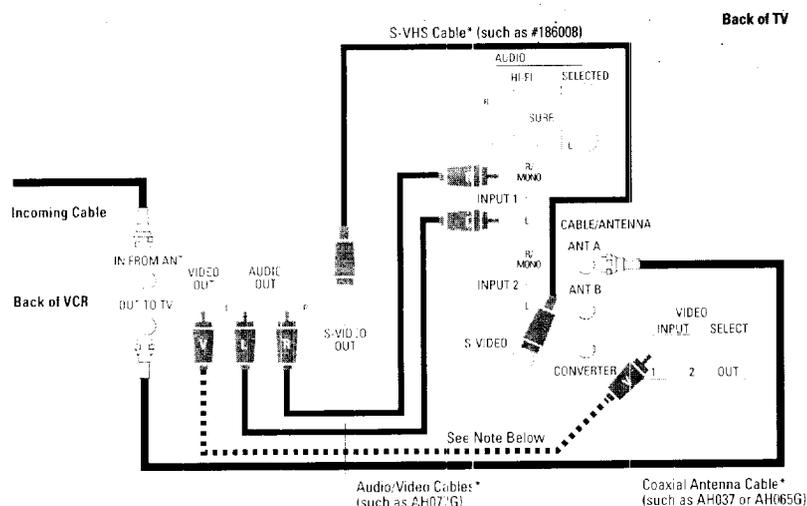
S-VHS (Super VHS) VCR

This connection allows you to record TV programs and play back tapes. If your cable company requires a decoder box for premium channels, refer to page 39.

Connect the S-VIDEO OUT connector on the back of the VCR to the S-VIDEO connector on the back of your TV using an S-VHS cable.

Remember to connect the audio cables from the VCR to the INPUT 1 LEFT and R/MONO jacks on the back of the TV. The S-VHS cable carries only video.

Operation: If the S-VHS VCR is connected as shown here, select TV channel 90 to view whatever the VCR is playing. The word S-VIDEO will appear on the TV when you select channel 90. You can program your TV to automatically select channel 90 when you press the VCR1 or VCR2/LD button. *Details are on page 31.*



Note: Remember to also connect the video cable if you plan to use this VCR for picture-in-picture viewing or if you want to use the SELECT OUT jacks for recording. When recording from SELECT OUT jacks, tune the TV to channel 91 to see the signal from the S-VHS VCR.

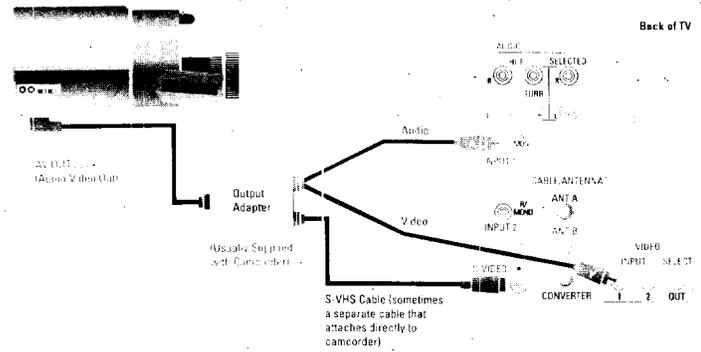
Camcorder Connections

S-VHS or Standard VHS Camcorder

This connection allows you to play back tapes in the camcorder and watch them on the TV.

An S-VHS or standard camcorder can be connected directly to your TV. If you have an S-VHS camcorder, connect the S-VHS video cable to the S-VIDEO connector on your TV. If you have a standard VHS camcorder, connect the video cable to the VIDEO INPUT 1 jack on the back of your TV. With either video connection, attach the audio cable to the INPUT 1 R/MONO audio jack.

Operation: If the camcorder is connected to the VIDEO INPUT 1 jack (instead of the S-VIDEO connector), select TV channel 91 to view whatever the camcorder is playing. If the camcorder is connected to the S-VIDEO connector and INPUT 1 AUDIO jack, select TV channel 90 to view whatever the camcorder is playing.



Notes: When the adapter's S-VHS cable is connected to the S-VIDEO connector, the Video plug does not have to be connected. However, you may prefer to plug it in anyway to keep it out of the way. The S-VHS video will automatically override the VIDEO INPUT 1 signal when you select Channel 90.

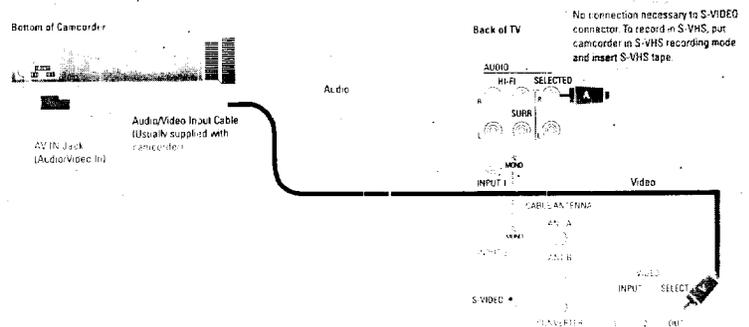
Be sure to connect the video cable, however, if you plan to use the camcorder for picture-in-picture viewing or if you plan to use the SELECT OUT jack for recording. When recording from the SELECT OUT jack, tune the TV to channel 91 to see the signal from the camcorder.

S-VHS or Standard VHS Camcorder

This connection allows you to record onto the camcorder whatever is currently being displayed on the TV screen. You'll also be able to record signals from a VCR (or similar device) that is connected to the TV's INPUT 1 or INPUT 2 jacks.

The TV must remain turned on during recording. If you change channels on the TV, the channel change will be recorded on the camcorder tape unless you pause the camcorder during recording.

You may also want to use this connection to dub or edit VCR tapes with two or three camcorders (or VCRs). By connecting one camcorder (or VCR) to the INPUT 1 jacks and another camcorder (or VCR) to the INPUT 2 jacks, you'll be able to selectively edit and record whatever is playing on the TV screen onto a third camcorder connected as shown here to the SELECT OUT jacks.



If you connect a surveillance system to your monitor, you'll be able to record what the camcorder is displaying on the TV screen by connecting another camcorder (or VCR) to the SELECT OUT jacks as shown here.

To see the signal from a device connected to the INPUT 1 jacks, select channel 91. Select channel 92 to see the signal from a device connected to the INPUT 2 jacks.

Note: Signals from the S-VIDEO connector do not come thru the SELECT OUT VIDEO jack. To record from an S-VHS component, remember to also connect its regular video cable to the VIDEO INPUT 1 jack and then tune to channel 91.

The small inset picture from the picture-in-picture feature and any menus (video, audio, or setup) or displays such as clock and channel that are on the screen can not be recorded.

Component Connections

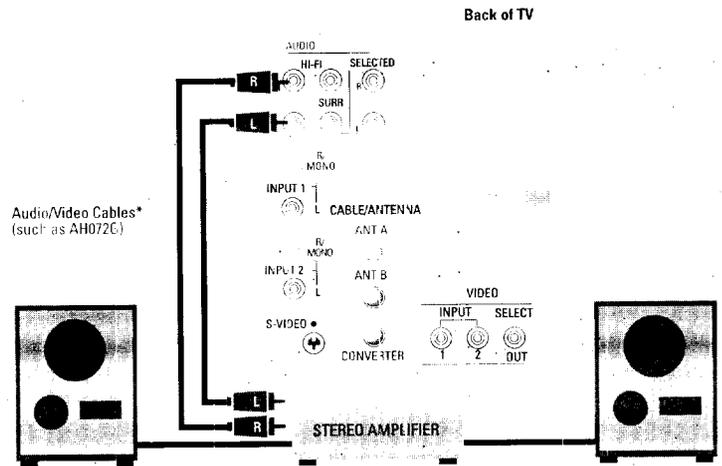
Audio Amplifier

If your amplifier is not part of a "system" that has its own remote, connect it to the TV as shown here. (If the amplifier is part of a system that has its own remote, you may choose to connect it to the TV as shown below using the SELECT OUT jacks.)

With the connection shown here, you'll be able to change and mute volume with the TV's remote control. You'll also be able to remotely control bass and treble functions.

Connection: Connect the "L" and "R" HI-FI OUT jacks to the corresponding input jacks on the stereo amplifier (such as AUX, TUNER, or CD). Do not use the PHONO inputs. If your amplifier is not stereo (mono), connect it to the TV's R/MONO jack. Consult the amplifier's owner's manual for the manufacturer's recommended hookup.

Operation: If desired, turn off TV's internal speakers as described on page 13. Adjust the amplifier for normal listening. You can also control sound with the VOLUME and MUTE buttons on the TV's remote.



Audio Cassette Recorder or Amplifier

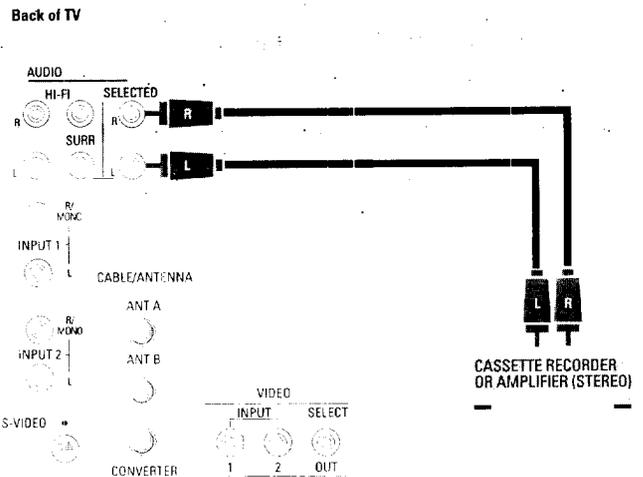
If your amplifier is part of a "system" that has its own remote control, connect it to the SELECT OUT jacks as shown here.

The "fixed level" audio signal present at these jacks is also ideal for connecting an audio cassette recorder to record audio from the TV.

This constant audio signal is not affected by pressing the volume buttons on the TV's front panel or the TV's remote control.

Connection: Connect SELECT OUT "L" and "R" to the corresponding input jacks on the stereo amplifier or audio cassette recorder (such as AUX, TUNER, or CD). Do not use the PHONO inputs. If your amplifier is not stereo (mono), connect it to the TV's R/MONO jack. Consult the equipment's owner's manual for the manufacturer's recommended hookup.

Operation: Select a TV channel and turn down the sound on the TV, or turn off TV's internal speakers as described on page 13. Adjust sound with controls on the amplifier or cassette recorder. If the amplifier or cassette recorder is part of a "system" that has its own remote, use the system's remote to adjust sound.



*Optional accessories are available from most dealers and electronics supply stores. Mail order form is on page 55.

Surround Sound Audio

Connecting an amplifier to the SURR jacks gives you the ability to get more surround sound audio volume than the SURROUND SPEAKERS terminals will allow.

With the connection shown here, you will be able to adjust the volume of the surround sound audio by using the REAR VOL function described on pages 18-19.

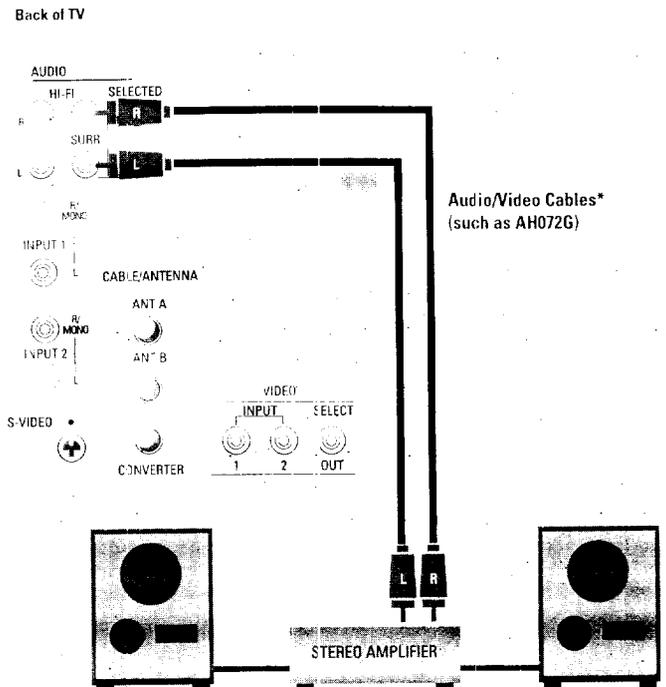
Connection: Connect SURR "L" and "R" to the corresponding input jacks on the stereo amplifier (such as AUX, TUNER, or CD). Do not use the PHONO inputs. If your amplifier is not stereo (mono), connect it to the TV's R/MONO jack. Consult the amplifier's owner's manual for the manufacturer's recommended hookup.

Note: If desired, you can connect one set of surround speakers to the TV and another set of surround speakers to an amplifier that is connected to the TV's SURR OUT AUDIO jacks.

Operation: Turn on the surround sound as described on page 18. If SURROUND is in the OFF position, you will get no audio out of the SURR OUT jacks.

Adjust the REAR VOL display to mid range (page 18). Adjust the amplifier so that the surround audio is at a normal listening level. You will then be able to do a final adjustment to the surround audio by adjusting the REAR VOL display as described on page 18.

* Optional accessories are available from most dealers or electronics supply stores. Mail order form is on page 55.



Connecting External Speakers

You can connect up to four additional speakers to the back of your TV—two to the EXTERNAL SPEAKERS terminals and two more to the SURROUND SPEAKERS terminals. If you connect a stereo amplifier or receiver to your TV, you may prefer to connect two speakers to the amplifier or receiver instead of the EXTERNAL SPEAKERS terminals on the TV. To obtain the surround-sound effects, connect two speakers to the SURROUND SPEAKERS terminals on the back of the TV and position them at the rear of your viewing area, elevated to standing head level. You may wish to connect a stereo amplifier or receiver to the SURR AUDIO jacks to get a volume level of surround sound audio that is higher than the SURROUND SPEAKERS terminals will allow. *Details for obtaining best surround sound are on pages 18-19.*

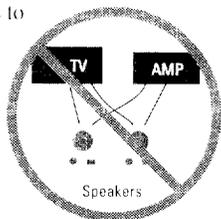
SPEAKER
EXTERNAL  INTERNAL



When you connect speakers to the EXTERNAL SPEAKERS terminals, be sure to move the SPEAKER switch (located directly below the terminals) to the EXTERNAL position. When the SPEAKER switch is in the EXTERNAL position, the TV's internal speakers are turned off and sound will then come through the external speakers you connected to the EXTERNAL SPEAKERS terminals. Return this switch to the INTERNAL position if external speakers are ever disconnected from the TV.

If you want to connect an amplifier to your TV with its own set of speakers attached to it, you can turn off the TV's speakers with the SPEAKERS ON/OFF menu display as described on page 13. Setting this display to OFF will turn off the TV's internal speakers and any speakers connected to the EXTERNAL SPEAKERS terminals. Speakers connected to the SURROUND SPEAKERS terminals will remain on, so you'll be able to create surround sound effects when using the amplifier.

Caution: Do not connect external speakers to more than one audio source at a time. You can connect a set of speakers to either the TV or the amplifier but not to both at the same time. If you connect the same speakers to both the TV and the amplifier (or to more than one set of terminals), you will probably damage your equipment.



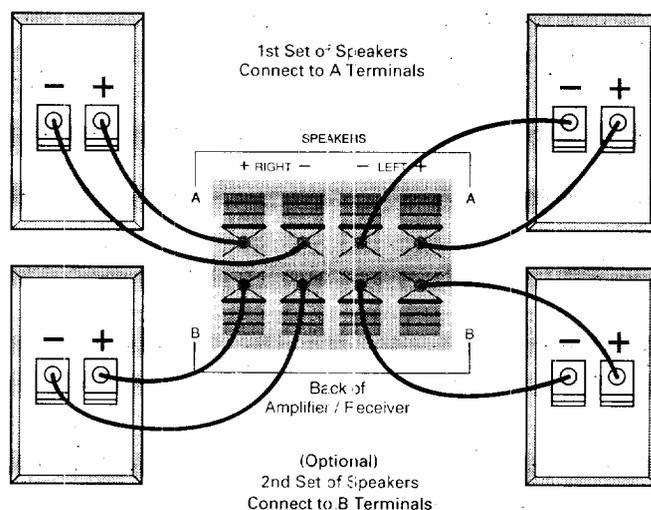
Connecting Speakers to Back of Amplifier or Receiver

If you connect an amplifier or receiver to your TV, connect the speakers to the amplifier/receiver instead of the TV. Sound from the TV will then come through the amplifier/receiver. You can also connect additional surround speakers to the back of the TV, if desired.

The diagram below shows how to connect external speakers to the speaker terminals on the back of a typical amplifier/receiver. Check the owner's manual for your amplifier/receiver if its speaker terminals look different than those shown below.

Notes: After connecting speaker wire, pull it gently and check that it is connected securely to its terminals.

Do not allow the wire core to protrude from its terminal or contact other wires or terminals. If the cores of two wires touch each other, damage to components could result.



Important: When connecting the speaker wire, make sure you connect the (+) terminal on the amplifier or receiver to the (+) terminal on the speaker. One side of the speaker wire is usually marked with a white stripe to help you connect (+) to (+) and (-) to (-). If the (+) and (-) terminals are not matched properly, the speakers will not be "in phase" causing reduction in low frequencies (bass).

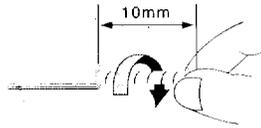
Connecting Speakers to TV

If you connect an Amplifier or Receiver to your TV, connect the speakers to the Amplifier/Receiver instead of the TV. You can also connect additional surround speakers to the TV, if desired.

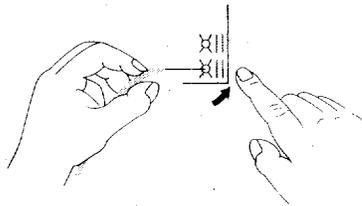
If you do not connect an Amplifier or Receiver to your TV, you can connect external speakers to the TV to enhance sound from the TV.

The diagram at the right shows how to connect external speakers to the terminals on the back of the TV.

- 1 If necessary, remove the vinyl covering from the ends of the speaker wire and twist the wire core.



- 2 Press and hold down the lever of the speaker terminal while inserting the wire core into the hole. Be sure to connect (+) to (+) and (-) to (-) (explained at bottom right).



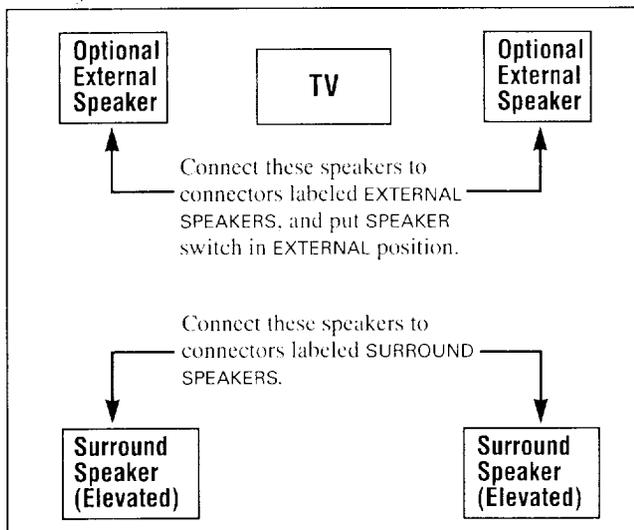
- 3 Release the lever.

Notes: After releasing the lever, pull gently on the wire and check that it is connected securely to its terminal.

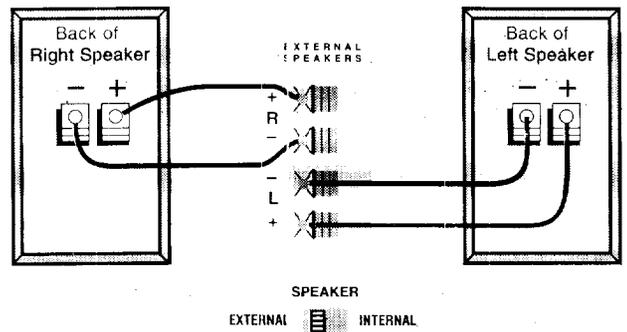
Do not allow the wire core to protrude from its terminal or contact other wires or terminals. If the cores of two wires touch each other, damage to components could result.

General Recommended Speaker Placement for Best Surround Sound

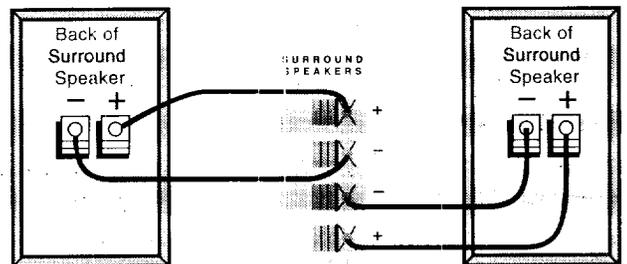
(Details are on pages 18-19)



EXTERNAL SPEAKERS Terminals



SURROUND SPEAKERS Terminals



Important: When connecting the speaker wire, make sure you connect the (+) terminal on the TV to the (+) terminal on the speaker. One side of the speaker wire is usually marked with a white stripe to help you connect (+) to (+) and (-) to (-). If the (+) and (-) terminals are not matched properly, the speakers will not be "in phase" causing reduction in low frequencies (bass).

Trouble Checks

Troubles sometimes are caused by simple "faults" that you can easily correct without the help of a service technician by first checking a few basic remedies.

Before you call or take your unit to an Authorized ProScan TV Servicenter, look below for the type of trouble you are experiencing. Then perform the simple checks and adjustments listed for that trouble.

TV will not turn on

- Check to make sure it is plugged in.
- Check the wall receptacle (or extension cord) to make sure it is "live" by plugging in something else.
- Maybe batteries in remote control are "dead".
- Maybe remote control was not aimed at remote sensor.
- Make sure power cord is fully inserted into back of TV.

Controls don't work

- If using remote control, make sure remote is in "TV Mode" by first pressing TV button.
- Try unplugging set for two minutes and then turning it on again.
- Make sure power cord is fully inserted into back of TV.

Intermittent or no remote

- Maybe something was between the remote and the remote sensor.
- Maybe the remote was not aimed directly at the component (TV or VCR) you were trying to control.
- Maybe remote is not in "TV Mode". Press the TV button so remote will control TV.
- Maybe batteries in remote are weak or dead. Try replacing batteries.
- Maybe batteries were installed incorrectly. Try replacing batteries correctly.

Turns off while playing

- SLEEP TIMER function may have been activated.
- ALARM OFF function may have been activated.

- Electronic protection circuit may have been activated because of a power surge. Wait 30 seconds and then turn on again. If this happens frequently, the voltage in your house may be abnormally high.
- Make sure power cord is fully inserted into back of TV.

Turns on unexpectedly

- ALARM ON function may have been activated.

ALARM does not turn off TV at correct time

- Check ALARM ON/OFF function. Must be set to ON.
- Check to make sure CLOCK function is set to the correct time.

Blank screen

- Maybe Channel 90, 91, or 92 is selected, but device connected to those INPUT jacks is not turned on.
- Try another channel.

No sound, picture okay

- Maybe sound is muted. Try pressing VOLUME up button to restore sound.
- Maybe TV's speakers are turned off. Check SPEAKERS ON/OFF function.
- If using channel 90 (S-VIDEO input) with an S-VHS component, remember to also connect the component's L and R AUDIO OUT jacks to the TV's L and R INPUT 1 jacks.
- Maybe SPEAKER switch on back of TV is not in the INTERNAL position.

Can't select certain channel

- Channel may not be in Channel Memory. Try pressing two number buttons.
- If using a VCR, check to make sure the TV/VCR switch on the VCR is in the correct position.
- To select cable channels 100 through 128, press number button 1 until 1-- appears. Then press the other two number buttons. The CABLE/AIR function must be in CABLE mode to select channels higher than 69.

Noisy stereo reception

- May be a weak station. Use AUDIO button to change STEREO/SAP function to MONO mode instead of STEREO.

No picture, no sound but power light is on

- Maybe someone changed CABLE/AIR function to wrong position.
- Maybe a vacant channel is tuned.
- For Channels 90, 91, and 92, make sure the component connected to those INPUT jacks is turned on in order to see picture.
- If watching VCR (connected only through antenna input), make sure TV is tuned to channel 3 or 4 – same as CH 3/CH 4 switch on VCR. Also check to make sure TV/VCR switch on VCR is in correct position.

Sound okay, picture poor

- Check antenna connections.
- Try adjusting SHARPNESS function to improve weak signals.

Can't get two channels for picture-in-picture

- One channel must come through ANT A or B connector and the other channel must come through the INPUT 1 or 2 jacks.
- If using the VCR1 or VCR2 button, make sure it is programmed to select the proper video input channel *as described on page 24*.
- Check position of TV/VCR switch on VCR.
- If using an S-VHS component, make sure its regular VIDEO cable is connected to INPUT 1 VIDEO jack on TV.

No picture while using picture-in-picture, with S-VHS VCR or camcorder

- If you have an S-VHS VCR or camcorder connected, you must also connect a cable from the VCR's VIDEO OUT jack to the TV's corresponding VIDEO INPUT 1 jack in addition to the S-VHS cable.

Small picture does not have color

- The small picture will not have color if the large picture signal does not have the color burst reference. All color signals and some black-and-white signals are sent with color burst. Try changing the channel of the big picture.

Black Box appears on the screen:

- Turn off the CAPTIONING feature.

Limited Warranty

What your warranty covers:

- Any defect in material or workmanship.

For how long after your purchase:

- One year for labor charges.
- One year for parts.
- Two years for picture tube.

What we will do:

- Pay any Authorized ProScan Television Servicer the labor charges to repair your television.
- Pay any Authorized ProScan Television Servicer for the new or, at our option, refurbished replacement parts and picture tube required to repair your television.

How you get service:

- Request in-home service from any Authorized ProScan Television Servicer. To identify your nearest Authorized ProScan Television Servicer, ask your dealer or call 1-800-PROSCAN.
- Show the service technician your evidence of purchase date.

What your warranty does not cover:

- Customer instruction. (Your Owner's Manual clearly describes how to install, adjust, and operate your television. Any additional information should be obtained from your dealer.)
- Installation and related adjustments.
- Signal reception problems not caused by your television.
- Damage from misuse or neglect.
- Remote control batteries.
- A television that has been modified or incorporated into other products or is used for institutional or other commercial purposes.
- A television purchased or serviced outside the USA.

Product Registration:

- Please complete and mail the *Product Registration Card* packed with your set. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

How state law relates to this warranty:

- This warranty gives you specific legal rights, and you also may have other rights that vary from state to state.

If you purchased your product outside the U.S.A.:

- See your dealer for details.

Cleaning and Care

You can clean the TV as required, using a soft cloth or the dusting attachment for your vacuum cleaner. Be sure to occasionally vacuum the ventilation slots in the cabinet to help assure adequate ventilation.

To clean the faceplate (screen) of the picture tube, use a nonabrasive glass cleaner with a soft cloth. Oily foods like peanut butter can be effectively cleaned from the faceplate with glass cleaners.

Do not use furniture polish on the TV cabinet or faceplate of the picture tube. Because textured finishes are porous, using furniture polish could mar their appearance. They can be easily cleaned with a damp, soft cloth. Furniture polish is probably the most difficult material to clean off a picture tube under normal conditions. To remove furniture polish from the TV screen, use 100% isopropyl alcohol (a component in most glass cleaners) with a soft cloth.

While cleaning, do not allow liquid to run down the screen and inside the instrument. Also avoid placing drinks or vases with water on top of your TV.

When turning the set on after cleaning the faceplate, there may be some rainbow effects if the screen is not completely dry.

Design Specifications

General Specifications

Color Standard:	525 line NTSC Color
Chassis:	CTC169, solid state, unitized
Power Requirements:	120VAC + 10%, 60Hz
Power Consumption:	195W maximum

Remote Control

Model:	CRK83D and CRK60A
Transmission system:	Digitally encoded infrared light
Batteries:	CRK83D: 4 AAA Size CRK60A: 2 AAA Size
Battery Life:	One Year in Normal Use

Power Cord

Type SJT 2

RF Specifications

Tuning System Type:	Quartz-controlled Multiband Frequency Synthesis
Band Coverage:	VHF channels 2-6, 7-13 UHF Channels 14-69 EIA Cable Channels 1-125 Complete chart is on page 45.
Frequency Coverage:	54-806 MHz
Tuner Type:	Solid State
Channel Access:	Programmable Scan Up/Down Direct Access With Remote
Channel Indication:	On-Screen
Antenna Inputs:	Two 75-ohm VHF/UHF combined inputs
Sensitivity:	15 μ V VHF, 30 μ V UHF

Video Specifications

Horizontal Luminance Resolution:	up to 560 Lines (from S-VIDEO input) using wideband video source
Black to White Rise Time:	75 ns
Luminance Bandwidth:	8.75 MHz (from S-VIDEO input)
Video Input:	1Vp-p; 75 ohms; negative sync
Video Output:	1Vp-p; 75 ohms; negative sync
HV (at Zero Beam current):	27.5kV Nominal

Audio Specifications

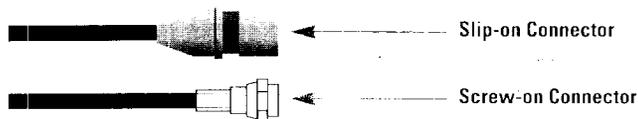
Frequency Response:	50-20,000 Hz (at rated output)
Stereo System:	MTS Stereo with SAP (Second Audio Program)
Stereo/Mono Switching:	Automatic
Expanded Stereo:	Switchable
Audio Input:	450 mV RMS typical, 1 V RMS maximum
Audio Input Impedance:	Greater than 50 kOhms (Stereo); Greater than 25 kOhms (Mono)
Audio Power:	10 watts/channel RMS into 8 ohms with less than 1% THD
Audio Output:	
Selected Outputs:	Output level tracks inputs within +1/-2dB
Outputs To Hi-Fi:	2 V RMS maximum, controlled by volume, mute, equalizer, and balance
Output Impedance:	Surround and Hi-Fi outputs less than 2,500 ohms
Speaker Type:	Two 2 1/4" x 5" Mid/High Drivers Two 130mm Enclosed Woofers
Speaker Impedance:	Internal, 8 ohms (nominal) External, 8 ohms

All features and specifications are subject to change without notice.

Accessory Cables

General Cable Information

Antenna (or cable-TV) connections are made with either coaxial antenna cable or twin-lead cable. Coaxial cables are shielded so they are less susceptible to hum or interference from adjacent cables.



Round 75-ohm coaxial cable



Flat 300-ohm twin-lead cable

Most audio/video connections between components can be made with shielded audio and video cables that have RCA-type phono connectors.



Standard Audio/Video Cable with RCA-type phono plugs (such as No. AH069G)

Color-Coded Jacks

The jacks on the TV's monitor panel are color-coded for ease of use. The VIDEO jacks are yellow, the right AUDIO jacks are red, and the left AUDIO jacks are white. When connecting components to each other, be sure that you always connect left outputs to left inputs and right outputs to right inputs. If a component has only one output (mono), connect it to the R/MONO INPUT jack.

To connect S-VHS (Super-VHS) components, an S-VHS video cable is required.



S-VHS Cable (such as No. 186008)

Gold-Plated Jacks and Gold-Tipped Cables

Your ProScan monitor panel is equipped with gold-plated jacks. The gold plating helps prevent oxidation of contacts which provides much less loss than conventional contacts. A complete line of gold-tipped cables is available to help you obtain optimum performance from your equipment.

The following accessories are available from most ProScan dealers and electronics supply stores in case you want to position your components farther apart or need additional cables.

Antenna Cables



AH037 (3-ft)



Gold-Tipped Cables
AH066G (6-ft)
AH066G (10-ft)

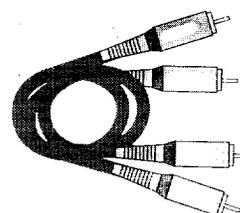
Screw-on Cable attaches to the round antenna connectors (called 75-ohm F-type) on the back of your VCR or TV. The ends screw onto the connectors for a secure connection.

Push-on Cable attaches to the round antenna connectors (called 75-ohm F-type) on the back of your VCR or TV. Ends push on for a quick connection.

Audio/Video Cables



Gold-Tipped Cables
AH068G (3-ft)
AH070G (5-ft)



Gold-Tipped Cables
AH075G (6-ft)

Audio/Video Cable

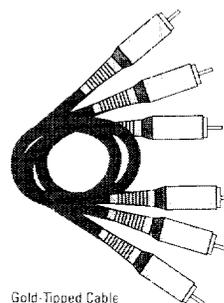
Shielded cable for connecting AUDIO and VIDEO jacks. Has an RCA-type phono plug on each end.

Monaural VCR Dubbing Cable

Double cable that lets you connect the VIDEO and AUDIO jacks of two VHS VCRs to duplicate tapes. Can also be used to connect a VCR to your TV. Cable is color-coded and shielded. Has RCA-type phono plugs on each end.

Stereo VCR Dubbing Cable

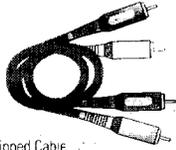
Triple cable that lets you connect the VIDEO and AUDIO jacks of stereo components.



Gold-Tipped Cable
AH077G (6-ft)

Accessory Order Form

Audio/Video Cables *continued*



1 Gold-Tipped Cable
AH070G (3-ft)



186008 (3-ft)
VAA020 (8-ft)

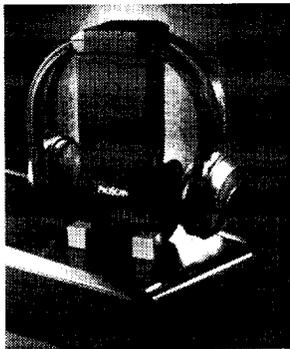
Stereo Audio Cable

Double gold-tipped cable generally used for connecting stereo audio components.

S-VHS Video Cable has multipin connectors on each end for connecting S-VHS components to your TV. When connecting an S-VHS component to the S-VIDEO jack on your TV, remember to also connect the left and right audio cables to the INPUT 1 jacks because the S-VHS cable carries only the picture, not the sound.

Wireless Headphone System PSWH100

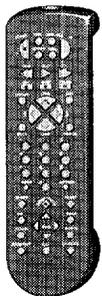
Uses RF transmission technology freeing the user from the limits of competitive "line-of-sight" systems. Rechargeable NiCad batteries provide up to four hours of continuous operation and the convenient stand stores and recharges the headset. Volume may be controlled from the headset and the RF tuning frequency may be adjusted for optimum sound performance.



PSWH100

Remote Controls

These are the remote controls that came packed with your TV. Replacements or spares can be ordered as needed.



774261



206799

Accessory Order Form For ProScan TV Models

Description	Part No.	Price	Qty	Total
Signal Splitter	AH047	\$ 3.99		
Gold-Tipped Antenna Cable (6-ft)	AH065G	\$ 6.99		
Gold-Tipped Antenna Cable (10-ft)	AH066G	\$ 8.99		
Gold-Tipped Audio/Video Cable (3-ft)	AH069G	\$ 5.99		
Gold-Tipped Audio/Video Cable (5-ft)	AH070G	\$ 7.99		
Gold-Tipped Stereo Audio Cable (3-ft)	AH072G	\$ 8.99		
Gold-Tipped Dubbing Cable (6-ft)	AH075G	\$ 10.99		
Gold-Tipped Dubbing Cable (6-ft)	AH077G	\$ 14.99		
Screw-on Antenna Cable (3-ft)	AH037	\$ 3.95		
Wireless Headphone System	PSWH100	\$199.95		
S-VHS Video Cable (8-ft)	VAA020	\$ 29.95		
S-VHS Video Cable (3-ft)	186008	\$27.55		
Remote Control (CRK60A)	206799	\$28.05		
Remote Control (CRK83D)	224264	\$ 67.90		
Antenna Mixer (page 33)	193984	\$ 10.73		
Antenna Mixer (page 33)	197551	\$ 10.95		

Prices are subject to change without notice

Total Merchandise (\$10 Minimum Order) \$ _____

Sales Tax \$ _____

We are required by law to collect the appropriate sales tax for each individual state, county, and locality to which the merchandise is being sent.

Shipping, Handling, and Postage \$ 5.00

Total Amount Enclosed \$ _____

Use VISA or MasterCard preferably.
Money order or check must be in U.S. currency only.
No COD or CASH.

✂ Detach Here

All accessories are subject to availability.
Where applicable, we will ship a superseding model.

Please complete other side also

Order Form

Accessory Order Form

Charge your order on your VISA
or MasterCard by
filling in below

USE YOUR CREDIT CARD

IMPORTANT: Copy complete account number
from your VISA card



□□□□ □□□□ □□□□ □□□□

My card expires: □□ □□

IMPORTANT: Copy complete account number
from your MasterCard



□□□□ □□□□ □□□□ □□□□

Copy Number
above your
name on
MasterCard

□□□□

My card
expires:

□□ □□

AUTHORIZED SIGNATURE

Prices are subject to change without notice.

PLEASE

Print or type your name and
address clearly. This will be your
mailing label.

A complete and correct order will
save you days of waiting.

Name: _____
Street: _____
_____ Apt: _____
City: _____
State: _____ Zip: _____

Please make sure that both sides of this form have
been filled out completely.

To order accessories, contact your local ProScan Dealer.
If a dealer is not nearby, you can also follow the instructions
below to order by telephone.

United States and Canadian Orders

To place your order by phone, have your Visa or MasterCard
ready and call the toll-free number listed below between 8AM
and 8PM Eastern Standard Time. **Use this number only to
place an order for accessory items listed on this order form.**

1 - 800 - 338 - 0376

Most times your order will be shipped UPS within 72 hours of
receipt. If ever it is not possible to ship within 30 days, we will
notify you with an update on your order and an option to cancel.

To place your order by mail, detach and mail the completed
order form with credit card information, money order, or check
in U.S. currency (made payable to Thomson Consumer
Electronics, Inc.) to the following address:

ProScan Video Accessories
P.O. Box 8419
Ronks, PA 17573

**For more information on these accessories (or current
prices), write to the following address:**

Video Accessories Customer Service
Thomson Consumer Electronics, Inc.
Distributor & Special Products
2000 Clements Bridge Rd
Deptford, NJ 08096-2088

International Orders

This offer is valid only in the 50 United States and Canada. For
international orders, please send your request for quotation (not
an order) to:

International Customer Service
Thomson Consumer Electronics, Inc.
Distributor & Special Products
2000 Clements Bridge Rd
Deptford, NJ USA 08096-2088

--- Detach Here ✂ ---

SETUP MENU

1 Repeatedly press MENU-PROG to select SETUP MENU and then press MOVE + to display the functions in the SETUP MENU.

Mute
Video Menu
Audio Menu
Setup Menu

2 Select function by repeatedly pressing MENU to move down the screen.

Captioning: Off
Sleep Timer 0:00
Set Alarm
Chan Label
Parental Ctrl: Off

Chan Ctrl: Normal

Autoprogram

Chan Mem: Stored

Antenna: A

Cable/Air: Cable

VCR 1 Chan: Off

VCR 2 Chan: Off

Cable Chan: Off

Clock Set -HR +MIN

Alarm On
On Time: 6:30AM
Off Time: 11:00PM
Channel: 12

3 Follow instructions below for desired function.

The CAPTIONING feature lets you display a program's sound as words on the TV screen. Four types of closed captioning are available. Select CAPTIONING 1 for full translation of the primary language in your area. Select CAPTIONING 2 or secondary language translation, simplified English, or nothing at all. Both TEXT 1 and TEXT 2 display on-screen boxes containing general information not related to closed captioning. *Details are on page 14.*

To set the SLEEP TIMER, repeatedly press + or - to select the length of time you want the TV to stay on. To cancel, press + or - to change the setting to 0:00.

Details are on page 15.

Press - to display the ALARM functions.

Turn ALARM ON and OFF by pressing +.

Enter ON TIME and OFF TIME by pressing - to

set the hour and + to set the minutes. Enter

CHANNEL you want TV to tune by pressing

CHANNEL up or down and then pressing +.

Details are on page 16.

To label channels press +. Four blank letter blocks will appear.

Press and hold VOLUME up or down button on remote until the

letter you want in the first block appears. Then press + to move to

the next block. Repeat until name is complete. *Details are on*

page 17.

To turn on PARENTAL CTRL, press +. When this function is set to ON,

all channels that have been LOCKED out with the next function called

CHAN CTRL will not be viewable. To lock out channels, select the

CHAN CTRL function. Then press CHANNEL up or down to select the

channel and press + to change the setting from NORMAL to LOCKED.

Details are on page 18.

To start autoprogramming, press +. The TV will automatically

cycle through all channels and place active channels in memory.

Details are on page 19.

To add or erase individual channels from memory, select the channel

with the number buttons and then press + to add or - to erase.

Details are on page 20.

To switch antenna inputs, press + or -. You will probably not use

this function unless you have something connected to both the

ANTENNA A and ANTENNA B inputs on the back of the TV. *Details*

are on page 22.

To change the CABLE/AIR setting, press +. If you have cable-TV,

this function should be set to CABLE. If you have a home antenna,

this function should be set to AIR.

To set the VCR 1 CHANNEL first enter the channel number by

pressing two number buttons on the remote and then press +. The

channel you enter here is the channel to which the TV will

automatically tune when you later press the VCR1 button on the

remote. *Details are on page 21.*

To set the VCR 2 CHANNEL first enter the channel number by

pressing two number buttons on the remote and then press +. The

channel you enter here is the channel to which the TV will

automatically tune when you later press the VCR2-LD button on the

remote. *Details are on page 21.*

To set the CABLE CHANNEL first enter the channel number by

pressing two number buttons on the remote and then press +.

The channel you enter here is the channel to which the TV will

automatically tune when you later press the DSS-CABLE button on

the remote. *Details are on page 23.*

To set the clock, press and hold - to set the hour. Then press and

hold + to set the minutes.



Quick-Reference Operating Guide

VIDEO MENU

- 1 Repeatedly press MENU to select VIDEO MENU and then press + to display the functions in the VIDEO MENU.

Mute
Video
Audio Menu
Setup Menu

- 2 Select function by repeatedly pressing MENU to move down the screen.



Color -+
Tint -+
Contrast -+
Bright -+
Sharp -+
Picture Reset

- 3 Press + to increase setting or press - to decrease setting.

The PICTURE RESET function will return video functions to factory settings.

Adjusting for a Color Picture that Pleases You

- 1 Decrease color to minimum. This will leave a black-and-white image on the screen.
- 2 Adjust contrast until the picture pleases you.
- 3 Adjust brightness until the black parts of the picture appear black. You may need to wait until the picture shows something you're sure is black. Be careful not to lose the details in darkly shaded areas.
- 4 Increase color until you reach a pleasing level of intensity.
- 5 Adjust tint until flesh tones or other color objects appear natural.
- 6 Adjust sharpness for a pleasing level of picture sharpness. (For weak signals, the picture may be more pleasing with sharpness decreased.)

AUDIO MENU

- 1 Repeatedly press MENU to select AUDIO MENU and then press + to display the functions in the AUDIO MENU.

Mute
Video Menu
Audio Menu
Setup Menu

- 2 Select function by repeatedly pressing MENU to move down the screen.



Equalizer
Balance -+
Stereo/SAP: Stereo
Surround: Off
Rear Vol -+
Surr Bal -+
Expand Stereo: Off
Speakers: Off

- 3 Follow instructions below for desired function.

To adjust EQUALIZER settings, press + to display bandwidths. Press MENU to select bandwidth and then press + or - to adjust the setting.

To adjust BALANCE function, press + to increase audio to the right speakers or press - to increase audio to the left speakers.

To prepare the TV to receive stereo, press + to set function to STEREO. Your TV will automatically reproduce stereo when received.

To select a SURROUND mode, press + to change among OFF, DOLBY, MATRIX, HALL, and STADIUM.

To adjust REAR VOLUME of external speakers, press + or -.

To adjust SURROUND BALANCE, press + or -.

If you want the TV to automatically expand stereo signals when received, press + to set the EXPAND STEREO function to ON. The STEREO/SAP function above must also be set to STEREO.

To turn off TV's speakers, press + to change setting to OFF. You will want to leave the TV's speakers turned ON unless you connect an amplifier to the TV that has its own set of speakers.

Picture-in-Picture (PIP)

- 1 Connect VCR or camcorder to INPUT 1 or INPUT 2 jacks on back of TV.
- 2 Turn on TV and select the TV channel you want to watch. Also turn on VCR (or camcorder).
- 3 Press the PIP button to turn on PIP.
- 4 Select channel 91 on remote if VCR is connected to INPUT 1 jacks, or select channel 92 if VCR is connected to INPUT 2 jacks, or select channel 90 if VCR is connected to S-VIDEO connector.
- 5 Little picture can be enlarged, moved, frozen, or switched with main picture as desired. Pressing the arrow buttons moves little picture in that direction. Pressing FREEZE freezes little picture. Pressing SWAP switches little picture with main picture. Pressing ZOOM IN/OUT enlarges and reduces size of little picture.

Changing Channels (PIP)

- 1 To change channels on the picture from the TV, first press the TV button and then press the CHANNEL up or down button (or press two number buttons).
- 2 To change channels on the picture from the VCR, first press the VCR1 button (if you programmed the VCR1 button to control the VCR as described on page 31) and then press either the CHANNEL up or down button or two number buttons. You can also change the VCR's picture by pressing the CHANNEL up or down buttons on the front of the VCR.

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