# RCA SCENIUM

# **HDTV Monitor with DLP technology**

HDTV Monitor **User's Guide** 





# **Important Information**

#### **WARNING**

To reduce the risk of fire or electric shock, do not expose this product to rain or moisture. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

#### CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

Caution: 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.



This symbol indicates that the lamp in the HDTV contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

Refer to the identification/rating label located on the back panel of your product for its proper operating voltage. FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

**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.

**Important:** This television is designed to sit on a firm, flat, surface. Don't place the TV on soft carpeting or similar surface because the ventilation slots on the bottom of the unit will be blocked resulting in reduced lifetime from overheating. To assure adequate ventilation for this product, maintain a spacing of 4 inches from the top and sides of the TV receiver and 2 inches from the rear of the TV receiver and other surfaces. Also, make sure the stand or base you use is of adequate size and strength to prevent the TV from being accidentally tipped over, pushed off, or pulled off. This could cause personal injury and/or damage the TV. Refer to the Important Safety Instructions on the next page.

### **Product Registration**

Please fill out the product registration card (packed separately) and return it immediately. For U.S. customers: Your RCA Scenium Consumer Electronics product may also be registered at www.rcascenium.com/productregistration. Returning the card allows us to contact you if needed.

#### **Product Information**

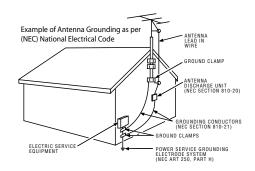
							. Attach it here	and record
the serial and	d model num	bers in case yo	ou need ther	m. These n	umbers are	located on th	ne product.	

Model No	 	
Serial No	 	
Purchase Date:	 	
Dealer/Address/Phone:		

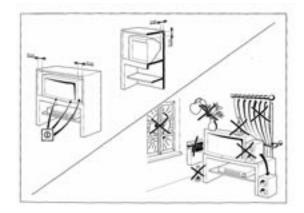
### IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Unplug this apparatus during lightning storms or when unused for long periods of time. Even if the power indicator is off, the apparatus is still not fully disconnected from the power source. To disconnect the apparatus completely from the power source, take its power plug out of the wall outlet or power strip. The power plug must be easily accessible.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

If an outside antenna is connected to the TV receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. In the U.S. Section 810-21 of the National Electrical Code and in Canada, Part 1 of the Canadian Electrical Code provides information with respect to proper grounding of the antenna system. See the figure on the right for details.



To assure adequate ventilation for this product, maintain a spacing of 4 inches from the top and sides of the TV receiver and 2 inches from the rear of the TV receiver and other surfaces.



# Introduction

## Thank you for choosing RCA Scenium

Congratulations on purchasing this RCA Scenium High Definition Television (HDTV) Monitor featuring Digital Light Processing<sup>TM</sup> (DLP<sup>TM</sup>) technology—a true viewing experience. Your purchase decision represents an investment in a new generation of technology— DLP and HDTV. Even though this is a technologically advanced HDTV Monitor, it is the most user-friendly of its kind— with comprehensive on-screen instructions that guide you through all of the monitor's features.

This introduction has three parts that describe why an RCA Scenium HDTV Monitor featuring DLP technology is an excellent choice:

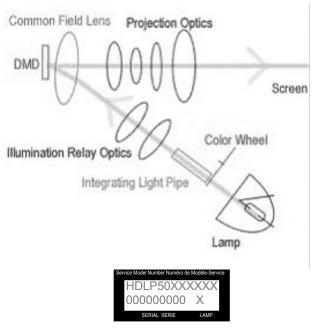
Part 1: DLP-brilliance in color, design, and technology

Part 2: Why RCA Scenium DLP is better

Part 3: Other Key Features of owning an RCA Scenium HDTV Monitor

### Part 1: DLP— brilliance, in color, design, and technology

RCA Scenium brings you brilliant pictures with Digital Light Processing (DLP) system — a brilliantly choreographed, engineering marvel that combines microscopic mirrors, light, and color to bring you the best and brightest pictures possible.



# **EXAMPLE: Service Model Number sticker** with lamp type listed.

Model No	 	
<b>Lamp Type</b>	 	 
Date		

#### **How DLP Works**

In general, DLP combines microscopic mirrors, a specially designed semiconductor, and a color wheel to adjust light to display the most brilliant, accurate images! Your DLP HDTV doesn't use Cathode Ray Tubes (CRTs), which means you don't have to worry about screen burn (fixed video images burning onto the screen permanently) or convergence (realigning the CRTs). The diagram on the left illustrates the complex system.

#### Thin and Light

The efficiency of DLP technology enabled our design team to create a high-performance HDTV that is about 16 inches thin and weighs less than 100 pounds.

#### **Lamp Replacement**

DLP technology uses a special lamp. Eventually, you'll need to replace this lamp, which you can do yourself by following the replacement instructions on page 55. To order the correct lamp, you'll need to know your TV's model number, serial number, and lamp type—this information is listed on the Service Model Number sticker (example of the sticker is shown on the left). The sticker is located on the right side of the TV. The lamp type can also be found in the TV's *Display options* menu. Go to page 47 for more information. For future reference, write down the information in the space provided at the left.

Digital Light Processing, DLP and DLP Cinema are trademarks of Texas Instruments. All other products and names may or may not be trademarks or registered trademarks of their respective companies.

### Part 2: Why RCA Scenium DLP is better

DLP is just part of the story. With your new HDTV Monitor, you can embark on the next generation of TV viewing—HDTV. There are many technological advancements that make HDTV better than analog TV, but there are basically three things about HDTV that bring you a superior viewing experience: (1) resolution, (2) aspect ratio, and (3) digital signal and sound.

**IMPORTANT:** Your HDTV Monitor is capable of displaying high-resolution images. However, in order to view HDTV signals, you will need to use a separate HDTV receiver or tuner and connect it to the HDTV Monitor using one of the inputs that supports a high-resolution signal. See page 12 for more information.

### Resolution (it's math...that works for you)

The crisp, lifelike picture that people rave about when experiencing true HDTV is due to the resolution this technology provides. The resolution is measured by calculating the number of active lines of pixels. A pixel (which stands for picture element) is a small dot. The picture you see on your TV is composed of these dots.

A regular, analog television only has a resolution of about 200,000 pixels (480 vertical pixels x 440 horizontal pixels = 211,200 pixels). The HDTV format is capable of more than 2 million pixels (1,920 x 1,080 = 2,073,600).

More pixels equal more detail. In summary, HDTV is capable of resolution that is up to 10 times the resolution of the picture on a regular, analog TV!

Feature	Analog (NTSC)	HD Digital (ATSC)
Total Scan Lines	525	1125
Effective Scan Lines	480	1080
Aspect Ratio	4:3	16:9 (Widescreen)
Max Resolution	720 x 480	1920 x 1080
Sound	2-ch Stereo	5.1 ch Surround



16:9 Aspect Ratio



4:3 Aspect Ratio

#### **Aspect Ratio**

Aspect ratio is simply the width and height of the picture. Regular TVs use a 4:3 aspect ratio, which means the picture is a little wider than it is tall (a screen that is 20 inches wide is about 15 inches tall).

When the standards were being developed for television broadcasting in 1941 by the NTSC (the National Television Standards Committee), it made sense to adopt the 4:3 aspect ratio the film industry was using at that time.

As TVs dropped in price and people prospered in the 1950s, the movie industry had to find a way to get people out of their living rooms and back to the movie theatres. That's when they created the 16:9 aspect ratio (also called widescreen format). When the standards for HDTV were being developed by the ATSC (Advanced Television Standards Committee), the 16:9 aspect ratio was chosen as the format for HDTV.

This widescreen format makes sense because it's much closer to the way we see. Our field of vision is actually much wider than tall because of our peripheral vision. Not only is it closer to the way we see, but the pictures are crisper and cleaner with more detail in the close-up and panoramic views.

### Introduction

#### **Digital Signal and Sound**

The analog television broadcast system that has been used in the United States for the past 50 years transmits signals as electronic waves. These waves can suffer degradation as the signal travels to your home. Additionally, the analog waves are susceptible to interference from planes passing overhead, weather, and household appliances.

Digital signals, in contrast to analog signals, can be reproduced precisely because the images are transmitted and received using the computer language of 1s and 0s. Such precision yields a signal that is capable of displaying studio-quality picture and Dolby Digital 5.1 channel sound.

### Part 3: Other Key Features of owning an RCA Scenium HDTV Monitor

There are other HDTV Monitors on the market—even some that use DLP technology. But your RCA Scenium HDTV Monitor has been designed with features that will enhance your TV viewing experience, and features that provide flexibility to build on the digital revolution that is taking place. A summary of your TV's most unique features follows. Go to Chapter 3 for more details on these and additional features.

### **TruScan Digital Reality**

With the *Film Mode* option turned on, the intelligent signal processing of TruScan Digital Reality recognizes incoming video signals and progressively converts them to achieve optimum digital picture performance. It also recognizes when original film sources have been modified and can automatically convert the analog frame rate back to its original format to bring out the detail--a process commonly referred to as reverse 3:2 pulldown.

### **DVI-HDTV Input**

Lets you connect a component with a DVI (Digital Visual Interface) output. DVI provides an uncompressed, digital video interface developed for high-bandwidth digital connection. It supports the overlay of high-resolution graphics needed by some electronic program guide navigation and other interactive services. DVI, when combined with HDCP (High bandwidth Digital Content Protection) technology, creates a protected digital connection. The DVI-HDTV connection is designed to display either progressive scan (480p or 720p) or HDTV (1080i) signals at a bandwidth of up to 1.78 Gigabits per second.

### SRS TruSurround, SRS TruSurround XT™, SRS Dialog Clarity™, and SRS TruBass™









TruSurround and TruSurround XT solve the problem of playing multichannel content over two speakers. They deliver a compelling, virtual surround sound experience through any internal television speakers. Dialog Clarity, a feature of TruSurround XT, makes dialog from the source material clearer. TruBass simulates an enhanced bass response from any size speaker.

### **Virtual Dolby\* Surround Pro Logic II**

Virtual Dolby Surround Pro Logic II creates a virtualized surround sound experience from two speakers using the Dolby Surround Pro Logic decoding. It provides the sensation of being surrounded by additional speakers.

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

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TruSurround, TruSurround XT, Dialog Clarity, and TruBass technology is incorporated under license from SRS Labs, Inc.

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# **Chapter Overview:**

- Things to Consider Before You Connect
- Choose Your Connection
- Explanation of Jacks
- Connection Instructions
- Front Panel Buttons
- Plug in the TV
- Put Batteries in the Remote
- How to Use the Remote Control to Complete the Initial Setup
- Turn on the TV
- Complete the Initial Setup

# **Things to Consider Before You Connect**

### **Protect Against Power Surges**

- Connect all components before you plug any of their power cords into the wall outlet.
- Turn off the TV and/or component before you connect or disconnect any cables.
- Make sure all antennas and cables are properly grounded. Refer to the Important Safety Instructions on page 1.

### **Protect Components from Overheating**

- Don't block ventilation holes on any of the components. Arrange the components so that air can circulate freely.
- Don't stack components.
- If you place components in a stand, make sure you allow adequate ventilation.
- If you connect an audio receiver or amplifier, place it on the top shelf so the heated air from it won't flow around other components.

### **Position Cables Properly to Avoid Audio Interference**

- Insert each cable firmly into the designated jack.
- If you place components above the TV, route all cables down the side of the back of the TV instead of straight down the middle of the TV.
- If your antenna uses 300-ohm twin lead cables, do not coil the cables. Also, keep the twin lead cables away from audio/video cables.

### Important Stand and Base Safety Information

Choose the location for your TV carefully. Place the TV on a stand or base that is of adequate size and strength to prevent the TV from being accidentally tipped over, pushed off, or pulled off. This could cause personal injury and/or damage the TV. Refer to the Important Safety Instructions on page 1.

### **Use Indirect Light**

Don't place the TV where sunlight or room lighting will be directed toward the screen. Use soft or indirect lighting.

### **Choose Your Connection**

There are several ways to connect your TV. Please use the following chart to determine which connection is best for you. Proceed to the appropriate page and connect your TV.

Note for US customers: If you prefer, we can provide you with the name of an Authorized Service Representative who will visit your home for a fee to install your electronic entertainment system and to instruct you in its operation. For details about this service, call 1-888-206-3359.

For additional assistance while using your RCA Scenium product, please visit www.rcascenium.com/customersupport.

Components	Cables Needed	Connection Title	Go to
TV HDTV DVD VCR	Coaxial Audio/video Component video DVI-HDTV	TV + HDTV Tuner + DVD + VCR	pages 12-13
TV Satellite VCR	Coaxial Audio/video S-Video	TV + Satellite Receiver + VCR	pages 14-15
TV DVD VCR	Coaxial Audio/video Component video	TV + DVD + VCR	pages 16-17

For general information on connecting an A/V receiver or speakers to your TV, go to page 18.

### **Cables Needed to Connect Components to Your TV**

The pictures below show the cables needed for the connections represented in this book. The next two pages explain the inputs and outputs your HDTV Monitor offers for connecting components.







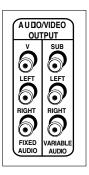




# **Explanation of Jacks**

This section describes the jacks you can use for connections. There are several ways to connect components to your TV.





### **Back Panel Jacks (in alphabetical order)**

**ANTENNA/CABLE** Lets you connect a coaxial cable to receive the signal from the antenna, cable, cable box, or if using the examples on pages 12-17, a VCR.

**AUDIO/VIDEO OUTPUT** Connect a VCR or DVD-recorder to record programs from the Cable or Antenna Input (excluding component video formats) while the TV is turned on. You must leave the TV on the same channel you are recording. You can also connect an amplifier or audio receiver for improved sound quality or an external video monitor.

- **V** (Video) Provides composite video connection. The connector is usually yellow.
- **FIXED AUDIO L/R** Provides fixed-level audio output from the TV. This audio output is in sync with the video signal coming from the monitor's Video output.

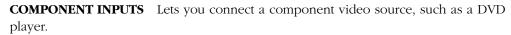
**Note:** When recording from this output, remember to tune to the channel you want to record.

**Important:** If you're watching a program on the HDTV Monitor's screen and listening to the audio from the FIXED AUDIO output jacks, you might notice that the video and audio are slightly out of sync. The HDTV Monitor processes incoming video to optimize it for display, which results in a small delay before displaying the video on screen. The Video output jack does not process video for display, so it does not have the same delay. The FIXED AUDIO output jacks are in sync with the video signal from the Video output.

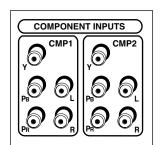
If you're using an external audio receiver to accompany video on the HDTV Monitor's screen, use the VARIABLE AUDIO output jacks, described below.

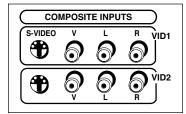
- **VARIABLE AUDIO** Provides variable-level audio output. Volume levels are controlled by the volume controls on the TV and remote control. This audio output is in sync with the video displayed on the HDTV Monitor's screen.
- **SUBWOOFER** Provides lower bass audio frequencies from the TV to a subwoofer.

**Note:** If you've connected a subwoofer, make sure you set the External Subwoofer option in the Sound menu. Go to page 44 for instructions.



- **CMP1 Y PB PR (Component Video)** Provides optimum picture quality because the video is separated into three signals. Use three video-grade cables for the connection. When using CMP1 Y PB PR, make sure to connect left and right audio cables to the CMP1 L and R Audio Input jacks.
- **CMP1 L/R (Audio)** Provides left and right audio connections. The left audio connector is usually white, and the right audio connector is usually red.
- CMP2 Y PB PR, and L and R Audio Allows you to connect a second component video source. Their description is the same as CMP1 above. When using CMP2 Y PB PR, make sure you connect the left and right audio cables to the CMP2 Audio jacks.

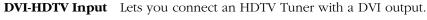




**COMPOSITE INPUTS** Lets you connect another component such as a VCR, DVD player, or laserdisc player. Its AUDIO jacks are the same as described for CMP1 above.

- **VID1 S-VIDEO** Provides better picture quality than the video jacks (VID1 and 2 Video) because the color part of the picture is separated from the black and white part of the picture. When using VID1 S-VIDEO, make sure to connect left and right audio cables to the VID1 L/MONO and R Audio Input jacks.
- **VID1 V (Video)** Provides composite video connection. The video connector is usually yellow.
- **VID1 L/R (Audio)** Provides left and right audio connections. The left audio connector is usually white, and the right audio connector is usually red.
- VID2 S-VIDEO, V and L/MONO and R Audio Allows you to connect a component such as a VCR, DVD player, or laserdisc player. Their description is the same as VID1 above

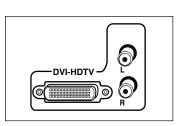
**Note:** For each VID jack group (VID1 and VID2), you may connect either an S-Video or Video cable. Do not connect both at the same time in either of the VID jack groups.



- **DVI (Digital Visual Interface)** Provides an uncompressed, digital video interface developed for high-bandwidth digital connection. It supports the overlay of high-resolution graphics needed by some electronic program guide navigation and other interactive services. DVI, when combined with HDCP (High bandwidth Digital Content Protection) technology, creates a protected digital connection. The DVI-HDTV connection is designed to display either progressive scan (480p or 720p) or HDTV (1080i) signals at a bandwidth of up to 1.78 Gigabits per second.
- **L** (Audio)/**R** (Audio) Provides left and right audio connections when using the DVI jack. The left audio connector is usually white, and the right connector is usually red. **Note:** Remember to connect the left and right audio cables because the DVI cable carries only the picture signal, not the sound.

carries only the picture signal, not the sound.

Wired IR This jack is for connecting a wired remote control system, which is primarily for professional installers. If you're using the remote that was included with your TV, don't plug

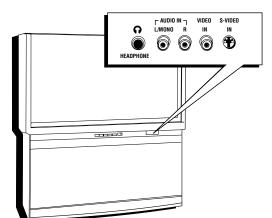


# Wired IR

### **Front Input Jacks**

The TV has front input jacks for convenience in connecting a camcorder, digital camera, or video game system. Look for a hinged door and press to open the cover. Please note the illustration below is just an example of how these jacks might appear.

anything into this jack.



**PHONES** Allows you to connect headphones to listen to the sound coming from the TV. To adjust volume control of the headphones, press the VOL+ or VOL- button (the volume display appears). Press the arrow up or down button (the headphone volume display appears), then press the right or left arrow button to adjust the headphone volume.

**VIDEO (in)** Receives video from another component, such as a camcorder, video game console, or VCR.

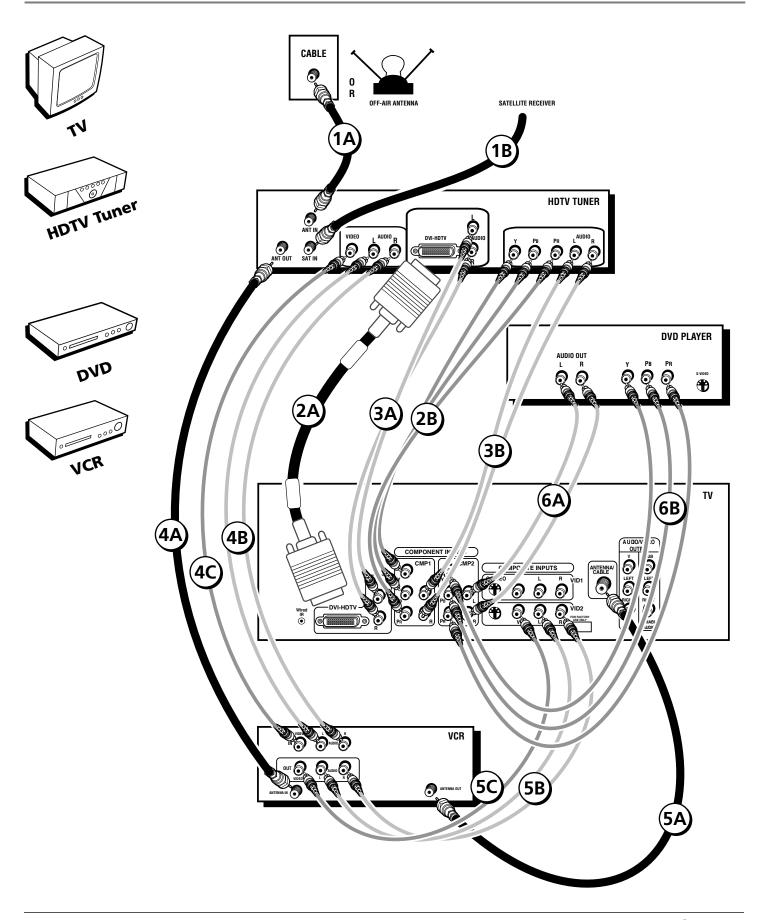
**L/MONO and R AUDIO** Receives audio from another component, such as a camcorder, video game console, or VCR.

**S-VIDEO (in)** Allows you to connect an S-Video cable from another component. Make sure you also connect audio cables from the component to the TV.

**Notes:** When you plug in headphones, the TV's internal speakers are muted. Use the VOL up or down button to control the volume.

When connecting a component that uses a monaural cable, such as some camcorders, use the L/MONO input jack to get sound from both speakers.

Chapter 1 11



## TV + HDTV Tuner + VCR + DVD Player

#### 1. Make sure cable or antenna and/or satellite is connected to your VCR.

- A. Connect the coaxial cable from your cable outlet or antenna to the antenna input on the HDTV Tuner.
- B. Connect the satellite dish antenna to the satellite input on the HDTV Tuner.

#### 2. Make the video connection between your HDTV Tuner and the TV.

A. Best Connection: DVI-HDTV

Connect a DVI-HDTV cable to the DVI-HDTV jack on the back of your HDTV Tuner. Connect the other end of the cable to the DVI-HDTV input on the back of TV.

#### - OR -

B. Very Good Connection: Connect three video grade cables to the CMP1 Y PB PR jacks on the back of the TV and to the Y PB PR jacks on the HDTV Tuner.

**Notes:** The DVI-HDTV and Y PB PR jacks send the digital cable signal to the TV in digital and analog formats, respectively.

#### 3. Make the audio connection between your HDTV Tuner and the TV (to match your video connection).

A. If you used the DVI-HDTV jack:

Connect the audio (white and red) cables to the DVI-HDTV L and R audio jacks on the back of the TV and to the Audio Output jacks on the HDTV Tuner.

#### - OR -

B. If you used the Component Video jacks:

Connect the audio (white and red) cables to the CMP1 L and R audio jacks on the back of the TV and to the Audio Output jacks on the HDTV Tuner.

#### 4. Connect your HDTV Tuner to your VCR.

- A. Connect a coaxial cable to the HDTV Tuner's antenna output and to the VCR's antenna input.
- B. Connect the audio (white and red) cables to the Audio Output jacks on the HDTV Tuner and to the Audio Input jacks on the VCR.
- C. Connect the video cable to the Video Output jack on the HDTV Tuner and to the Video Input jack on the VCR.

#### 5. Connect your VCR to your TV.

- A. Connect a coaxial cable to the VCR's antenna output and to the ANTENNA/CABLE Input jack on the TV.
- B. Connect the audio (white and red) cables to the VID2 L/MONO and R audio jacks on the back of the TV and to the Audio Output jacks on the VCR.
- C. Connect the video cable to the VID2 V (video) jack on the back of the TV and to the Video Output jack on the VCR.

#### 6. Connect your DVD player to your TV.

- A. Connect the audio (white and red) cables to the CMP2 L and R audio jacks on the back of the TV and to the Audio Output jacks on the DVD player.
- B. Connect three video grade cables to the CMP2 Y PB PR jacks on the back of the TV and to the Y PB PR jacks on the DVD player.

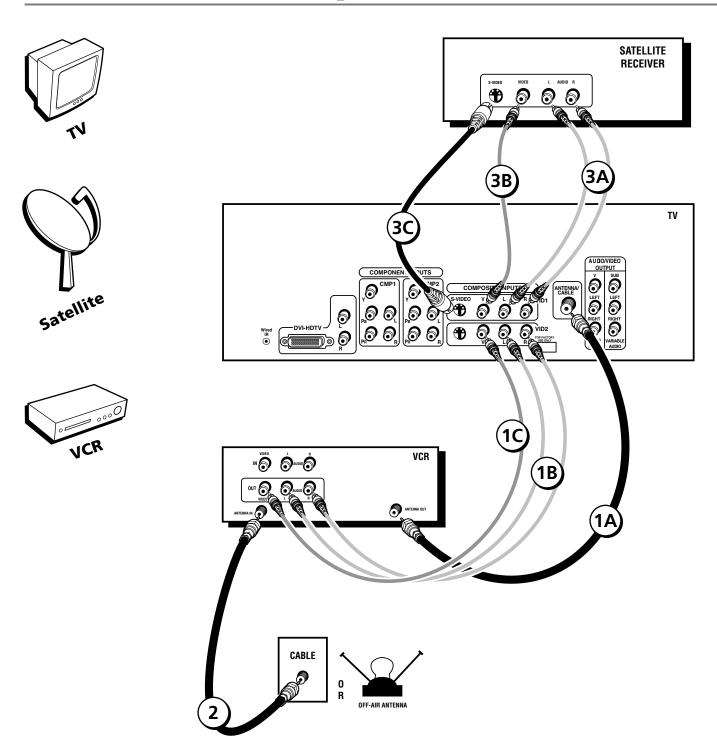
**Notes:** If your DVD player doesn't have Y PB PR jacks, but does have an S-Video jack, connect the player to the TV's VID1 S-VIDEO jack using an S-Video cable.

If your DVD player doesn't have an S-Video jack, connect the player to the TV's VID1 V (video) jack using a video cable.

**Important:** If you use the TV's VID1 S-VIDEO or V (video) jack to connect the DVD player, you must connect the audio cables to the TV's VID1 L/MONO and R jacks.

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### TV + Satellite Receiver + VCR

#### 1. Connect your VCR to your TV.

- A. Connect a coaxial cable to the VCR's antenna output and to the ANTENNA/CABLE Input jack on the TV.
- B. Connect the audio (white and red) cables to the VID2 L/MONO and R Audio jacks on the back of the TV and to the Audio Output jacks on the VCR.
- C. Connect the video cable to the VID2 V (Video) jack on the back of the TV and to the Video Output jack on the VCR.

#### 2. Make sure cable or antenna is connected to your VCR.

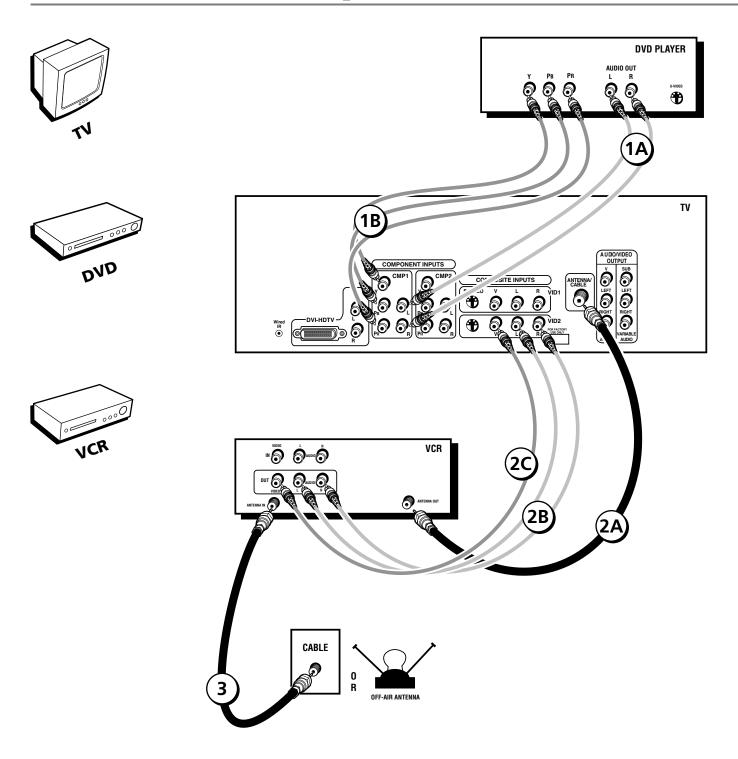
Connect the coaxial cable from your cable outlet or antenna to the Antenna Input on the VCR.

#### 3. Connect your Satellite Receiver to your TV.

- A. Connect the audio (white and red) cables to the VID1 L/MONO and R Audio jacks on the back of the TV and to the Audio Output jacks on the satellite receiver.
- B. Connect the video cable to the VID1 V (Video) jack on the back of the TV and to the Video Output jack on the satellite receiver.
- C. If your satellite receiver has an S-Video jack, connect an S-Video cable (instead of the video cable in step B) to the S-VIDEO jack on the TV and to the S-VIDEO jack on the satellite receiver.

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### TV + DVD + VCR

#### 1. Connect your DVD Player to your TV.

- A. Connect the audio (white and red) cables to the CMP1 L and R Audio jacks on the back of the TV and to the Audio Output jacks on the DVD player.
- B. Connect three video grade cables to the CMP1 Y PB PR jacks on the back of the TV and to the Y PB PR jacks on the DVD player.

#### Notes:

If your DVD player does not have Y PB PR jacks, but does have an S-Video jack, connect the player to the VID1 S-VIDEO jack on the TV using an S-Video cable.

If your DVD player does not have an S-Video jack, connect the player to the VID1 V (Video) jack on the back of the TV using a video cable.

**Important:** If you use the VID1 S-VIDEO or V (Video) jack to connect your TV to the DVD player, you must connect the audio cables to the VID1 L/MONO and R jacks on the TV.

#### 2. Connect your VCR to your TV.

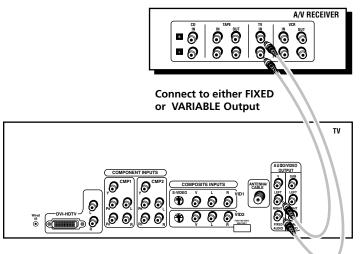
- A. Connect a coaxial cable to the VCR's Antenna Output and to the ANTENNA/CABLE Input jack on the TV.
- B. Connect the audio (white and red) cables to the VID2 L/MONO and R Audio jacks on the back of the TV and to the Audio Output jacks on the VCR.
- C. Connect the video cable to the VID2 V (Video) jack on the back of the TV and to the Video Output jack on the VCR.

#### 3. Make sure cable or antenna is connected to your VCR.

Connect the coaxial cable from your cable outlet or antenna to the Antenna Input on the VCR.

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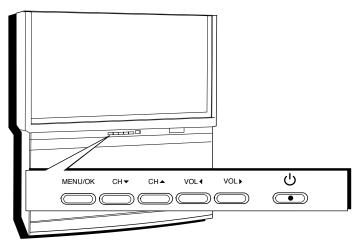


## TV+ A/V Receiver or Speakers

These are two different ways your TV uses a component to hear audio.

Connect audio cables to either the FIXED or VARIABLE AUDIO L and R OUTPUT jacks and to the Audio Inputs on the A/V receiver.

- FIXED provides fixed-level audio output from the TV. This audio output is ideal for connecting to an A/V receiver that has its own volume control.
- VARIABLE provides variable-level audio output.
   Volume levels can be controlled by the volume controls on the TV and TV remote control.



# **Notes:** The front panel illustration shows a typical front panel layout. The exact look may be different from the one on the front of your TV.

If you use the Front Button Block feature, the front panel no longer provides access to the menus. The Front Button Block feature disables all front panel buttons but not the jacks. For more information, see Chapter 3.

### **Front Panel Buttons**

If you cannot locate your remote, you can use the front panel of your TV to operate many of the TV's features.

#### **Power Indicator Light Status**

On	TV is on
Off	TV is off (standby mode)
Blinks	Light blinks 5 times every 30 seconds: Lamp is trying to turn on. If the TV doesn't turn on after 5 minutes, then the light will double-blink four times and then remain on—try one of the following options:
	Lamp door is open. Locate the door on the side of the TV and close it. Turn off the TV and turn back on. The lamp should turn on.
	Lamp is dead. You can replace the lamp yourself follow- ing the instructions on page 55. Go to page 60 for ordering information.
	Power supply within TV may need service. Go to page 58 for warranty information.

**MENU/OK** Brings up the Main menu. When the menu system is displayed, pressing MENU/OK selects highlighted items.

- **CH** ▼ Scans down through the channel list. In the menu system, it moves the highlight down and adjusts menu controls.
- **CH** Scans up through the current channel list. In the menu system, it moves the highlight up and adjusts menu controls.
- **VOL 4** Decreases the volume. In the menu system, it moves the highlight left to items and adjusts menu controls.
- **VOL** Increases the volume. In the menu system, it moves the highlight right to items and adjusts menu controls.

Power button and indicator) Turns the TV on and off. The indicator lights when TV is on. Your HDTV's lamp has a cool-down period when the TV is turned off, and a warm up period when the TV is turned on. If you try to turn the TV on during a cool-down, you will hear audio and then shortly after the picture will be displayed. This could take up to one minute. For different light status of the indicator, see above.

 $\bigcirc$  also turns the front panel backlighting on.

# Plug in the TV

Plug the flat end of the cable into the power jack on the back of the TV. Then plug the other end of the power cord into an appropriate wall outlet. Be sure to insert the plug completely. Do not plug the TV into an outlet controlled by a light switch.



- Remove the battery compartment cover from the back of the remote by pushing the tab and lifting off the cover.
- Insert 2 "AA" fresh batteries. Make sure the polarities (+ and -) are aligned correctly.
- Replace the cover.

# How to Use the Remote Control to Complete the Initial Setup

The technical term is "Navigation" – how you move through the on-screen menus. The theory is the same throughout the menu screens: highlight your choice and select it.

To highlight a menu item, press the arrow buttons on the remote to highlight one of the items listed on the screen. Use the up or down arrow button to move up or down. Use the right or left arrow button to move right or left.

To select the item that you've highlighted, press OK.

**Note:** Highlighted means that the menu item stands out from other menu items on the list (appears darker, brighter, or a different color).

### Turn on the TV

Press TV on the remote, or press the Power button on the TV's front panel.

**Note:** Pressing the TV button turns on the TV and puts the remote into TV mode. "TV mode" means that the buttons on the remote control operate the TV's functions.

# **Complete the Initial Setup**

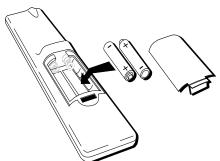
The menu system in your TV allows the TV's features to work properly. The first time you turn on your TV, the setup screens appear.

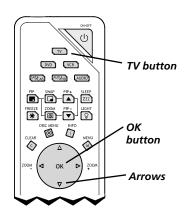
### **Set the Menu Language**

The first part of the setup allows you to select your preferred language for the menu system.

If English is your preferred language, press OK. If you want to choose another language, press the down arrow button until that language is highlighted, and press OK.

Continues on next page...





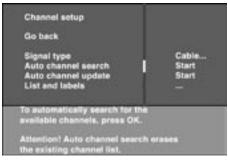
Tip

To access the setup menus manually, press MENU and choose SETUP.



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### **Welcome Screen and Connection Confirmation**

The next screen welcomes you to your new RCA TV. Press OK to continue with the setup. After the welcome screen, the initial setup asks you to make sure that you've connected the HDTV Monitor to your cable or antenna signal. Once you've confirmed that the HDTV Monitor is connected, press OK. The *Channel setup* screen appears.

### **Complete Auto Channel Search**

In the *Channel setup* screen, you can launch the Auto channel search by pressing OK. The Auto channel search allows the TV to search for all channels viewable through your antenna or cable TV system. This is sometimes called *auto programming*. When the channel search is complete, press OK to access the *List & Labels* screen.

### **Changing Lists and Labels**

The List & Labels part of the setup lets you edit your channel list and choose or create a personal six-character label for each channel.

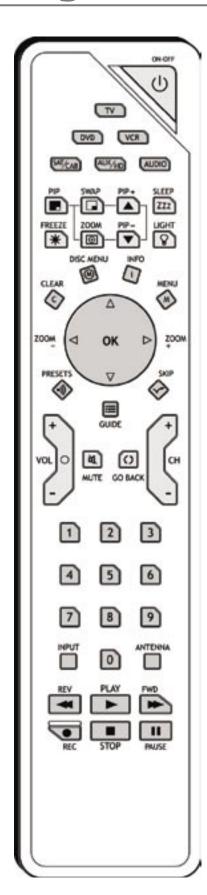
**Note:** Changing List and Labels can be time consuming. You can change these at a later time by accessing the Setup menu.

- 1. Press the left or right arrow button to scroll through the channels and choose the one you want to edit.
- 2. Press the down arrow to highlight the *In channel list* option. Press the left or right arrow button to add (the box is checked) or remove (the box is unchecked) the channel from the list.
- 3. Press the down arrow to highlight the *Channel label* option. Press the left or right arrow button to scroll through the available list of 25 most common labels. The last option in the list allows you to create your own sixcharacter label for the channel (the first letter of the label is highlighted).
- 4. Press the 1 or 2 number button to change the first letter of the label.
- 5. Press the right arrow to highlight the second letter, then press the 1 or 2 number button to change the second letter, etc...
- 6. When you are finished creating your label, press OK. Select *Go back* to go to the *Auto Convergence* menu.

# **Chapter Overview:**

- The Buttons on the Remote Control
- Programming the Remote to Operate Other Components
- The Learning Feature
- Remote Control Codes





### The Buttons on the Remote Control

**(0-9) Number Buttons** Enter channel numbers and time settings directly through the remote control.

To enter a one-digit channel, enter a zero first. To enter a two-digit channel, press the two digits. To enter a three-digit channel, press and hold the "1" button until "1" and two dashes (– –) appear, then add the second two digits. Example: to tune to channel 123, press and hold 1 until "1– –" appears, release the 1 button and then press 2 and 3.

**ANTENNA** In VCR mode (if programmed), this button works as a TV/VCR button for some VCRs. In SAT mode (if programmed), this button works as a TV/SAT button for some satellite receivers.

**Arrows** Used to highlight different items in the TV menu and to adjust the menu controls. The up and down arrows move the PIP window when no menus are on the screen. When watching TV without the PIP window or menu system in use, the left and right arrows (**ZOOM** –and **ZOOM** +) change the current format of the screen (4:3, Zoom 14:9, Zoom 16:9, Zoom 16:9  $^{\text{N}}$ V, Cinerama, regular mode 16:9).

**AUDIO** Places the remote in audio mode to operate a component (such as a CD player, audio receiver, amplifier/receiver) that you've programmed to work with this button.

**AUX/HD** Puts the remote in AUX/HD mode. As a default, this button controls some models of RCA HDTV Tuners. It can also be programmed to operate some brands of an additional remote-controllable components. The Autotuning feature for this button works *only* with HDTV tuners (see page 34 for more information on Autotuning).

**CH + or CH -** Scans up or down through the current channel list. Press once to change the channel up or down; press and hold to continue changing channels. In DVD mode while a disc is playing, CH+ advances to the next chapter; CH- goes to the preceding chapter.

**CLEAR** Removes any menu or display from the screen and returns you to normal viewing. Also exits PIP or POP if no menu is displayed.

**DISC MENU** In DVD mode (if programmed), while a disc is playing, brings up the current disc's menu (if available).

**DVD** Places the remote in DVD mode. If Auto Tuning is enabled, pressing the DVD button turns on the TV and tunes to the correct Video Input Channel.

**FREEZE** When watching TV, freezes the picture until you press any button on the remote to resume normal TV viewing. The FREEZE feature automatically times out after a short time. Please note that when you "unfreeze" you go back to live programming (skipping any programming that occurred during the freeze).

**GO BACK** In TV mode, returns you to the previous channel.

**GUIDE** In TV mode, brings up the *Channel Guide* menu.

**INFO** In TV mode, makes the channel banner appear and disappear.

**INPUT** Accesses the available video input channels (VID1, VID2, FRNT, CMP1, CMP2 and DVI). Press the CH+ or CH- button to resume TV viewing.

**LIGHT** Press to illuminate the remote control's buttons (except for the component buttons). To conserve battery power, the light turns off after several seconds. Backlight won't activate if batteries are low, but blinks on and off quickly.

**MENU** In TV mode, makes the TV Main menu appear and disappear.

#### Tip

The component button corresponding to the mode you're in flickers when the remote batteries are low and you press a button on the remote.

A warning message may also appear on the screen when you press a remote button and the batteries are low.

#### Tip

To turn off most RCA components that are connected to the TV, press ON•OFF twice within two seconds.

This feature only works with most RCA products.

#### Note:

The DVD, VCR, SATICAB, AUXIHD, and AUDIO buttons also turn on most RCA products.

**MUTE** Reduces the TV's volume to its minimum level. Press again to restore the volume.

**OK** When in the menu system, selects highlighted items. When watching TV, freezes the picture until you press any button on the remote to resume normal TV viewing. Please note that when you "unfreeze" you go back to live programming (skipping any programming that occurred during the freeze).

**ON • OFF** When in TV mode, turns the TV on and off. If in another component mode (VCR, DVD, SAT/CAB, AUX/HD or AUDIO) and programmed, turns the component on and off.

**PIP** Press once to bring up the small picture-in-picture (PIP) window. Press again to bring up the picture-outside-picture (POP) windows. Press to remove POP. (See Chapter 3 for more information about using PIP.)

**PIP + or PIP –** When using PIP or POP, changes the channel in the PIP window.

**PRESETS** In TV mode, displays the *Picture* and *Sound* preset settings. Use the up and down arrow buttons to highlight either *Picture* or *Sound* settings. Use the left and right arrow buttons to change to a different Picture or Sound preset.

**REC** If programmed, starts recording TV programs if your HDTV Monitor's video output is connected to a recording device (such as a VCR) and if the remote is in the right mode to control that device.

**REV, PLAY, FWD, STOP, PAUSE** If programmed, these buttons provide transport control for some remote-controllable VCRs, DVD players, tape decks, and CD players.

**SAT/CAB** Puts the remote in SAT/CAB mode and, if Autotuning is enabled, turns on the TV and tunes to the correct input channel.

**SKIP** In TV mode, press once before changing channels and the TV will wait 30 seconds before returning you to the original channel. Press repeatedly to add more time.

**SLEEP** Brings up the *Sleep timer* menu. Use the right and left arrow buttons on the remote control to increase or decrease the sleep timer in five minutes increments (up to a maximum of four hours).

**SWAP** When using PIP, swaps the main picture with the PIP window. When using POP, swaps the left and right pictures.

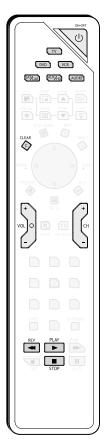
**TV** Turns on the TV and puts the remote in TV mode. Also displays the channel banner.

**VCR** Puts the remote in VCR mode and, if Autotuning is enabled, turns on the TV and tunes to the correct input channel.

**VOL – or VOL +** Decreases or increases the TV's volume.

**ZOOM** In PIP mode, changes the size of the PIP window.

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You'll use these buttons when you program the remote.

**Important:** The remote may not be compatible with all models of all brands of components. It also may not operate all functions of the remote that came with your component.

#### Important note for direct entry

You must continue pressing the component button while you enter the code.

Let's say you have a Zenith VCR. To program the universal remote to operate the VCR, you would:

Press and hold the VCR button while you enter the first code listed for Zenith in the VCR Codes column.

Release the VCR button. Press ON•OFF to see if the VCR responds. If it doesn't, follow the same steps, but enter the second code for Zenith VCRs instead of the first.

# **Programming the Remote to Operate Other Components**

The universal remote can be programmed to operate most brands of remote controllable components. The remote is already programmed to operate most RCA components.

Also, the AUX/HD button can be programmed to operate most brands of an additional remote-controllable component (such as a VCR, DVD player, CD player, satellite receiver, cable box or audio receiver).

**Note:** The TV button can't be programmed on this remote.

### Find Out If You Need to Program the Remote

To determine whether the universal remote needs to be programmed to operate one of the components connected to your TV, such as a VCR, do the following:

- 1. Turn on the component (in this example, a VCR).
- 2. Point the remote at the component.
- Press the corresponding component button (in this example, the VCR button).
- 4. Press ON•OFF to see if the VCR responds. If the VCR doesn't respond, you need to program the remote to operate it.

### **Programming the Remote**

There are two ways to program the remote control:

- direct entry
- automatic code search

### **Using Direct Entry**

- 1. Turn on the component you want to operate (VCR, DVD player, satellite receiver, etc.)
- 2. Look up the brand and code number(s) for the component on the code list in this section.
- 3. Press and hold the component button you want to program on the remote.
- 4. Enter the 4-digit code from the remote control code list starting on page 31. If the component button flashes, you have either entered an invalid code or the button isn't programmable.
- 5. Release the component button, point remote at component, and then press ON•OFF to see if the component responds to the command. If it doesn't, try pressing the component button and then ON•OFF again.
- If you get no response, repeat these steps using the next code listed for your brand, until the component responds to the remote commands.
- If you try all the codes for your component brand and none work, try the automatic code search method. If automatic code search doesn't find the code, the remote is not compatible with your component.

#### Tip

To stop the automatic code search without programming any components, press and hold CLEAR until the light in the component button turns off.

#### **Using Automatic Code Search**

If Direct Entry does not work for your component, try Auto Code Search. The following instructions can be used to program the remote to operate each of your components. If you want to stop the automatic code search without programming any of your components, press and hold CLEAR until the light in the component button turns off.

- 1. Turn on the component you want to operate (VCR, DVD player, satellite receiver, etc.)
- 2. Press and hold the component button you want to program (VCR, DVD, etc.). While holding the component button, press and hold ON●OFF until the component button on the remote turns on, then release both buttons.
- 3. Point the remote at the component.
- 4. Press and release PLAY, then wait 5 seconds or until the component button stops flashing. Make sure you have the remote pointed at the component when you press PLAY.

At this point the remote is searching for the correct code to program. If, after 5 seconds, the component you want to operate does not turn off, press PLAY again to tell the remote to search the next set of codes.

Continue pressing and releasing PLAY until the component turns off or you have searched through all of the codes. The component buttons flash when all codes have been searched, the component button turns off, and remote exits Automatic Code Search.

If the component you want to control does turn off:

- 1. Press and release REV, then wait 2 seconds. Repeat this step until the component turns back on.
- 2. To finish, press and hold STOP until the component button on the remote turns off.

### How to Use the Remote After You've Programmed It

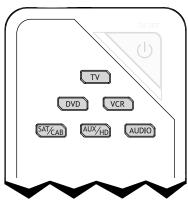
Because this universal remote can control several different components (TV, VCR, satellite receiver, etc.) it uses operational modes triggered by the component buttons. For example, if you want the remote to operate the TV, you would press the TV button to put the remote into TV mode before you could control the TV.

- 1. Press the appropriate component button (DVD, TV, VCR, SAT/CAB, AUX/HD, AUDIO) to set the remote to control the component.
- 2. Press ON•OFF to turn the component ON or OFF.
- 3. Use the remote buttons that apply to that component. The component button on your remote lights up when you press valid buttons while in that component's mode.

#### Notes:

- The remote may not be compatible with all brands and models of components. It also may not operate all functions of the remote that came with your component.
- If you keep pressing buttons and nothing happens, the remote is probably in the wrong mode. You must press the component button that matches the component you want to operate (i.e., if you want to operate the VCR, press VCR on the remote control to put the remote in VCR mode.)

#### **Component Buttons**



#### Note

Some of the remote's buttons might operate differently for other components, especially when you're using another component's menu system.

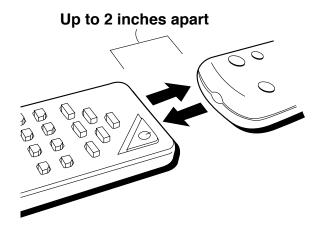
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# The Learning Feature

Before using the learning feature, make sure this TV's remote control is programmed to control other components you have connected to the TV. Programming the remote control erases all learned commands for that component mode.

After you program the TV's remote control to operate the other component, the TV's remote provides most of the operations you need. However, there may be some functions on the component's original remote control that your TV's remote control doesn't have. For example, your HDTV tuner remote control might have a ZOOM button that enables you to enlarge the picture, but your HDTV Monitor remote doesn't have a zoom button for HDTV tuners. The learning feature enables you to record the functionality of a specific button from the original remote control to one of the TV's remote control buttons.

**Note:** All learned functions for a mode can be erased if you program a different component to that mode.



### **Adding a Learned Function**

There are several things to consider before you begin the learning process:

- You can't record a learned function to the following buttons on the TV's remote control: component buttons (TV, VCR, DVD, AUX/HD, and AUDIO), the CLEAR button, and the LIGHT button.
- Before adding a Learned Function, you must program this TV's remote control to operate that
  component because programming the remote control erases all learned commands for that
  component mode.
- Do the learning process in low light areas because too much natural light or fluorescent light might cause the learning feature to fail because the remote control functions are recorded (learned) by sending infrared (IR) signals.
- The TV's remote and the original remote should be no more than 2 inches apart.

- In order to record (learn) a function from one remote to the other, you must make sure the
  Infrared (IR) transmitter of the original remote is facing the IR receiver on the top of the TV's
  remote (see illustration). To accomplish this, you may have to hold a remote in each hand
  instead of laying both on the table.
- The learned buttons are mode specific—if you add a button function from your HDTV tuner's
  remote control, you must press the AUX/HD button first before the learned function will work
  (in TV mode, the button where you've stored the learned function will continue to work as it
  always has).
  - 1. Press and hold the component button on the TV's remote that applies to the function you will be adding (DVD, VCR, SAT/CAB, AUDIO, or AUX/HD). The component button lights.
  - 2. On the HDTV Monitor remote, press and hold the RECORD button.
  - 3. Keep pressing both of the buttons (the component button and the RECORD button) until the component button light turns off, flashes, and turns off. Release both buttons.
  - 4. On the TV's remote control, press and release the button where you want to store the new function (the component button turns off and then back on).

**Note:** If you press an invalid button on the HDTV Monitor remote, one of the component button flashes 4 times to alert you. You'll have to repeat step 4.

- 5. With the remote controls facing each other and no more than 2 inches apart, press and hold the button of the component's remote control that has the functionality you are recording to the TV's remote control. Keep pressing the button until the HDTV Monitor remote's component button light turns off and back on (the function has been saved to the HDTV Monitor remote). If all component buttons flash four times, then the function wasn't learned. You can try again starting with step 4.
- 6. The HDTV Monitor remote control remains in "learning mode" so you can continue adding functions to different buttons by repeating steps 4 and 5. Or, press CLEAR to exit learning mode.

**Notes:** If you want a new function on a button, you must record (learn) over it.

The amount of memory each learned function uses in the TV's remote control varies. If your HDTV Monitor remote is out of memory, the component button(s) light flashes 4 times and turn off, exiting you from the Learning mode.

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### **Clearing a Learned Function**

To delete a learned button function, use the procedure below.

- 1. Press and hold the component button (the component button lights). Then press and hold the CLEAR button for 3 seconds. Continue depressing both buttons (the component mode button flashes—turns on and off again).
- 2. Release the component and CLEAR buttons (the component button being programmed turns on). Remote is now in Clear learned function mode.
- 3. Press and release the button where learning is to be cleared. The component button blinks off then back on—the learned function was cleared successfully.
- 4. Repeat steps 1 through 3 until all buttons' learned functions have been cleared.

**Note:** If an invalid button is pressed, the component mode button(s) flashes 4 times and the selected component button stays on and remote remains in Clear Learned Function mode. Repeat step 3.

5. Press the CLEAR button and your HDTV Monitor remote returns to its original operation mode.

### **Deleting ALL Learned Functions**

This procedure erases all learned functions in every component mode of the remote.

- Press and hold the CLEAR button (the current component button lights). Then press and hold the ON•OFF button (component button light turns off for 3 seconds, flashes, turns on and off) while continuing to hold CLEAR.
- 2. Release both buttons (current component button turns on).
- 3. Press any component button to delete all learned functions in all modes. Remote is automatically exited from this mode.

**Note:** Pressing the CLEAR button will NOT delete all learned functions, but will exit the Delete mode.

### **Volume Punchthrough**

You may find this feature helpful if you've connected your components to an audio/video receiver (A/V receiver) or amplifier, but you want to use the TV's remote control to operate the volume for a component that is connected to the audio/video receiver. An example follows.

Let's say you've connected your HDTV tuner to your audio/video receiver. You've also programmed your HDTV Monitor remote control to operate your HDTV tuner. Since the HDTV tuner gets its volume through the audio/video receiver, you would have to bounce back and forth between two remote controls: the a/v receiver's remote to adjust the volume and the TV's remote control to operate the HDTV tuner.

The Volume Punchthrough Feature eliminates the need for you to use two remote controls and saves a button press when you're using the HDTV Monitor remote to adjust the volume. In effect, you are telling the HDTV Monitor remote to retrieve and send volume commands from the A/V receiver whenever the HDTV Monitor remote is operating the HDTV tuner (in AUX/HD mode).

Therefore, after you've successfully set up the Volume Punchthrough Feature, whenever the HDTV Monitor remote is in AUX/HD mode (press the AUX/HD button) and you want to adjust the volume, you only have to press the VOL + or VOL- buttons. Follow the instructions below to set up Volume Punchthrough.

**IMPORTANT:** First, you must program the AUDIO button on the TV's remote control to operate your audio receiver or amplifier. Go to page 24 for instructions. If you can't program this remote to operate your audio receiver, Volume Punchthrough won't work.

While setting up Volume Punchthrough, it's best to point the remote away from components.

- Decide which mode the remote will be in when the volume from the audio receiver "punches through." The mode will be one of the component buttons (TV, DVD, SAT/CAB, VCR, or AUX/HD).
- 2. Press and hold the VOL- button. Keep pressing VOL- while you press and release the component button you chose in step 1 (TV, DVD, SAT/CAB, VCR or AUX/HD).
- 3. Then press and release the AUDIO button since the sound will be coming from the audio/video receiver. Release the VOL-button.
- 4. Now, test it by turning on your audio receiver or amplifier.
- 5. Turn on the component that is connected to the audio/video receiver or amplifier (an HDTV tuner, for example).
- 6. Put the TV's remote in AUX/HD mode by pressing the AUX/HD button, and tune to a channel
- 7. Press VOL+ or VOL-. The volume from the audio receiver should increase or decrease accordingly.

Continues on next page...

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### **Deleting All Punchthrough Commands**

To delete all programmed Volume Punchthrough settings and return the remote control back to the factory defaults (TV for all modes except AUDIO), press and hold the VOL- button (LED of the Volume Punchthrough component lights). While holding the VOL- button, enter the code 000, using the number buttons. All component LEDs turn on for 2 seconds and then turn off. The remote returns to the factory settings.

**Note:** If an invalid button is pressed, all component LEDs blink 4 times and turn off. At this point, you must start over.

### **Using the INPUT Button**

Use the INPUT button to scroll through the available input channels and view components you have connected to the TV.

- 1. Press TV to place the remote in TV mode. Make sure the component you want to view is turned on.
- 2. Press INPUT until you reach the correct input channel.
- 3. To return to the channel you were previously watching on TV, press CH+ or CH- button.

### **Remote Control Codes**

Audio Cod	
Programmable for the AUDIO an	d AUX/HD buttons.
AUX/Dimensia/Lyra Wireless	
RCA	4004
Audio Cassette	
GE	4006
RCA	
RCA	4000
CD Players	
ADC	
Aiwa	
Akai	
Denon	
Emerson	
Fisher	
GE Hitachi	
IVC	
Kenwood	
Luxman	
Marantz	
MCS	
Mitsubishi	
NEC	
Onkyo	
Panasonic	
Pioneer	4049
RCA	
Sears	
Sony	4051, 4061
Technics	
Toshiba	
Yamaha	4053, 4054
Phono	
GE	4005
RCA	
NCA	
Receiver/Tuner/AMP	
Aiwa 4008. 4009,	
Denon	
GE	
Harman Kardon	
JBL	
JVC	
Kenwood	
Onkyo	
Optimus	
Panasonic	
RCASherwood	
Sony	
Technics	
Yamaha	
Tamana	4018, 4019
HDTV Tuner C	.oaes

Programmable for the AUX/HD button.

#### Cable Box Codes

Programmable for SAT/CAB and	d AU	X/HD	) butt	ons.
ABC5002.	, 5003,	5004,	5006,	5045
Archer				
Cableview				.5007
Contec				.5015
Eastern				.5016
GE			.5002,	5003
Gemini			.5017,	5018
General Instruments				.5003
Hamlin5019	, 5020,	5021,	5026,	5033
Hitachi				.5003
Jerrold5003, 5017	, 5022,	5023,	5039,	5045
Magnavox				.5024
Memorex				.5026
Movie Time				.5025
NEC				.5005
NSC				
Oak				
Panasonic				
Philips 5011, 5012, 5013, 5014, 5018	, 5024,	5028,	5029,	5030
Pioneer				
Proscan				
RCA	5007,	5040,	5042,	5044
Realistic				.5009
Samsung				
Scientific Atlanta	5006,	5034,	5035,	5036
Signature				.5003
Sprucer				
Standard Component				
Starcom				
Stargate				
Tocom				
United Cable				
Universal				
View Star		.5015,	5024,	5025
Zenith				.5043

DVD codes
Programmable for DVD and AUX/HD buttons.

riogrammable for DVD and AUA	V/HD bu	HOHS	٠.
DVD			
Aiwa		3010,	3021
Apex		3023,	3024
Broksonic		3027,	3075
Daewoo			.3028
Denon	3029,	3030,	3031
Emerson	3032,	3033,	3076
Funai			
GE	3000,	3034,	3035
Go Video			3077
Hitachi	067, 3068,	3069,	3070
JVC	3003,	3011,	3078
Kenwood			
Konka			
Koss			
Lasonic			.3087
Magnavox			
Memorex			
Mintek			
Mitsubishi			
NAD			
Norcent			
Onkyo			
Oritron			
Panasonic			
Philips			
Pioneer			
Proscan			
Qwestar			
RCA			
Samsung3072, 30			
Sansui			
Sanyo			
Sharp			
Sony 3007, 3016, 3017, 30			
Sylvania			
Teac			
Technics			
Toshiba			
Yamaha	3062	3063	3064
Zenith			
	,,	5005,	500

#### Portable DVD

Aiwa	
Audiovox	3025, 3026
Panasonic	3030
RCA	3066
Sharp	

#### **DVD/VCR Combo Codes**

DVD and AUX/HD buttons can use DVD codes; VCR and AUX/HD buttons can use VCR codes

	DVD	VCR
Broksonic	3075	2075
Emerson	3076	2076
Go Video	3077	2077
JVC	3078	2078
RCA	3079	2079
Samsung	3080, 3081	2080, 2081
Sanyo	3082	2082
Sony	3083	2083
Zenith	3084	2084

#### PVR Codes

Programmable for the VCR and AUX/HD butter	ons.
PVR	
Replay	2086
Philips Tivo	2085

# Home Theatre in a Box (DVD Receiver) Codes

AUDIO and AUX/HD buttons can use Audio codes; DVD and AUX/HD buttons can use DVD codes

	Audio	DVD
JBL		
JVC		
Koss		
Onkyo	4034	3091
Panasonic		
Pioneer	4036	3093
RCA	4037	3094
Venturer	4038	3095

#### **Satellite Receiver Codes**

Programmable for SAT/CAB and AUX/HD buttons.

Alphastar	5064
Chapparal	5046, 5047
Dishnet	
Drake	5048, 5049
Echostar	5070
GE	
General Instruments	5050, 5051, 5052
Hitachi	5066, 5067
Hughes	
IVČ	
Panasonic	5060
Philips	
Primestar	
Proscan	
RCA	
Realistic	
Sony	
STS1	
STS3	
STS4	5056
Toshiba	5057, 5059
Uniden	

Continues on next page...

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### VCR Codes

	e for VCR and AUX/HD buttons.
Admiral	206
	202
	202
Akai	2002, 2003, 2004, 2057, 2058, 205
	201
	200
	2008, 2021, 207
	201
Canon	2017, 201
Capehart	2016, 205
	203
	2023, 203
Citizen 20	09, 2010, 2011, 2012, 2013, 2014, 2015, 202
Colortyme	200
	2009, 2010, 2019, 203
	2005, 2009, 2012
	2014, 2017, 2018, 2020, 2060, 207
	2011, 2013, 2015, 2021, 2022, 2023, 205
	205
	207
	2010, 202
	2002, 2008, 2010, 2011, 2017, 2020
	2021, 2022, 2024, 2025, 2026, 2027, 2028
	2039, 2059, 2061, 2067, 2069, 207
	2007, 2019, 2029, 203
	2003, 2017, 206
	202
	202
	00, 2001, 2009, 2017, 2018, 2060, 2063, 207
	202
	200
	2005, 2006, 2007, 2008, 2009, 2010, 2017
	2018, 2030, 2033, 2034, 2036, 2037, 205

Jensen					.2033,	2034,	2057
JVC	. 2005,	2006,	2007,	2014,	2057,	2064,	2078
Kenwood	. 2005,	2006,	2007,	2012,	2014,	2057,	2064
KLH							.2036
Kodak							
LG							
Logik							.2036
LXI							
Magnavox	2017	2018	2037	2038	2052	2054	2065
Marantz	2005	2006	2007	2012	2014	2017	2037
Matsushita							
Memorex 2007,							
MGA							
Minolta							
Mitsubishi							
Montgomery Ward							
Motorola						2017	2069
MTC							
Multitech							
NEC	2005	2006	2009,	2012,	2022,	2051,	2050
Nikko							
Noblex							
Olympus							
Optimus							
Optonica							
Panasonic							
Pentax							
Pentex Research							
Philco							
Philips							
Pioneer							
Portland				.2012,	2013,	2015,	2056
Proscan							
Quasar							
RCA 2000, 2001,	2002,	2009,	2017,	2033,	2034,	2043,	2044,
2045, 2053	,2060,	2063,	2066,	2070,	2072,	2073,	2079
Radio Shack							
Radioshack/Realistic				2007.	2009.	2010,	2017.
						,	

Realistic						
2						
Radix						
Ricoh						.2071
Runco						
Samsung 2004, 2	009, 2013	1, 2027,	2031,	2058,	2080,	2081
Sansui			. 2006,	2046,	2057,	2064
Sanyo						
Scott2						
Sears 2007, 2010, 2						
Sharp		2013,	2024,	2047,	2048,	2068
Shintom			.2003,	2034,	2036,	2049
Signature						.2068
Singer				.2017,	2036,	2071
Sony		2003,	2049,	2050,	2062,	2083
STS					.2017,	2053
STS Sylvania2	017, 2018	3, 2022,	2037,	2038,	2039,	2065
Symphonic						.2022
Tandy						.2007
Tashiko						.2010
Tatung						.2057
TEAC					.2022,	2057
Technics					.2017,	2055
Teknika			.2010,	2017,	2022,	2051
Toshiba	201	1, 2029,	2030,	2033,	2039,	2059
Totevsion					.2009,	2010
Unitech						.2009
Vector Research			.2005,	2006,	2011,	2012
Video Concepts		2005.	2006,	2011,	2012,	2059
Wards 20						
2033, 2	034, 2030	5, 2047.	2053.	2061,	2068,	2070
XR-1000						
Yamaha		2005,	2006,	2007,	2014,	2057
Zenith	200	3, 2049,	2052,	2062,	2071,	2084

# **Using the TV's Features**

# **Chapter Overview:**

- Channel Banner
- Autotuning
- Parental Controls and V-Chip
- PIP (Picture-in-Picture) and POP (Picture-outside-Picture) Operation

## **Using the TV's Features**

### **Channel Banner**

There are several indicators that might appear when you press the TV or INFO button on the remote. This display is called the Channel Banner. The following list describes the items on the Channel Banner screen (left to right and top to bottom).



Sample displays on a Channel Banner.

4/3 format	Current screen format.
Mono (or Stereo)	<i>Mono</i> appears when the current channel is broadcasting in mono. <i>Stereo</i> appears when the current channel is broadcasting in stereo.
SAP	The current channel is broadcasting SAP (Second Audio Program) information.
	Parental Controls are locked.
CC	Closed Captioning is available on the current channel.
03:45 pm	Current time.
15 NBC	Current channel and label assigned to the channel.
Commercial	Shows the time remaining on the commercial skip (SKIP)

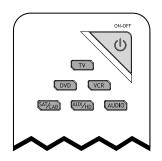
# **Autotuning**

The autotuning feature automatically tunes the TV to the correct channel/input for different components you have connected to your TV (like a VCR, DVD player, etc.) When you set up autotuning in the menu system you don't have to remember to change your TV to the VID1 input, for example, when you want to watch a DVD on your DVD player.

skip 0:30

timer.

Sound is muted.



Your remote's component buttons

### Why You Should Use the Autotuning Feature

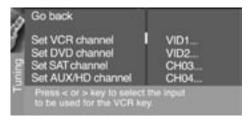
With the autotuning feature, you can set up the TV to tune to the channel/input you need to watch by pressing that component's button.

### How to Set Up the Autotuning Feature

The way you set up the autotuning feature in the TV's menu corresponds to the component buttons on the remote and the way you have each component connected to your TV. When you set up autotuning, you're telling the TV what channel/input to tune to when you press the VCR, DVD, SAT/CAB, AUX/HD or AUDIO button on the remote control.



- 1. Press MENU (the MAIN MENU appears).
- 2. Highlight Setup and press OK on your remote control.
- 3. Highlight Autotuning and press OK.



4. Choose which component button you would like to set:

**Set VCR Channel** Lets you set up the channel the TV tunes to when you press the VCR button.

**Set DVD Channel** Lets you set up the channel the TV tunes to when you press the DVD button.

**Set SAT Channel** Lets you set up the channel the TV tunes to when you press the SAT/CAB button.

**Set AUX/HD Channel** Lets you set up the channel the TV tunes to when you press the AUX/HD button.

5. Press the right arrow button to select the choice that matches the way you have the component connected to this TV, and press OK.

You can select from the following inputs or channels:

**N/A** Choose this if you don't have this particular component connected to the TV, or if you don't want the TV to automatically tune to the correct channel/input when you're using this component.

**Channel 3 or 4** Component is connected to the CABLE/ANTENNA jack on the back of the TV, and you want the TV to tune to channel 3 when you press the corresponding button on the remote. Reminder: make sure the component's Channel 3/4 switch is set to channel 3.

**VID1 or VID2 (Video Input)** Component is connected to a VIDEO or S-Video jack on the back of the TV and you want the TV to tune to a VID input channel when you press the corresponding component button.

**FRNT (Front Video Input)** Component is connected to the VIDEO jack on the front of the TV and you want the TV to tune to the front VID input channel (FRNT) when you press the corresponding component button.

**CMP1 or CMP2 (Component Video Input)** Compatible component video source, such as a DVD player or digital TV converter box, is connected to the three COMPONENT VIDEO INPUT jacks (Y,PB,PR) on the back of the TV and you want the TV to tune to the component video input channel (CMP) when you press the corresponding component button.

**DVI** Component is connected to the DVI-HDCP jack on the back of the TV and you want the TV to tune to the DVI input channel when you press the corresponding component button.

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# **Parental Controls and V-Chip**

The choices in the *US V-CHIP* and *Canada V-CHIP* menus involve software inside your TV (referred to as V-Chip) which allows you to block TV programs and movies based on violence, sex, or other content you may believe children should not view.

Once you block programs, you can unblock programs by entering a password.

By default, the software inside your TV is turned "off." For instructions to turn on V-Chip, go to page 41.

Note: Parental Control settings are not available for DVI, CMP1, or CMP2 inputs.

### **How V-Chip Works for USA and Canada**

V-Chip reads the program's age-based rating (TV-MA, TV-14, etc.) and content themes [(Violence (V), Adult Language (L), etc.)]. If you have blocked the rating and/or content themes that the program contains, you will receive the message *This channel has not been approved for viewing.* Change channel or press OK to enter password and temporarily deactivate the Parental Control.

Broadcasters are not required to provide content themes, so programs received with no content themes will only be blocked if you block their age-based rating. You can also block out programs that have been given an Exempt rating, and programs that are considered unrated. The next several pages have tables showing the TV age-based ratings and content themes for the US and Canada.



## **US V-Chip TV Rating Limit**

The V-Chip TV Rating Limit lets you decide which TV programs can and cannot be viewed.

To set TV programming limits:

- 1. Choose *Parental Control* from the MAIN MENU. If Parental Controls have previously been locked, you must enter your password.
- 2. Highlight and select US V-Chip. Then select V-Chip TV Rating.
- 3. Once you get to the *V-Chip TV rating limit* screen, use the arrow buttons and OK on your remote to change the status of a TV program rating or content theme from *View* to *Block*.
- 4. For TV rating limits to take effect, lock Parental Controls by accessing the *Lock parental controls* menu.

The following sections give you more details about how to change the status of TV program limits.

**Note:** If you forget your password, follow step one above to get to the password entry screen. Then press the VOL+ and CH+ buttons on the TV's front panel at the same time for at least 8 seconds. You will receive an on-screen message that Parental Controls have been unlocked once you've successfully reset the password.

### The V-Chip Rating Screen

Rating Field

Lets you select from a

list of age-based ratings

you can block or view.

The following is an example of where items are located within the Rating Limit screen.

### Rating Status Field

Lets you select whether the status of the age-based rating limit to the left is View or Block.

# Go back TV-MA TV-14 View View TV-PG View TV-Y7 View

### **Content Themes**

Lists the content themes you can block or view.

### Content Status Fields

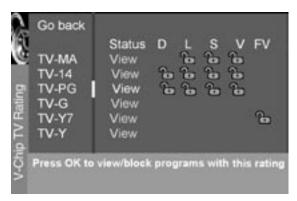
Lets you select which content themes to view for the selected rating, and whether the status of the content theme is currently unlocked ( ) or locked ( ).

### Rating Settings Area

Lets you see the current block/view state of age-based ratings and associated content. The View ( settings are coded in green, and the Block ( settings are coded in red.

Age-Based Rating	USA Description and Content Themes for Age-Based Ratings
TV-MA	<b>Mature Audience Only.</b> Specifically designed to be viewed by adults and may be unsuitable for children under 17. It contains one or more of the following content themes: crude indecent language (L), explicit sexual activity (S), or graphic violence (V).
TV-14	<b>Parents Strongly Cautioned.</b> Contains some material that many parents would find unsuitable for children under 14. Parents are strongly urged to exercise greater care in monitoring this program and are cautioned against letting children under the age of 14 watch unattended. This program contains one or more of the following content themes: intensely suggestive dialogue (D), strong coarse language (L), intense sexual situations (S), or intense violence (V).
TV-PG	<b>Parental Guidance Suggested.</b> Contains material that parents may find unsuitable for younger children. Many parents may want to watch it with their younger children. The program contains one or more of the following content themes: some suggestive dialogue (D), infrequent coarse language (L), some sexual situations (S), or moderate violence (V).
TV-G	<b>General Audience.</b> Most parents would find this program suitable for all ages. It contains little or no sexual dialogue (D) or situations (S), no strong language (L), and little or no violence (V).
TV-Y7	<b>Directed to Children 7 years and older.</b> Designed for children ages 7 and above. It may be more appropriate for children who have acquired the developmental skills needed to distinguish between make-believe and reality. Themes and elements in this program may include mild fantasy violence (FV) or comedic violence, or may frighten children under the age of 7.
TV-Y	<b>All Children.</b> Themes and elements in this program are designed for a young audience, including children from ages 2-6. It is not expected to frighten younger children.

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Hierarchy of Age-Based Ratings				
TV-MA	Mature Audience Only			
TV-14	Parents Strongly Cautioned			
TV-PG	Parental Guidance Suggested			
TV-G	General Audience			
TV-Y7	Directed to Children 7 years and older			
TV-Y	All Children			

Content Themes				
D	Sexually explicit dialogue			
L	Adult language			
S	Sexual situations			
V	Violence			
FV	Fantasy Violence			

### Tip

To change all V-Chip movie or TV ratings to View, press the 0 number button.

### **Blocking Age-Based Ratings**

You can automatically block all program ratings above a specified agebased rating level. To block programs with higher ratings:

- 1. Press the up or down arrow button to scroll to the rating corresponding with the lowest rating you do not want the child to watch.
- 2. Press the OK button to toggle between *View* and *Block*. The status for the rating listed to the left and all higher ratings automatically changes to *Block* (and all).
- 3. Use the up/down arrow buttons to highlight Go back and press OK.
- 4. Select *Lock Parental Controls* from the *Parental Control* menu for rating limits to take effect.

### **Viewing Age-Based Ratings**

After you block age-based ratings, you can change some of the ratings back to *View*.

- 1. Use the up/down arrows to select the rating with a status of *Block*.
- 2. Press OK to select View.

### **Blocking Specific Content Themes**

You can block programs based on their content. (Content is represented by the D, L, S, V and FV on your screen.) When you block a content theme for a particular rating, you automatically block that content theme for higher rated programs as well.

To block program content:

- 1. Determine the content themes you want to block.
- 2. Press the down arrow button to scroll to the rating whose content theme you want to change.
- 3. Press the right arrow button to move the yellow highlight to a particular content theme status.
- 4. Press the OK button to change its status to . (In the example to the left, you block the language (L) corresponding with TV-14. The language for TV-MA is blocked as well.)

**Notes:** Broadcasters are not required to provide content themes or age-based ratings.

You must remember to lock Parental Controls for rating limits to take effect.

### **Viewing Specific Content Themes**

If you block specific content themes, you have the option of going back and changing some of the them back to (b) View:

- 1. Determine the content themes you want to change to (a) View.
- 2. Press the down arrow button to scroll to the rating whose content theme you want to change, such as under language (L) corresponding with TV-14.
- 3. Press the right arrow button to move the yellow highlight to a particular content theme status.
- 4. Press the OK button to change the status back to **1**. Your child would then be able to watch programs with the TV-14 adult language content, but not programs with TV-MA language content.

**Note:** Only the content theme status corresponding to TV-14 (L) language changes to (V) View. Higher rated content themes, such as that for TV-MA language, do not change.

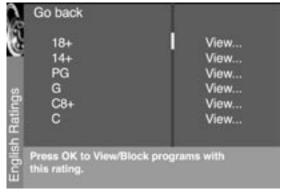
### **Canada V-Chip Ratings**

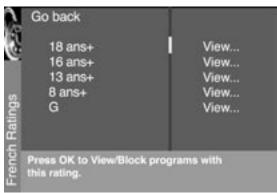
Canadian TV V-Chip supports two different Canadian rating systems: English and French.

Rating	Canadian English V-Chip Rating System
18+	<b>Adults.</b> Programming intended for adults 18 and older. It may contain elements of violence, language, and sexual content which could make it unsuitable for viewers under 18. Violence Guidelines: May contain violence integral to the development of the plot, character or theme, intended for adult audiences. Other Content Guidelines: May contain graphic language and explicit portrayals of nudity and/or sex.
14+	<b>Viewers 14 and over.</b> Programming contains themes or content which may not be suitable for viewers under the age of 14. Parents are strongly cautioned to exercise discretion in permitting viewing by preteens and early teens. Violence Guidelines: May contain intense scenes of violence. Could deal with mature themes and societal issues in a realistic fashion. Other Content Guidelines: May contain scenes of nudity and/or sexual activity. There could be frequent use of profanity.
PG	<b>Parental Guidance.</b> Programming intended for a general audience but which may not be suitable for younger children (under the age of 8). Parents may consider some content inappropriate for unsupervised viewing by children aged 8-13. Violence Guidelines: Depictions of conflict and/or aggression will be limited and moderate; may include physical, fantasy, or supernatural violence. Other Content Guidelines: May contain infrequent mild profanity, or mildly suggestive language. Could also contain brief scenes of nudity.
G	General Audience. Programming considered acceptable for all ages groups. While not designed specifically for children, it is understood younger viewers may be part of the audience. Violence Guidelines: Will contain very little violence, either physical or verbal or emotional. Will be sensitive to themes which could frighten a younger child, will not depict realistic scenes of violence which minimize or gloss over the effects of violent acts. Other Content Guidelines: There may be some inoffensive slang, no profanity and no nudity.
C8+	<b>Children 8 and older.</b> Programming generally considered acceptable for children 8 years and over to watch on their own. Violence Guidelines: Violence will not be portrayed as the preferred, acceptable, or only way to resolve conflict or encourage children to imitate dangerous acts which they may see on television. Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts. Other Content Guidelines: There will be no profanity, nudity or sexual content.
С	<b>Children.</b> Programming intended for children under age 8. Violence Guidelines: Careful attention is paid to themes which could threaten children's sense of security and well being. There will be no realistic scenes of violence. Depictions of aggressive behavior will be infrequent and limited to portrayals that are clearly imaginary, comedic or unrealistic in nature. Other Content Guidelines: There will be no offensive language, nudity or sexual content.

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Rating	Canadian French V-Chip Rating System		
18 ans +	<b>Adults.</b> Programming is for adults only. This program contains sustained violence or extremely violent scenes.		
16 ans +	<b>Viewers 16 and over.</b> Programming is not suitable for those under age 16. This program contains frequent scenes of violence or intensely violent scenes.		
13 ans +	<b>Viewers 13 and over.</b> Programming may not be suitable for children under the age of 13. This program either contains several violent scenes or one or more scenes that are violent enough to affect them. Viewing in the company of an adult is therefore strongly recommended for children under the age of 13.		
8 ans +	<b>Viewers 8 and over.</b> Not recommended for young children. This program is suitable for most audiences, but it contains mild or occasional violence that could upset young children. Viewing in the company of an adult is therefore recommended for young children (under the age of 8) who do not distinguish between reality and imagination. Programming generally considered acceptable for children 8 years and over to watch on their own. Violence Guidelines: Violence will not be portrayed as the preferred, acceptable, or only way to resolve conflict or encourage children to imitate dangerous acts which they may see on television. Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts. Other Content Guidelines: There will be no profanity, nudity or sexual content.		
G	<b>General Audience.</b> This program is suitable for audiences of all ages. It contains no violence, or any violence that it does contain is either minimal or is presented in a humorous manner, as a caricature, or in an unrealistic way.		



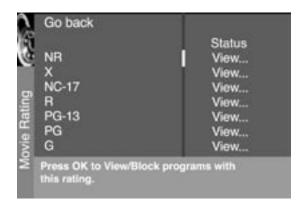


### **Blocking Canadian V-Chip Ratings**

If you receive Canadian programs you can block Canadian English and French V-Chip by ratings only. When you block a particular rating, you automatically block the higher rated programs as well.

To block Canadian English and French program ratings:

- 1. Select Canada V-Chip from the Parental Control menu.
- 2. Highlight English ratings or French ratings and press OK.
- 3. Determine the rating you want to block.
- 4. Press the down arrow button to scroll to the rating you want to change.
- 5. Press the OK button to change its status to block (the lock icon appears and all ratings above the one you selected change to lock).



### **V-Chip Movie Rating Limit**

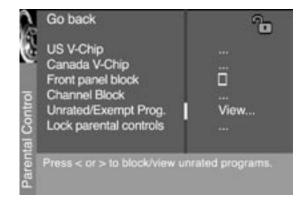
Set movie rating limits by blocking movies rated above a specified level.

To access the Movie Rating Limit menu:

- 1. Press MENU on the remote control (the TV's MAIN MENU appears).
- 2. Select Parental Control.
- 3. Select US V-Chip.
- 4. Select V-Chip movie rating.

### **Blocking Movie Ratings**

Once you are in the Movie Ratings menu, follow the same steps described for blocking TV ratings.



### **Blocking Unrated/Exempt Programs**

The *Unrated/Exempt Prog*. option lets you decide if programs that the V-Chip recognizes as unrated can be viewed. Unrated TV programs may include news, sports, political, religious, local and weather programs, emergency bulletins, public announcements, and programs without ratings. The Exempt option applies to both USA and Canadian unrated programs and Canadian programs rated *E*.

View All unrated programs are available. Block All unrated programs are not available.

**Note:** You must remember to activate V-Chip for rating limits to take effect.

Press the down arrow to highlight *Unrated/Exempt Prog*. Then press the right arrow to toggle between *View* and *Block*.

### **Lock/Unlock Parental Controls**

Selecting this option lets you lock and unlock parental controls settings using a password.

If you do not lock parental controls, none of the settings for V-Chip, Channel Block, or Front Panel Block will take effect.

If you forget your password, press the MENU button, then select *Parental Control* (the password entry screen appears). Simultaneously press and hold CH+ and VOL+ on the front panel for 8 seconds. Parental Controls unlock and the *Parental Control* menu appears. You can enter a new password by locking the Parental Controls again.

### **Front Panel Block**

Selecting this option lets you block (disable) or unblock (enable) the TV's front panel. The remote still tunes to any channel. When using this as a Parental Control method, remove access to any remote that is capable of operating the television while you have the front panel blocked.

Don't forget to lock parental controls after you change the status. If you don't, the front panel block will not take effect.

Chapter 3 41



PIP example

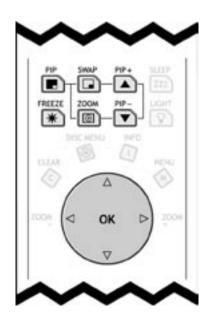


**POP** example

# PIP (Picture-in-Picture) and POP (Picture-outside-Picture) Operation

The PIP (picture-in-picture) feature lets you display a second, smaller picture on top of the main picture. POP (picture-outside-picture) lets you display two windows side by side.

**Note:** PIP and POP are not available for DVI or component video sources (CMP1 or CMP2).



### **PIP and POP Buttons**

There are several remote buttons that control the way the PIP window works:

**PIP** Brings up the PIP window. Press again to bring up POP. Press again to remove the window.

**Up and down arrow buttons** Let you move the PIP window to different corners of the screen. Up arrow moves PIP counterclockwise; down arrow moves PIP clockwise.

**Left and right arrow buttons** Switches the main POP window, where the sound is coming from, with the other window.

**SWAP** Switches, or "swaps," the video from the PIP window with the main picture. Switches the main POP window, where the sound is coming from, with the other window.

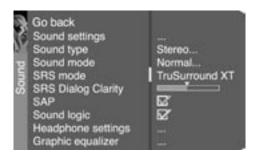
**PIP + and PIP -** Lets you change channels in the PIP and right POP window.

**ZOOM** Changes the size of the PIP window.

# **Chapter Overview:**

- Sound Menu
- Picture Menu
- Channel Guide Menu
- Time Menu
- Parental Control Menu
- PIP Menu
- Setup Menu





### **Sound Menu**

The Sound menu lets you adjust audio output. To access the Sound menu, press MENU on the remote, and then select *Sound* from the main menu. The following audio items can be adjusted: *Sound settings*, *Sound type*, *Sound mode*, *SRS mode*, *SRS Dialog Clarity*, *SAP*, *Sound Logic*, *Headphone settings*, and *Graphic equalizer*.



**Sound settings** The Sound settings submenu contains the following items:

*Left & Right balance* Use the left or right arrow button to center the bar under the arrow to balance the left and right speakers.

Amplifier Use the left or right arrow button to select *External* (if your TV is using external amplifier only) or *Internal* (if your TV is using the speakers in the TV).

*Subwoofer* Set the TV's subwoofer to *External*, if the TV is using an external subwoofer; or *None*.

**Sound type** Press the right arrow button to scroll through the available audio types, which control the way the sound comes through your speakers. The options available vary according to the input selected.

*Mono* (available for regular TV viewing only) Plays the sound in mono only. Use this setting when receiving broadcasts with weak stereo signals.

Stereo Splits the incoming stereo audio signal into left and right channels. Most TV programs and recorded materials have stereo audio. The word Stereo appears in the channel banner when you tune to a program that is broadcast in stereo.

*Automatic* (available for regular TV viewing only) Chooses the sound type according to the current signal.

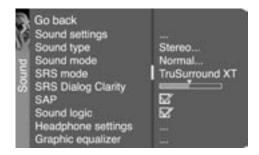
*Left* and *Right* (available for audio/video inputs only) Isolates either the left or right channel of the incoming audio.

**Sound Mode** Press the right arrow button to scroll through the available audio modes, which provide special processing through your speakers (depending on the setting you chose as your *Sound type*).

*Normal* Does not give any special processing, simply provides the mono or stereo sound provided by the signal you're watching.

Wide Available only for mono signals. "Widens" sound from mono broadcasts and mono components connected to your TV for a fuller, more spacious sound.

Virtual Dolby PL II Virtual Dolby Surround Pro Logic II offers a virtual Dolby Surround Pro Logic sound effect through any two-speaker playback system.



**SRS Mode** Press the right arrow button to scroll through the available SRS options.

SRS TruSurround Available for multichannel input. Creates a virtual surround sound effect through any two-speaker playback system.

*SRS TruSurround XT* Available for stereo or multichannel input. Like TruSurround, TruSurround XT creates a virtual surround sound effect through any two-speaker playback system. TruSurround XT also lets you activate the SRS Dialog Clarity feature (see below).

SRS Trubass Available for stereo or multichannel input. Creates an enhanced bass response through any size speaker.

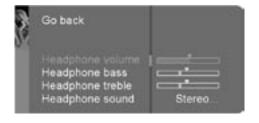
Off Deactivates all SRS options.

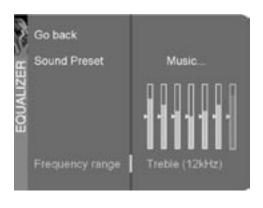
**SRS Dialog Clarity** Available only when the *SRS Mode* is set to *SRS TruSurround XT*. Makes dialog from the source material clearer when you're watching it on your HDTV Monitor.

**Second Audio Program (SAP)** Plays the program's audio in a second language, if one is available. The letters "SAP" appear in the channel banner when you tune to a program that is broadcast with SAP information. SAP audio is broadcast in mono. SAP is also used to broadcast a program's audio with descriptions of the video for the visually impaired.

**Sound logic** Reduces the annoying blasts in volume during commercial breaks, and also amplifies softer sounds in program material. Eliminates the need to constantly adjust the volume.

*Headphone settings* Displays a choice list of available settings you can adjust: *Volume*, *Bass* and *Treble*. The *Headphone sound* option allows you to choose stereo, mono or automatic. These descriptions are the same as for *Sound Type* (see the previous page).



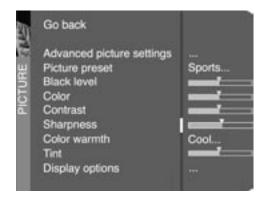


*Graphic equalizer* Allows you to choose a specific preset through the Sound Preset option. Press the right arrow button to cycle through the options: *Standard, Movie, Voice, Music, Flat, Videogame, Video camera* and *Personal.* 

The *Frequency range* displays the different treble and bass bands set for each Sound Preset option. You can choose a band and make adjustments. When you make adjustments, the Sound Preset option automatically changes to *Personal*. Press the left or right arrow button to select the frequency (Bass 120Hz, Bass 200Hz, Mid Bass 500Hz, Medium 1.2kHz, Mid Treble 3kHz, Treble 7.5kHz, Treble 12kHz) you want to adjust. Then use the up or down arrow button to adjust the level.

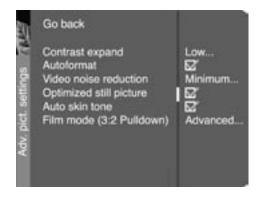
To view the frequency range of another *Sound Preset* option, press the right or left arrow button until no band is selected and *Frequency range* is highlighted. Then press the up arrow to highlight *Sound Preset*.

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### **Picture Menu**

The *Picture* menu contains menus and controls to configure the following video settings: *Advanced picture settings, Picture presets, Black level, Color, Contrast, Sharpness, Color Warmth, Tint,* and *Display options.* The *Picture* menu options apply to the video for the main TV and video input selections.



### Tip:

If the picture is switching screen formats abruptly during normal TV viewing, switch the Autoformat feature off.

### Advanced picture settings

Contrast expand You can adjust the contrast of the picture to suit the light of the room. Press the right arrow button to choose which of the following best describes the lighting in the room: Low, Medium or High.

Autoformat When enabled (box checked) the TV automatically detects the screen format the signal is sending for each channel, as well as input channels.

Video noise reduction Reduce picture "static" or any type of interference. This feature is especially useful for providing a clearer picture in weak analog signal conditions. Press the right arrow button to choose between: Off for no noise reduction; Minimum for a softer, smoother picture that retains picture sharpness and detail; Medium for a slightly softer picture than the Minimum setting; Maximum for an even softer, smoother picture than the other settings (the picture detail is somewhat decreased).

Optimized still picture When enabled (box checked), enhances the picture specifically for still frames (for example, if you're watching a slideshow on your HDTV monitor, or if you've paused a frame of a DVD).

*Auto Skin Tone* When enabled (box checked), minimizes the flesh tone variations of the TV picture.

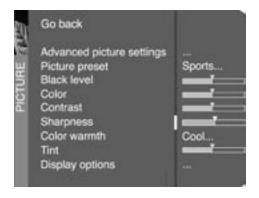
Film mode (3:2 Pulldown) Automatically detects video sources that were originally recorded on film (like most movies) and subsequently converted to a different format (for TV broadcast, for example). Film mode processes the converted signal so that it looks as close as possible to the original. Another name for this process is reverse 3:2 pulldown.

*Advanced* (recommended) enables the feature only when the TV detects that movie playback quality could be improved. *Advanced* is the default setting.

The *On* setting should only be used in rare circumstances when the TV is used solely with film-based sources (like DVDs on a non-progressive-scan player).

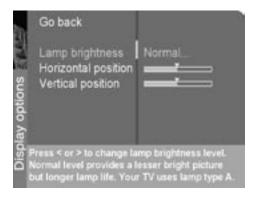
The *Off* setting turns off film mode upconversion. Try using this setting if you think the reverse 3:2 pulldown is causing distortions in your picture.

**Note:** Autoformat and Video noise reduction are available for CMP1 and CMP2 inputs only if the signal is 480i.



Tip:

You can select a different picture preset (or set up a different personal preset) for each input. The ANTENNA/CABLE jack counts as a single input.



### **IMPORTANT:**

The line at the bottom of the Display options screen shows which type of lamp your TV uses—either lamp type A or lamp type B. Make sure your write down the lamp type shown in this screen so that you have it for reference when it's time to order a new lamp.

Lamp type: \_\_\_\_\_

There's also a space on page 2 of this book where you can write down all the information you need to order a new lamp.

**Picture preset** Displays a choice list that lets you select one of the preset picture settings: *Vibrant, Cinematic, Natural, Sports, Videogame, Video Camera* or *Personal.* Choose the setting that is best for your viewing environment. You can set a different picture preset for each input (including one for your regular TV channels).

**Black Level** Adjusts the brightness of the picture.

**Color** Adjusts the richness of the color.

**Contrast** Adjusts the difference between the light and dark areas of the picture.

**Sharpness** Adjusts the crispness of the edges in the picture.

**Note:** You can adjust sharpness for each channel and input. This is useful if the signal appears fuzzy.

**Color Warmth** Displays a choice list that lets you set one of three automatic color adjustments: *Cool* for a more blue palette of picture colors; *Normal*; or *Warm* for a more red palette of picture colors. The warm setting corresponds to the NTSC standard of 6500 K.

**Tint** Adjusts the balance between the red and green levels.

When you change any of these picture settings, the *Picture Preset* changes to *Personal*. Use the left or right arrow button to make adjustments. To return to the *Picture* menu, press the up or down arrow button.

### Display options settings

*Lamp brightness* You can adjust the brightness of your picture by adjusting the brightness of your display lamp. The *Boosted* setting gives you a brighter picture, while the *Normal* (default) setting gives you a longer lamp life.

Horizontal position You can adjust the horizontal position of the HDTV Monitor's picture on the screen. Use the left and right arrow buttons to move the picture to the left or the right.

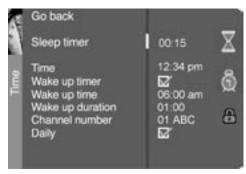
*Vertical position* You can adjust the vertical position of the HDTV Monitor's picture on the screen. Use the left and right arrow buttons to move the picture to up or down.

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### **Channel Guide Menu**

Allows you to view and select from the entire channel list and their labels. Press the GUIDE button to bring up the Channel Guide menu. Use the up or down arrow button to scroll through the list. Press OK to select and tune to the highlighted channel. Press the last digit of one of the channels in the guide to tune to that channel and leave the Channel Guide on the screen.



### **Time Menu**

Sleep Timer Lets you set the TV to turn off after a given amount of time.

*Time* Lets you enter the current time. If it is eight o'clock, for example, you must first enter the number zero, then number eight. Use the OK button to choose between AM and PM.

**Wake up timer** Lets you set the TV to turn itself on. When you turn on Wake up timer, the following options appear:

Wake up time Lets you set the time you want the TV to turn itself on.

Wake up duration Lets you set how long you want the TV to stay on when it turns on.

Channel number Lets you select a specific channel the TV tunes to when the wake up timer is set.

Daily Lets you choose if you want the wake up timer to turn on daily.

Note: The Wake up timer is available only when the time has been set.

### **Parental Control Menu**

The Parental Control Menu was explained in Chapter 3. Go to page 36 for more information.



### PIP Menu

### Display Mode

Off No window is displayed.

PIP PIP window is displayed.

POP POP window is displayed.

**PIP channel** Allows you to choose the channel displayed in the PIP or main POP window. Scroll through channel list as well as the VID1, VID2 and FRNT input channels.

**PIP size** Allows you to choose the size of the PIP window: *Small, Medium* or *Large.* 

**PIP position** Allows you to choose where the PIP window appears on the screen: *Top right, Top left, Bottom right* or *Bottom left*.

Note: Pip size and position are not available for POP.



# Setup Menu

The Setup menu lets you configure the TV to fit its surroundings and your preferences. To access the *Setup* menu, press MENU on the remote, and then select *Setup* from the main menu.

# Channel setup Go back Signal type Cable... Auto channel search Start Auto channel update Start List and labels ... To automatically search for the available channels, press OK.

on! Auto channel search erases

### Channel setup

Signal Type The TV chooses the signal type during the initial setup. If you change how you receive broadcasts through the antenna input, you must change the Signal type setting. Choose Cable if you are using cable or a cable box for TV signals. Choose UHF/VHF Antenna if you are using an offair antenna for TV signals.

Auto channel search Searches for channels the signal is receiving. Go to page 20 for more information.

Auto channel update Searches for any new channels that are not in your channel list and adds them to the list.

*List and labels* Edit the channels in the list or choose labels for each channel. Go to page 20 for more information.

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### Short-term vs. Long-term Power Outages

The Auto channel and Auto volume settings don't take effect after short-term power outages (usually less than two to three minutes). The TV will turn back on at the same volume and channel as before the power outage.

The Auto channel and Auto volume settings take effect after power outages of several minutes or more.

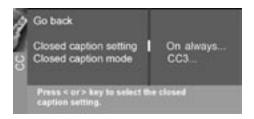
### **Preferences**

Language Displays a choice list that lets you select your preferred language for the menus: English, Español or Français.

*Maximum TV volume* Allows you to set how high volume turns up when you press the VOL+ button. Highlight *Maximum volume*, then press and hold OK to hear the maximum volume. Make sure the volume has not been muted or turned down all the way.

*Curtain effect* Reveals the picture by "opening" it from the middle of the screen when the TV is switched on. Hides the picture by "closing" it from the sides when the TV is switched off.

Special features The Auto on setting switches your TV on after a power outage; Auto channel tunes the TV to the channel you specify as the Initial channel when Auto on is enabled; Auto volume tunes the TV to the volume you set in Initial volume when Auto on is enabled.



**Closed Caption** Many programs are encoded with closed-captioning information, which lets you display the audio portion of a program as text on the TV screen.

Closed captioning is not available on all channels at all times. Only specific programs encoded with closed-captioning information. When a program is closed captioned, *CC* is displayed in the channel banner. See Chapter 3 for more information about the channel banner. The closed caption options are:

*Closed caption setting* Lets you choose the way closed captioning information appears on the screen. The *Closed caption setting* does not effect the DVI-HDTV input.

Off No captioning information displayed.

On always Captioning information shown always, when available.

On when mute Displays captioning information, when available, whenever the TV's sound is muted by pressing the MUTE button. The captioning information is not displayed when the sound is not muted.

Closed-Caption Mode Displays a choice list that lets you choose which captioning mode is used for displaying captioning information. If you are unsure of the differences among the modes, you may prefer to leave the closed captioned mode set to CC1, which displays complete text of the program in the primary language in your area.

Autotuning Displays a choice list that lets you set up the TV to automatically tune to the correct input channel when you press a component button (VCR, DVD, AUX/HD or SAT/CABLE) on the remote. Go to Chapter 3 for details about the Autotuning feature.

# **Chapter Overview:**

- Troubleshooting
- Lamp Replacement Instructions
- Limited Warranty
- Care and Cleaning
- FCC Information
- Accessory Information



# **Troubleshooting**

Most problems you encounter with your TV can be corrected by consulting the following troubleshooting list.

**Note for U.S. customers:** If you prefer, we can provide you with the name of an Authorized Service Representative who will visit you home for a fee to install your electronic entertainment system and to instruct you in its operation. For details about this service, call 1-888-206-3359. For additional assistance while using your RCA Scenium product, please visit <a href="www.rcascenium.com/customersupport">www.rcascenium.com/customersupport</a>.

### TV Problems

### TV won't turn on

- Press the TV button.
- Make sure the TV is plugged in.
- Does the power light on the front of the TV illuminate and you hear audio but see no picture? If so, the TV is in its cool-down cycle. Wait a few moments and the picture will appear.
- The TV takes 90 seconds to restart after a power interruption (for example, if the TV has been unplugged or there's been a power outage).
- Is the power light on the front of the TV blinking five times every 30 seconds? If so, wait about five minutes (possibly less) for one of the following to happen:
  - The TV comes on: Your lamp just needed to cool down; your TV is fine.
  - The power light blinks several times in a row and then stays on: This means the lamp is dead. Go to page 55 for replacement instructions and page 60 for ordering information.
- Check the wall receptacle (or extension cord) to make sure it is "live" by plugging in something else.
- Something might be wrong with your remote control. Press the POWER button on the front of the TV. If the TV turns on, check the remote control solutions on the next page.
- The front panel controls may be locked (disabled). Use the remote control to unlock the front panel controls by selecting the *Front Panel Block* in the *Parental Control* menu and press OK to uncheck the box.
- The TV might be performing a periodic diagnostic check. Wait for a few minutes for the TV to turn on.

### Power indicator is blinking

The lamp is trying to turn on. If the TV doesn't turn on after 5 minutes, then the light will double-blink four times and then remain on—try one of the following options:

- Lamp door is open. Locate the door on the side of the TV and close it. Turn off the TV and turn back on. The lamp should turn on.
- Lamp is dead. You can replace the lamp yourself following the instructions on page 55. Go to page 60 for ordering information.
- Power supply within TV may need service. Go to page 58 for warranty information.

### **Buttons don't work**

- If you're using the remote control, press the TV button first to make sure the remote is in TV mode.
- The front panel controls may be locked (disabled). Use the remote control to unlock the front panel controls by selecting the *Front Panel Block* in the *Parental Control* menu and press OK to uncheck the box.
- Unplug the TV for ten minutes and then plug it back in. Turn the TV on and try again.

### TV turns off unexpectedly

- Sleep timer may have been activated. Go to page 48 for instructions.
- 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 or low.
- Unplug. Wait ten minutes. Plug in again.

### TV turns on unexpectedly

- Wake up timer might have been activated. Go to page 48 for instructions.
- Auto on might have been activated. Go to page 50 for instructions.
- You might have pressed CH+, CH- or INPUT on the remote accidentally.

### Blank screen

- Make sure the component connected to the TV is turned on.
- Try another channel.
- If you're trying to watch something that's playing on a component connected to the TV (like a DVD or a VCR tape), press the TV button on the remote, then press INPUT until you get to the correct video input channel.
- When you first turn off your TV, the TV's internal lamp starts its cool-down cycle. If you try to turn on the TV during the cool-down cycle, the TV turns back on and you'll hear audio, but the picture will take a few moments to be displayed.

### No sound, picture okay

- Maybe the sound is muted. Try pressing the volume up button to restore sound.
- If using S-Video or Y, PB, PR, remember to also connect the component's left and right audio output jacks to the TV's L and R Audio Input jacks.
- The sound settings may not be set correctly. Go to page 44 for more information.

### No picture, sound okay

- If the indicator on the front of the TV is blinking for one minute, the lamp inside of your TV may need to be changed. Go to page 60 for ordering information.
- You might have tried to turn on the TV during lamp cool-down. Wait a few moments and the picture will be displayed.

### Sound okay, picture poor

- Check antenna connections. Make sure all of the cables are firmly connected to the jacks.
- Try adjusting sharpness function to improve weak signals. Go to page 47 for more instructions.

### Sound from external audio receiver/amplifier not in sync with the HDTV Monitor's screen

• If you're watching a program on the HDTV Monitor's screen and listening to the audio from the FIXED AUDIO output jacks, you might notice that the video and audio are slightly out of sync. The HDTV Monitor processes incoming video to optimize it for display, which results in a small delay before displaying the video on screen. The Video output jack does not process video for display, so it does not have the same delay. The FIXED AUDIO output jacks are in sync with the video signal from the Video output.

If you're using an external audio receiver to accompany video on the HDTV Monitor's screen, use the VARIABLE AUDIO output jacks.

### Can't select certain channel

- Make sure the remote control is in TV mode. Press the TV button and enter the channel number using the number buttons.
- Channel may be blocked or not approved in the *Parental Controls* menu.
- If using a VCR, check to make sure the TV/VCR button on the VCR is in the correct mode (press the TV/VCR button on your VCR).

### Noisy stereo reception

• May be a weak station. Use *Sound* menu to choose mono sound.

### No picture, no sound but TV is on

- Maybe the cable/air function is set to the wrong position. Go to page 49 for detailed instructions.
- The channel might be blank change channels.
- If you're watching your VCR and it's connected with coaxial cable to the CABLE/ANTENNA jack, tune the TV to channel 3 or 4 (whichever channel is selected on the 3/4 switch on the back of your VCR). Also check to make sure the TV/VCR button on the VCR is in the correct mode (press the TV/VCR button on your VCR).

Continues on next page...

Chapter 5 53

### Volume buttons not adjusting volume louder

• Check to make sure volume isn't limited by the maximum volume feature. Go to page 50 for more instructions.

### Picture not moving

• You have activated the Freeze feature by pressing FREEZE or OK on the remote. Press any button to "unfreeze" the picture.

### Black box appears on the screen

• Closed-captioning might be on. Check *Closed Caption* in the *Setup* menu. Go to page 50 for more instructions.

### Low battery warning appears on screen

Place new batteries in remote.

### TV picture keeps switching between screen formats abruptly

• Switch the *Auto format* feature to *Off.* See page 46 for more information.

### The Remote Control Doesn't Work

- Something might be between the remote and the remote sensor on the component. Make sure there is a clear path.
- Maybe the remote isn't aimed directly at the component (TV or VCR) that you're trying to operate.
- Maybe remote is not in TV Mode. Press the TV button so remote will control TV.
- Maybe batteries in remote are weak, dead, or installed incorrectly. Put new batteries in the remote. (Note, if you remove the batteries, you may have to reprogram the remote to operate other components.)
- You might need to drain the remote's microprocessor: remove batteries and press the number 1 button for at least 60 seconds. Release the 1 button, replace the batteries, and (if necessary) program the remote again.
- Make sure there's nothing plugged into the WIRED IR jack on the TV's back panel. The remote that came with your TV won't work if anything is plugged into this jack.

# Problems with V-Chip/Parental Controls

### The rating limits don't work

• You must lock the settings. Go to the MAIN MENU (press MENU on your remote), select Parental Control, select Lock Parental Controls.

### I don't remember my password and I want to unlock the TV

• If you forget your password, press MENU, then select *Parental Control* (the password entry screen appears). Simultaneously press and hold CH+ and VOL+ on the TV's front panel for 8 seconds. The Parental control menu appears on the screen, and you can reenter a password via *Lock Parental Controls*.

### The V-Chip won't let me watch a program even though it's not rated as violent.

• Maybe the movie was given an NR (Not Rated) status. After you block movie ratings, you must set NR to View separately in order to view movies with an NR rating.

# **Lamp Replacement Instructions**

### **Replacing the Lamp Unit**

Your TV's source of light comes from a lamp – similar to lamps used in film or front projectors. Although this lamp is long-lasting, it may need to be replaced eventually.

### When to replace the lamp

You probably need a new lamp if there's no picture, but you still can hear the audio and the power light on the front of the TV does the following: blinks 5 times every 30 seconds, then double-blinks four times and remains on. If you have any concerns, please contact us at 1-866-723-6486 or call an authorized servicer in your area.

**Note:** The same symptoms occur if the lamp unit isn't seated correctly or if the lamp access door is ajar. Make sure the lamp access door is completely closed.

### What to do

- If your TV is still covered by the warranty, we will refer you to a service person who will replace the lamp for you. Call 1-866-723-6486.
- If your TV's warranty has expired, call 1-800-338-0376 to order a new lamp, and you can install it yourself using the directions that follow.

The lamp has been designed to make installation as easy as possible, but if you don't follow the directions, there is a risk of burn injury or electric shock. If you don't feel comfortable replacing the lamp, call 1-866-723-6486 to have a qualified technician install the new lamp unit (a fee will apply).

**IMPORTANT PRECAUTIONS:** Before you begin, make sure you read and understand all of the instructions. If you need any clarification, call 1-866-723-6486 for help. You must follow all the instructions step by step. Thomson Inc. cannot be held responsible for failure to adhere to the safety measures described herein, the safety measures on the back panel of the TV, and any other reasonable safety practices and precautions.

**Note:** Lamp contains a small amount of mercury which can be considered hazardous if improperly handled or disposed. Take proper precautions to ensure that the lamp does not break during handling. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

### IMPORTANT: Wait 1 Hour Before You Replace the Lamp

The lamp unit's temperature can reach 200 degrees. Unplug the TV and allow the lamp to cool thoroughly (for at least 1 hour) before you remove the burnt-out lamp.

- Don't remove the lamp access door or remove the inoperative lamp unit until you have a replacement lamp (this will reduce the risk that children or pets will come into contact with the hot lamp, and will keep foreign objects and dust out of the lamp unit.)
- Never allow children or pets to play with the lamp access door at any time.
- Use only a genuine RCA lamp replacement unit.
- There are no user serviceable parts within the lamp unit itself. Don't attempt to repair the lamp unit attempting to do so may cause injury, and will void your warranty.

What you'll need	d to get started	
A flashlight		

\_ A flat-head screwdriver

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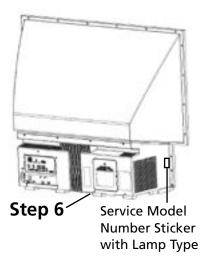
\_\_\_ The correct lamp replacement unit. To order the correct lamp, you'll need to know your TV's model number, serial number, and lamp type—this information is listed on the Service Model Number sticker (example of the sticker is shown at right). The sticker is located on the right side of the TV (see picture below for sticker location).

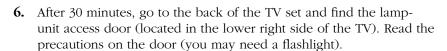
\_\_\_ The box that the lamp replacement unit came in.



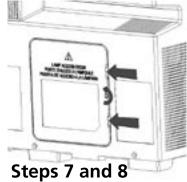
EXAMPLE: Service Model Number sticker with lamp type listed.

- 1. Read the precautions listed above.
- 2. Make sure your hands are dry and clean before you begin replacing the lamp.
- 3. Unplug the TV's power cord from the wall outlet (or power strip). Unplug the power cord from the back of the TV.
- **4.** Put the power cord far away from the TV. Taking this precaution will ensure that no one plugs in the TV if you walk away from it, or when you're waiting for the lamp unit to cool, or when you're installing the new lamp.
- 5. Wait 30 minutes so the lamp can thoroughly cool. If you don't wait at least 30 minutes, you risk getting injured!





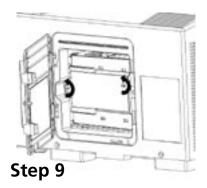
**Note:** Do not attempt to repair the lamp. Do not open the lamp assembly unit — leave the lamp in its casing.



**7.** Loosen the screw on the door (don't remove the screw, just loosen it).

**Note:** Don't use a coin to loosen the screw because the coin could fall into the TV.

**8.** Press the catch tabs near the screw you just loosened (one tab is above the screw and one is below), and remove the entire lamp access door. Place the door to the side (don't put it on the floor or anywhere someone might step on it or accidentally break the tabs).



**9.** Loosen the two screws on the lamp unit inside the TV (the screws stay with the unit so just loosen them, don't remove them).



- **10.** As you remove the lamp, pay attention to how the lamp fits so that you can use the proper orientation when you're installing the new lamp. To remove the lamp unit:
  - grasp the handles and pull straight back to remove the entire lamp assembly unit from the TV.
  - place the old unit out of the way where it won't get broken or dropped.
- 11. Remove the new lamp assembly unit from its packaging.
- **12.** Make sure the lamp unit is oriented in the correct position, and gently slide it into the lamp access opening as far as it can go (it fits snugly).
- 13. Tighten the two screws on the new lamp unit.
- 14. Put the old lamp unit into the box in which the new lamp unit was packaged.
- 15. Replace the lamp access door (the TV won't turn on unless this door is in place and properly attached).
  - a. Insert the catch tabs (also called latches) into the slots on the left side of the lamp access compartment first. Then put the rest of the door in place by rotating the door until it is fully closed and the latches are engaged.
  - b. Tighten the screw.
- **16.** Plug the power cord into the back of the TV first and then back into the wall outlet strip.
- 17. Turn on the TV.
- 18. After the TV warms up (up to 60 seconds), you should see a picture. If you don't see a picture, check the following:
  - Make sure TV is plugged in.
  - Make sure you've tuned the TV to a valid channel.
  - Try turning on the TV both ways: with the remote control, and then with the power button on the front of the TV.
  - Make sure the lamp unit access door is properly and completely closed.
  - Make sure the screws are completely tightened.
  - Unplug the power cord from the TV and from the power outlet. Return to step 7 and make sure the lamp unit is fully seated in the housing.
  - If the TV still doesn't come on, you need to have the unit professionally serviced. See your warranty.

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### **Limited Warranty**

### What your warranty covers:

Defects in materials or workmanship.

### For how long after your purchase:

- One year from date of purchase for labor.
- One year from date of purchase for parts.
- One year from date of purchase for light engine and lamp assembly.

The warranty period for rental units begins with the first rental or 45 days from date of shipment to the rental firm, whichever comes first.

### What we will do:

Pay an Authorized Service Center the labor charges to repair your unit.

Pay an Authorized Service Center for the new, or at our option, refurbished replacement parts, light engine, and lamp assembly required to repair your unit.

### How you get service:

- Call 1-866-SCENIUM and have your unit's date of purchase and model/serial number ready.
- A representative will troubleshoot your problem over the phone.
- If the representative determines that you should receive service, they will provide you with the name(s) of the Authorized Service Center in your area.
- Contact the Service Center and arrange for home or pick up, repair, and return service, provided that your unit is located within the geographic territory covered by an Authorized Service Center. If not, you must take your unit to the Service Center location at your own expense, or pay for the cost the Service Center may charge to transport your unit to and from your home.
- Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the product is within the warranty period must be presented to obtain warranty service. For rental firms, proof of first rental is also required.

### What your warranty does not cover:

- Customer instruction. (Your Owner's Manual describes how to install, adjust, and operate your unit. Any additional information should be obtained from your dealer.)
- Installation and related adjustments.
- Damage resulting from non-approved installation methods.
- Signal reception problems not caused by your unit.
- Damage from misuse or neglect.
- Batteries
- Labor to replace the light engine and lamp assembly after one year from the date of purchase.
- A television that has been modified or incorporated into other products or is used for institutional or other commercial purposes.
- A unit purchased or serviced outside the U.S.A.
- Acts of nature, such as but not limited to lightning damage.

### **Product Registration:**

• Please complete and mail the Product Registration Card packed with your TV or register on-line at www.rcascenium.com/productregistration. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

### **Limitation of Warranty:**

- THE WARRANTY STATED ABOVE IS THE ONLY WARRANTY APPLICABLE TO THIS PRODUCT. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED (INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) ARE HEREBY DISCLAIMED. NO VERBAL OR WRITTEN INFORMATION GIVEN BY TTE TECHNOLOGY, INC., ITS AGENTS OR EMPLOYEES SHALL CREATE A GUARANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY.
- REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. TTE TECHNOLOGY, INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT OR ARISING OUT OF ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THIS DISCLAIMER OF WARRANTIES AND LIMITED WARRANTY ARE GOVERNED BY THE LAWS OF THE STATE OF INDIANA. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.

### How State Law relates to warranty:

- Some states do not allow the exclusion nor limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.
- This warranty gives you specific legal rights, and you also may have other rights that vary from state to state.

### If you purchased your unit outside the United States:

• This warranty does not apply. Contact your dealer for warranty information.

Service calls which do not involve defective materials or workmanship are not covered by this warranty. Costs of such service calls are the sole responsibility of the purchaser.

### Care and Cleaning

CAUTION: Turn OFF your TV before cleaning.

You can clean the TV as required, using a soft lint-free cloth. Be sure to occasionally dust the ventilation slots in the cabinet to help assure adequate ventilation.

The TV's screen may be cleaned with a soft, lint-free cloth as well. Take care not to scratch or mar the screen. If necessary, you may use a cloth dampened with warm water. Never use strong cleaning agents, such as ammonia-based cleaners, or abrasive powder. These types of cleaners will damage the TV.

While cleaning do not spray liquid directly on the screen, or allow liquid to run down the screen and inside the TV. Also, never place drinks or vases with water on top of the TV. This could increase the risk of fire or shock hazard or damage to the TV.

**Caution:** Using video games or any external accessory with fixed images for extended periods of time can cause them to be permanently imprinted on the picture tube (or projection TV picture tubes). ALSO, some network/program logos, phone numbers, etc. may cause similar damage. This damage is not covered by your warranty.

### **FCC Information**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.

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# **Accessory Information**

There are various accessories available to complement your HDTV Monitor. Prices are subject to change without notice. All accessories are subject to availability.

A shipping and handling fee will be charged upon ordering, and 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.

### **HOW TO ORDER**

To place an order by phone, have your Visa, MasterCard or Discover Card ready and call the toll-free number listed below. Use this number only to place an order for accessory items.

### 1-800-338-0376

You can buy some accessories on-line at:

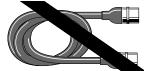
### www.rca.com.

### Replacement Lamp

Your DLP is equipped with a special lamp unit. If you have sound, but no picture, and the light on the front of the TV blinks, you need to change the lamp. Locate the sticker on the side of the TV or go to the *Lamp brightness* menu for the lamp type. To order, call **1-800-338-0376** 



VH81 (3-ft), price: \$3.95 VH82 (6-ft), price: \$4.95 **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.



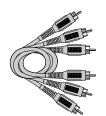
VH89 (6-ft.), price: \$5.95

**Push-on antenna cable** attaches to the round antenna connectors (called 75-ohm F-type). The ends push on for a quick connection



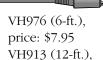
PS83202C2C, price: \$34.95

**Surge Protector** provides eight outlets with 3 adapter spacings; 2100 joules protection; \$100,000 connected equipment guarantee.



**Component Video Cables** Triple cable used to connect a video source with Y, PR PB jacks to the TV.

Gold-Tipped cable DT6DC (6-ft), price: \$24.95 DT12DC (12-ft), price: \$34.95



price: \$14.95

VH47, price: \$3.95

**S-Video Cable** has multipin connectors on each end for connecting S-Video components to your TV.

**2-way Signal Splitter** helps you connect to a second TV or VCR.



Amplified VHF/UHF/FM
Antenna allows you to easily switch from the antenna signal to cable or satellite easily without disconnecting antenna.

ANT200, price: \$49.95



**Remote Control** This is the remote control that came packed with your TV. Replacements or spares can be ordered as needed.

265087, price: \$42.50



Standard Audio/Video cable

with RCA-type phono plugs.

VH83 (6-ft., mono), price: \$5.95 VH84 (6-ft., stereo), price: \$9.95

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