

RCA

DIRECTV® High-Definition Receiver User's Manual

Changing Entertainment. Again.



DTC210

Important Information

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.

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. No objects filled with liquids, such as vases, shall be placed on the apparatus.

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

Do not stack electronic components or other objects on top of the high-definition receiver. The slots on top of the receiver must be left uncovered to allow proper airflow to the unit. Blocking the airflow to the unit could impair performance or damage your receiver and other components.

Remove any sales or promotional materials attached to the product.

Do not stack the high-definition receiver on top of a "hot component," such as an audio power amplifier.

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

Note to Cable TV system installer:

This reminder is provided to call Cable TV system installer's attention to Article 820-40 of the National Electrical Code that 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.

Note to Satellite Dish installer:

This reminder is provided to call your attention to articles 810 and 820 of the 1999 National Electrical Code. Refer to article 810, in particular to 810-1 and 810-15, for required grounding of the metal structure of the Dish Antenna. Refer also to the 810-2 which, by reference to article 820, requires that the satellite dish coaxial cable shield be connected to the grounding system of the building as close to the point of cable entry as practical.

Care and Cleaning:

Use a soft cloth or dusting attachment of your vacuum cleaner to dust your digital satellite receiver. Remove dust from the ventilation holes on the top and bottom.

Plastic surfaces are easily scratched and can be marred by alcohol and various solvents. Avoid excessive use of oil-based furniture polishes since the materials used in the cabinet will accumulate more dust. A non-abrasive, anti-static cleaner/polisher is

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

This satellite receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.



Always be careful when using this product. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your high-definition receiver.

Product Registration

Please fill out the product registration card (packed separately) and return it immediately, or register online at rca.com. Returning the card allows us to contact you if needed.

Product Information

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

Model No. _____

Serial No. _____

Purchase Date: _____

Dealer/Address/Phone: _____

IMPORTANT SAFETY INSTRUCTIONS

1. 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.
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.



Notices

Attention: Telephone Line Interruption

A continuous land-based phone line connection is required for DIRECTV® Pay Per View functionality and sports subscriptions. Any calls generated by the DIRECTV® High-Definition Receiver are toll free. These calls are typically made in the middle of the night; your phone is in use for approximately 30 seconds.

Note: 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.

Trademark and copyright statements

DIRECTV and the Cyclone Design logo are registered trademarks of DIRECTV, Inc., a unit of Hughes Electronics Corp, and are used with permission. All other trademarks and service marks are the property of their respective owners.

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Macrovision Information

This equipment incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology is granted by Macrovision for home and other limited HD receiver pay per view uses only. Reverse engineering or disassembly is prohibited.

Program Recording Restrictions

Programming may be taped for home viewing only. All other taping is expressly prohibited. Some programming may not be taped. An additional taping fee may be applied. Call your program provider for details.

High definition broadcast copyright limitations

Due to copyright restrictions, you may not be able to view some high definition programs in high definition format using this product. (Also, whenever possible you should connect both HD and SD interfaces to permit SD viewing of programs if HD viewing is restricted due to copyright restrictions.)

Customer Support

For DIRECTV® Programming

For subscription information, or to resolve problems related to programming, call DIRECTV at 1-800-DIRECTV (1-800-347-3288) or visit the DIRECTV Web site (DIRECTV.com).

For Installation

To arrange for the installation of your DIRECTV HD Receiver, call the dealer from whom you purchased your system.

For Hardware

To resolve problems related to this DIRECTV HD Receiver, call RCA Customer Support at 1-888-901-4388.

Table of Contents

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upon final approval**

Chapter 1: Introduction

What kinds of TV programming can I watch with the DIRECTV® High-Definition Receiver?

Your HD Receiver lets you receive television programs from a wide range of sources, and display them on virtually any TV or monitor.

Using the AIR IN, SATELLITE IN, and CABLE IN jacks on the back of the HD Receiver, you can receive television programs from:

- HDTV and SDTV DIRECTV® programming via digital satellites (through the SATELLITE IN jack).
- Local off-air analog television broadcasts (NTSC), and local off-air digital broadcasts (ATSC) (through the AIR IN jack).
- Unscrambled analog cable TV services for unscrambled cable programming (through the CABLE IN jack).

To view cable TV or DIRECTV programming, programming subscriptions are also required.

Analog TV, Digital TV, NTSC, ATSC, SDTV, and HDTV

The following list shows the differences between the types of signals your High-Definition Receiver can decode.

Analog TV – NTSC

Analog TV is the TV you're probably most familiar with. Most of the TV broadcasts you receive via a standard off-air antenna or from your local cable company are analog TV broadcasts. NTSC (National Television Standards Committee) refers to the group that first established the standards used for conventional analog television broadcasts and TV equipment.

Digital TV – ATSC

Digital television (sometimes called DTV) is a newer method of broadcasting TV signals that delivers higher quality audio and video. Digital TV is broadcast in two sets of formats, SDTV and HDTV. ATSC (Advanced Television Systems Committee) is the group who have been working to establish the standards for digital television broadcasts and digital television equipment — including both SDTV and HDTV.

SDTV

SDTV is a digital TV format that provides a high quality picture at resolutions that can be displayed on standard TV sets (see more on resolutions on the next page).

HDTV

HDTV is a digital TV format that provides the highest quality picture at resolutions that can be displayed on computer monitors and HDTV-ready TV displays.

What equipment is required to view HDTV programming?

To view HDTV programming, you'll need a television set or HD monitor in addition to your HD Receiver. For access to high-definition programming, you'll need a triple LNB Multi-Satellite antenna, along with a High-Definition capable satellite receiver and an HD monitor.

To receive analog and digital off-air television broadcasts, you'll need an off-air antenna. To receive cable TV programming, you'll need a cable TV connection (provided by your local cable TV service provider).

Resolution and interlacing

Two of the elements that determine the quality of a TV picture are resolution and interlacing.

- **Resolution:** For TV equipment and broadcasts, resolution is defined by the number of horizontal lines displayed to make up each frame of a video image. The more lines of resolution used to draw each frame of video, the more detailed and sharp the picture will be. Standard TV resolution uses 480 horizontal lines to make up each frame of video. HDTV uses either 720 lines or 1080 lines to make each video frame.
- **Interlacing:** When TVs display video, they display a new video frame at a rate that is faster than your eye can see (from 24 to 60 frames per second, depending on the TV and broadcast). Interlacing refers to whether each of those frames contains all of the lines of video for each frame or every other line. Interlaced signals take every other line from 2 frames of video (each lasting 1/60th of a second), and combine them into one frame lasting 1/30th of a second. In this way, interlacing tricks your eye into thinking it is seeing twice the resolution that is actually being displayed. In non-interlaced video, (referred to as progressive scan video), video frames are displayed every 1/60th of a second containing all of the lines of video information for each frame.

The specifications for video resolutions are usually stated by giving the number of horizontal lines, followed by either the letter *i*, for interlaced video, or *p* for progressive scan video. Most standard TV broadcasts are 480i (480 lines of interlaced video resolution). Some DVDs and non-HDTV digital TV broadcasts use 480p. The ATSC specification for HDTV broadcasts and equipment requires either 1080i or 720p. While there is some debate as to whether it is better to have more lines that are interlaced (1080i), or fewer lines that are progressively scanned (720p), it is generally accepted that 1080i is the highest quality video format.

Video output options

The DIRECTV® High-Definition Receiver is able to receive broadcasts in any of the resolutions mentioned above. It can also display programs on TVs or monitors capable of displaying any of those resolutions. To set up your HD Receiver to handle the combinations of incoming video formats and TV display capabilities, set the RESOLUTION SELECT switch on the front panel (see page xx for more information) to match the highest resolution your TV or monitor is capable of displaying. (If you're not sure about your TV's resolution, see your TV's manual for this specification.) The HD Receiver will then do the appropriate conversion from input signal format to display format.

The table below details the results you get with each combination of input signal format and TV display format.

For 1080i, 720p, 480p or 480i signals		
With the RESOLUTION SELECT switch set to:	The Component, RGB and DVI jacks will output:	The Video Out, TV Out and S-Video jacks will output:
1080i	1080i	480i
720p	720p	480i
480p/i	480p	480i

Continues on next page...

Introduction

For example, if you have a standard-resolution TV, you would set the RESOLUTION SELECT switch to 480p/i. Then programs received by the DIRECTV® High-Definition Receiver at any resolution would be converted to a resolution of 480p or 480i for display on your television.

This information can also help you decide how to connect your TV and VCR to the HD Receiver. For example, if you have a High-Definition TV capable of displaying 1080i, and a standard VCR, you would want to use the COMPONENT, RGB or DVI jacks (whichever your TV accepts) to connect the HD Receiver to your TV. You would then use a VIDEO output jack to connect your VCR. This will provide each device with the highest quality video signal it is capable of using.

Note: If you connect your TV to one of the composite video out jacks (VIDEO OUT, S-VIDEO OUT, or TV OUT), and you view a high-definition program with the HD Receiver's RESOLUTION SELECT switch set to either 720p or 1080i, the picture will be slightly cropped at the top and bottom (the very top and bottom edges of the image will not appear on the TV screen). To avoid this problem, set the RESOLUTION SELECT switch to the 480p/i position if your TV is connected to one of the composite video outputs. Also, since the RGB, COMPONENT and DVI jacks do not output the 480i video format, do not connect a standard definition TV capable of displaying only 480i video to the RGB, COMPONENT or DVI jacks.

If you use the DVI jack, for the best access to high-definition programming, connect the DVI/HDCP output to the corresponding DVI/HDCP input on your High-Definition Television (HDTV) or HDTV Monitor that supports High-bandwidth Digital Content Protection (HDCP) technology.

Aspect ratio





In addition to resolution and interlacing, HDTV is also defined by the aspect ratio of its broadcasts. *Aspect ratio* means the ratio of the screen's width to its height. For analog TV and SDTV, the aspect ratio is 4 units wide by 3 units high (usually written 4:3). This is the familiar shape of conventional TVs — slightly wider than they are tall.

For HDTV broadcasts, the aspect ratio is 16:9 (nearly twice as wide as it is tall), like the shape of movies shown in theaters. This makes HDTV an ideal format for broadcasting and viewing movies on a TV.

What happens if you are watching a nearly square-shaped 4:3 broadcast on a rectangular 16:9 TV, or vice-versa? Your HD Receiver allows you to choose from a variety of screen formats to help you deal with those scenarios.

4:3 TVs showing 16:9 programs

For a standard 4:3 TV showing a widescreen program, the program is too wide to fit on the screen. Your HD Receiver gives you 3 ways to fix the problem:

Source Signal	4:3 Monitor Format Options		
	Letterbox	Full	Zoom
4:3	Not available		Not available
16:9			

Note: 4:3 broadcasts are automatically shown in the Full format on 4:3 monitors.

Letterbox Shrinks a 16:9 image so that it fits on a 4:3 screen in its entirety and in its original aspect ratio. The top and bottom of the screen are empty.





Note: Letterbox is not available when the RESOLUTION SELECT switch is set to 1080i and the source signal is 1080i.

Full Stretches a 16:9 image vertically so that it fits on a 4:3 screen in its entirety and fills the entire 4:3 screen. The horizontal scale of the image remains the same.

Zoom The 16:9 image is shown unaltered, but the left and right portions of the image are cropped (or cut).

16:9 TVs showing 4:3 programs

For a wide-screen 16:9 TV, a standard 4:3 TV program is too tall to fit on the screen. The DIRECTV® High-Definition Receiver gives you 3 ways to fix the problem:

Source Signal	16:9 Monitor Format Options		
	Pillar box	Full	Zoom
4:3			
16:9	Not available		Not available

Note: You can set the color of the horizontal or vertical bars displayed for Letter box and Pillar box screen formats to either black or gray. See Chapter xx for details.

Pillar box For 4:3 broadcasts, this setting places the image in the middle of the screen with empty panels on either side. For 16:9 broadcasts, this setting shrinks the image and stretches it vertically so that it fits into the “pillar box.”

Full For 4:3 broadcasts, this setting stretches the image horizontally so that it fits on a 16:9 screen in its entirety and fills the entire 16:9 screen. The vertical scale of the image remains the same. For 16:9 broadcasts, this setting displays the image in its original format and aspect ratio.

Zoom The 4:3 image is magnified so that it fills the screen horizontally. The top and bottom of the image are cropped (or cut). This setting is not available for 16:9 broadcasts.

Note: You can also use the **FORMAT** button on your remote control to switch between the available screen formats.

Dolby Digital 5.1

Just as the ATSC has specified 1080i or 720p as the video formats required for HDTV, they have also specified a recommended audio format: Dolby Digital 5.1. Dolby Digital 5.1 provides 5 discrete channels of digital audio information for use by A/V receivers capable of decoding the 5.1 channel signal. The audio signals are broken into left-front, center, right-front, left-rear, right-rear and a low-frequency effects channel (designed for subwoofers). The result when connected to a compatible Dolby Digital 5.1 channel A/V receiver and speaker setup is a home theater experience that provides much of the dynamic range, 360-degree imaging, and sonic excitement of a real theater.

Not all Digital TV programming is broadcast using Dolby Digital 5.1. For DIRECTV® programming, you can see which programs are broadcast using this high-quality audio standard by checking the Info Banners and Program Guides for the Dolby Digital icon ().

To take full advantage of the Dolby Digital 5.1 capabilities of your HD Receiver, you will need a Dolby Digital 5.1 compatible A/V receiver connected to the HD Receiver through the DOLBY DIGITAL OPTICAL jack or the DOLBY DIGITAL COAXIAL jack.

Chapter 2: Connections & Setup

Things to Consider Before Making Connections

Before you begin connecting your components to the DIRECTV® High-Definition Receiver, please note the following important safety and setup tips.

Protect your components from power surges

- Always turn off and unplug your HD Receiver, TV, and any other components before connecting or disconnecting any of the cables.

Position all cables correctly to avoid audio hum or interference

- After connecting the components, please run the audio/video cables along the side of the TV set, rather than straight down the back of the TV.
- Make sure that all cables are plugged or screwed tightly into their jacks.
- Please make sure that all antennas and cables are properly grounded.
- Whenever possible, route audio and video cables away from power cords.

Protect your components from overheating

- Do not block ventilation holes in the top of the HD Receiver, or any other components. Make sure to position the components so that air can circulate freely.
- If you are positioning the components in a stand or rack, make sure to allow for proper ventilation.
- Do not stack components.
- If you have a stereo amplifier or receiver as a system component, please place it on the top shelf or top rack so that hot air rising from it will not flow around other components.

Make strong connections

- Make sure you securely connect cables when making connections. When a tight fit makes a secure connection difficult, you can sometimes make it easier by gently twisting the cable-end while pushing it onto the jack. (*Important:* never twist S-Video or Optical Digital Audio cables — they have specially shaped ends that must be correctly oriented before connecting.)

Avoid cable damage

- Never kink, bend, or twist optical digital audio cables; doing so might break the fragile optical fibers they contain, rendering them unable to carry a signal.

Choose Your Connection

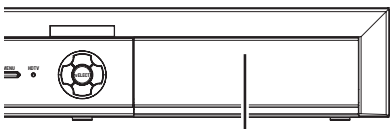
How you connect your DIRECTV® High-Definition Receiver to your TV or monitor depends on the jacks available on your TV or monitor. Please use the following chart to determine which kind of connection you should use based on the kind of input jacks your TV or monitor offers. Proceed to the appropriate page and connect your HD Receiver. For more information about the relationship between jacks, cables and the quality of the signal you see on your monitor or TV, see the section on jacks and cables, starting on the next page.

If your monitor/TV has:	Use this connection:	Cables needed:
<ul style="list-style-type: none"> • DVI-HDTV input • RGB input 	CONNECTION 1 (see pages xx and xx)	<ul style="list-style-type: none"> • Audio (one pair, RCA) AND • DVI-HDTV or RGB
<ul style="list-style-type: none"> • Component video inputs 	CONNECTION 2 (see pages xx and xx)	<ul style="list-style-type: none"> • Audio (one pair, RCA) AND • Component Video
Analog inputs only – <ul style="list-style-type: none"> • S-Video input • Composite video input 	CONNECTION 3 (see pages xx and xx)	<ul style="list-style-type: none"> • Audio (one pair, RCA) AND • S-Video or Composite Video

Pages xx and xx have instructions for optional connections between the HD Receiver and a digital audio receiver and a VCR. Page xx has instructions for setting up the RF remote and RF remote antenna that came with your HD Receiver. Page xx has instructions for setting up the HD Receiver to control your VCR (if you've connected one). Page xx offers a general overview of the jacks on the HD Receiver's back panel.

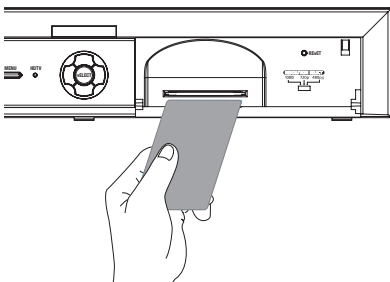
Insert the Access Card

In order to view DIRECTV® programming, you need to insert the access card into your receiver. For some receivers, the card may already be inserted when you unpack the box.



Push here to unlatch the door

1. The ACCESS CARD slot is behind a flip-down door on the right side of the front panel of the HD receiver. To open this door, push firmly on the top middle part of the door to unlatch it. Then, gently pull the door out and down. The front panel door will flip down.



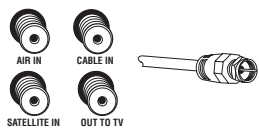
2. Locate the ACCESS CARD slot.
3. Insert the access card. Make sure the side with the bar code is facing down, and the arrow is pointing away from you.
4. Close the flip-down door.

The access card should only be removed when replacing the card with a new one provided by DIRECTV or your program provider.

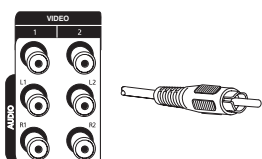
Connections & Setup

Jacks and cables

The illustrations in this section show the various types of jacks and cables used to connect your DIRECTV® High-Definition Receiver.



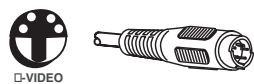
RF jacks and coaxial cable The OUT TO TV RF jack on the HD Receiver uses a coaxial cable to connect to your TV or VCR. This jack provides monaural sound and a good TV picture. An RF jack is also used for standard analog (NTSC) and digital (ATSC) TV antenna connection (AIR IN), for a cable TV service connection (CABLE IN), and using an RG-6 coaxial cable, for the satellite dish (SATELLITE IN) input connection.



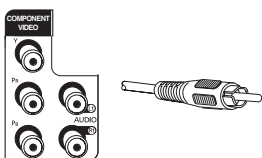
Audio/Video out jacks and cables (RCA-type) Audio/Video jacks and cables provide stereo sound and a better TV picture than RF jacks and cables. Use these jacks and cables to connect your receiver to a TV, VCR, or to other components such as a stereo receiver or amplifier. The VIDEO output jacks provide a basic quality composite video signal using RCA-type cables. (Maximum resolution via this jack is 480i.) The AUDIO jacks can be used to connect the HD Receiver to an A/V receiver. The audio/video jacks on the back of the receiver and the audio/video cable connectors are color coded (yellow for video, red for right audio, and white for left audio).



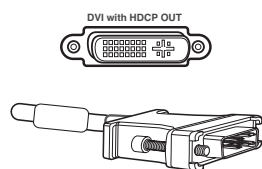
Telephone jack and cord The PHONE jack and the included telephone cord connect your HD Receiver to a phone line. If your home does not have RJ-11 type phone jacks, please contact your phone company to get one installed. A continuous land-based phone line connection is required for DIRECTV® Pay Per View functionality and DIRECTV® sports subscriptions. Any calls generated by the HD Receiver are toll-free. These calls are typically made in the middle of the night; your phone is in use for approximately 30 seconds.



S-Video jack and cable (cable not included) S-Video cables and jacks are used to connect to TVs, VCRs, and other video devices equipped with S-Video input jacks. S-Video connections provide a high-quality TV picture (better than RCA-type A/V jacks and cables). S-Video connectors must be correctly aligned before you can plug in the cable. Maximum resolution via this jack is 480i. (This cable carries the video signal only; use with audio cables for the audio signal.)

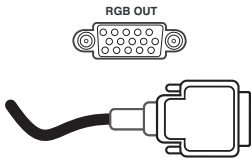


Component video jacks and cables Component video cables and jacks (labelled "Y PR PB") are used to connect the HD Receiver to TVs, VCRs, and A/V receivers equipped with component video input jacks. Component video connections provide a TV picture superior to S-Video connections. Component video jacks use 3 RCA-type cables to carry the signal. This connection is capable of displaying Digital TV and HDTV video resolutions. (Component video cables carry video only; use with audio cables for the audio signal.)

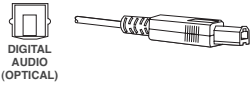


DVI jack and cable Using the DVI jack and a digital DVI cable, your HD Receiver can provide the unconverted digital signal from digital off-air, cable, or DIRECTV® programming directly to A/V devices that are capable of decoding the digital video information. The DVI jack uses HDCP content protection to allow you to view HD programming that has been encoded using the HDCP protection system. For the best access to HD programming at the highest available resolution, connect this to a HDTV that supports HDCP technology. (DVI cables carry video only; use with audio cables for the audio signal.)

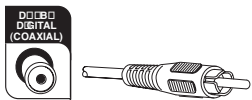
Connections & Setup



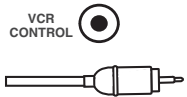
RGB OUT jack and cable (cable not included) Uses a computer-standard 15-pin VGA video connection. Each main video color – Red, Green, and Blue – uses a separate pin; and other pins are used to carry vertical and horizontal syncing signals. Using the RGB OUT jack and an RGB cable, you can connect your DIRECTV® High-Definition Receiver to devices equipped with RGB input jacks (computer monitors, for example). The RGB Out jack can carry any of the Digital TV and HDTV video resolutions. (This cable carries video only; use with audio cables for the audio signal.)



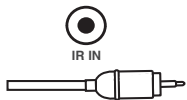
Optical digital audio jack and cable (cable not included) Optical digital jacks and cables use light to send digital audio data to A/V receivers equipped to receive and interpret this data. The jacks and cables must be aligned before you plug in the cable. These jacks and cables may also be covered by protective caps which you must remove before making connections.



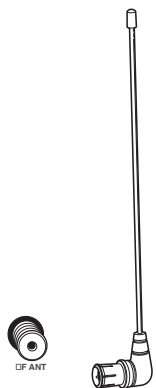
Coaxial digital audio jack and cable (cable not included) Coaxial digital audio jacks and cables send digital audio data to A/V receivers equipped with coaxial digital audio input jacks.



VCR CONTROL jack and cable The VCR control jack and cable allow your HD Receiver to send signals to your VCR's remote sensor, giving you the ability to program your VCR to tape programs for you using simple on-screen controls.

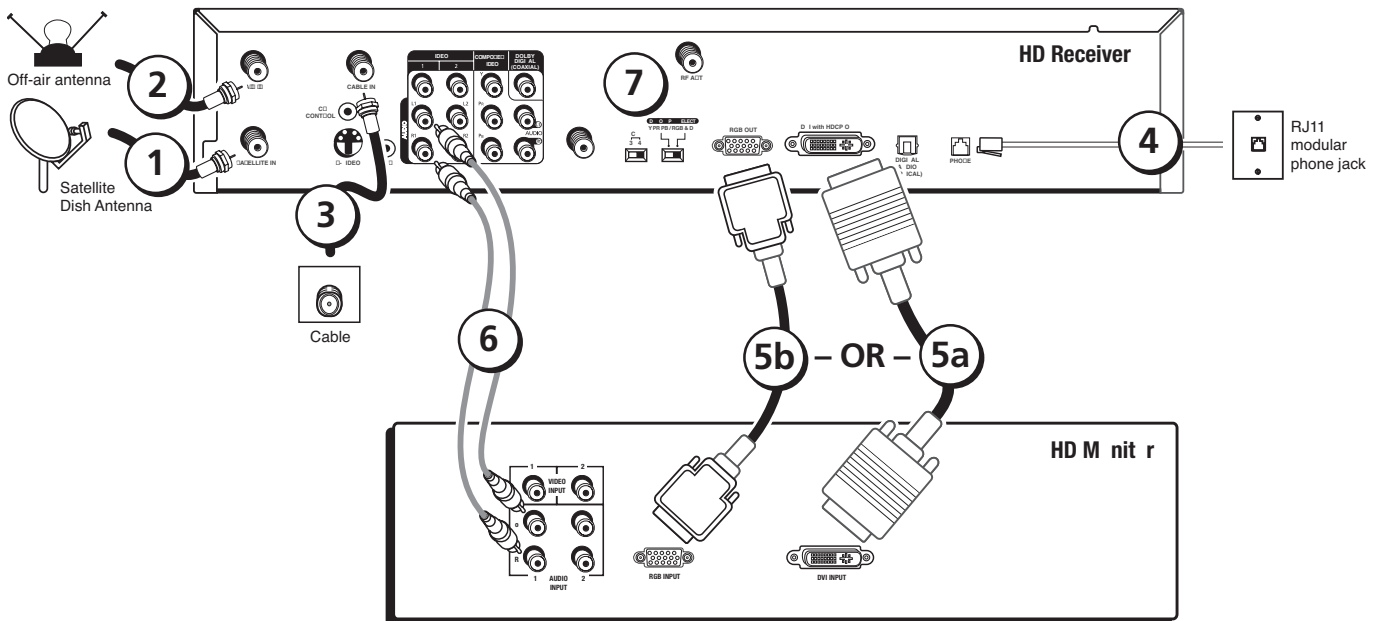


IR IN This jack is for connecting a wired remote control system, which is primarily for professional installers. If you're using the remote that was included with your TV, don't plug anything into this jack.



RF antenna and RF ANT jack Connecting the RF remote antenna to the RF ANT jack allows your remote control to communicate with your HD Receiver even when you do not have line-of-sight to the receiver's front panel remote sensor.

Connections & Setup



Connection 1: HD Receiver + Monitor with DVI or RGB input jacks

1. Connect a satellite signal (if available) to the HD Receiver.

Connect the satellite dish antenna feed (RG-6 coaxial cable) to the SATELLITE IN jack on the HD Receiver.

2. Connect an off-air signal signal to the HD Receiver.

Use a coaxial cable (usually included with an off-air antenna) to connect an off-air antenna to the AIR IN jack on the back of your HD Receiver.

3. Connect a cable signal (if available) to the HD Receiver.

Connect the coaxial cable from your cable outlet to the CABLE IN jack on the back of your HD Receiver.

4. Connect a phone line to the HD Receiver.

Connect one end of the supplied phone cord to an RJ11-type modular telephone wall jack (the most common type of phone jack). Connect the other end to the PHONE jack on the back of the HD Receiver.

5. Connect the video from the HD Receiver to your monitor – match your monitor’s input jacks:

a. Best Connection: DVI-HDCP

Connect a DVI-HDCP cable (not supplied) to the DVI with HDCP OUT jack on the back of the HD Receiver. Connect the other end of the cable to the DVI input on the back of your monitor.

Note: Not all monitors with a DVI input support DVI-HDTV or DVI-HDCP signals. Check the user’s manual that came with your monitor to see if it supports DVI-HDTV or DVI-HDCP signals.

- OR -

b. Very Good Connection: RGB

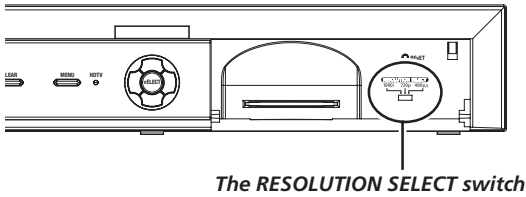
Connect an RGB cable (not supplied) to the RGB OUT jack on the back of the HD Receiver. Connect the other end of the cable to the RGB input on the back of your monitor.

6. Connect the audio from the HD Receiver to your monitor.

Connect a pair of RCA-type cables to the AUDIO jacks on the back of your HD Receiver. Connect the other ends of the cables to the audio input jacks on the back of your TV, monitor (shown on the previous page) or audio receiver (not shown). Make sure you match the Left (white) output with the Left input and the Right (red) output with the Right input. See page xx for instructions on how to connect a digital audio receiver to your HD Receiver.

7. Set the DTV OUTPUT switch on the HD Receiver to the DVI/RGB setting.

8. Set the RESOLUTION SELECT switch on the front panel.



The RESOLUTION SELECT switch is behind a flip-down door on the right side of the front panel of the HD receiver. To open this door, push firmly on the top middle part of the door to unlatch it. Then, gently pull the door out and down. The front panel door will flip down.

Locate the RESOLUTION SELECT switch. Set the RESOLUTION SELECT switch to the DTV resolution setting that looks the best on your monitor or TV (1080i, 720p or 480p/i).

Close the flip-down door.

Note: See your monitor or TV user's guide for information regarding its native video resolution.

To watch the HD Receiver on your monitor or TV:

For most RCA, GE or Proscan monitors or TVs:

Press TV on the remote control that came with your HD Receiver. Then press the WHO•INPUT button on the remote until you see the signal from the HD Receiver on your TV or monitor.

For brands other than RCA, GE or Proscan:

Consult your TV Owner's Manual.

If you cannot find your TV Owner's Manual, you will have to investigate. You might access the TV's video input channel by:

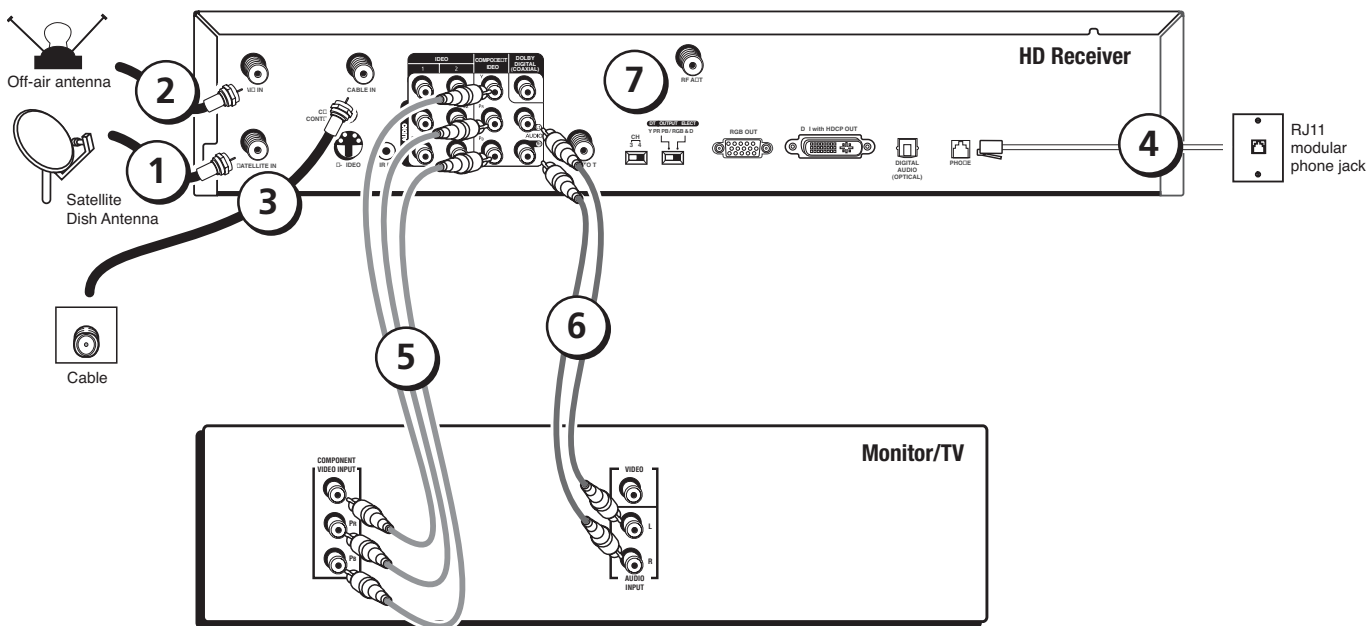
- pressing a button on the TV's remote control, the HD Receiver's remote control or on the front of the TV (see the box below)
- finding it through the TV's menu system
- tuning directly to it by pressing a specific channel number (see the box below)
- going through all channels in the list by pressing the channel up or down buttons on the TV (see the box below)

Video Line Input Variations		
Button/switch on the TV	Button on the TV Remote	Channel #
VIDEO	VID 1	00
SIGNAL	LINE	90
VID 1	VID	91
VID 2	VIDEO	92
TV/VIDEO	TV/VIDEO	
S-VID	S-VID	VID 1
S-VIDEO	INPUT SOURCE	VID 2
	AUX	

The box to the left lists of some of the different ways manufacturers label the video input channel. Once you've found the video input channel you want, press the DIRECTV button on the HD Receiver's remote and use the number buttons to tune the HD Receiver to the desired channel.

Go to page xx

Connections & Setup



Connection 2: HD Receiver + Monitor with component video input jacks

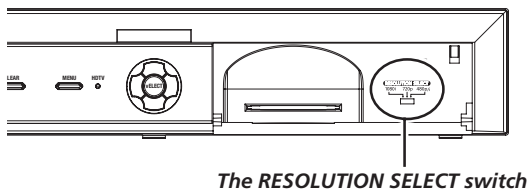
- 1. Connect a satellite signal (if available) to the HD Receiver.**
Connect the satellite dish antenna feed (RG-6 coaxial cable) to the SATELLITE IN jack on the HD Receiver.
- 2. Connect an off-air signal signal to the HD Receiver.**
Use a coaxial cable (usually included with an off-air antenna) to connect an off-air antenna to the AIR IN jack on the back of your HD Receiver.
- 3. Connect a cable signal (if available) to the HD Receiver.**
Connect the coaxial cable from your cable outlet to the CABLE IN jack on the back of your HD Receiver.
- 4. Connect a phone line to the HD Receiver.**
Connect one end of the supplied phone cord to an RJ11-type modular telephone wall jack (the most common type of phone jack). Connect the other end to the PHONE jack on the back of the HD Receiver.
- 5. Connect the component video output jacks from the HD Receiver to your monitor's component video input jacks.**
Connect the ends of the component video cables to the COMPONENT VIDEO jacks on the HD Receiver. Connect the other ends of the component video cables to the corresponding input jacks on the back of the TV or monitor.
Note: Make sure you connect jacks corresponding to their labels. For example, the PR output on the HD Receiver should be connected to the PR input on the monitor, the PB output to the PB input, and the Y output to Y input. Make sure you use video-grade video cables.

6. Connect the audio from the HD Receiver to your monitor.

Connect a pair of RCA-type cables to the AUDIO jacks in the COMPONENT VIDEO section of the back of your HD Receiver. Connect the other ends of the cables to the audio input jacks on the back of your TV, monitor (shown on the previous page) or audio receiver (not shown). Make sure you match the Left (white) output with the Left input and the Right (red) output with the Right input. See page xx for instructions on how to connect a digital audio receiver to your HD Receiver.

7. Set the DTV OUTPUT switch on the HD Receiver to the Y PB PR setting.

8. Set the RESOLUTION SELECT switch on the front panel.



The RESOLUTION SELECT switch is behind a flip-down door on the right side of the front panel of the HD receiver. To open this door, push firmly on the top middle part of the door to unlatch it. Then, gently pull the door out and down. The front panel door will flip down.

Locate the RESOLUTION SELECT switch. Set the RESOLUTION SELECT switch to the DTV resolution setting that looks the best on your monitor or TV (1080i, 720p or 480p/i).

Close the flip-down door.

Note: See your monitor or TV user's guide for information regarding its native video resolution.

To watch the HD Receiver on your monitor or TV:

For most RCA, GE or Proscan monitors or TVs:

Press TV on the remote control that came with your HD Receiver. Then press the WHO•INPUT button on the remote until you see the signal from the HD Receiver on your TV or monitor.

For brands other than RCA, GE or Proscan:

Consult your TV Owner's Manual.

If you cannot find your TV Owner's Manual, you will have to investigate. You might access the TV's video input channel by:

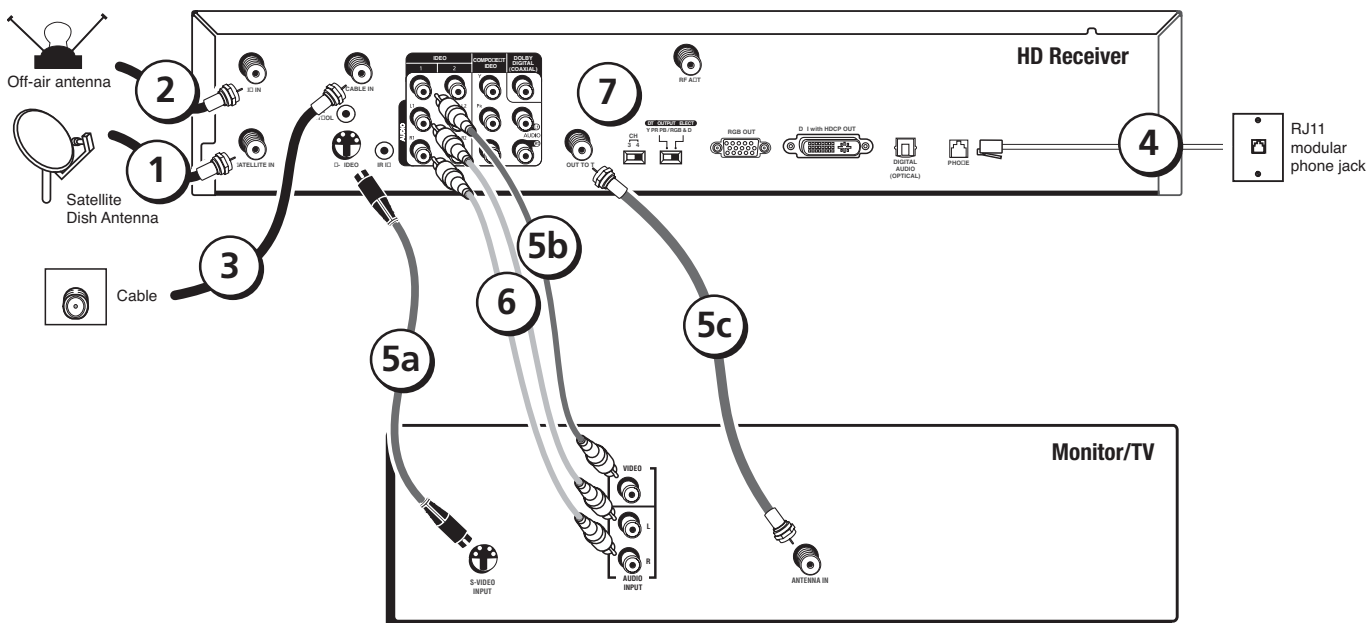
- pressing a button on the TV's remote control, the HD Receiver's remote control or on the front of the TV (see the box below)
- finding it through the TV's menu system
- tuning directly to it by pressing a specific channel number (see the box below)
- going through all channels in the list by pressing the channel up or down buttons on the TV (see the box below)

Video Line Input Variations		
Button/switch on the TV	Button on the TV Remote	Channel #
VIDEO	VID 1	00
SIGNAL	LINE	90
VID 1	VID	91
VID 2	VIDEO	92
TV/VIDEO	TV/VIDEO	
S-VID	S-VID	VID 1
S-VIDEO	INPUT	VID 2
	SOURCE	
	AUX	

The box to the left lists of some of the different ways manufacturers label the video input channel. Once you've found the video input channel you want, press the DIRECTV button on the HD Receiver's remote and use the number buttons to tune the HD Receiver to the desired channel.

Go to page xx

Connections & Setup



Connection 3: HD Receiver + Analog TV/Monitor

1. Connect a satellite signal (if available) to the HD Receiver.

Connect the satellite dish antenna feed (RG-6 coaxial cable) to the SATELLITE IN jack on the HD Receiver.

2. Connect an off-air signal signal to the HD Receiver.

Use a coaxial cable (usually included with an off-air antenna) to connect an off-air antenna to the AIR IN jack on the back of your HD Receiver.

3. Connect a cable signal (if available) to the HD Receiver.

Connect the coaxial cable from your cable outlet to the CABLE IN jack on the back of your HD Receiver.

4. Connect a phone line to the HD Receiver.

Connect one end of the supplied phone cord to an RJ11-type modular telephone wall jack (the most common type of phone jack). Connect the other end to the PHONE jack on the back of the HD Receiver.

5. Connect the video from the HD Receiver to your TV or monitor – match your TV or monitor's input jacks:

a. Best Analog Connection: S-Video

Connect an S-Video cable (not supplied) to the S-VIDEO jack on the back of the HD Receiver. Connect the other end of the cable to the S-Video input on the back of your monitor or TV.

- OR -

b. Good Analog Connection: Composite Video

Connect a composite video cable to VIDEO jack number 1 on the back of the HD Receiver. Connect the other end of the cable to the composite video input on the back of your monitor or TV.

- OR -

c. Basic Analog Connection: Coaxial Cable

Connect a coaxial cable to the OUT TO TV jack on the back of the HD Receiver. Connect the other end of the cable to the antenna input on the back of your monitor or TV.

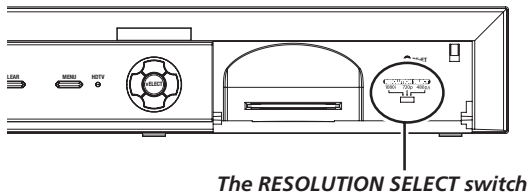
Connections & Setup

6. Connect the audio from the HD Receiver to your monitor.

Connect a pair of RCA-type cables to the AUDIO jacks on the back of your HD Receiver. Connect the other ends of the cables to the audio input jacks on the back of your TV, monitor (shown on the previous page) or audio receiver (not shown). Make sure you match the Left (white) output with the Left input and the Right (red) output with the Right input. See page xx for instructions on how to connect a digital audio receiver to your HD Receiver.

7. If you used the TV OUT jack on the back of the HD Receiver to connect it to your TV, set the CH switch on the back of the HD Receiver to the channel you plan to use to watch HD Receiver programming (channel 2 or channel 3).

8. Set the RESOLUTION SELECT switch on the front panel.



The RESOLUTION SELECT switch is behind a flip-down door on the right side of the front panel of the HD receiver. To open this door, push firmly on the top middle part of the door to unlatch it. Then, gently pull the door out and down. The front panel door will flip down.

Locate the RESOLUTION SELECT switch. Set the RESOLUTION SELECT switch to 480p/i.

Close the flip-down door.

Note: See your monitor or TV user's guide for information regarding its native video resolution.

To watch the HD Receiver on your monitor or TV:

For most RCA, GE or Proscan monitors or TVs:

Press TV on the remote control that came with your HD Receiver. Then press the WHO•INPUT button on the remote until you see the signal from the HD Receiver on your TV or monitor.

Note: If you used the OUT TO TV jack to connect your HD Receiver to your TV, tune the TV to the channel you selected in step 7 above.

For brands other than RCA, GE or Proscan:

Consult your TV Owner's Manual.

If you cannot find your TV Owner's Manual, you will have to investigate. You might access the TV's video input channel by:

- pressing a button on the TV's remote control, the HD Receiver's remote control or on the front of the TV (see the box below)
- finding it through the TV's menu system
- tuning directly to it by pressing a specific channel number (see the box below)
- going through all channels in the list by pressing the channel up or down buttons on the TV (see the box below)

Video Line Input Variations		
Button/switch on the TV	Button on the TV Remote	Channel #
VIDEO	VID 1	00
SIGNAL	LINE	90
VID 1	VID	91
VID 2	VIDEO	92
TV/VIDEO	TV/VIDEO	
S-VID	S-VID	VID 1
S-VIDEO	INPUT	VID 2
	SOURCE	
	AUX	

The box to the left lists of some of the different ways manufacturers label the video input channel. Once you've found the video input channel you want, press the DIRECTV button on the HD Receiver's remote and use the number buttons to tune the HD Receiver to the desired channel.

Go to page xx

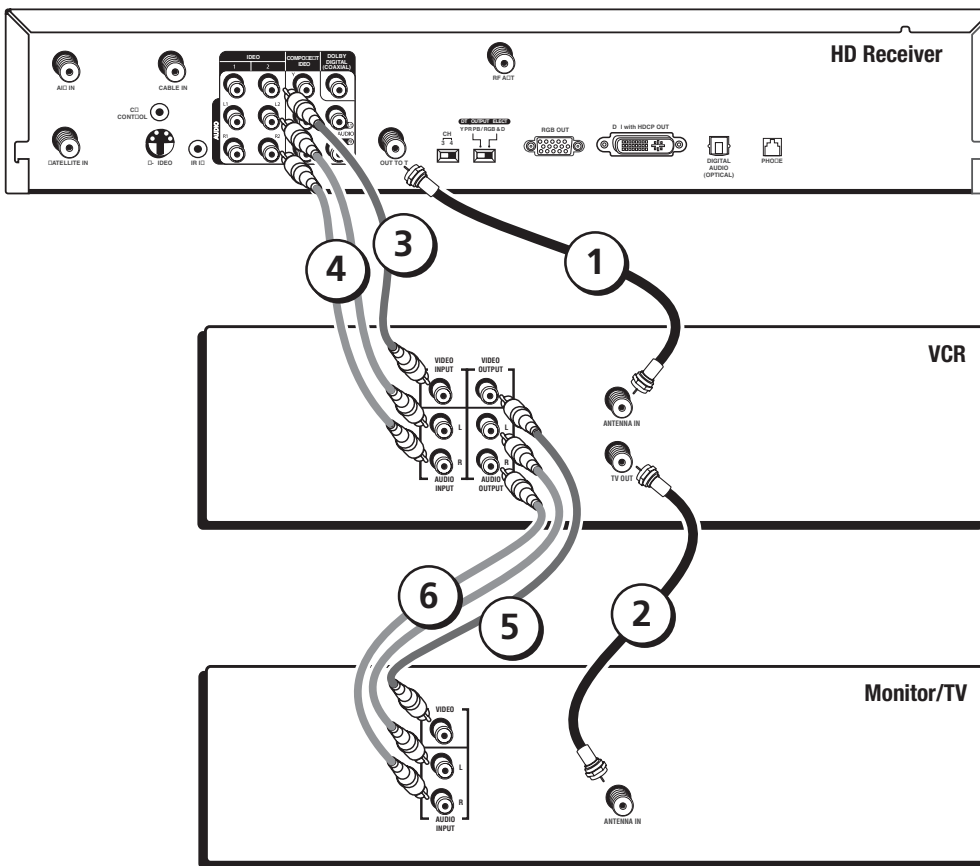
Connections & Setup

Optional Connections

Once you've connected the DIRECTV® High-Definition Receiver to your TV or monitor, you can connect it to a VCR or a digital audio receiver. You can also connect a VCR controller, as well as an RF antenna for use with your remote control. The next four pages show you how to make these optional connections.

Optional Connection 1: HD Receiver + VCR

Cables: Audio/Video (2 sets) and Coaxial (2)



1. Connect a coaxial cable to the HD Receiver's OUT TO TV jack. Connect the other end to the VCR's antenna input jack.
2. Connect a coaxial cable to the VCR's antenna output and to the antenna or cable input jack on the TV.
3. Connect a video cable to the VIDEO 2 output jack on the HD Receiver. Connect the other end of the video cable to the video input jack on the VCR.
4. Connect one pair of audio (white and red) cables to the AUDIO 2 output jacks on the HD Receiver. Connect the other end of the pair to the audio input jacks on the VCR.
5. Connect the video cable to the video input jack on the back of the TV and to the video output jack on the VCR.
6. Connect the audio (white and red) cables to the audio L and R audio jacks on the back of the TV and to the audio output jacks on the VCR.

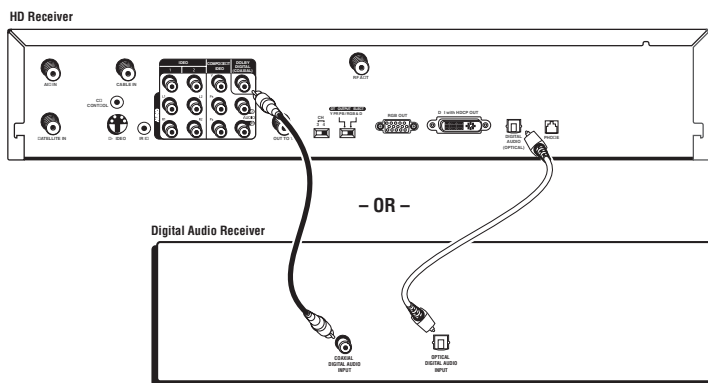
Optional Connection 2: HD Receiver + Digital Audio Receiver

Cable: Either Optical or Coaxial Digital Audio

Use this connection to take advantage of Dolby Digital quality sound, when available.

Your HD Receiver's digital output jacks can output digital audio signals in either PCM or Dolby Digital format (depending on your selection in the *Sound* setup menu; see *Setting the Digital Audio Format* at the bottom of this page for more information). These jacks are designed for connection to an external digital audio receiver/decoder.

Older equipment, some of which is not fully compliant with IEC958, may not be compatible with Dolby Digital. If the digital audio output is connected to a receiver that cannot decode Dolby Digital signals, set the *Digital Audio Output* setting in the *Sound* menu to *PCM* (see *Setting the Digital Audio Format* at the bottom of this page for more information). Failure to do so could create a high noise level, causing damage to headphones, speakers, or your hearing.



Making the Connection

Connect one end of either an optical digital audio cable or a coaxial digital audio cable (you do not have to connect both) to the corresponding digital audio output jack on the HD Receiver, and to the corresponding digital audio input jack on a Dolby Digital or PCM-only receiver or decoder.

Note: Your digital audio receiver back panel may not look exactly like the one pictured here.

Setting the Digital Audio format

After you connect your HD Receiver to your digital audio receiver/decoder, you must select *Digital Audio Output* from the *Sound* setup menu.



To set the Digital Audio preference:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Preferences* and press SELECT.
4. Highlight *Audio* and press SELECT. The *Audio* menu appears.
5. Highlight *Digital Out* and press SELECT. A list appears from which you can choose *Dolby Digital* or *PCM* audio formats.
Select *Dolby Digital* if you've connected the HD Receiver to a Dolby Digital-capable receiver/decoder. Select *PCM* if your digital audio receiver is not Dolby Digital capable. See your audio receiver's manual if you're not sure.
6. Highlight the format supported by your audio receiver and press SELECT. When you select a format the *Digital Out* list disappears. Your selection is indicated in the *Digital Out* line of the *Audio* menu.

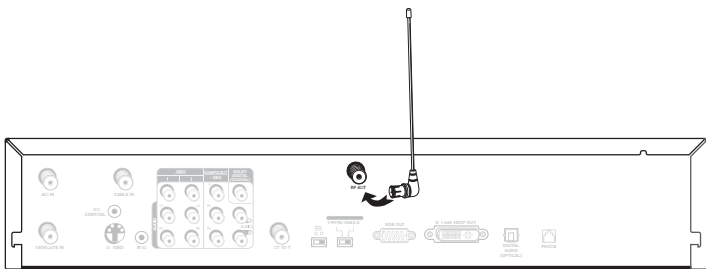
Connections & Setup

Optional Connection 3: RF Remote Antenna Connection

This connection allows your remote control to communicate with the DIRECTV® High-Definition Receiver even when you do not have line-of-sight to the receiver's front panel remote sensor.

Just as you would adjust a rabbit-ear antenna to get a better picture, your RF remote may need similar adjustments depending upon your environment. RF remote performance will be optimal when the receiving antenna is moved away from other electrical noise sources such as computers, VCR's, video games, etc., and the cables connecting these products.

Note: *The RF antenna can be connected to the satellite receiver using standard 75 ohm TV coaxial cable which will allow greater flexibility in positioning the antenna away from noise sources for best performance.*



Making the Connection

Connect the RF remote antenna to the RF ANT jack on the back of your digital satellite receiver.

Using Your Component

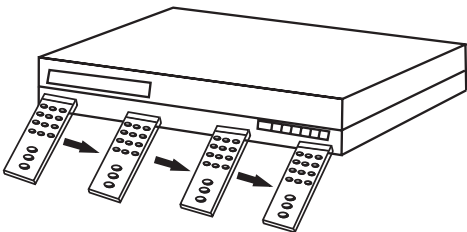
As soon as the above connection is made, the RF feature of your remote is in effect. For information about programming the remote control to operate other devices, see page xx. If you have other RF remote controls, you may want to change the RF code to avoid conflicts. To change the RF code, see the instructions on page xx.

Optional Connection 4: VCR Control (HD Receiver + VCR control cable + VCR)

The VCR control cable allows your HD Receiver to program your VCR to record a TV program. By selecting a record option from the on-screen program guide, you can direct the VCR control cable to flash signals to the VCR's remote control sensor, programming the VCR to tape a TV program for you.

Locating the VCR's Infrared Remote Control Sensor

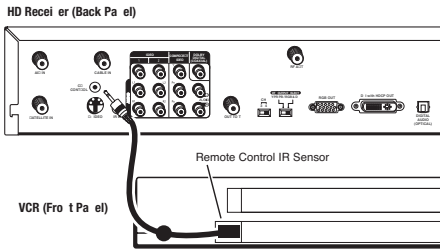
The VCR Controller must be affixed directly over the infrared remote control sensor on your VCR. Some VCRs have a label that identifies the remote control sensor, but others do not. If the IR sensor is labeled on your VCR, affix the VCR Controller directly over the sensor. For VCRs that do not label the sensor, you can use the VCR's remote control to locate the VCR's sensor before affixing the VCR Controller cable.



To Find the VCR's Remote Control Sensor:

1. Hold the VCR's remote control so that it is touching the front of the VCR.
2. Slowly move the remote control over the front of the VCR while repeatedly pressing the remote control's power button.
3. When your VCR turns on/off, you have located the remote control sensor.

Note: *To test the VCR controller's position, use a piece of vinyl tape to temporarily attach the VCR controller to the spot where you think the sensor is located. Then see Setting up the VCR Control on the next page to see if the VCR Controller is positioned correctly.*



To connect the VCR control cable to your HD Receiver:

1. Plug the VCR control cable into the VCR CONTROL jack on the back of the DIRECTV® High-Definition Receiver.
2. After you've tested the VCR (see *Setting up the VCR control* below), remove the backing tape from the adhesive on the other end of the VCR control cable. Stick the VCR control next to the remote control sensor on your VCR. (See the manual for your VCR if you weren't able to find its remote control sensor.)

Setting up the VCR control

Before you can use the VCR control cable to program your VCR, you must tell your receiver what kind of VCR you have.

1. Press the MENU button on your remote control.
2. Highlight the *SYSTEM SETUP* menu item, then press SELECT.
3. Highlight the *Installation* menu item, then press SELECT.
4. Highlight *VCR Setup*, then press SELECT. The *VCR Setup* screen appears.
5. Highlight the manufacturer of your VCR from the list on the left side of the screen. Some manufacturers distribute more than one type of VCR, so if the VCR type list on the right side of the screen contains more than one type, highlight the first type on this list. Try them in order until you find the one that passes the test below.
6. Highlight the on-screen *Test* button on the left side of the screen and press SELECT. A screen appears displaying instructions for testing the VCR setup. Follow the on-screen instructions to see if the VCR *Manufacturer* and *Type* settings you selected work for your VCR.



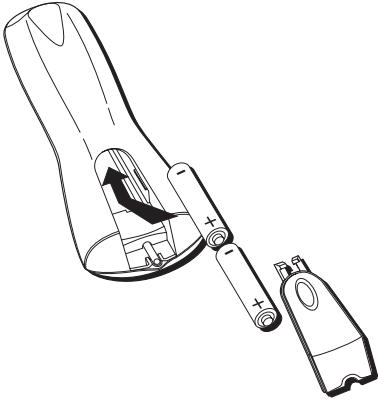
During the test, the HD Receiver will attempt to program the VCR to record for a short time. When the on-screen instructions tell you to do so, check the tape to see if your VCR was able to record the test. If so, your VCR setup is complete. If not, go through the steps in this process again, this time selecting the next VCR Type from the list.

Once you have set up the VCR control, you are ready to use the VCR control to record programs for you. See chapter xx for more information on reminders and timers.

Connections & Setup

Installing the batteries in the remote control

Follow these steps whenever you need to change the batteries in your DIRECTV® High-Definition Receiver's remote control.



1. Remove the cover from the battery compartment.
2. Insert batteries in the battery compartment, matching the + and – end of each battery.
3. Replace the cover.
4. Test the remote control to make sure the batteries have been inserted correctly. Press the DIRECTV button and make sure the button lights up. If it does not light up, check the orientation of the batteries.

Note: When replacing old batteries, you may need to reprogram the remote control to operate other devices. Avoid pressing any of the remote control buttons while you're replacing old batteries. If you press a remote control button while replacing batteries, you will need to reprogram the remote control to operate other devices.

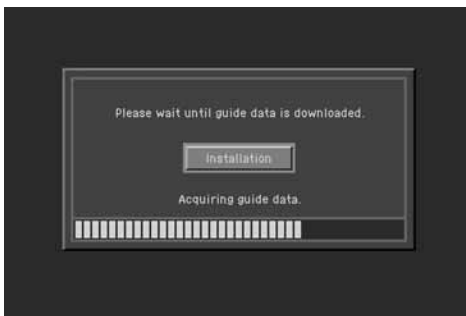
Turning on your receiver for the first time

You have completed the connection steps and are ready to start using your HD Receiver. The first step is to turn on the HD Receiver.

1. Turn on your TV and set it to display the signal from your HD Receiver.

If you connected the HD Receiver to video input jacks on your TV, you will need to set your TV to display the input from these jacks. Usually this is done by pressing a VIDEO, INPUT, or MODE button on your TV's remote control. (See page xx or the manual for your TV if you need help.)

If you connected the HD Receiver to an RF-type input jack, you will need to tune your TV to channel 3 or 4 (depending on how the CH 3/4 switch on the back of the HD Receiver is set). If you have a VCR, the VCR must be in TV mode or turned off.



2. Press the ON•OFF button on the HD Receiver's remote control or POWER on the front of the HD Receiver. The light on the front panel will turn on.

If this is the first time you have turned on your HD Receiver, it will take a few moments to acquire the program guide from the satellite. During this process, the progress screen shown on the left appears.

When the program guide has been fully acquired, the progress screen clears and the TV screen is displayed. You are ready to continue setting up your DIRECTV® system.

Adjusting the satellite dish

If the DIRECTV® High-Definition Receiver is able to acquire the program guide and display TV programs, your satellite dish is setup and working. You can skip ahead to the section on *Setting the dish type*.

If your receiver cannot acquire the program guide, and you intend to watch DIRECTV® programming, you may need to adjust the way your satellite dish is installed. To do this, first make sure your TV and HD Receiver are turned on and connected to each other properly. Then follow the instructions below to use your HD Receiver's menu system to set up your satellite dish.

The *Installation* option in the *System Setup* menu provides access to a variety of important setup controls. The first of these is the *Set Dish* menu. The *Set Dish* menu allows you to:

- acquire the exact azimuth, elevation, and tilt angles to help you point your dish accurately based on your ZIP code,
- check the setup of your satellite dish using an on-screen signal meter,
- set the dish type (to tell your HD Receiver what kind of satellite dish you're using), and
- set your dish type automatically.

The following sections explain each of these procedures.

Acquiring the correct dish pointing angles

The *Dish Pointing* menu item in the *Set Dish* menu allows you to find out exactly how to point your satellite dish by entering your ZIP code. If you have not yet successfully aligned your satellite dish, or if you need to realign it, follow these instructions to find the exact angles you should use to point your dish:

1. Press the MENU button on your remote control. The main menu appears.
2. Highlight *SYSTEM SETUP* and press SELECT. The *System Setup* menu appears.
3. Highlight *Installation* and press SELECT. The *Installation* menu appears.
4. Highlight *Set Dish* and press SELECT. The *Set Dish* menu appears.
5. Highlight *Dish Pointing* and press SELECT. The *Dish Pointing* screen appears.
6. Use the right-arrow button on your remote control to highlight the space for the first digit in the ZIP code. Use the 0 - 9 buttons on your remote control to enter your five-digit ZIP code. When you have entered all five digits, the screen updates to display the correct azimuth, elevation, and (for oval dish types only) tilt.

Azimuth is the left-to-right angle to which you should point your dish.

Elevation is the up-and-down angle to which you should point your dish.

Tilt (for oval dishes only) is the amount off-horizontal you should twist the dish on its axis.

Write down these numbers and use them to point your satellite dish.
7. To return to the *Set Dish* menu, press GO BACK on your remote control. To exit the menu system, press CLEAR on your remote control.



Connections & Setup

Checking the satellite signal strength

The *Signal Meter* allows you to check the strength of the signal from the satellite to your satellite dish. This is useful while setting up your satellite dish, and while troubleshooting any reception problems you may encounter. Satellite signal strength can be affected by how accurately you have pointed the satellite dish, and by any obstructions between the satellite and the satellite dish (tree limbs, for example).

Note: If you connected the DIRECTV® High-Definition Receiver to an off-air antenna, you can check the strength of any digital signals received by that antenna using the Digital Off-Air Signal Strength meter. Follow the instructions in the Programming local channels section later in this chapter.

To check your satellite signal strength:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Installation* and press SELECT.
4. Highlight *Set Dish* and press SELECT.
5. Highlight *DIRECTV Satellite Signal Meter* and press SELECT.



The *Signal Meter* screen appears. The signal meter starts checking the satellite signal strength immediately. The signal strength (from 0-to-100%) is indicated at the bottom of the screen. The *Signal Meter* screen allows you to check signal strengths from different satellites, and different transponders. The *Satellite* option applies only to oval-shaped satellite dishes which receive signals from multiple satellites. On round dishes, the *Satellite* setting is fixed.

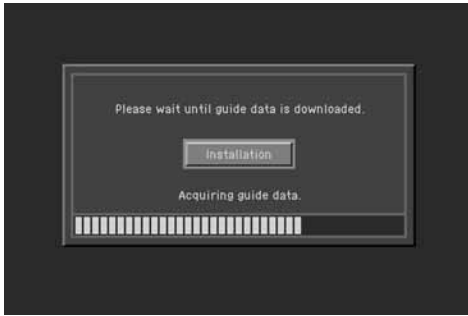
Transponders are the equipment on satellites that receive the signal from program providers and relay it to your satellite dish. Different transponders handle the signals for different TV channels. When setting up your satellite dish, you should try to maximize the signal strength across all of the satellites and transponders.

6. To check the signal strength for different satellites (oval dishes only), or different transponders, use the left- and right-arrow buttons on your remote control to highlight *Satellite* or *Transponder*, then use the up-and-down-arrow buttons to change the setting. The signal meter updates to show you the signal strength for the new satellite or transponder.

Setting the dish type manually

To function properly, your DIRECTV® High-Definition Receiver needs to know what type of satellite dish you are using. You can set the dish type manually using the instructions below. See page XX for information on how to set the dish type automatically.

Note: For access to DIRECTV® High-Definition programming, you will need an oval triple LNB satellite dish antenna.



To set the dish type manually:

1. If the progress screen (shown here) is on your TV screen, select *Installation* by pressing SELECT.

If this screen is not displayed, access the main menu by pressing MENU on your remote. Then use the arrow buttons on your remote to highlight *SYSTEM SETUP* and press SELECT. Then highlight *Installation* and press SELECT. The *Installation* menu appears.

2. Highlight *Set Dish* and press SELECT. The *Set Dish* menu appears.
3. Highlight *Select Dish Type* and press SELECT. The *Select Dish Type* screen appears.
4. Use the right-arrow button to highlight *Dish Type* on the *Select Dish Type* screen.
5. Use the up- and down-arrow buttons on your remote control to display the dish type you are using (*Round*, *Oval-2*, *Oval-3*, or *No Dish*). As you display each dish type, the on-screen pictures update showing you what each of these dish types look like.

If you plan to use your HD Receiver for local off-air or cable TV programs, but do not plan to receive DIRECTV® programming, select *No Dish*.



6. When you have displayed the correct dish type, use the right-arrow button on your remote control to highlight the on-screen *OK* button, then press SELECT. A message appears warning you that your HD Receiver needs to reboot (turn itself off and on) for the *Dish Type* setting to take effect.
7. To change the dish type to the new setting, highlight the on-screen *OK* button and press SELECT on your remote. Your receiver will reboot.

To leave the dish type setting unchanged, highlight the on-screen *Cancel* button, and press SELECT on your remote.

If you selected *No Dish*, the HD Receiver will perform an auto-scan to put your cable and off-air channels into its memory so you can tune them and see them in the on-screen guide.



Connections & Setup

Using Auto Detection to set the dish type

To function properly, the DIRECTV® High-Definition Receiver needs to know what type of satellite dish you are using. You can specify the dish type using the instructions on the previous page, or you can follow the steps below to use *Auto Detection* to automatically set the dish type.

Before you can use *Auto Detection* to set the dish-type, the dish must be correctly aligned and the HD Receiver must be receiving a strong signal from the satellite. To check the satellite signal, use the signal meter (see page XX for details).

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Installation* and press SELECT.
4. Highlight *Set Dish* and press SELECT.



5. Highlight *Auto Detection* and press SELECT.

The *Auto Detection* screen appears. The HD Receiver starts attempting to identify the dish type. You can stop the detection process by using pressing SELECT during the auto-detection procedure.

Once the dish type has been identified, a screen appears telling you what type of satellite dish you have.



6. To accept the detected dish type setting, use the arrow buttons on your remote control to highlight the on-screen *Back* button, then press SELECT. The HD Receiver will reboot.

Testing the DIRECTV® High-Definition Receiver

The System Test lets you check the status of your satellite signal, access card, phone line connection, and other system information. This is helpful in troubleshooting should you experience problems with your HD Receiver.

To start the System Test:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *System* and press SELECT.
4. Highlight *System Test* and press SELECT.



The *System Test* screen appears. The test will begin as soon as the screen appears. Results are displayed in a moment.

If the test discovers a problem with the satellite tuning, check that the satellite dish is pointed properly, and that nothing is obstructing the direct view to the satellite (over time trees can grow enough to block a previously open view).

If the test discovers a problem with the access card, check that the card is properly inserted. (See *Inserting the Access Card* on page xx for details.)

For problems with the phone line connection, make sure that the HD Receiver is connected to a phone line, and that the phone line is working. (Try plugging a telephone into the line you are using for the HD Receiver; check to see if the phone gets a dial tone. If so, the line is working.)

5. When you have finished the system test, you can run the test again using the on-screen *Test Again* button, exit the menu system by pressing CLEAR on your remote control, or use the arrow keys to highlight on-screen *Back* button and press SELECT to return to the *System* menu.

Upgrades

Your HD Receiver is able to receive upgrades or modifications to some of its features and functions. These modifications will occur automatically, usually at times when the receiver would likely be turned off.

If your receiver is on when an upgrade or modification is sent, you may experience a disruption in reception for a minute or two. Your reception should return to normal after the modification is complete. Your receiver must be plugged in to receive any upgrades. Do not unplug your receiver while an upgrade is in progress. Please consult the *System Upgrades* menu item (in the *System* section of the *System Setup* menu) to find a schedule of upgrades or modifications planned by DIRECTV.

Connections & Setup

Setting up local networks

You can use your DIRECTV® High-Definition Receiver to receive program guide information via satellite for local off-air and cable TV channels. To use this feature, you must connect your HD Receiver to a satellite dish as described earlier in this chapter, and you must set up the *Local Networks* option in the menu system.

Note: Even if you do not connect your HD Receiver to a satellite dish or do not subscribe to DIRECTV® programming, you can still add local off-air and cable channels to the program guide by following the instructions in the next section.

To set up the Local Networks menu option:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Installation* and press SELECT.
4. Highlight *Local Networks* and press SELECT.
5. Highlight *Primary Air* and press SELECT.
6. Highlight the first box in the ZIP code area, then use the number buttons on your remote control to enter your ZIP code. After a short delay, a list of cities appears below your ZIP code.
7. Highlight the name of the city from which your local channels are broadcast and press SELECT.
8. Highlight the on-screen *Back* button and press SELECT. You return to the *Local Networks* screen.
9. (Optional) If you receive off-air broadcasts from a second city, highlight *Secondary Air* and press SELECT. Repeat steps 6 - 8 for the second city.
10. (Optional) If you receive programming from a cable TV service, highlight *Cable* and press SELECT. Repeat steps 6 - 8 for the cable service.
11. When you have finished entering your local broadcast and cable TV information, press CLEAR on your remote control.



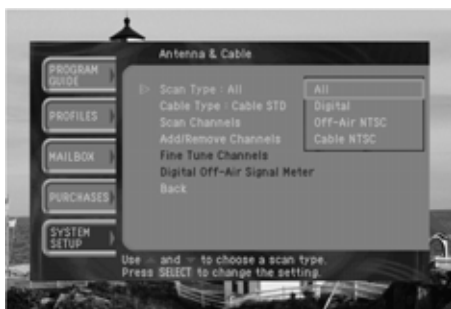
The HD Receiver will reboot (turn itself off and then back on). After rebooting, the HD Receiver will acquire and provide program guide information for your local off-air and cable TV channels.

Scanning off-air and cable TV channels

The program guide can receive programming information for local and cable channels via satellite (as described in the previous section). Your HD Receiver can also add off-air and cable TV channels to the program guide by scanning for signals from any off-air antenna or cable TV service connections you have provided.

To scan for channels from an off-air antenna and cable TV service connected to your receiver:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Antenna & Cable* and press SELECT.
4. Highlight *Scan Type* and press SELECT to display the list of available channel types.



The *Scan Type* list appears allowing you to choose to set your DIRECTV® High-Definition Receiver to automatically scan for channels from *Digital* sources (off-air ATSC broadcasts), *Off-Air NTSC* sources (standard TV broadcasts), *Cable NTSC* (standard cable TV services), or all of these.

If this is the first time you are setting up this HD Receiver to receive local channels, the *All* setting is recommended.

5. Highlight the *Scan Type* option that matches the type of broadcasts you would like to program into your DIRECTV® High-Definition Receiver, then press SELECT.
6. Next, set your cable TV type by highlighting *Cable Type* and pressing SELECT. Then, highlight the type of cable signal your cable TV service provides (*STD*, *HRC*, or *IRC*), and press SELECT.
Note: *STD*, *HRC* and *IRC* are signal formats used by cable TV services. Contact your Cable TV service provider to determine which signal type they use.
7. Highlight *Scan Channels* and press SELECT. The *Scan Channels* screen appears and the HD Receiver starts looking for all available channels of the type you specified in the *Scan Type* list. Wait until the scan is complete.
 - If the scan included any channels that you do not intend to watch, you can edit the channel list by using the *Add/Remove Channels* menu item in the *Antenna & Cable* menu.
 - If any of the off-air antenna channels aren't coming in clearly, you can fine tune them using the *Fine Tune Channels* item in the *Antenna & Cable* menu.
 - If you have added digital channels from an off-air antenna, you can check the signal strength for that channel by using the *Digital Off-Air Signal Strength* menu item in the *Antenna & Cable* menu.
8. To exit the menu system, press CLEAR on your remote control.

Activating your DIRECTV account

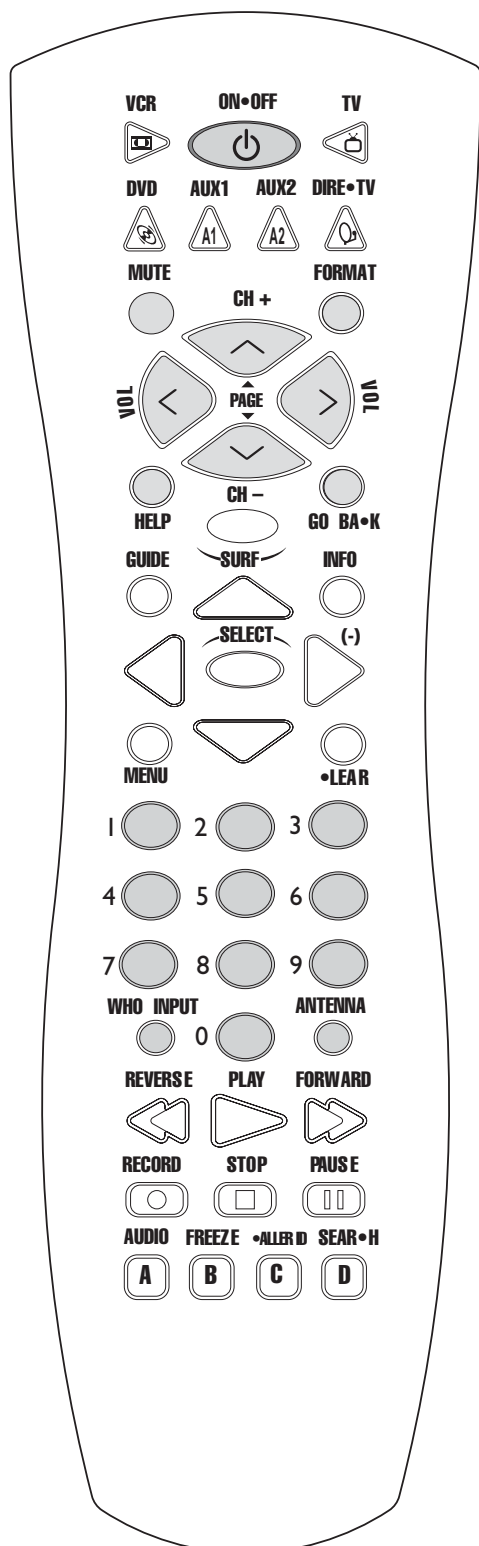
After you have installed and connected the satellite dish and HD Receiver, you must contact your service provider to create an account. To order programming from DIRECTV, please call 1-800-DIRECTV (1-800-347-3288).

With this HD Receiver and the proper Satellite Dish Antenna, you may be able to receive local channels from DIRECTV in certain areas. Additional equipment may be required in some markets. Check with your retailer or visit DIRECTV.com for information on availability of local channels from DIRECTV in your area.

DIRECTV® programming is provided in accordance with the terms and conditions of the DIRECTV Customer Agreement, which is provided at DIRECTV.com or with your first DIRECTV bill.

Activation of programming may be subject to credit approval and requires valid service address, social security number and/or major credit card. Deposit or prepayment may be required. Programming subject to change. You must be physically located in the U.S. to receive DIRECTV® service. DIRECTV services not available outside the U.S. DIRECTV programming is sold separately and independently of DIRECTV® System hardware. A valid programming subscription is required to operate DIRECTV System hardware.

Chapter 3: Using the Remote Control



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

Remote Control Buttons

These two pages give you a quick review of the buttons on your remote control.

Before the DIRECTV® High-Definition Receiver's remote control can operate your TV, VCR, DVD player, or other device, you must first program the remote control to operate that device. See page xx for more information.

(0-9) Number Buttons Press the number buttons to tune to a channel or to enter numbers in the menu system.

ANTENNA In VCR mode, this button functions as a TV/VCR button.

Arrows (up, down, left, right) Used to move through the receiver's menu system, program guides, and on-screen displays. The right arrow button is also used as a delimiter (to enter separate parts of channel numbers, like a dash).

AUDIO (A) While watching DIRECTV® programming, press this button to select an alternate audio track. In the Guides, this button lets you change the guide style.

CALLER ID (C) Displays the phone numbers of callers who called you on the phone line connected to your HD Receiver (works only if you subscribe to your telephone service's caller ID service). In the Guides, this button lets you sort programs by category.

CH+/CH- Change channels on your receiver or, if the remote control has been programmed, on your TV or VCR. In the receiver's guide screens, these buttons scroll a page at a time. They also work as chapter skip buttons on some DVD players.

CLEAR Removes any menu or display from the screen and returns you to normal viewing.

DIRECTV Makes the remote control operate your HD Receiver (e.g. to change channels, access the Guide, or get information about a program). Your remote control does not need to be programmed to operate your HD Receiver. This button lights up when you press a valid button in DIRECTV mode.

FORMAT Cycles through the formats available for your display type.

FREEZE (B) In DIRECTV mode, takes a still picture of the TV screen. Press FREEZE again to return to normal viewing (please note that you won't see the part of the program you missed while the picture was frozen). In the Guide, this button lets you see program listings for different times.

GO BACK Returns you to the previous channel or previous screen in the menu system.

Using the Remote Control

GUIDE In DIRECTV mode, displays the DIRECTV® High-Definition Receiver's full on-screen Program Guide.

HELP In DIRECTV mode, displays instructions about the screen or menu currently displayed.

INFO In DIRECTV mode, displays the Channel Banner and information about the current program.

MENU In DIRECTV mode, displays the HD Receiver's on-screen Menu.

MUTE Mutes or unmutes the TV audio (if the remote control has been programmed to control your TV). The VOL and MUTE button commands are transmitted in the format of either the TV or audio receiver (whichever one you were controlling before you switched to your current mode).

ON•OFF In DIRECTV mode, turns the receiver on or off. If in another mode (VCR, DVD, TV, AUX) and programmed, it turns the component on and off. When pressed twice within two seconds, all components that are on are turned off (this feature only works with most RCA, GE, and Proscan products). The component keys also light up, one after another, counterclockwise in a circle.

REVERSE, PLAY, FORWARD, RECORD, STOP, PAUSE If programmed, provides transport control for some remote-controllable VCRs and DVD players.

SEARCH (D) In DIRECTV mode, accesses the search feature to look for a program listing in the Guide.

SELECT In DIRECTV mode, selects highlighted items in the on-screen Menu or Guide.

SURF In DIRECTV mode, displays the receiver's Surf Guide program guide.

TV, VCR, DVD, AUX1, AUX2 These buttons tell your remote control which device to operate. For example, to start playing a DVD, you would press DVD, then press the PLAY button. These buttons are pre-programmed to work with most RCA components. You will need to program them to work with other brands. Each particular button lights up when you press a valid button in its mode.

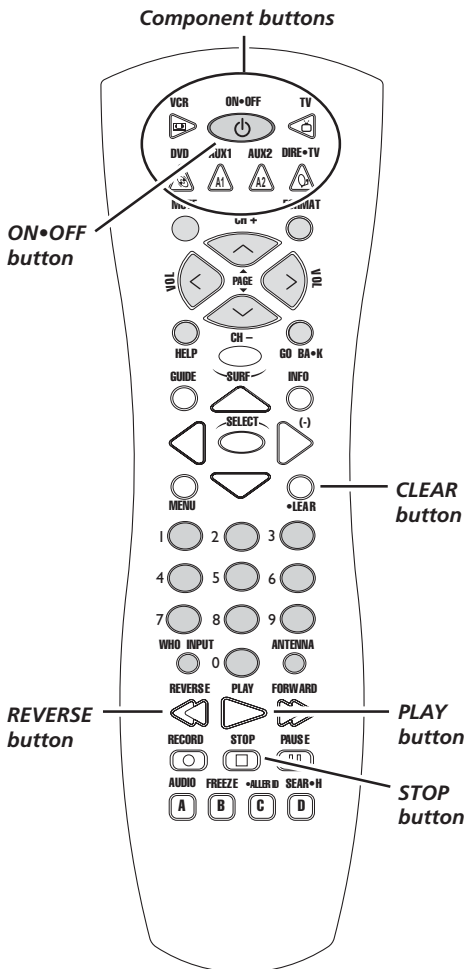
VOL up and down Adjusts the volume level of your TV or audio receiver (if the remote has been programmed to control your TV or audio receiver). You can control the volume when in TV, DIRECTV, DVD or VCR mode. The VOL and MUTE button commands are transmitted in the format of either the TV or audio receiver (whichever one you were controlling before you switched to your current mode).

WHO•INPUT Press to change the current user profile. In TV mode (if the remote is programmed to control your TV), this button toggles through the TV's available input sources.

Using the Remote Control

Programming the Remote Control

The DIRECTV® High-Definition Receiver's remote can be programmed to control most brands of remote controllable components. The remote is already programmed to control most RCA, GE and Proscan components; it may need to be programmed to control other manufacturers' brands.



Note:

The DIRECTV button cannot be programmed.

Testing the Remote Control

To determine whether the universal remote control needs to be programmed, turn a component on, such as a VCR, point the remote at the VCR, and press the VCR button. Then press the ON•OFF or CH + and CH - buttons to see if the VCR responds to the remote commands. If not, the remote needs to be programmed.

There are two ways to program the remote control: Automatic Code Search or Direct Entry.

Using Automatic Code Search

The following instructions can be used to program the remote to control many of the components connected to your TV. If you want to exit the automatic code search without programming any of your components, press the CLEAR button until the component button you're trying to program turns off.

1. Turn on the component you want to control (VCR, DVD player, etc.)
2. Press and hold the button you want to program. While holding the component button, press and hold ON•OFF until all of the component buttons (VCR, TV, DVD, DIRECTV, AUX1 and AUX2) flash. Then, release both buttons.

Note: The AUX1 and AUX2 buttons will only search through the codes for their default type of component during the automatic code search – satellite and HD Receivers for AUX1 and audio components for AUX2. If you want to use these buttons for a different type of component – for example, a DVD player for AUX1 – then use direct entry to program these buttons. See the next page for more information.

3. Point the remote at the component, press and release PLAY, then wait five seconds or until the component button you're trying to program stops flashing.

At this point the remote control is searching for the correct code to program, so keep pointing it at the component. If, after five seconds, the component you want to control does not turn off, press and release PLAY again to tell the remote to search the next set of codes.

Continue pressing and releasing PLAY until the component turns off or until all of the component buttons on the remote flash 4 times in unison. If the component has not turned off by the time all the component buttons on the remote control flash 4 times in unison, then the remote cannot control that particular component.

If the component you want to control does turn off:

1. Press and release REVERSE, then wait two seconds. Repeat this step until the component turns back on.
2. To finish, press and hold STOP until the component button you're trying to program on the remote control turns off. This saves the code to that button.

Using the Remote Control

Important:

This 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.

Note:

The DIRECTV button cannot be programmed.

Using Direct Entry

1. Turn on the component to be programmed.
2. Look up the brand and code number(s) for the component on the code list at the end of this section.
3. On your remote control, press and hold the component button you want to program.
4. While pressing the component button, enter a code from the code list. If all of the component buttons flash 4 times in unison, then the code you've entered is not the right kind of code for that button (see pages XX and XX to see which buttons can be programmed to control the component you want).
5. Release the component button, point the remote at the component and then press ON•OFF to see if the component responds to the remote control commands. If it doesn't, try pressing the component button and then ON•OFF (or other buttons on the remote) again.
6. If you get no response, repeat these steps using the next code listed for your brand, until the component responds to the remote control commands.

Operating Other Components

Once the remote has been programmed successfully, you are ready to use it to operate your components.

To Operate the Component:

1. Press the component button (TV, VCR, DVD, DIRECTV, AUX1, or AUX2) to set the remote to control the component.
2. Press ON•OFF to turn the component on or off.
3. Use the remote control 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.

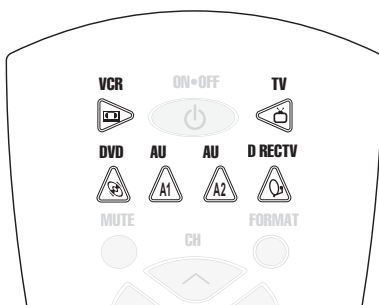
Note: Your remote's buttons might operate differently for other components, especially when you're using another component's menu system.

Modes of Operation

Because this universal remote can control several different components (DVD player, VCR, cable box, etc.) it uses operational modes triggered by the component buttons. For example, if you want the remote control to operate the TV, press the TV button to put the remote into TV mode. If you want the remote to operate the VCR, press the VCR button.

The button corresponding to the mode the remote is in lights up when you press any button that works in that mode. For example, if you're in TV mode and you press the VOL+ button, the TV button lights up. This tells you that the command to increase the volume is being sent to the TV (and not the satellite receiver, for example).

Component buttons



Tip:

If something unexpected happens (or if nothing happens) when you press a remote control button, check which component button lights up when you press that button. If the wrong component button lights up, press the component button the corresponds to the component you want to control – this puts the remote control in the right mode. Now that the remote is in the correct mode, press the button you were pressing before.

Using the Remote Control

Note:

If you want to control a second non-RCA satellite receiver, use the AUX1 or AUX2 buttons. See the *Using Automatic Code Search* section on the previous page for more information.

Controlling a Second RCA Satellite Receiver

The remote can control two RCA satellite or HD receivers. From the main menu, select *System Setup*, then *Installation*, then *Remote Setup*. Then follow the on-screen instructions. By default, the DIRECTV button is used to control the HD Receiver and the AUX1 button is used to control a second RCA satellite or HD receiver.

If your second receiver is an RCA, GE, or Proscan and you want to control it using the AUX1 button, use code 5001. Code 5000 is used by the DIRECTV button.

Changing the RF Remote Control Code

Your remote control is equipped with Radio Frequency (RF) functionality. This means that the remote control can operate your HD Receiver using both IR (infrared) signals and RF signals.

IR signals require line-of-sight to the receiver's front panel remote sensor. RF signals can operate the receiver from other parts of your house—even through walls.

Installing your RF remote control antenna will increase the range of your satellite receiver's remote control signal. See page xx in the *Setup and Connections* section for more information.

If you are experiencing interference from other RF remote controls or devices, you may need to change the RF remote control code to avoid conflicts.

To change the Satellite Receiver's RF Code:

1. Press the MENU button on your remote control.
2. Highlight *System Setup* and press SELECT.
3. Highlight *Installation* and press SELECT.
4. Highlight *RF Remote Setup* and press SELECT.
5. Highlight *Change* and press SELECT.
6. Choose a number between 000 and 255. Follow the on-screen instructions to enter it as your RF remote control code.



TV Codes

(programmable to the TV, AUX1 and AUX2 buttons)

Abex	1172
Admiral	1001, 1173, 1211
Adventura	1174
Aiko	1016
Akai	1002
Alleron	1046
Amtron	1038
Anam National	1003, 1038, 1192, 1193, 1194
AOC	1004, 1005, 1006, 1007, 1175, 1176, 1195
Audiovox	1038
Belcor	1004
Bell & Howell	1001, 1083, 1162
Bradford	1038
Brokwood	1004
Candle	1004, 1006, 1008, 1174
Celebrity	1002
Centurion	1009
Citizen	1004, 1006, 1008, 1016, 1038, 1105, 1171, 1174, 1177
Colortyme	1004, 1006, 1010
Concerto	1004, 1006
Contec/Cony	1012, 1013, 1014, 1038
Craig	1038
Crown	1038, 1171
Curtis Mathes	1000, 1004, 1006, 1015, 1105, 1162, 1171, 1212
CXC	1038
Daewoo	1004, 1005, 1006, 1016, 1017, 1018, 1127, 1171, 1196
Daytron	1004, 1006, 1171
Dimensia	1000
Dumont	1004, 1151
Electroband	1002
Electrohome	1003, 1004, 1006, 1019, 1020, 1022
Emerson	1004, 1006, 1012, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1041, 1042, 1043, 1044, 1046, 1047, 1123, 1124, 1162, 1171, 1177, 1179, 1191, 1208
Envision	1004, 1006
Fisher	1048, 1049, 1051, 1162, 1180
Fujitsu	1046
Funai	1038, 1046
Futuretec	1038
GE	1000, 1003, 1004, 1006, 1022, 1052, 1054, 1055, 1087, 1164, 1165, 1166, 1167, 1168, 1181, 1213
Gibraltar	1004, 1151
Goldstar	1004, 1005, 1006, 1012, 1019, 1056, 1057, 1058, 1155, 1156, 1171, 1172
Grundy	1038, 1046, 1171
Hallmark	1004, 1006
Harvard	1038
Hitachi	1004, 1006, 1012, 1013, 1014, 1059, 1060, 1061, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1148, 1150, 1179, 1198, 1199
IMA	1038
Infinity	1062
JCPenney	1000, 1004, 1005, 1006, 1008, 1022, 1052, 1054, 1058, 1063, 1064, 1072, 1087, 1105, 1128, 1171, 1172, 1181, 1201
Janeil	1174
JBL	1062
JCB	1002
Jensen	1004, 1006
JVC	1012, 1013, 1014, 1054, 1060, 1065, 1066, 1067, 1157, 1158, 1159, 1182
Kawasho	1002, 1004, 1006
Kenwood	1004, 1006, 1019
Kloss Novabeam	1068, 1069, 1174, 1183
KTV	1038, 1070, 1171, 1177
Loewe	1062
Logik	1083
Luxman	1004, 1006
LXI	1000, 1006, 1049, 1062, 1071, 1072, 1073, 1162, 1181, 1207
Magnavox	1004, 1006, 1008, 1019, 1062, 1068, 1069, 1075, 1076, 1077, 1088, 1130, 1131, 1132, 1133, 1134, 1183, 1219, 1235
Majestic	1083
Marantz	1004, 1006, 1062, 1078
Megatron	1006, 1059
Memorex	1001, 1006, 1082, 1083, 1162
MGA	1004, 1005, 1006, 1019, 1022,

1051, 1079, 1080, 1082	
Midland	1054, 1151, 1171, 1172, 1181
Minutz	1052
Mitsubishi	1004, 1005, 1006, 1019, 1022, 1051, 1079, 1080, 1081, 1082, 1125
Montgomery Ward	1083
Motorola	1003, 1173
MTC	1004, 1005, 1006, 1105
Multitech	1038
Multivision	1084
NAD	1006, 1071, 1072, 1185
NEC	1003, 1004, 1005, 1006, 1200
Nikko	1006, 1016
NTC	1016
Onwa	1038
Optimus	1185
Optonica	1095, 1173
Orion	1035, 1191
Panasonic	1003, 1054, 1062, 1170, 1214
Philco	1003, 1004, 1005, 1006, 1008, 1012, 1019, 1062, 1068, 1069, 1075, 1077, 1183
Philips	1003, 1004, 1008, 1012, 1019, 1062, 1068, 1069, 1075, 1076, 1086, 1087, 1088, 1089
Pilot	1004, 1171
Pioneer	1004, 1006, 1090, 1091, 1092, 1179, 1185
Portland	1004, 1005, 1006, 1016, 1171
Price Club	1105
Prism	1054
Proscan	1000, 1181
Proton	1004, 1006, 1012, 1093
Pulsar	1004, 1151
Quasar	1003, 1054, 1070, 1094
Radio Shack/Realistic	1000, 1004, 1006, 1012, 1038, 1049, 1095, 1162, 1171, 1172
RCA	1000, 1003, 1004, 1005, 1006, 1007, 1019, 1096, 1098, 1099, 1100, 1101, 1102, 1103, 1129, 1179, 1181, 1187, 1188, 1190, 1202, 1203, 1215, 1233
Runco	1151
Sampo	1004, 1006, 1171, 1172
Samsung	1004, 1005, 1006, 1012, 1015, 1019, 1104, 1105, 1106, 1171, 1172, 1204
Samsux	1171
Sansui	1191
Sanyo	1004, 1048, 1049, 1080, 1107, 1108, 1162, 1169, 1180
Scotch	1006
Scott	1004, 1006, 1012, 1024, 1035, 1038, 1046
Sears	1000, 1004, 1006, 1013, 1014, 1019, 1046, 1048, 1049, 1051, 1066, 1071, 1072, 1109, 1110, 1162, 1180, 1181, 1189
Sharp	1004, 1006, 1012, 1029, 1095, 1111, 1112, 1113, 1122, 1171, 1173
Shogun	1004
Signature	1001, 1083, 1115
Simpson	1008
Sony	1002, 1205, 1216, 1218
Soundesign	1004, 1006, 1008, 1038, 1046
Squareview	1189
SSS	1004, 1038
Starlite	1038
Supre-Macy	1174
Supreme	1002
Sylvania	1004, 1006, 1008, 1019, 1062, 1068, 1069, 1075, 1076, 1077, 1088, 1116, 1161, 1183
Symphonic	1033, 1038, 1189
Tandy	1173
Tatung	1003
Technics	1054
Techwood	1004, 1006, 1054
Teknika	1004, 1005, 1006, 1008, 1012, 1013, 1014, 1016, 1038, 1046, 1076, 1082, 1083, 1105, 1170, 1171
Telecaption	1117
TMK	1004, 1006
Toshiba	1049, 1071, 1072, 1105, 1109, 1117, 1118, 1160, 1162
Totevision	1171
Universal	1052, 1087
Victor	1066, 1182
Vidtech	1004, 1005, 1006
Viking	1174
Wards	1000, 1001, 1004, 1005, 1006, 1019, 1024, 1033, 1046, 1052, 1062, 1068, 1069, 1075, 1076, 1083, 1087, 1088, 1095, 1119, 1120
Yamaha	1004, 1005, 1006, 1019
Zenith	1004, 1083, 1151, 1152, 1153, 1154, 1210, 1217

VCR Codes

(programmable to the VCR, AUX1 and AUX2 buttons)

Admiral	2132
Adventura	2026
Aiko	2027
Aiwa	2026
Akai	2003, 2004, 2005, 2007, 2008, 2111, 2112, 2113
American High	2013
Asha	2013
Audio Dynamics	2009, 2010
Audiovox	2014
Beaumarck	2013
Bell & Howell	2011
Broksonic	2012, 2025
Calix	2014
Candle	2013, 2014, 2015, 2016, 2017, 2018, 2019
Canon	2021, 2022, 2114
Capehart	2020, 2110
Carver	2062
CCE	2027, 2061
Citizen	2013, 2014, 2015, 2016, 2017, 2018, 2019, 2027
Colortyme	2009
Colt	2061
Craig	2013, 2014, 2023, 2061
Curtis Mathes	2000, 2009, 2013, 2016, 2018, 2021, 2022, 2024, 2115, 2131
Cybernex	2013
Daewoo	2015, 2017, 2019, 2025, 2026, 2027, 2028, 2110
Daytron	2110
DBX	2009, 2010
Dimensia	2000, 2131
Dynatech	2026
Electrohome	2014, 2029
Electrohome	2014
Emerson	2012, 2014, 2015, 2021, 2024, 2025, 2026, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2044, 2045, 2046, 2047, 2065, 2113, 2116, 2117, 2130
Fisher	2011, 2023, 2048, 2049, 2050, 2051, 2052, 2118
Fuji	2021, 2119
Funai	2026
Garrard	2026
GE	2000, 2001, 2013, 2021, 2022, 2053, 2115, 2120, 2131
Goldstar	2009, 2014, 2018, 2054
Gradiente	2026
Harley Davidson	2026
Harman Kardon	2009
Harwood	2061
Headquarter	2011
Hi-Q	2023
Hitachi	2055, 2056, 2057, 2107, 2111, 2120, 2122
Instant Replay	2021
JCPenney	2009, 2010, 2011, 2013, 2014, 2021, 2022, 2055, 2056, 2058, 2059, 2060, 2107, 2118
JCL	2021
Jensen	2055, 2056, 2111
JVC	2009, 2010, 2011, 2018, 2111, 2123
Kenwood	2009, 2010, 2011, 2016, 2018, 2111, 2123
KLH	2061
Kodak	2014, 2021
Lloyd	2026
Logik	2061
LXI	2014
Magnavox	2021, 2022, 2062, 2063, 2104, 2105, 2108, 2124
Magnin	2013
Marantz	2009, 2010, 2011, 2016, 2018, 2021, 2062, 2064
Marta	2014
Masushita	2021
MEI	2021
Memorex	2011, 2013, 2014, 2021, 2023, 2026, 2104, 2132
MGA	2029, 2065, 2113
MGN Technology	2013
Midland	2053
Minolta	2055, 2056, 2107
Mitsubishi	2029, 2055, 2056, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2106, 2113, 2123
Montgomery Ward	2075, 2132
Motorola	2021, 2132
MTC	2013, 2126
Multitech	2013, 2016, 2026, 2053, 2061
NEC	2009, 2010, 2011, 2016, 2018, 2064, 2076, 2078, 2079, 2111, 2123
Nikko	2014
Noblex	2013

Continues on next page...

Code Lists

Olympus	2021
Optimus	2014, 2132
Optonica	2096
Panasonic	2021, 2022, 2109, 2125, 2126, 2127
Pentax	2016, 2055, 2056, 2107, 2120
Pentex Research	2018
Philco	2021, 2022, 2062, 2063
Philips	2021, 2062, 2096, 2124
Pilot	2014
Pioneer	2010, 2055, 2080, 2081, 2123
Portland	2016, 2017, 2019, 2110
Proscan	2000, 2001, 2131
Protec	2061
Pulsar	2104
Quarter	2011
Quartz	2011
Quasar	2021, 2022, 2125
Radio Shack/Realistic	2011, 2013, 2014, 2021, 2022, 2023, 2026, 2029, 2049, 2050, 2096, 2132
Radix	2014
Randex	2014
RCA	2000, 2001, 2003, 2013, 2021, 2055, 2056, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2107, 2115, 2120, 2125, 2131, 2133
Ricoh	2128
Runco	2104
Samsung	2005, 2013, 2015, 2033, 2053, 2112
Sanky	2104, 2132
Sansui	2010, 2092, 2111, 2123
Sanyo	2011, 2013, 2023
Scott	2012, 2015, 2025, 2032, 2038, 2065, 2093, 2116
Sears	2011, 2014, 2021, 2023, 2048, 2049, 2050, 2051, 2055, 2056, 2107, 2118
Sharp	2017, 2029, 2094, 2095, 2096, 2097, 2132
Shintom	2004, 2056, 2061, 2098
Shogun	2013
Signature	2132
Singer	2021, 2061, 2128
Sony	2004, 2098, 2099, 2119
STS	2021, 2107
Sylvania	2021, 2022, 2026, 2062, 2063, 2065, 2124
Symphonic	2026
Tandy	2011
Tashiko	2014
Tatung	2111
Teac	2026, 2085, 2111
Technics	2021, 2109
Teknika	2014, 2021, 2026, 2100, 2129
TMK	2013, 2024, 2047
Toshiba	2015, 2049, 2051, 2055, 2065, 2093, 2116
Totevision	2013, 2014
Unitech	2013
Vector Research	2009, 2010, 2015, 2016
Victor	2010
Video Concepts	2009, 2010, 2015, 2016, 2113
Videosonic	2013
Wards	2013, 2014, 2015, 2021, 2023, 2026, 2029, 2055, 2056, 2061, 2096, 2101, 2102, 2103, 2107, 2116, 2132
XR-1000	2021, 2026, 2061
Yamaha	2009, 2010, 2011, 2018, 2111
Zenith	2004, 2098, 2104, 2119, 2128

DVD Codes

(programmable to the DVD, AUX1 and AUX2 buttons)	
Aiwa	3009
Apex	3023, 3024
GE	3000
Hitachi	3008
JVC	3002, 3010
Konka	3011, 3012
Magnavox	3003
Mitsubishi	3004
Panasonic	3013
Philips	3003, 3019, 3021, 3022
Pioneer	3005
Proscan	3000
RCA	3000, 3001
Samsung	3025
Sanyo	3014
Sony	3006, 3015, 3016
Toshiba	3007, 3017, 3020
Zenith	3018

Audio Receivers

(programmable to the AUX1 and AUX2 buttons)	
Aiwa	4261, 4262, 4263, 4264, 4265, 4266, 4267, 4277
Denon	4283
Harmon Kardon	4276
JVC	4268
JVL	4276
Kenwood	4269
Onkyo	4278
Optimus	4284
Panasonic	4279, 4280
Pioneer	4275
RCA	4270
Sherwood	4282
Sony	4271, 4272, 4281
Technics	4279, 4280
Wards	4275
Yamaha	4274, 4275

RCA & Dimensia Audio Components

(programmable to the AUX1 and AUX2 buttons)	
AM/FM	4003, 4270
Aux	4004
CD	4007, 4190, 4211
Phono	4005
Tape	4006

Satellite Receiver Codes

(programmable to the AUX1 and AUX2 buttons)	
Dishnet	5078
EchoStar	5089
GE	5000, 5001
Proscan	5000, 5001
RCA	5000, 5001, 5071, 5080, 5081

Cable Box Codes

(programmable to the AUX1 and AUX2 buttons)	
ABC	5002, 5003, 5004, 5006, 5053
Antronix	5008, 5009
Archer	5008, 5009, 5010
Cabletenna	5008
Cableview	5008
Colour Voice	5012, 5013
Comtronic	5014
Contec	5016
Eastern	5017
GC Electronics	5009
GE	5000, 5001
Gemini	5018, 5019
General Instrument	5003
Hamlin	5020, 5021, 5022, 5028, 5035, 5045
Hitachi	5003
Jerrold	5003, 5018, 5023, 5024, 5046, 5053
Magnavox	5025
Memorex	5026
Movie Time	5027
NEC	5005
NSC	5027
Oak	5016, 5029
Panasonic	5048, 5052
Philips	5011, 5012, 5013, 5015, 5019, 5025, 5030, 5031, 5032
Pioneer	5033, 5034
Proscan	5000, 5001
RCA	5007, 5047, 5049, 5052
Realistic	5009
Regal	5022, 5035
Regency	5017
Rembrandt	5003
Samsung	5034
Scientific Atlanta	5006, 5036, 5037, 5038
Signal	5018
Signature	5003
Sprucer	5052
Standard Components	5039, 5044
Starcom	5018, 5053
Stargate	5018
Starquest	5018
Tocom	5004, 5023
Tusa	5018
TV86	5027
Unika	5008, 5009
United Cable	5053
Universal	5008, 5009, 5010
Viewstar	5025, 5027
Zenith	5050, 5051

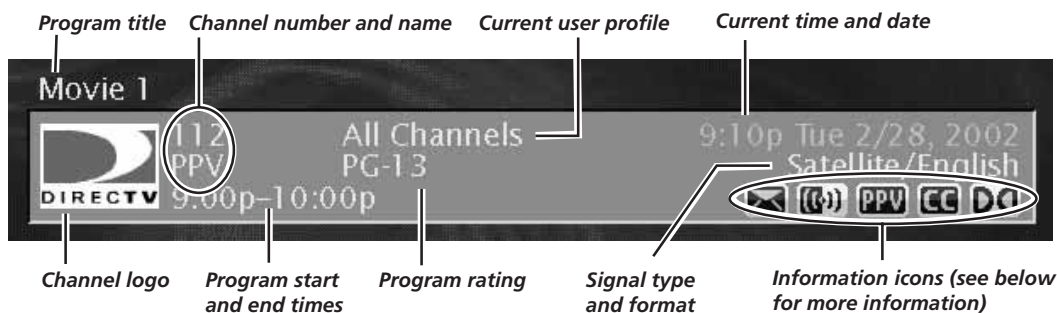
Chapter 4: Special Features

Getting info on the program you're watching

Your DIRECTV® High-Definition Receiver provides several kinds of information about the TV programs you watch.

The Channel Banner

As you change channels you will see a Channel Banner on each channel you tune to. After a few seconds, the Channel Banner disappears. If you want to clear it right away, press CLEAR on your remote control. The Channel Banner provides the following information:



Information icons

In addition to the basic channel and program information contained in the Channel Banners (program title, channel name, rating, etc.), there are a set of information icons. These icons tell you more about the program you are watching and about the status of your HD Receiver. Here are descriptions of each icon:



Multi-language Appears when additional audio tracks are available. Press the AUDIO button to choose an alternate audio track.



Locked Appears when the system is locked.



Unlocked Appears when the system is temporarily unlocked.



Mail Appears when there are unread mail messages from DIRECTV in your system mailbox.



Music channel Appears when you're tuned to a music-only channel.



Pay per view program Appears when the program is a pay per view program.



Closed caption Appears when closed captioning is available for a program.



Dolby Digital Indicates that the current program is being broadcast using a Dolby Digital audio track. Because all high-definition broadcasts use Dolby Digital audio, the icon does not appear for HDTV broadcasts.



Letterbox Indicates that the current program is being broadcast using the letterbox widescreen video format.



High definition Indicates that the current program is a High Definition broadcast (HDTV).

Special Features

The Full Channel Banner

The Channel Banner provides quick information as you switch channels on your DIRECTV® High-Definition Receiver. If you want to see information about the channel you are currently watching, simply press the INFO button on your HD Receiver's remote control. Pressing the INFO button displays the Full Channel Banner.



The Full Channel Banner displays all the information found in the smaller Channel Banner, plus more details about the program. For example, the Full Channel Banner for a movie might display the category for the movie (drama, comedy, action/adventure, etc.), the cast, the year it was released, and a short description of the plot.

You can clear the Full Channel Banner from your screen by pressing CLEAR on your remote control.

The Program Detail Screen

If you want to see more information than is presented in either the Channel Banner or the Full Channel Banner, you can press INFO twice to display the Program Detail Screen.

The Program Detail Screen displays all of the information provided in the Channel Banner and Full Channel Banner, plus complete details about the program and a list of actions you can take related to the program.



To view the Program Detail Screen:

1. While watching a TV program, press INFO on your remote. The Full Channel Banner appears.
2. Press the INFO button again. The Program Detail screen appears.

Another way to view the Program Detail screen is to enter the program guide, highlight the program listing you are interested in, then press INFO.

Program Detail Screen actions

In addition to a description of the program you are watching, the Program Detail screen provides a list of actions you can take related to that program. Here are descriptions of the actions that might be available for a program. (not all actions are available for every program.)

Back Displays the last screen you viewed before entering the Program Detail screen.

Clear Clears the screen and displays the last channel you were viewing.

Buy \$(Price) For pay per view programs, allows you to purchase the program.

Tape \$(Price) For pay per view programs, allows you to purchase the program and tape it on your VCR (appears only when the price to tape is different from the purchase price).

Cancel \$(Price) For pay per view programs that you have previously purchased but that have not yet aired, lets you cancel your purchase.

View Displays the channel airing the program described.

Schedule For future programs, allows you to set your receiver to remind you when the program is about to start, or to set the receiver and VCR to record the program.

Unschedule For programs you have previously scheduled for a reminder or recording, allows you to cancel the reminder or recording.

Episodes For programs broadcast as episodes, allows you to view a list of other episodes in that program's series.

Show Times Displays a list of times and channels for viewing the program.

Similar Displays a list of programs that have aspects in common with the program.

Finding out what's on: the Program Guides

Your DIRECTV® High-Definition Receiver provides access to detailed information about TV schedules. If you want to know what's on, just use the Guide. The Guides provide scheduling information for all types of programming (satellite, off-air, or cable TV).

Types of Guides

When you want to find out what's on, you can use the simple, fast Surf Guide; the detailed, informative Grid Guide; or the graphics-rich Logo Guide. The pages that follow tell you how to access and use each of these Guide types.



Surf Guide

The Surf Guide allows you to quickly scan to see what is on right now while still viewing the channel you are watching. Great for those times when you just want to quickly check out what's showing on that favorite channel.



Grid Guide

The Grid Guide is the most complete, detailed Guide type. It lets you see the programs for each channel in a scrollable schedule (sorted by channel number, or by channel name). If you don't know what you want to watch, and you want to browse a broad range of channels, the Grid Guide may be for you.



Logo Guide

The Logo Guide lets you find out what's on by browsing through the channels by highlighting the channels' logos.

Special Features

Setting the default Guide style

The Program Guide menu item allows you to set which style of guide is displayed when you press the GUIDE button on your remote control.



To set the default Guide style:

1. Press MENU on your remote control. The main menu appears on your screen (the *PROGRAM GUIDE* item is highlighted).
2. Press SELECT. The *Program Guide* menu appears.
3. Use the up- and down-arrow buttons on your remote to highlight *Set Guide*. (A page icon to the right of a menu item indicates that selecting this item will display a list of options).
4. Press SELECT on your remote control. A list of guide styles appears.
5. Highlight the guide style you wish to have displayed when you press the GUIDE button, then press SELECT. The list of guide styles disappears, and the style you chose is displayed next to the *Set Guide* menu item.
6. To exit the menu, press CLEAR on your remote control. Pressing the GUIDE button will now display the guide style you selected.



Using the Surf Guide

The Surf Guide is made up of a Channel Banner and a channel list. This Guide only covers part of the screen, so you can continue to watch a TV program while you are browsing the Guide.



1. To display the Surf Guide, press SURF on your remote. The Surf Guide appears, displaying a small Channel Banner and a channel list showing the current half-hour time block.
2. Use the arrow buttons on your remote control to move up or down in the channel list, or forward (and backward) in time. You can move up and down through the channel list a full page at a time by pressing the CH+ and CH- buttons on your remote.

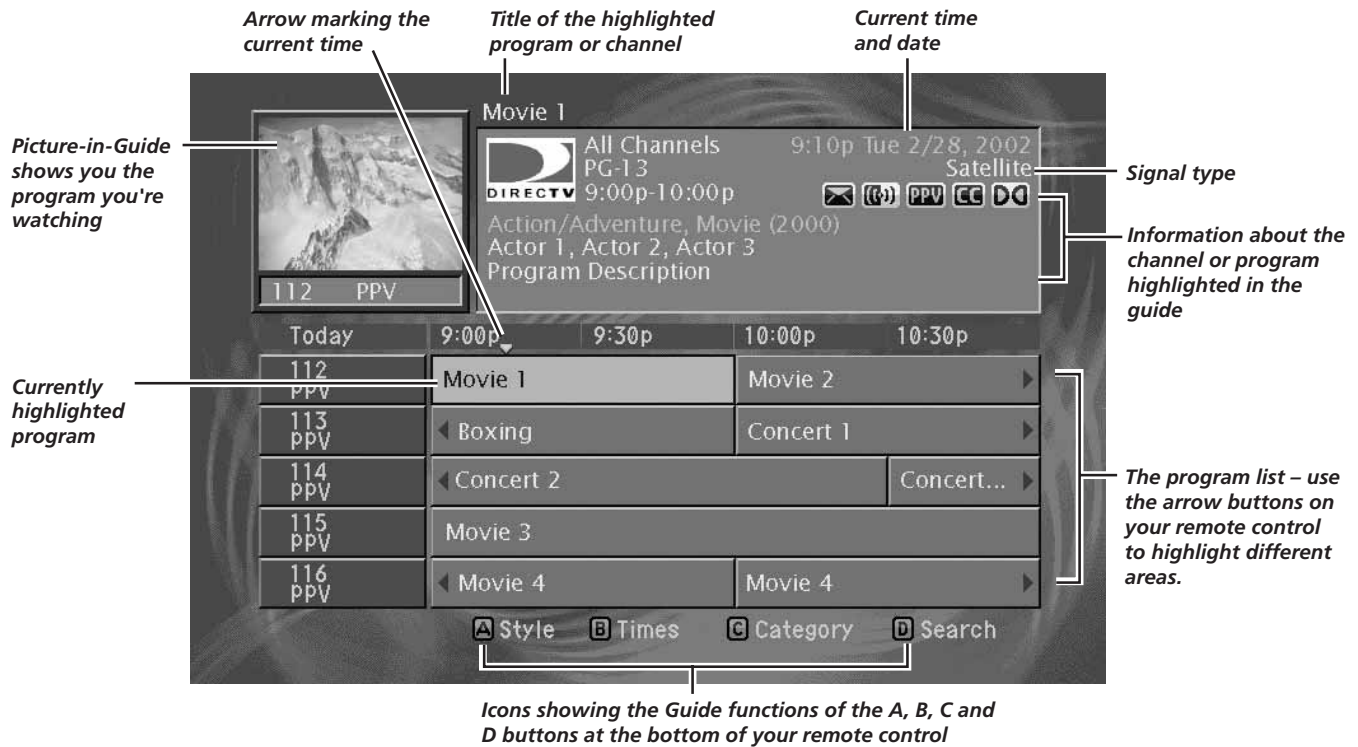
You can also use the number buttons on your remote control to move the Surf Guide directly to a specific channel. As you highlight each program listing, its information appears in the Channel Banner.



3. To see more information on a highlighted program, press INFO on your remote. The Full Channel Banner appears.
4. To get information on a channel (rather than a program), use the arrow keys on the remote to highlight the channel number.
5. To show more time in the program listings, press the right-arrow button on your remote. Each time you press the right arrow, the Surf Guide expands by 30 minutes (up to a maximum 2-hour display). To reduce the Surf Guide in 30-minute blocks, press the left-arrow button.
6. To watch a program you see listed in the Surf Guide, highlight that program, then press SELECT.

Using the Grid Guide

The Grid Guide displays a Channel Banner and a channel list. It provides access to the complete set of guide features including the ability to search for programs, schedule reminders and recordings, etc.



Displaying and clearing the Grid Guide

1. To display the Grid Guide, press the GUIDE button on your remote control. The Grid Guide appears. (Pressing the GUIDE button displays your preferred guide style — *Grid Guide*, *Grid Guide (Name)*, or *Logo Guide* — which you can set in the *Set Guide* option in the *Program Guide* menu. The default setting is *Grid Guide*).
2. You can also display the Grid Guide by pressing the MENU button on your remote control. Then highlight *PROGRAM GUIDE* and press SELECT. Then, highlight *Grid Guide* and press SELECT again.
3. To clear the Grid Guide from your screen, press CLEAR on your remote control.

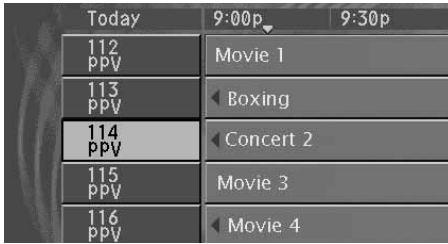
To get detailed information about the channels and programs shown:

1. To highlight different program listings in the Grid Guide, use the arrow buttons on your remote control to move up or down in the channel list, or forward and backward in time.
2. To move up and down through the channel list a full page at a time, press the CH+ and CH- buttons on your remote control.
3. To move the Grid Guide directly to a specific channel, press the 0-9 number buttons on your remote control to enter the desired channel number.
4. As you highlight each program listing in the Grid Guide, information about the program appears in the Channel Banner. To see more information on a highlighted program, press the INFO button on your remote control. The *Program Detail* screen appears, showing complete information about the highlighted program and a list of actions you might want to take related to that program.

To return to the Grid Guide, highlight the *Back* item from the on-screen list and press SELECT.

Continues on next page...

Special Features



- To get information on a channel (rather than a program), use the arrow keys on the remote control to highlight the channel entry in the guide.

The Channel Banner displays information about the highlighted channel.



- Press the INFO key on your remote control while a channel entry is highlighted to see a *Channel Detail* Screen containing more information about the highlighted channel.

Tuning to a channel with the Grid Guide

To tune to a program or channel listed in the Grid Guide:

- Highlight the program or channel you want to watch.
- Press SELECT. The guide disappears, and the channel you selected fills the screen.



Switching to another guide style

To switch from the Grid Guide to *Grid Guide (Name)* or *Logo Guide* while viewing the Grid Guide:

- With the guide displayed on your screen, press the A button (AUDIO) on your remote control.
A list of guide styles appears on your screen.
- Highlight the guide style you wish to view, then press SELECT. The guide style list disappears, and the guide appears in the style you chose.



Viewing the guide for a different time

To view a schedule for TV programming for different times by using the guide's time control bar:






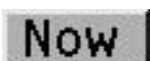
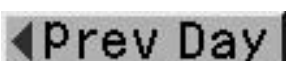
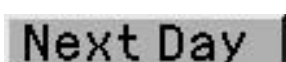
- With the guide displayed on your screen, press the B button (FREEZE) on your remote control.

The time control bar appears across the bottom of the guide.

- Highlight the time controls.

Press SELECT to choose the controls you want.

The following chart explains each time control.

	Exits the time control bar.
	Moves the guide view back 6 hours (unavailable when viewing the current time).
	Moves the guide view back 30 minutes (unavailable when viewing the current time).
	Moves the guide view ahead 30 minutes.
	Moves the guide view ahead 6 hours.
	Moves the guide view to the current time.
	Moves the guide view back 24 hours (unavailable when viewing the current time).
	Moves the guide view ahead 24 hours.

Viewing a category of programs in the guide

To set your guide to show you all channels, or only channels showing programs in a specific category (for example, only channels showing sports, or only channels showing movies):



1. With the guide displayed on your screen, press the C button (CALLER ID) on your remote control.

A list of guide categories appears on your screen.

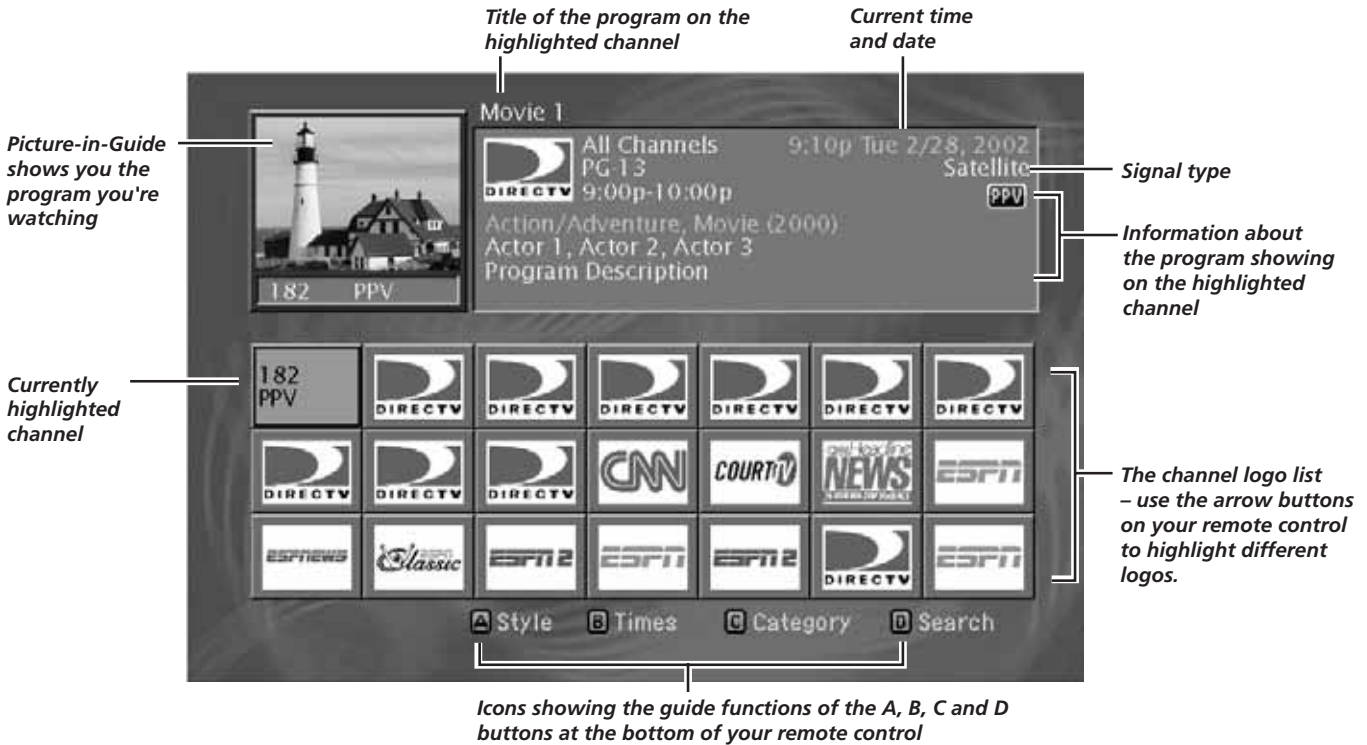
2. Highlight the guide category you want to see, then press SELECT.

The guide category list disappears and the guide appears, displaying channels showing programs that match the category you chose.

Special Features

Using the Logo Guide

The Logo Guide displays 21 channel logos and a Channel Banner showing information about the program currently showing on the highlighted channel.



Displaying and clearing the Logo Guide

There are three ways to display the Logo Guide:

- Press the MENU button on your remote control. Then, highlight *PROGRAM GUIDE* and press SELECT. Then, highlight *Logo Guide* and press SELECT. The Logo Guide appears on your screen.
- Press the GUIDE button on your remote control. Then, press the A button (AUDIO) to display the list of guide styles. Highlight *Logo Guide* and press SELECT. The Logo Guide appears.
- You can set the default guide style so that the Logo Guide always appears whenever you press the GUIDE button on your remote control. See *Setting the default Guide style* on page xx for details on setting the default guide style.

To clear the Logo Guide from your screen, press CLEAR on your remote control.

Getting around in the Logo Guide

To get information from the Logo Guide about the programs currently showing on your DIRECTV® High-Definition Receiver:

1. To access different program listings in the Logo Guide, use the arrow buttons on your remote control to move up, down, left, or right in the logo list. When you highlight a logo, it is replaced by the channel name and number in the Logo Guide.
2. To move up and down through the channel logos a full page at a time, press the CH+ and CH- buttons on your remote control.
3. To move the Logo Guide directly to a specific channel, press the 0-9 number buttons on your remote control to enter the desired channel number.

- As you highlight each channel logo in the Logo Guide, information about the program currently showing on the highlighted channel appears in the Channel Banner. To see more information on the program, press the INFO button on your remote control.



The *Program Detail* screen appears, showing complete information about the program on the highlighted channel, and a list of actions you can take related to that program. To return to the Logo Guide, highlight *Back* on the left side of the screen and press SELECT.

Tuning to a channel with the Logo Guide

To tune to a program or channel listed in the Logo Guide:

- Highlight the channel you want to watch.
- Press SELECT. The Logo Guide disappears, and the channel you selected fills the screen.



Switching to another guide style

To switch from the Logo Guide to the Grid Guide or Grid Guide (Name) while you're in the guide:

- With the guide displayed on your screen, press the A button (AUDIO) on your remote control. A list of guide styles appears.
- Highlight the guide style you wish to view, then press SELECT. The Guide Style list disappears, and the guide appears in the style you chose.

Searching for programs in the guide

You can search the entire list of programs stored in your DIRECTV® High-Definition Receiver's program guide to find exactly the program you wish to see. There are four ways to search the Guide:



By Credits Lets you find programs that match the actor, director, role, award, or year you type on an on-screen keyboard.

By Title Lets you find programs that match the program title you type on an on-screen keyboard.

By Text Lets you find programs for which either the credits or the title match the search term you type on an on-screen keyboard.

By Category Lets you find programs that match the program categories and sub-categories you select from an on-screen list.

Special Features

Searching by Credits, Title, or Text

To find programs that star a certain actor, share a director, have a particular character, have won a specific award, or were created in a certain year, search *By Credits*. To search for a program whose title you know, search *By Title*. Searching *By Text* looks at both credits and titles to find programs that match your search terms.



1. While viewing the guide, press the D button (SEARCH) on your remote control. A search list appears, allowing you to choose a type of search.
2. Highlight *By Credits*, *By Title*, or *By Text*, then press SELECT. The search screen you selected appears. If you chose to search *By Credits*, the screen allows you to select a type of credit to search by. Highlight one of the five Credit types (*Actor*, *Director*, *Role*, *Award*, or *Year*), and press SELECT.
3. Highlight the first letter in the word you wish to search for, then press SELECT. To erase a letter, highlight the on-screen left arrow and press SELECT. To clear the entire entry, highlight the on-screen *Clear* button and press SELECT.
4. Continue to select letters from the on-screen keyboard until you have completed your search term. As you enter letters, an on-screen list shows you matches for the text you have entered so far.
5. To execute the search you can either highlight the on-screen *Search* button and press SELECT, or you can highlight an item from the on-screen list and press SELECT. A list of programs related to your search terms appears.
6. To see a list of show times for a search results, highlight that program, then press SELECT.
7. To see information about a search result, highlight that program, then press the INFO button.



Searching by Category

Searching by category narrows down the list of programs by sorting program categories and sub-categories.

1. While viewing the guide, press the D button (SEARCH) on your remote control. A search list appears, allowing you to choose a type of search.
2. Highlight *By Category*, then press SELECT. The *Search By Category* screen appears. Categories that contain sub-categories have a page icon to the right of the category name.
3. Highlight a category, then press SELECT.

If you select a category that contains sub-categories, the subcategory list appears. Continue to narrow your search by selecting from the sub-category list until there are no more sub-categories.

If you select a category that contains no sub-categories, the search results appear displaying the programs in the category you selected.

To return to a previous category list, highlight the on-screen *Back* button and press SELECT.

4. To see a list of show times for a search result, highlight that program, then press SELECT.
5. To see information about a search result, highlight that program, then press the INFO button.



Scheduling program reminders and recording timers

There are two kinds of timers you can set to help you manage your TV viewing:

- reminders to alert you when a program is about to begin.
- timers that will automatically record a program on your VCR.

To set your DIRECTV® High-Definition Receiver to remind you when a program is about to begin, or to record a program for you on your VCR:

1. Press the GUIDE button on your remote. The guide appears.

Note: Timers are not available in the Logo Guide. If you are viewing the Logo Guide, use the A button (AUDIO) on your remote control, and select Grid Guide.

You can only set timers for future programs (not for programs that are currently under way).

2. Highlight the program you wish to record or be reminded about. Press SELECT once to set a program reminder. Press SELECT twice to set the program to be recorded on your VCR.



Today	9:00p	9:30p	10:00p	10:30p
112 ppV	Movie 1		Movie 2	
113 ppV	Boxing		Concert 1	
114 ppV	Concert 2		Concert...	

A clock icon is added to the program listing when a program reminder is scheduled.



Today	9:00p	9:30p	10:00p	10:30p
112 ppV	Movie 1 REC		Movie 2	
113 ppV	Boxing		Concert 1	
114 ppV	Concert 2		Concert...	

An REC icon replaces the clock item when a recording timer has been scheduled.

Once you have set a reminder, when the program is about to begin, the HD Receiver displays a message reminding you about the program.

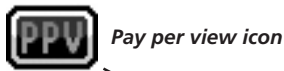
To use the program recording feature, you must have correctly connected and positioned the VCR control cable. You must also set up the HD Receiver to communicate with your VCR (see chapter xx for more information). Make sure there is a tape in your VCR and that the VCR is turned off before the start time of any programs you have set to be recorded.

For information on modifying existing timers, see page xx.

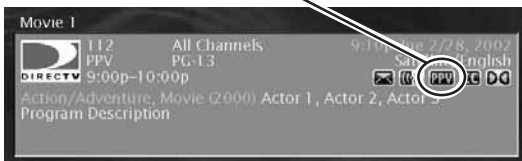
Special Features

Pay per view programs

Your DIRECTV® High-Definition Receiver gives you access to many pay per view movies, sporting events, concerts, etc. All you need to order these events is a DIRECTV account, a land-based telephone line connected to your HD Receiver, and your remote control.



Pay per view icon



Identifying and ordering pay per view programs

There are several ways to identify pay per view programs.

- If you tune to a channel currently showing a pay per view program which you have not yet purchased, a message appears telling you how to order the program.
- If you press the INFO button on your remote control to view information about a program in the guide or about a program you are currently tuned to, you will see the pay per view icon in the Channel Banner for that program.

To order a pay per view program:

1. Locate and highlight the program you wish to purchase in the guide. You can purchase current programs (as long as the program is less than half over) or future programs.
2. Press the INFO button on your remote control. The *Program Details* screen appears, with the list of available actions for that program.
3. Use the arrow keys on your remote control to highlight the *Buy* button, then press SELECT. A confirmation screen appears in which you can confirm or cancel your purchase.

Pay per view purchases are billed with your regular monthly statement for DIRECTV® programming.

Note: You can set spending limits for pay per view purchases using your HD Receiver's menu system. See Chapter xx for details.

Reviewing your pay per view purchases

Your HD Receiver allows you to review your past pay per view purchases, to view a list of upcoming pay per view purchases, and to cancel upcoming pay per view purchases.

To see a list of pay per view programs that you purchased and watched:

1. Press the MENU button on your remote control.
2. Highlight the *PURCHASES* menu item, then press SELECT. The *Purchases* menu appears. The *Past Purchases* menu item is highlighted.

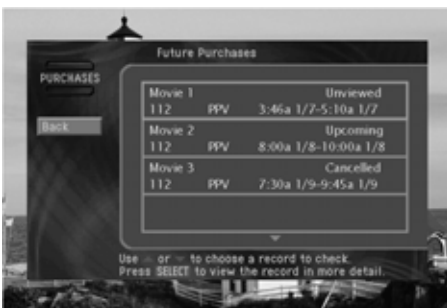


3. Press SELECT to view a list of your past pay per view purchases. The *Past Purchases* screen appears.
4. To see details for the listed purchases, highlight a purchase, then press SELECT. A screen displaying program details for the selected purchase appears.
5. To return to the *Past Purchases* screen, press GO BACK.

Note: The *Past Purchases* screen only displays pay per view programs you've purchased and watched. Pay per view programs you've purchased but haven't watched appear on the *Future Purchases* screen.

Viewing your Future Purchase list

To see a list of pay per view programs that you purchased but have not yet watched:



1. Press the MENU button on your remote control.
2. Highlight *PURCHASES* and press SELECT. The *Purchases* menu appears.
3. Highlight *Future Purchases* and press SELECT. The *Future Purchases* screen appears.
4. To see details for the listed purchases, highlight a purchase and press SELECT. A screen displaying program details for the selected purchase appears.
5. To return to the *Past Purchases* screen, press the GO BACK button on your remote control.

The *Future Purchases* screen displays both purchases you've made for programs that haven't yet aired, and purchases for past programs haven't watched. Pay per view programs you've purchased that have not yet aired can be canceled following the instructions below.

Canceling a pay per view purchase

To cancel the purchase of a pay per view program that you purchased but have not yet watched:



1. Press the MENU button on your remote control.
2. Highlight *PURCHASES* and press SELECT.
3. Highlight *Future Purchases* and press SELECT.
4. To cancel a purchase, highlight the program purchase you wish to cancel and press SELECT. A screen displaying program details for the selected purchase appears.
5. Highlight the on-screen *Cancel Purchase* button and press SELECT. The *Future Purchases* screen appears; the purchase you canceled is now listed as canceled.

Note: Past programs which you purchased but never watched cannot be canceled. Only PPV purchases made from the DIRECTV® High-Definition Receiver may be canceled.

Special Features

Choosing an alternate audio format for a program

Many programs on your DIRECTV® High-Definition Receiver offer several audio formats. For example, some programs are available in alternative languages. Some are available in Dolby Digital format (a high-quality digital audio format).

You can tell if a program offers alternative audio formats by pressing the INFO button on your remote control while watching a program. If one of these icons appears in the Channel Banner, an alternative audio format is available:



Indicates that one or more alternative languages are available for the program.



Indicates that a Dolby Digital version of the audio for the program is available.



To change the audio format for a program you are watching:

1. While viewing a program, press the AUDIO button on your remote control. A list of available audio formats for the program you are watching appears.
2. Highlight the audio format you wish to hear for the program, then press SELECT. The list of audio formats disappears and the program audio is now played in the format you selected.

Changing the User setting

Your HD Receiver allows you to establish groups of preferences for your family, and for up to four individuals. For each of these users, you can specify the user name, a unique channel list, and the color and translucency of the on-screen guides and menus. (Detailed instructions for modifying these user-settings are in Chapter xx.)



To set your HD Receiver to operate using the settings specified for one of the users:

1. While viewing a program, press WHO•INPUT on your remote control. The *Who* list appears.
2. Highlight the name of the user whose settings you wish to activate, then press SELECT. The *Who* list disappears, and the selected user's settings take effect.

To clear the *Who* list without changing the current user, press WHO•INPUT or CLEAR on your remote.

Chapter 5: Using the Menu System

Using the Menu System

To display the main menu, press MENU on the remote control.

To use the menu system, press the remote control's arrow buttons to highlight your on-screen choice and press the SELECT button to select it.

While using the program guides or menu system, you will often see a line of text at the bottom of the screen explaining what you are seeing on-screen, or telling you what your next step is.

Exiting a Screen

There are two ways to exit a menu:

- Press the CLEAR button on the remote control. The on-screen display clears from the screen and you return to TV viewing.
- Press the GO BACK button on the remote control. This returns the TV to its preceding display.

Main Menu items

This section briefly describes each of the options available from the main menu. More information about each menu and its features is included later in this chapter.



Program Guide displays a menu with a variety of different ways to view program guide information.

The **Profiles** menu button displays a menu where you can set up, modify or choose user profiles, as well as lock the system to put profile controls into effect.

Mailbox accesses mail messages from DIRECTV.

The **Purchases** menu button accesses menus where you can review or cancel upcoming purchases, as well as review past purchases.

System Setup allows you to adjust to the way your system works, to get more information about system features, get dish pointing coordinates, etc.

Using the Menu System



Program Guide

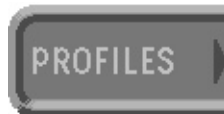
Selecting *PROGRAM GUIDE* from the main menu displays a menu with a variety of display options available. You can select the logo or channel guide, search by category or style, or change the active profile.

Note:

The program guide is described in detail in the previous chapter, Special Features, starting on page xx.

Displaying Program Guides

In addition to selecting *PROGRAM GUIDE* in the main menu, you can press the *GUIDE* button on the remote control. This bypasses the *Program Guides* menu and displays the default guide.



Profiles

The *Profiles* menu lets you set up different channel lists and limits for the different members of your family. You can set up a main profile – the *Family* profile – and up to four separate profiles, along with the *All Channels* profile. You can change individual settings for each profile in the *Profile* menu.



User profile basics

If your DIRECTV® High-Definition Receiver is going to be used by more than one person in your household, you should consider setting up user profiles for each user.

The *Profiles* menu allows you to:

- Set ratings limits for the HD Receiver (applies to all users).
- Set pay per view spending limits for the HD Receiver (applies to all users).
- Edit channel lists for the DIRECTV® System, and customized lists for individual users.
- Change the color and translucency of the menu and guide screens for each user profile.
- Set which user profile is currently active.
- Lock and unlock the system (controlling when the ratings limits, spending limits, and channel restrictions are active).

There are six user profiles you can choose:

The **FAMILY** user profile is the master profile for your receiver. The ratings limits, channel restrictions, and pay per view spending restrictions you set in the *Family* profile apply to all of the user profiles.

The **USER 1 - USER 4** user profiles allow individuals in your household to create custom channel lists and custom screen appearances for their own use. These profiles can be renamed to identify them with members of your household. Ratings, spending, and channel restrictions set in the *Family* profile still apply when one of these four user profiles is the active profile and the system is locked.

The **ALL CHANNELS** profile is the default user profile. The *All Channels* profile cannot be edited.

When the current user profile is *All Channels* and the system is locked, the ratings, spending, and channel restrictions set in the *Family* profile still apply. Once you have modified the channel lists in the other user profiles, you can use the program guide in the *All CHANNELS* profile to see a list of all channels available on your HD receiver (both viewable and blocked channels).

Using the Menu System

Editing user profile names

The four user profiles – *User 1* to *User 4* – can be renamed for members of your household. The *Family* and *All Channels* profiles cannot be renamed. You can change the names of *User 1* to *User 4* profiles to anything you wish, using up to eight letters and numbers.



1. Press the MENU button on your remote control. The main menu appears.
2. Highlight *PROFILES* and press SELECT. The *Profiles* menu appears.
3. Highlight the profile you wish to rename and press SELECT. The menu for that user profile appears. The *Edit User Name* item is highlighted.
4. Press SELECT to start editing the user name for that profile. The *Edit User Name* screen appears.
5. Type a new name for the user profile as described below:
 - To type each letter or number in the new name, highlight a key on the on-screen keyboard and press SELECT. Repeat this until you have typed the entire name.
 - If you need to erase letters, highlight the on-screen left arrow (near the top-right corner of the keyboard) and press SELECT.
 - To erase the entire name, highlight the on-screen *Clear* button and press SELECT.
6. When you have finished typing the user profile name, highlight the on-screen *Back* button and press SELECT.

Editing channel lists

Editing channel lists simplifies your channel surfing by removing unwanted channels from your channel list. When a profile is active, its channel list determines:

- which channels are skipped going through the channel list with the CH+/CH- buttons, and
- which channels appear in the Program Guide.

You can tune to a channel directly by pressing the 0 - 9 buttons on your remote control even when that channel is removed from the channel list for that profile.

The *Family* profile is the master profile — channel restrictions set in the *Family* profile apply to the entire DIRECTV® System (when the system is locked), regardless of which user profile is active. Channels that are removed from the channel list in the *Family* profile are “blocked” for all profiles — that is, these channels cannot be viewed even when tuned directly using the 0 - 9 buttons on your remote.

Continues on next page...

Using the Menu System

To edit a channel list:

1. Press the MENU button on your remote control.
2. Highlight the *PROFILES* menu item and press SELECT. The *Profiles* menu appears.
3. Highlight the profile with the channel list you want to edit (*Family*, or *User 1 - 4*) and press SELECT. The menu for that user profile appears.
4. Highlight *Edit Channel List* and press SELECT. The *Edit Channel List* screen appears.

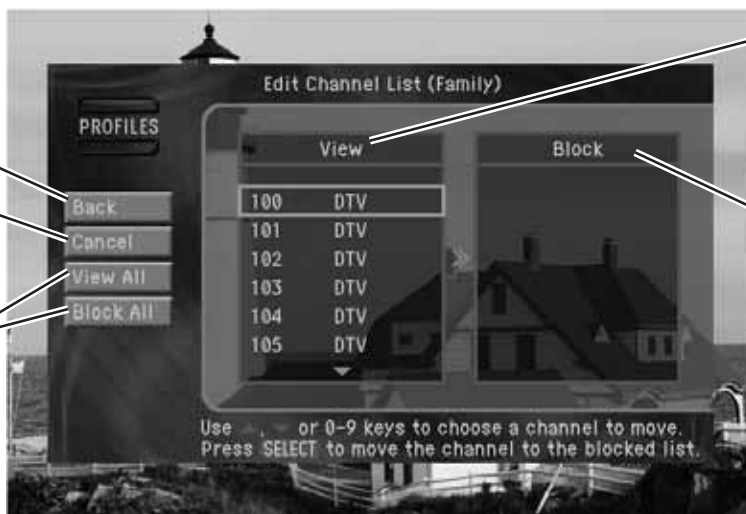
Note: *Editing the Family channel list changes channel access for all profiles. The All Channels profile cannot be edited.*

5. Edit the list using the controls as described below.

When you finish editing the channel list, highlight Back and press SELECT.

Cancel returns you to the previous screen without changing the channel list.

Move all channels into the View list or Block list.



Channels included in the channel list. To remove a channel from the list, highlight it and press SELECT.

Channels not included in the channel list. To add a channel to the channel list, highlight it here and press SELECT.

Channels that are removed from the channel list do not appear in the Program Guide, and they are skipped when you change channels with the CH+ and CH- buttons.

6. When you've finished editing the list, highlight the on-screen *Back* button and press SELECT.

Setting rating limits

To control the ratings of the programs your family can watch, set rating limits in the *Family* profile. Rating limits set in the *Family* profile apply to the entire DIRECTV® System no matter which user profile is active (as long as the system is locked).

There are various systems used to rate TV programs. Your DIRECTV® High-Definition Receiver allows you to set limits for the following kinds of ratings:

- TV program ratings for the *Entire Audience*.
- TV program ratings specifically for *Children*.
- TV program ratings for unrated programs (TV rating of none).
- Movie ratings based on the MPAA (Motion Picture Association of America) ratings.

If you have younger TV viewers in your home, you should set the maximum rating for each of these program-types to ensure the most effective ratings control.

Using the Menu System

Setting the rating limits for TV programs

To set the maximum viewable TV program rating for the TV programs:

1. Press the MENU button on your remote control.
2. Highlight *PROFILES* and press SELECT. The *Profiles* menu appears. The *Family* profile is highlighted.
3. Press SELECT to display the *Family* profile menu. The *Family* profile menu appears.
4. Highlight *Rating Limit* and press SELECT. The *Rating Limit* menu appears.
5. Highlight *TV* and press SELECT. The *TV* menu appears.
6. Highlight the rating option you wish to set and press SELECT. The screen you selected appears.
7. Use the arrow and SELECT buttons on your remote control to select the ratings or specific types of content you want to keep your family from viewing. Programs containing blocked content or that are rated at or above the level you select will be blocked when your system is locked. (See *Locking and unlocking your DIRECTV® System* later in this chapter.)
8. When you have finished setting the ratings on one screen, select the on-screen *Back* button. You return to the TV menu. From there you can select the next rating type and continue to set the ratings as described in step 7.



Here are descriptions of the ratings and abbreviations used on the *Entire Audience* rating screen:

- TV-G:** General audience. Although not specifically designed for children, most parents would find this program suitable for all ages.
- TV-PG:** Parental guidance suggested. This program may not be suitable for younger children.
- TV-14:** Parents strongly cautioned. This program may contain material parents would find unsuitable for children under 14 years of age.
- TV-MA:** Mature audience only. This program is specifically designed to be viewed by adults, and is therefore unsuitable for anyone under 17 years of age.
- D:** Suggestive dialog.
- L:** Coarse language.
- S:** Intense sexual situations.
- V:** Violence.



Here are descriptions of the ratings and abbreviations used on the *Children* rating screen:

- TV-Y:** All children. This program is designed to be appropriate for all children.
- TV-Y7:** Directed to older children. This program is designed to be viewed by children age 7 and above.
- TV-Y7-FV:** Similar to TV-Y7, but may include strong fantasy violence (such as fighting by animated characters).

The TV Rating of None screen allows you to allow or block programs that are unrated or have a rating of “None.”

Using the Menu System

Setting rating limits for movies

To set the maximum viewable rating for movies, follow these steps:

1. Press the MENU button on your remote control.
2. Highlight *PROFILES* and press SELECT. The *Profiles* menu appears. The *Family* profile is highlighted.
3. Press SELECT to display the *Family* profile menu.
4. Highlight *Rating Limit* and press SELECT. The *Rating Limit* menu appears. *Movies* is highlighted.
5. Press SELECT to display the *Movies* screen.
6. Use the arrow and OK buttons on your remote control to select the ratings you wish to block your family from viewing. Programs that are rated at or above the level you select will be blocked when your system is locked. (See *Locking and unlocking your DIRECTV® System* later in this chapter.)
7. To unblock all of the ratings and content types, select the on-screen *Allow All* button. To block all of the ratings and content types, select the on-screen *Block All* button.
8. When you have finished setting the ratings on the *Movies* screen, select the on-screen *Back* button. You return to the *Rating Limit* menu.



Here are descriptions of the ratings used on the *Movies* rating screen:

- G:** General Audiences. This rating is generally suitable for all audiences.
- PG:** Parental Guidance Suggested. Indicates that some parents may find material in this film unsuitable for children.
- PG-13:** Parents Strongly Cautioned. Movies with this rating should be investigated by parents before they let children under 13 years of age view the film.
- R:** Restricted. Some material not suitable for children 17 years of age or younger. Parents are strongly urged to investigate this film before allowing children to view it with them.
- NC-17:** This film contains material that is intended to be viewed by adults only.
- X:** This film contains explicit sexual material, and is intended to be viewed by adults only.

Allowing or blocking pay per view purchases

To set whether pay per view programs can be purchased on your receiver, use the *Pay Per View* option in the *Family* profile menu. The *Pay Per View Allow/Block* setting in the *Family* profile applies any time the system is locked, regardless of which user profile is active.

To set your receiver to allow or block pay per view purchases:

1. Press the MENU button on your remote control.
2. Highlight *PROFILES* and press SELECT. The *Profiles* menu appears. The *Family* profile is highlighted.
3. Press SELECT to display the *Family* profile menu. The *Family* profile menu appears.

Using the Menu System

4. Highlight *Pay Per View* and press SELECT. A list appears, from which you can choose to *Allow* or *Block* pay per view purchases.
5. Highlight *Allow* or *Block* and press SELECT. The list disappears, and the *Pay Per View* menu item indicates your choice.
6. To clear the menu from your screen, press CLEAR on your remote control.



Setting a pay per view spending limit

To limit the dollar amount that can be spent for each pay per view program, use the *Spending Limit* option in the *Family* profile menu. Spending limits set in the *Family* profile apply to all other user profiles any time the system is locked.

1. Press the MENU button on your remote control.
2. Highlight *PROFILES* and press SELECT. The *Profiles* menu appears. The *Family* profile is highlighted.
3. Press SELECT to display the *Family* profile menu. The *Family* profile menu appears.
4. Highlight *Spending Limit* and press SELECT. The *Spending Limit* screen appears.
5. Use the 0 - 9 buttons on your remote to enter the maximum price allowed for a pay per view program. For example, to block programs that cost over twenty dollars each, you would press 0, 2, 0. As you press the number buttons the highlight moves to the next digit.
6. When you've entered the spending limit, highlight the *Done* button and press SELECT. Your spending limit will go into effect when the system is locked.

Setting the screen color and translucency

For each of the profiles, you can set the screen color and translucency level used to display menu and guide screens. You can also choose from four levels of translucency. Translucency can be set for the *Family* profile and the four *User* profiles.

To set these screen display options use the *Screen Color* and *Translucency* menu items in the menu for the profile you wish to change.

Setting the current user profile

To set the current user profile (making that profile's channel list, screen color and screen translucency settings active):

1. Press the MENU button on your remote control.
2. Highlight *PROFILES* and press SELECT. The *Profiles* menu appears.
3. Highlight *Set User* and press SELECT. The user profile list appears.
4. Highlight the profile you wish to make active and press SELECT. When you select a user profile, the list disappears, and the profile you selected becomes the current user profile.
5. To exit the menu, press CLEAR on your remote control.

Note:

The user profile can also be changed by pressing the WHO•INPUT button on your remote control while you are watching TV.

Using the Menu System

Locking and unlocking your DIRECTV® System

If you've set ratings limits, spending limits, or channel lists for your DIRECTV System, you need to lock the system to make those settings take effect. To change those settings, you need to unlock the system to access the controls for those settings. Locking the system involves entering a four-digit password. You need to remember this password to unlock the system. Write down the password and keep it in a safe place. If you forget your password, call DIRECTV or your service provider for assistance.

To lock or unlock the system, follow these steps:

1. Press the MENU button on your remote control.
2. Highlight *PROFILES* and press SELECT. The *Profiles* menu appears.
3. Highlight *Lock System* or *Unlock System* and press SELECT.
4. Highlight the first digit in the password.
5. Use the 0 - 9 buttons on your remote control to enter a four-digit password. Then highlight the on-screen *Done* button and press SELECT.

If you are locking the system, you will see a second screen asking you to confirm your password (to make sure you entered it correctly).

When you have finished locking or unlocking the system, the *Lock System/Unlock System* screen disappears, and the *PROFILES* menu is displayed.

6. To clear the menu from your screen, press CLEAR on your remote control.



When the system is unlocked, the *Lock System* menu item is displayed. Selecting *Lock System* displays a screen where you can lock the system.



When the system is locked, the *Unlock System* menu item is displayed. Selecting *Unlock System* displays a screen where you can unlock the system.

Using the Menu System



Reading your mail

The *MAILBOX* menu lets you to read the mail sent to you by DIRECTV or your service provider.



1. Press the MENU button on your remote control.
2. Highlight *MAILBOX* and press SELECT. The *Mailbox* screen appears, displaying all of the mail you have received (both read and unread).
3. To read one of the pieces of mail, highlight that piece of mail in your mailbox and press SELECT. The selected mail message appears.
4. To delete the mail message (permanently removing it from your mailbox), highlight the on-screen *Delete* button and press SELECT.
5. To leave the message in your mailbox and return to the *Mailbox* screen, highlight the on-screen *Back* button and press SELECT. The mail message disappears, and the *Mailbox* screen appears.
6. To clear the menu from your screen, press CLEAR on your remote control.



Purchases

Note: The *Purchases* menu is described in detail in the previous chapter, *Special Features*, starting on page xx.

Selecting *PURCHASES* from the main menu lets you review your future and past purchases. See Chapter xx for more information.



Setting system preferences

The *System Setup* menu in your DIRECTV® High-Definition Receiver's menu system allows you to control many of the functions of the HD Receiver. The first set of items you can control are system preferences. Specifically, these preferences you can set include:

- The language for the on-screen menu system.
- The screen format to use for widescreen program broadcasts.
- The color of bars in letter box and pillar box screen formats.
- The closed caption settings.
- The default screen color for menu and guide screens.
- The default translucency for menu and guide screens.
- The audio settings (language, and PCM or Dolby Digital for digital audio broadcasts).

Using the Menu System

Setting the language for on-screen Menus and Guides

To choose a language for the menu and guide screens, follow these steps:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Preferences* and press SELECT.
4. Highlight *Default Language* and press SELECT. A list of languages you can use for guide and menu screens appears.
5. Highlight the language you want to use for menus and guides, then press SELECT. A message appears warning you that your DIRECTV® High-Definition Receiver needs to reboot (turn itself off and on) for the default language to take effect.
6. To change the default language to the new setting, highlight the on-screen OK button and press SELECT on your remote control.



Setting the screen format

There are two screen formats used for TV screens and TV broadcasts – the standard TV format (in which the ratio of the screen width to the screen height is 4:3), and the widescreen format (in which the ratio of width to height is 16:9). The *Screen Format* preference tells your receiver how to display a program when the program format does not match your TV format. (Chapter xx contains a discussion of aspect ratios and screen format options.)

To set the Screen Format preference:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT. The *System Setup* menu appears.
3. Highlight *Preferences* and press SELECT. The *Preferences* menu appears.
4. Highlight *Screen Format* and press SELECT. The *Screen Format* screen appears.
5. Highlight the *Select your TV screen Type* box, then use the up or down arrows buttons on your remote control to set the screen type to match the type of TV you have. Choose *4:3* for a standard TV, or *16:9* for a widescreen TV.
6. Use the left and right arrow buttons to highlight the format you wish to use to display programs that do not match your TV screen shape.

For standard 4:3 TVs displaying widescreen broadcasts, your choices are:



Letter Box: Displays the entire program image, fitting the program to the screen by applying black/gray bars to the top and bottom of the screen.



Full: Displays the entire program image, fitting the program to the screen by stretching the image vertically so that it fills the screen.



Zoom: Enlarges the image to fill the screen (cropping some of the left and right edges of the program image).

Using the Menu System

For widescreen 16:9 TVs displaying standard 4:3 programs, your choices are:



Pillar Box: Displays the entire program image, fitting the program to the screen by applying black/gray bars to the left and right sides of the screen.



Full: Displays the entire program image, fitting the program to the screen by stretching the image horizontally so that it fills the screen.



Zoom: Enlarges the image to fill the screen (cropping some of the top and bottom edges of the program image).

7. Highlight the on-screen *Back* button, and press SELECT.

Setting the bar color for Letter box and Pillar box

You can set the color of the horizontal and vertical bars displayed in letter box and pillar box screen formats by using the *Bar Color* option in the *Preferences* section of the *SYSTEM SETUP* menu. The bar color can be set to either black or gray. The gray bar color is already set and is recommended to avoid screen burn-in.

Screen burn-in is a problem that can occur on some TV displays when a dark, stable image is displayed on the screen for an extended period, “burning” the image permanently into the screen. The gray bar color is recommended because lighter colors are less likely to cause burn-in.

Setting the closed caption options

Closed captions are on-screen text versions of the audio content for programs. The *Caption* item in the *Preferences* menu allows you to turn closed captions on and off, to set a language for the closed captions, and to choose a closed caption format (*CC1* or *CC2*, which may provide varying closed caption displays for some programs).

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Preferences* and press SELECT.
4. Highlight *Caption* and press SELECT. The *Caption* menu appears.
5. Highlight the setting you wish to change, and press SELECT. Then use the up or down arrows buttons on your remote control to highlight an option for that setting. Press SELECT to confirm your selection.
6. To exit the menu system, press CLEAR on your remote control.

Note: If you turn on closed captions on both your DIRECTV® High-Definition Receiver and your TV, you may see overlapping closed caption displays. To avoid this problem, turn on closed captions on either the TV or the HD Receiver, not both.



Using the Menu System

Setting the default screen color and translucency

The *Screen Color* options in the *Preferences* menu let you set a default screen color for the menu and guide screens. There are four color choices: *Cobalt Blue*, *Seagrass*, *Periwinkle* and *Spiced Burgundy*. Screen colors can also be set separately for the *Family* profile and the four *User* profiles; those choices will override the default screen color selection you set here when those profiles are active.

The *Translucency* options in the *Preferences* menu let you set a default translucency level for the menu and guide screens (controlling how much TV program content you can view through the on-screen menu and guide screens). You can choose from four levels of translucency: *Light*, *Medium*, *Dark*, and *Opaque* (no translucency). Translucency can also be set separately for the *Family* profile and the four *User* profiles; those choices will override the default translucency selection you set here when those profiles are active.



To set a default screen color and translucency:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Preferences*, then press SELECT.
4. Highlight *Screen Color* and press SELECT. A list appears, showing you the screen color options.
5. Highlight a color option and press SELECT. When you select a color, the screen color list disappears, and your color choice is indicated on the *Screen Color* menu item.
6. Highlight *Translucency* and press SELECT. A list appears, showing you the translucency options.
7. Highlight *Light*, *Medium*, *Dark*, or *Opaque*. Then press SELECT. When you select a translucency option, the *Translucency* list disappears, and your choice is indicated on the *Translucency* menu item.

Setting the default audio preference

Programs broadcast with digital audio often provide a number of language choices. This preference setting tells your receiver which language to use for digital audio broadcasts offering multiple formats.



To set the Default Audio preference:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Preferences*, then press SELECT.
4. Highlight *Audio* and press SELECT. The *Audio* menu appears, with the *Default Audio* item highlighted.
5. Press SELECT on your remote control to display the list of available languages. A list of languages appears.
6. Highlight the language you wish to use for digital audio broadcasts and press SELECT. When you select a language, the *Language* list disappears. Your selection is indicated in the *Default Audio* line in the *Audio* menu.

Using the Menu System

Reviewing and modifying reminders and recording timers

The *Timers* item in the *SYSTEM SETUP* menu lets you review, modify, or create new program reminders and program recording timers.

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT. The *System Setup* menu appears.
3. Highlight *Timers* and press SELECT. The *Timers* screen appears. If you've already scheduled reminders or recording timers, they'll be listed here.
4. To review your previously scheduled program reminders and recording timers, look through this list.
5. To modify or check the details for any previously scheduled timers, highlight that timer from the list and press SELECT. To schedule a new program reminder or recording timer, highlight a blank line from the list and press SELECT. The *Timer #* screen appears.
6. Highlight the option you wish to change.
 - For new timers or for timers you previously scheduled using the *Timers* screen in the *SYSTEM SETUP* menu, you can modify the channel number, the start time and date, the end time and date, the frequency, and the mode for the timer (whether it is a program reminder or a recording timer).
 - For timers that you scheduled using the on-screen guide, you can only change the mode setting.
 - Once you have highlighted the option you wish to modify, use the up- or down-arrow buttons on your remote control to edit the option setting. Use the left- and right-arrow buttons to highlight different options.
 - To delete the selected timer, use the right-arrow button on your remote control to highlight the on-screen *Clear* button and press SELECT.
7. When you have finished reviewing or modifying the timer, use the right-arrow button on your remote control to highlight the on-screen *Back* button and press SELECT. The *Edit Timer* screen disappears, and you return to the *Timers* screen.
8. To return to the *System Setup* menu, highlight the on-screen *Back* button and press SELECT. To exit the menu system and return to TV viewing, press the CLEAR button on your remote.



Using the Menu System

Reviewing and controlling Caller ID

The *Caller ID* item in the *System Setup* menu lets you view a list of the calls you've received on the telephone line connected to your DIRECTV® High-Definition Receiver. It also lets you turn the Caller ID feature on or off. The Caller ID feature only works if you subscribe to the caller ID service provided by your local telephone service.



To turn the Caller ID feature on or off:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Caller ID* and press SELECT. The *Caller ID* menu appears.
4. Highlight *Display Caller IDs* and press SELECT. A list appears, allowing you to turn the Caller ID feature *On* or *Off*.
5. Highlight *On* or *Off* from the list, then press SELECT. The list disappears, and the *Display Caller IDs* menu item in the *Caller ID* menu reflects your choice.

Note: *Caller ID messages for incoming calls that occur while you are taping a program will be recorded on your tape. You might want to turn Caller ID off while you are recording a program.*



Identifying callers

With *Caller ID* turned on, when a call is made to the phone line connected to your HD Receiver, a message appears on your TV screen telling you the number of the caller.

To clear the message from your screen, press SELECT.

To set your HD Receiver not to display caller ID messages, highlight the on-screen *Disable* button and press SELECT.

Reviewing your Caller ID list

To see a list of calls you have received:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Caller ID* and press SELECT. The *Caller ID* menu appears.
4. Highlight *Review Caller IDs* and press SELECT. The *Review Caller IDs* screen appears.
5. To see details about any of the listed calls, highlight the call from the list and press SELECT. A screen appears displaying the total number of calls received from that phone number and the times and dates for the three most recent calls.
6. To delete a Caller ID record, highlight the on-screen *Delete* button and press SELECT.
7. To return to the *Review Caller IDs* list, highlight the on-screen *Back* button and press SELECT.



Using the Menu System

Setting the Local Time options

The *Local Time* setting (in the *Installation* section of the *System Setup* menu) lets you set how the following two time settings are controlled – either by you ("locally") or by your service provider:

- the time zone your DIRECTV® High-Definition Receiver uses, and
- whether your HD Receiver observes Daylight Savings Time.

If you turn the *Local Time* setting on, you set the time zone and decide whether or not to observe Daylight Savings Time. With the *Local Time* setting off, your service provider automatically controls these settings for you.

To turn the Local Time Setting on or off, set your Time Zone and set Daylight Savings Time observance:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Installation* and press SELECT.
4. Highlight *Local Time* and press SELECT.
5. To change the *Local Time* setting, highlight it using the arrow buttons on your remote control and press SELECT. A list appears where you can turn the local time setting on (you set the time zone and daylight savings time observance), or off (your program provider controls the time settings).
6. Highlight *On* or *Off*, then press SELECT. The list disappears, and the *Local Time Setting* menu item reflects your choice. If you turn the *Local Time Setting* off, the *Time Zone* and *Daylight Savings Time* options are controlled by your program provider; these menu items become unavailable. If you turn the *Local Time Setting* on, continue with the following steps to set your time zone and whether you wish to observe daylight savings time.
7. Highlight *Time Zone* and press SELECT. A list appears from which you can choose your local time zone.
8. Highlight your time zone and press SELECT. The list disappears, and the *Time Zone* menu item reflects your choice.
9. Highlight *DST Observation* and press SELECT. A list appears from which you can choose to turn *Daylight Savings Time* observance on or off.
10. Highlight *On* or *Off*, then press SELECT. The list disappears, and the status line indicates either *DST* in effect or *Standard* time in effect.



Using the Menu System

Centering the DIRECTV® High-Definition Receiver's picture

If you're using the RGB or DVI outputs to connect the HD receiver to your monitor, you can change the position of the HD receiver's picture on your monitor's screen using the *Monitor Setup* option in the *Installation* menu.

To center the receiver's picture on your monitor's screen:

1. Press MENU on the remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Installation* and press SELECT.
4. Highlight *Monitor Setup* and press SELECT.
5. Use the left and right arrow buttons on your remote to highlight the direction you'd like to move the picture. Press SELECT to move the picture to the left or to the right on your monitor's screen.
6. Press GO BACK when you're finished to return to the *Installation* menu. Press CLEAR to exit the menu system.



Installing a new Access Card

Your DIRECTV® Service provider may send you a new, replacement access card. When you receive a new card, follow these steps to continue your DIRECTV service without interruption:

1. Press the MENU button on your remote control.
2. Highlight *SYSTEM SETUP* and press SELECT.
3. Highlight *Installation* and press SELECT.
4. Highlight *New Access Card* and press SELECT. The *New Access Card* screen appears.
5. To start replacing your access card, highlight the on-screen *OK* button and press SELECT. On-screen instructions tell you how to replace your old card with the new one. Follow these instructions.

Viewing important information and a list of features supported by your HD Receiver

The *System* menu allows you to view a list of important details about your HD Receiver, as well as a list of features supported by your HD Receiver. To view this information, use the *System Information* and *System Features* items in the *System* portion of the *System Setup* menu.

Viewing information on automatic system upgrades

The *System Upgrades* menu item in the *System* menu provides information about the current software on your HD Receiver, and a history of when previous upgrades have been downloaded to your receiver. To view this information, use the *System Upgrades* item in the *System* portion of the *System Setup* menu.

Chapter 6: Additional Information

Troubleshooting

Use the tips below to help solve any problems you have with the DIRECTV® High-Definition Receiver:

I have no picture and no sound and the POWER light does not light.

- Make sure your HD Receiver is plugged into a working power outlet. If it is, make sure the unit is turned on. If the receiver is plugged into a power strip, make sure the strip is plugged in and turned on. Check the batteries in the remote control.

I have sound but no picture.

- Make sure your TV or monitor is tuned to the right video input channel (see Chapter xx for more information).
- Make sure the HD Receiver is properly connected to your TV or monitor.

I have picture but no sound.

- Make sure the TV is not being muted.

I have no picture and no sound.

- Make sure the TV is turned on.
- Make sure your HD Receiver is turned on.
- Make sure your access card is inserted properly into your receiver.
- Check the signal strength from the satellite (see *Checking the satellite signal strength* in Chapter xx).
- Make sure the coaxial cable is properly connected to the satellite dish.
- Check the connections between your HD Receiver and your TV.
- Turn your receiver off, unplug it, wait 10 to 20 seconds, then plug it back in, and turn it on.

The top and bottom of the program image is cut off.

- If you connect your TV to one of the composite video out jacks (VIDEO out, S-VIDEO out, or OUT TO TV), and you're watching a high-definition program with the HD Receiver's RESOLUTION switch set to either 720p or 1080i, the picture will be slightly cropped at the top and bottom (the very top and bottom edges of the image will not appear on the TV screen). To avoid this problem, set the RESOLUTION switch to the 480p/i position if your TV is connected to one of the composite video outputs.

I see the message on my TV: "(Due to) Copyright restrictions....."

- This means that the program you are trying to watch may not be viewed on some outputs. Use a different connection from the HD Receiver to your TV. See Chapter xx for more information.

I do not see any video with my TV connected to the DVI OUT jack.

- If your TV has a DVI input jack but is not HDCP compatible, you may not be able to view video from your receiver's DVI OUT jack. You need to connect your TV using one of the other video output jacks on the receiver.

I see overlapping closed caption displays for some programs.

- If you turn on closed captions on both your HD Receiver and your TV, you may see overlapping closed caption displays. To avoid this problem, turn on closed captions on either the TV or the HD Receiver, not both.

Continues on next page...

Additional Information

I have a frozen screen and the POWER button doesn't work.

- Unplug your receiver for 10 to 20 seconds; then plug it back in and turn it on.
- Check the batteries in the remote control.

I cannot view a program.

- Make sure your subscription includes the channel you want to watch. Call your service provider if you aren't sure.
- Make sure your system is not locked by looking for the locked icon (🔒) in the channel banner.

I cannot purchase a pay per view program.

- It may be too late to purchase the program. Try purchasing another showing of the same program.
- Make sure the telephone line is properly connected.
- If your system is locked, make sure the purchase does not exceed your spending or rating limit.
- Your access card may have reached its limit. Call your service provider for assistance.

I've forgotten my password.

- If you've forgotten your password, call your service provider for assistance.

I'm having problems with my remote control.

- Maybe something is between the remote control and the remote sensor.
- Maybe the remote control is not in DIRECTV mode. Press the DIRECTV button so the remote will control the digital satellite receiver.
- Maybe the batteries in the remote control are weak, dead or installed incorrectly. Try replacing batteries. (Note that when you replace the batteries you may have to reprogram your remote to control other devices.) **IMPORTANT:** Don't press any remote control buttons while replacing the batteries unless you are resetting the remote! If you press a remote control button while replacing the batteries, you may need to reprogram the remote to operate other devices. Reprogramming may also be required if dead or weak batteries have been allowed to remain in the remote.
- The remote may need to be reset. Remove batteries; press and hold the 1 button for at least 60 seconds to drain the microprocessor inside the remote control. Release number 1, replace the batteries, and (if necessary) reprogram the remote.
- If you are trying to operate a device other than the digital satellite receiver that you have programmed the remote to control, make sure you press the corresponding device button (DVD, VCR, etc.) first. The remote button for the component you're trying to control should light up when you press a valid button for that component. If it doesn't, press the component button again to put the remote in that mode.

A remote control component button starts flashing.

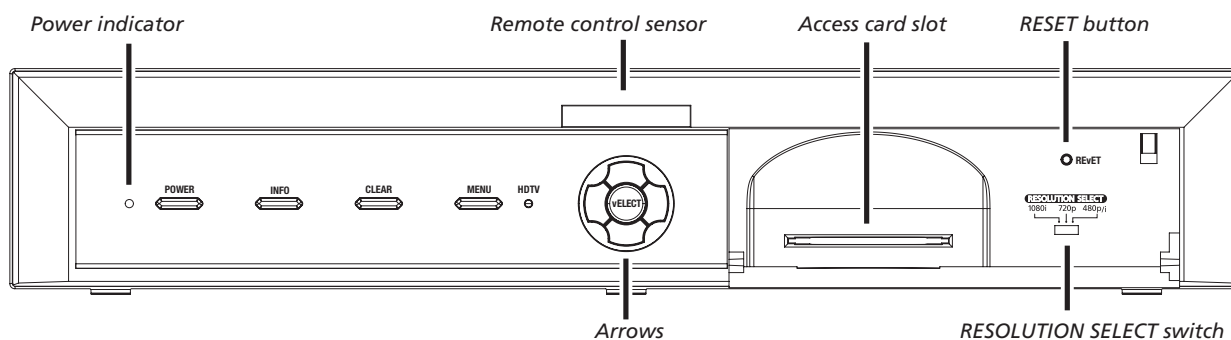
- The batteries in the remote control are running low and should be replaced soon. (Note that when you replace the batteries you may have to reprogram your remote to control other devices.)

I've temporarily lost the satellite signal.

- Your satellite system may be experiencing rain fade, a temporary loss of the satellite signal due to the signal's inability to penetrate unusually heavy rain clouds or rainfall. Rain fade is usually brief, lasting only as long as the heavy rain cloud condition persists.

Front panel controls and lights

Your front panel has a flip-down door which you need to open to access its controls. To open this door, push firmly on the top middle part of the door to unlatch it. Then, gently pull the door out and down. The front panel door will flip down.



Power indicator The power indicator glows when power is on.

POWER Push this button to turn your DIRECTV® HD Receiver on or off.

INFO Push this button to display TV program information.

CLEAR Push this button to clear on-screen displays and return to TV program viewing.

MENU Push this button to display the main menu. Push MENU again to clear the main menu from the screen.

DTV indicator This LED glows when the tuner is receiving a digital signal that's strong enough to display.

Remote control sensor Point your remote control at this sensor when operating your receiver.

Arrows Push these buttons to navigate in the on-screen program guides and menu system.

SELECT Push this button to select highlighted items on guide and menu screens.

Access card slot This slot holds the access card (which allows you to view DIRECTV® programming).

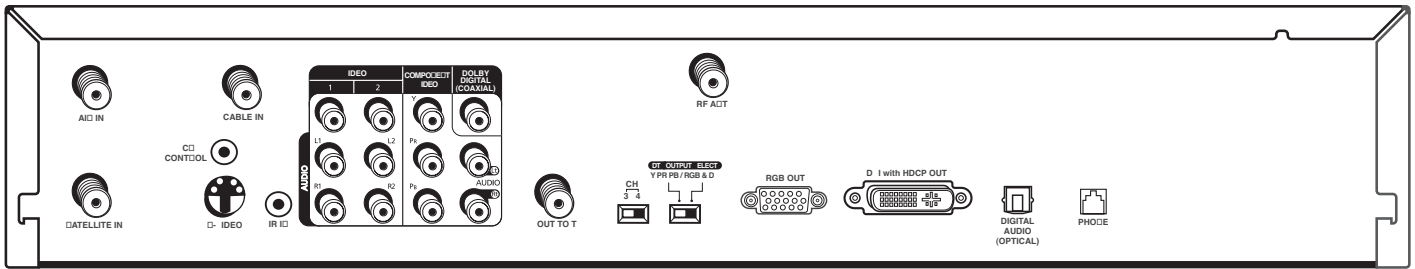
RESOLUTION SELECT switch If you've used a composite video or S-Video connection between the HDTV Tuner and your monitor, set this switch to ANALOG (480i). If you've used a component video, RGB or DVI connection between the HDTV Tuner and your monitor, set this switch to the highest DTV resolution setting your monitor or TV can support – 1080i, 720p or 480p (see your monitor or TV user's guide for information regarding its maximum video resolution). You can also use 480i with component video connections for analog monitors.

RESET button Push this button to return the HD Receiver to its factory defaults.

Additional Information

Back Panel Switches and Input/Output Jacks

The diagram below illustrates the location of the input and output jacks on the back of the DIRECTV® High-Definition Receiver. Step-by-step setup instructions for connecting your HD Receiver appear in Chapter xx.



AIR IN Connect your off-air TV antenna to this jack. Both standard analog (NTSC) and high definition digital (ATSC) program broadcasts can be received through a single antenna connected to this jack.

SATELLITE IN Connect the RG-6 cable from your satellite dish to this jack.

CABLE IN Connect the RG-6 cable from your cable TV provider (if you have one) to this jack. This input is intended for use with a cable NTSC signal only. It is not intended (nor does it support) off-air signals.

VCR CONTROL Connect the VCR control cable to this jack. Attach the other end of the cable to your VCR's IR receiver (see Chapter xx for more information).

S-VIDEO This jack connects your DIRECTV HD Receiver to a TV or VCR that accepts S-Video input.

IR IN 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 anything into this jack.

OUT TO TV Using an RF coaxial cable, this jack provides a basic connection between your HD Receiver and your TV or VCR.

VIDEO Using standard video cables, these jacks connect your DIRECTV HD Receiver to your TV or VCR.

AUDIO (L1, R1, L2, R2) Using standard stereo audio cables, these jacks provide stereo audio to your TV, VCR, or A/V receiver.

DOLBY DIGITAL OUT (OPTICAL) Using an optical digital audio cable, this jack allows you to connect your HD Receiver to an A/V receiver that accepts optical digital audio input.

RGB OUT Using an RGB monitor cable, this jack connects your HD Receiver to a TV that accepts high-definition RGB video input.

DVI with HDCP OUT Using a digital DVI cable, this jack connects your HD Receiver to a TV that accepts the unconverted DVI signal from a high-definition digital broadcast (from satellite, or antenna). This jack supports HDCP content protection. (For the best access to high-definition programming, connect this output to the corresponding DVI/HDCP input that supports HDCP technology on your HDTV Monitor.)

Additional Information

DTV OUTPUT SELECT switch This switch determines the signal type output by either DVI/HDCP OUT and RGB OUT, or COMPONENT OUT jacks.

CH 3/4 switch This switch sets the channel for viewing the signal from the OUT TO TV signal on your TV.

COMPONENT VIDEO (Y PR PB video) Using standard A/V cables, these jacks connect the DIRECTV® High-Definition Receiver to a TV or VCR that accepts component video input.

DOLBY DIGITAL (COAXIAL) Using a coaxial digital audio cable, this jack allows you to connect your HD Receiver to an A/V receiver that accepts coaxial digital audio input.

RF ANT Connecting the RF antenna to this jack allows your remote control to communicate with your HD Receiver even when you do not have line-of-sight to the receiver's front panel remote sensor.

AUDIO (Lt, Rt) Using standard stereo audio cables, these jacks provide an A/V receiver capable of decoding Dolby Surround signals with the left, right, center, and surround audio channel signals.

PHONE A telephone line connected to this jack allows you to order pay per view programming.

Additional Information

FCC Customer Information

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the back or bottom side of this equipment is a label that contains, among other information, a product identifier in the format US:G95XXXXXXXXXX. If requested, this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular RJ11 plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. The REN number is located on the label of this product.

If this digital satellite receiver (modem) causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this digital satellite receiver, for repair or warranty information please refer to the appropriate section of this manual. This product is not user serviceable. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to party line service is subject to state tariffs and may not be allowed. Contact the state public utility commission, public service commission or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure that the installation of this digital satellite receiver (modem) does not disable alarm equipment, consult your Telephone Company or qualified installer.

FCC Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name: RCA

Model(s): DTC210

Equipment Classification: TV Interface Device

Responsible Party: Thomson Inc.
10330 N. Meridian Street
Indianapolis, IN 46290
Telephone 1-(317) 415-4151

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 and 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 this 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.

DIRECTV® High-Definition Receiver Specifications

Power supply

Input Voltage: AC 120V, 60Hz (SMPS type)

Power Consumption: 42W max

Physical Specification

Size (W X H X D): 16.93 in.(W) X 3.15in.(H) X 12.13 in.(D)

(430mm x 80mm x 305mm)

Weight (Net): 3.80 Kg (around 8.37 lbs.)

Operation Temp: +32° F (0° C) to +104° F (+40° C)

Storage Temp: -40° F (-40° C) to +150° F (+66° C)

Video Decoder

Transport stream: MPEG-2 ISO/IEC 13818

Audio Decoder

Audio Decoding: MPEG Layer II & Dolby Digital

Sampling Frequency: 48 kHz

Input/Output Interface

LNB	1 input
Video	2 RCA / Cinch 1 Component video output (Y, Pb, Pr) 1 RGB output 1 DVI output
Audio	6 RCA / Cinch (3 pairs X Left & Right), 1 Optical digital audio output 1 Coaxial digital audio output
S-Video	1 output
RF input/output	2 input, 1 output RF antenna
VCR control	1 VCR control output
Modem	RJ 11 connector
CH 3/4 switch	Toggle switch Ch 3 or Ch 4
Resolution select switch	1080i / 720p / 480p/i
DVI, RGB / Y Pb Pr switch	DVI, RGB / Y Pb Pr
Access Card	1 Access Card slot

Specifications are subject to change without notice.

Additional Information

RCA Satellite Product System or Receiver Limited Warranty

What your warranty covers:

- Defects in materials or workmanship.

For how long after your purchase:

- 90 days from date of purchase - Unit exchange, which includes parts and labor.
- 91 days to 1 year from date of purchase - Unit exchange, which includes parts only; you pay the labor.
- The warranty 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:

System

- During the initial 90 days:
Exchange the defective portion of your system with a new or, at our option, refurbished unit.
- After the 90 days and within one year:
Exchange the defective portion of your system with a new or, at our option, refurbished unit. We will charge you a flat exchange cost to replace the defective receiver. This charge covers the labor cost for its repair.

Receiver

- During the initial 90 days:
Exchange the defective receiver with a new or, at our option, refurbished unit.
- After the 90 days and within one year:
Exchange the defective receiver with a new or, at our option, refurbished unit. We will charge you a flat exchange cost to replace a defective receiver. This charge covers the labor cost for its repair.

How you get service:

- Call 1-800-679-4776 and have your unit's date of purchase and model/serial number ready. The model/serial number information is on the back of your receiver.
- A representative will troubleshoot your problem over the phone.
- If the representative determines that you should receive a replacement receiver you will be provided with a Service Request (SR) number and the location of a nearby exchange point if one exists. No returns will be accepted without the SR number.
- If you purchased a system which includes both an antenna and a receiver and the representative determines that your antenna/dish is defective they will arrange for its repair or replacement.
- 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.

Option I:

1. Provide your Discover, MasterCard or Visa account number and expiration date to your phone representative. This is for security purposes only and your account will not be charged at this time.
2. We will send you a replacement unit.
3. If you return the unit to us within 14 days from the date you were provided a SR number, only items not covered by warranty will be charged to your account. If your unit is not received within 14 days, the suggested retail value of the receiver will be charged to your credit card. This amount will be credited, less a handling fee, if the unit is subsequently received.
4. Ship your defective unit back to us using the replacement unit's carton. Shipping instructions will be included on the carton along with your SR number which will allow you to easily ship the unit back to us. Make sure you insure your shipment in case of damage or loss. Include with the shipment:
 - Evidence of purchase date such as a bill of sale.
 - A brief note describing your receiver problem.
 - Your name, address and phone number.

Option II:

1. For a fee, we will send a replacement unit to our exchange point.
2. The exchange location will notify you of its arrival.
3. Take your unit and evidence of purchase date, such as a bill of sale, to the exchange location and you will be provided the new or refurbished unit. Please retain all accessories such as the remote control hand unit and access card.
4. If the repairs are covered by your warranty, you will not be billed.

Thomson assumes no responsibility for warranty shipments from the customer to the factory if not shipped in the manner prescribed by Thomson.

Additional Information

To receive a replacement receiver after we have received your unit:

- Write the SR number on the outside of the carton used to return the unit. Make sure you insure your shipment in case of damage or loss.
- Carefully pack the unit using the original box and packing material if possible. Please retain all accessories that were included with your unit such as the remote control hand unit and access card.
- Include with the shipment:
 1. Evidence of purchase date such as a bill of sale.
 2. A brief note describing your receiver problem.
 3. Your name, address and phone number.
- The representative will advise the address to mail a cashier's check or money order for payment if there are any out of warranty labor or parts charges, and you elect not to use your credit card.
- After we receive your product, a new or refurbished unit will be shipped to you.

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.)
- Acts of nature, such as but not limited to lightning damage.
- Adjustment of customer controls.
- Damage from misuse or neglect.
- A unit that has been modified or incorporated into other products or is used for institutional or other commercial purposes.
- Batteries.
- Units purchased, serviced or operated outside the continental U.S.A. and Alaska.
- For systems intended for use in Alaska, this warranty does not cover installation or the dish antenna. It only covers the Digital Television System receiver.
- Loss of programming.
- Installation.
- Shipping damage if the unit was not packed and shipped in the manner prescribed by Thomson.
- Storage fees may be charged by the exchange point if you fail to pick up the replacement unit in a timely manner.

Product Registration:

- Please complete and mail the Product Registration Card packed with your product. 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 THOMSON INC., ITS AGENTS OR EMPLOYEES SHALL CREATE A WARRANTY 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. THOMSON 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 product outside the United States:

- This warranty does not apply. See your dealer for warranty information.

Additional Information

Accessory Information

There are various accessories available to complement your HDTV Tuner. 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, country, and locality to which the merchandise is being sent.

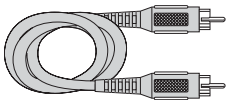
How To Order

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.

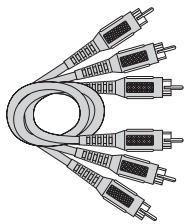
1-800-338-0376

You can buy some accessories on-line at

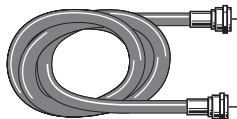
www.rca.com



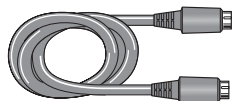
Standard Audio/Video cable with RCA-type phono plugs.
VH83, price: \$5.95



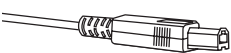
Stereo VCR Dubbing Audio/Video Cable is a triple gold-tipped cable that lets you connect the video and audio jacks of stereo components.
VH84 (6-ft), price: \$9.95



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



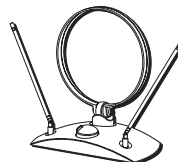
S-Video Cable has multi-pin connectors on each end for connecting S-Video components to your TV.
VH976 (6-ft), price: \$7.95
VH913 (12-ft), price: \$14.95



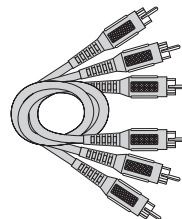
Optical Digital Audio cables help you connect to a component with an Optical Audio In jack, such as a Dolby Digital decoder or receiver.
DV3 (3-ft), price: \$15.95
DV6 (6-ft), price: \$19.95



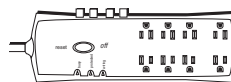
Remote Control (RCR160SALM1) This is the remote control that came packed with your TV. Replacements or spares can be ordered as needed. Part number: ?????, price: \$?????



Amplified VHF/UHF/FM Antenna allows you to switch from the antenna signal to cable or satellite easily without disconnecting antenna.
ANT200, price: \$49.95



Component Video Cable is a triple cable used to connect the HDTV Tuner to a TV or monitor with component video inputs.
DT6DC (6-ft), price: \$24.95
DT12DC (12-ft), price: \$34.95



Surge Protector provides eight outlets, modem/fax/phone line protection, audible alarm and a \$100,000 Surge Equipment Guarantee.
SCTV4000C, price: \$49.95

**INDEX TO BE COMPILED UPON
FINAL APPROVAL**

Visit the RCA website at www.rca.com

If your high-definition receiver needs service, please contact your dealer or the nearest Service Center from the Yellow Pages. Please do not send any products to the Indianapolis address listed in this manual or on the carton. This will only add delays in service for your product.

Thomson Inc.
10330 North Meridian Street
Indianapolis, IN 46290

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