

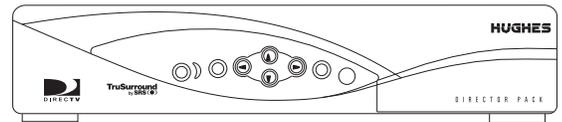
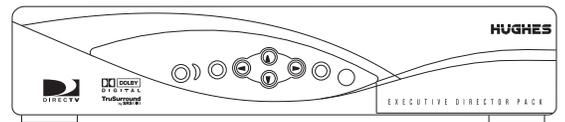


HUGHES

DIRECTV Digital Satellite Receiver

Owner's Manual

*Models GAEB0A
GCEB0A*



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DIRECTV® Programming – ACTIVATION OF PROGRAMMING MAY BE SUBJECT TO CREDIT CARD APPROVAL AND REQUIRES VALID SERVICE ADDRESS, SOCIAL SECURITY NUMBER, AND/OR MAJOR CREDIT CARD. Programming subject to change. You must be physically located in the United States (U.S.) to receive DIRECTV service. DIRECTV services are not available outside the United States. DIRECTV programming is sold separately and independently of DIRECTV System hardware. A valid programming subscription is required to operate DIRECTV System hardware. Activate your DIRECTV programming today at 1-800-DIRECTV (1-800-347-3288).

DIRECTV System hardware and installation

To arrange for professional installation of your DIRECTV System, ask questions, or resolve problems related to your DIRECTV System, contact your dealer. If you need more information, please contact our technical support line at 1-800-274-8995.

Please record the following information for warranty

System Model #: HSYS- _____

Receiver Model #: _____

Receiver Serial #: _____

Access Card #: _____

LNB Serial #: _____

Important Safety Instructions

For your safety and protection, read this entire Owner's Manual before you attempt to install or use your satellite system. In particular, read this safety section carefully. Keep this safety information where you can refer to it if necessary.

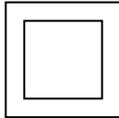
Heed Cautions—All cautions on the product and in the operating instructions should be adhered to.

Follow Instructions—All operating and use instructions should be followed.

THESE CAUTIONS AND SYMBOLS APPEAR ON THE BACK OF THE RECEIVER

WARNING or CAUTION

Double insulated systems are protected by additional board clearances and creepage, so that the unit will not be a safety hazard to the end-user.



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.

INSTALLATION

Polarization – This DIRECTV Receiver is equipped with a plug that will fit into the power outlet only one way. Do not modify the plug defeating this feature. If the plug does not fit, contact your electrician to replace your outlet. To prevent electric shock, do not use this plug with an extension cord or outlet unless you can fully insert the blades without blade exposure

Power Sources – Operate this DIRECTV Receiver only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

Power-Cord Protection – Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.

Ventilation – Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

The openings should never be blocked by placing the product on a bed, sofa, rug, or similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.

For electrical safety, power line operated equipment or accessories connected to this unit should bear the UL listing mark and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.

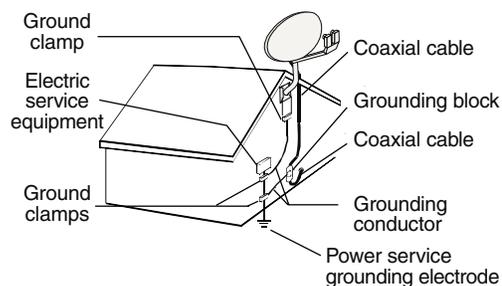
Heat—Do not Install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Accessories – To avoid personal injury or damage to the DIRECTV Receiver, do not place the DIRECTV Receiver on any unstable cart, stand, table, or bracket. Any mounting of the product should follow the manufacturer's instructions.

Attachments – Do not use attachments unless recommended by DIRECTV as they may cause hazards.

Satellite Dish Antenna Grounding – The outdoor satellite dish antenna used to receive satellite signals and the cable used to connect the satellite dish antenna to the indoor receiving unit are required to comply with local installation codes and the appropriate sections of the National Electric Code (NEC) and in particular Article 810-15, which covers proper installation and grounding of television receiving equipment, as well as to Article 820-33, which specifies that the satellite dish antenna cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical. These codes require proper grounding of the metal structure of the outdoor satellite dish antenna and grounding of the connecting cable at a point where it enters the house (or other building). If you are having a professional installer perform the installation, the installer must observe installation codes. This manual contains instructions on how to make the installation in compliance with the NEC. If additional local installation codes apply, contact local inspection authorities.

Example of Antenna Grounding according to the National Electrical Code instructions contained in "Radio and Television Equipment".



Note: The DIRECTV Receiver shall be grounded through the satellite/local antenna cable before plugging into the telephone jack, and it must remain grounded thereafter.

Water and Moisture – WARNING! To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet, disconnect the antenna and cable system, and disconnect it from the telephone line. This will prevent damage to the product due to lightning and power-line surges.

Television Antenna Information – Installing an outdoor antenna can be hazardous and should be left to a professional antenna installer. Do not locate the outside antenna system in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, take extreme care to keep from touching such power lines or circuits, as contact with them might be fatal. If an outside antenna is connected to the DIRECTV Receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. This DIRECTV Receiver is equipped with a plug that will fit into the power outlet only one way. Do not modify the plug defeating this feature. If the plug does not fit, contact your electrician to replace your outlet. To prevent electric shock, do not use this plug with an extension cord or outlet unless you can fully insert the blades without blade exposure. Section 810 of the NEC, NFPA No. 70 1987, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of the grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Power Lines – Extreme care must be taken when installing and adjusting or maintaining the outdoor antenna and connecting cable, especially in the vicinity of overhead power lines, electric lights, or power circuits. When installing the outdoor antenna or cable, extreme care should be taken to keep from touching or approaching such power lines or circuits, as contact with them might be fatal.

Cleaning – Unplug this receiver from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use only a damp cloth for cleaning.

Object and Liquid Entry – Never push objects of any kind into this DIRECTV Receiver through openings as they may touch dangerous voltages or "short out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the receiver. No objects filled with liquids, such as vases, shall be placed on the apparatus.

SERVICE

Servicing—Do not attempt to service this DIRECTV Receiver yourself as opening or removing covers may expose you to dangerous voltage or other hazards. There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

Conditions Requiring Service—Unplug the DIRECTV Receiver from the wall outlet and refer servicing to qualified personnel under the following conditions:

- When the power supply cord or plug has been damaged.
- If liquid has been spilled on, or objects have fallen into, the DIRECTV Receiver or it has been exposed to water.
- If the DIRECTV Receiver does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Other adjustments may result in damage and will often require extensive work by a qualified technician to restore the DIRECTV Receiver to its normal operation.
- If the DIRECTV Receiver has been dropped or the cabinet has been damaged.
- When the DIRECTV Receiver exhibits a distinct change in performance.

Replacement Parts—When replacement parts are required, have the technician verify that the replacements being used have the same safety characteristics as the original parts.

Use of replacement parts specified by the manufacturer can prevent fire, electric shock, or other hazards.

Safety Check—Upon completion of any service or repairs to this DIRECTV Receiver, ask the service technician to perform safety checks recommended by the manufacturer to determine that the DIRECTV Receiver is in safe operating condition.

Multi-satellite capable if used with a DIRECTV Multi-Satellite Dish Antenna, not included.

Your DIRECTV 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 Upgrade menu to find a schedule of upgrades or modifications planned by DIRECTV.

With this receiver (GAEB0A, GCEB0A) and the proper satellite dish antenna, you may be able to subscribe to 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.

Federal Communications Commission (FCC) Regulatory Information

Declaration of Conformity—Standards to which Conformity is declared: FCC Part 15

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.**

- Responsible Party's Name: Hughes Network Systems, Inc.
Address: 11717 Exploration Lane, Germantown, MD 20876
Telephone: 1-800-274-8995
- Trade Name: Hughes
- Type of Equipment: Satellite Receiver
- Model Numbers: GAEB0A, GCEB0A, HRMC-8, HRMC-9

Federal Communications Commission (FCC)—This equipment complies with both Part 15 and Part 68 of the FCC rules

Part 15 Compliance—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 removing and applying power to the equipment, the user is encouraged to try to correct the interference by one or more of the following measures:

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

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: "How to Identify and Resolve Radio and TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC.

To meet FCC requirement, only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with Class B limits may be attached to this device. Operation with noncertified peripherals is likely to result in interference to radio and TV reception.

To meet FCC requirements, shielded cables are required to connect the device to a personal computer, peripheral, or other Class B certified device.

Part 68 Compliance—This equipment complies with Part 68 of the FCC rules. On the modem card is a label that contains, among other information, the FCC registration number and Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to the Telephone Company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in 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). To be certain of the number of devices that may be connected to the line, contact the Telephone Company to determine the maximum number of RENs for the calling area.

If the DIRECTV Receiver (Model Numbers: GAEB0A, GCEB0A) terminal equipment 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 is not 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 request that you remove the equipment from the network until the problem is resolved.

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 the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with the DIRECTV Receiver (Model Numbers: GAEB0A, GCEB0A) equipment, please contact

Hughes Customer Care Center
Germantown, MD 20876
Telephone Number: 1-800-274-8995
<http://www.hns.com>
email: hughestv@hns.com

for repair and/or warranty information.

Hughes Network Systems must make any necessary repairs to the modem portion of this equipment in order to maintain valid FCC registration. Do not attempt to repair or service your modem. Return it to Hughes Network Systems.

No repairs can be made by customers. All repairs must be done by Hughes Network Systems Authorized Service Centers (ASCs). This equipment cannot be used on public coin service provided by the Telephone Company. Connection to Party Line Service is subject to state tariffs.

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You may connect a second DIRECTV Receiver to the unused LNB output. These instructions also apply to an additional receiver.

This chapter explains how to:

- Connect the DIRECTV® satellite dish antenna to your DIRECTV Receiver (*this page*).
- Connect your DIRECTV Receiver to your TV (*see page 3*).
- Find antenna azimuth and elevation settings for your location (*see page 4*).
- Test the DIRECTV System operation (*see page 5*).

How to use this manual

This manual uses these typographical conventions to help clarify instructions:

Text Example	Description
Click Cancel .	On-screen command buttons that execute an action.
Highlight the <i>Messages</i> button.	Pull-down and pop-up box selections, or other option buttons within a menu pane.
Press the INFO button. Connect a pair of A/V cables to the AUDIO IN jack.	Remote control buttons, or receiver front panel. Names of equipment cable connections on equipment.
Highlight the Options tab.	Menu tab names
Display the MAIN MENU .	Menu and pane names, names of pop-up and sub-menu panes.

Setup overview

At this point, you should have:

- Mounted the DIRECTV satellite antenna and pointed it in the general direction of the satellite.
- Grounded the antenna as described in your antenna installation instructions.
- Attached RG-6 coaxial cable(s) to the antenna LNB connector(s).
- Routed the other end of the antenna cable to the back of your DIRECTV Receiver.
- Placed the DIRECTV Receiver accessible to a telephone modular jack.

Ensure that you have completed these procedures, then continue to the next page to begin installing the DIRECTV Receiver.

Attach the antenna cable You can configure your system several ways, depending on what additional components (such as a VCR, DVD player, or A/V receiver) you select. For now, however, use the simplest configuration to check your antenna and cabling.

- Ensure that the DIRECTV® Receiver is **not** plugged into an electrical outlet.
- Attach the RG-6 coaxial antenna cable to the **SATELLITE IN** connector on the back of the DIRECTV Receiver. Refer to the appropriate figure below and on the next page.

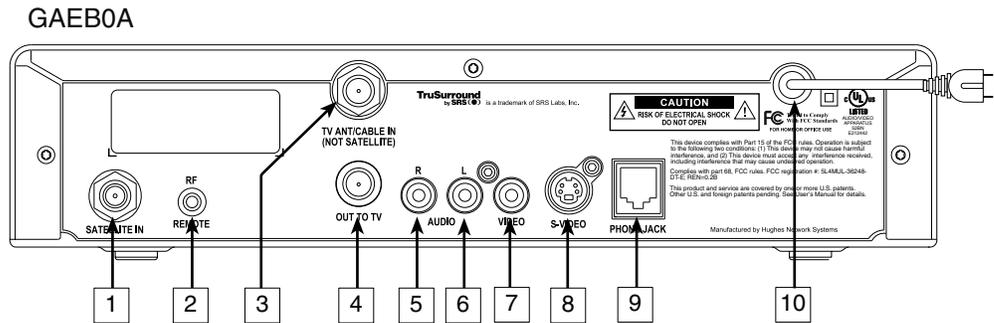


Table 1: Rear panel connections - DIRECTV Receiver model GAEB0A

1	SATELLITE IN connector	6	AUDIO OUTPUT (L) jack
2	RF REMOTE antenna jack	7	VIDEO OUTPUT jack
3	TV ANTENNA/CABLE IN connector	8	S-VIDEO jack
4	OUT TO TV connector	9	TELEPHONE JACK
5	AUDIO OUTPUT (R) jack	10	AC POWER CORD

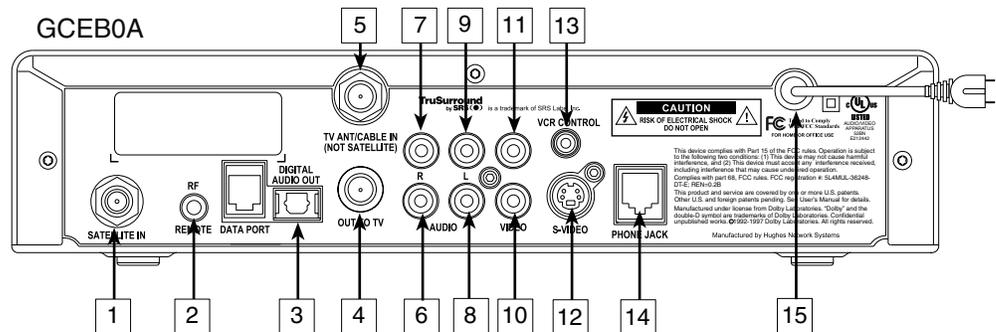


Table 2: Rear panel connections - DIRECTV Receiver model GCEB0A

1	SATELLITE IN connector	9	AUDIO OUTPUT (L) jack
2	RF REMOTE antenna jack	10	VIDEO OUTPUT jack
3	DIGITAL AUDIO OUTPUT optical jack	11	VIDEO OUTPUT jack
4	OUT TO TV connector	12	S-VIDEO jack
5	TV ANTENNA/CABLE IN connector	13	VCR CONTROL cable jack
6	AUDIO OUTPUT (R) jack	14	TELEPHONE JACK
7	AUDIO OUTPUT (R) jack	15	AC POWER CORD
8	AUDIO OUTPUT (L) jack		

Connect your TV Depending on your TV, you can connect it to the receiver in one of three ways:

- S-Video cable (*best picture quality*) or
- Video cable (*very good picture quality*) or
- Coaxial cable (*good picture quality*)

In addition to your video connection, use a set of audio cables (L/R) to provide stereo sound. If your TV does not have audio jacks, you will hear monophonic audio. This is acceptable for the procedures described in the next section.

To connect your TV to the DIRECTV® Receiver:

15. Select the appropriate connection:

If your TV has an S-Video jack –

- Use an S-Video cable (not supplied) to connect the DIRECTV Receiver's S-VIDEO jack to the TV's S-VIDEO jack.
- Use audio cables to connect the DIRECTV Receiver's AUDIO jacks to the TV's AUDIO IN jacks.

If your TV has RCA-type A/V connectors –

- Connect the DIRECTV Receiver's AUDIO and VIDEO jacks to the TV's A/V IN jacks.
- If your TV has only one AUDIO IN jack, connect the receiver's AUDIO L jack to the TV AUDIO IN jack.

If your TV only has an RF (coaxial) connector –

- Connect the DIRECTV Receiver's OUT TO TV connector to the TV's VHF/UHF IN or RF IN jack.

16. Connect one end of the telephone line cord provided into the DIRECTV Receiver's PHONE JACK.

17. Connect the other end into a modular telephone outlet.

18. Plug the TV into an electrical outlet.

19. Plug the DIRECTV Receiver power cord into an electrical outlet. If the front panel Power indicator does not illuminate, press the POWER button.

Onscreen Menu Icons

These icons appear in onscreen menus and are used throughout this manual:

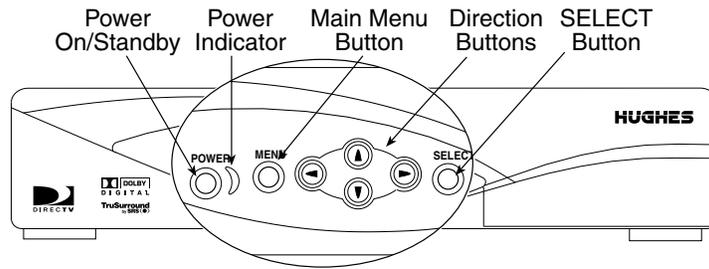
 **Toggle or Step** – Press SELECT to toggle (switch) a setting from “ON” to “OFF” or step through the available choices each time you press SELECT.

 **List of Options** – Menu button will display a list of choices in a pop-up menu when you press SELECT.

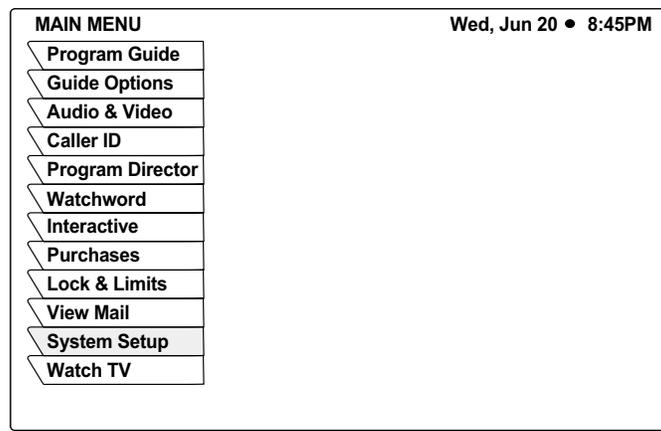
 **Series of Boxes** – Multiple screens will appear in a series requesting you to enter numbers and/or letters for the particular feature when you press SELECT.

Determine antenna angles

This section explains how to determine the proper antenna position. This is expressed in degrees of *azimuth* (horizontal) and *elevation* (vertical). Use the receiver front panel controls shown below to complete this procedure.



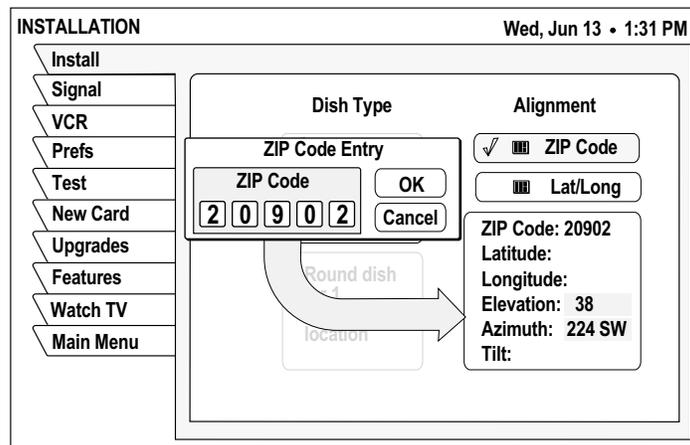
1. Press the front panel MENU button to display the **MAIN MENU** below.
2. Use the ▼ button to highlight the **System Setup** tab.



Main Menu tabs

3. Press the front panel SELECT button.
4. The **INSTALL** menu allows you to determine the correct antenna position using your 5-digit ZIP code. Enter your ZIP code and press SELECT. The correct azimuth and elevation angles appear as shown below.
5. Use these values to properly align your dish antenna.

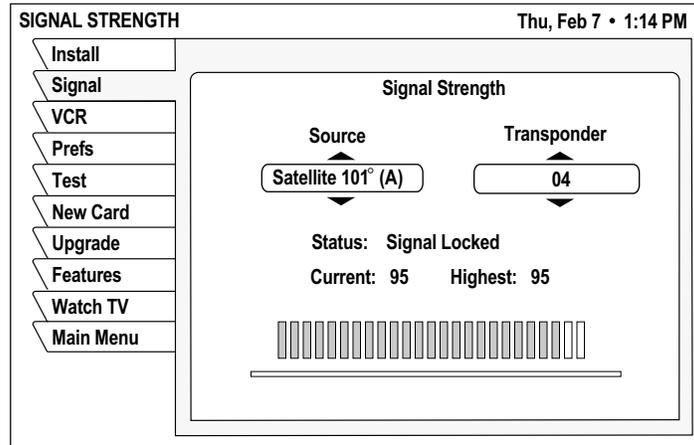
Tilt angle also appears if you have select an Oval Antenna from the Dish Type menu.



Finding antenna settings based on ZIP code

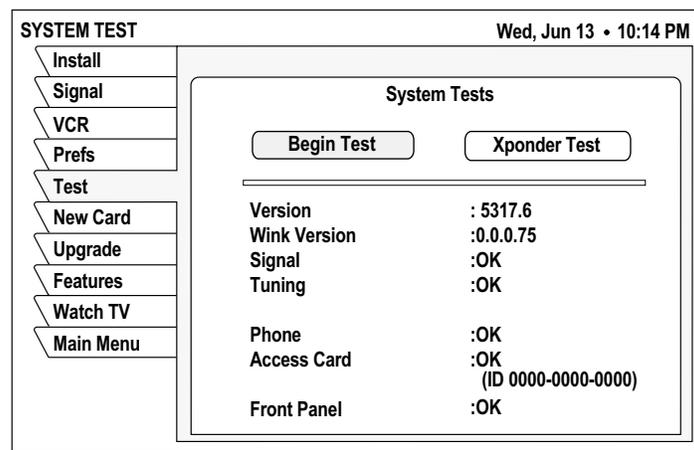
Testing your system When you have aligned your dish antenna to the azimuth and elevation angles shown on the **Install** pane:

1. Highlight the **Signal** tab.
2. Use the ► button to highlight the **Source** pull-down menu
3. Signal quality is indicated by a scale at the bottom of the pane and with an audible indication. The frequency and tempo of the tone increase with signal strength.



4. Highlight the **Transponder** pull-down menu.
5. You may need to select another transponder to achieve the highest signal indication.
6. Select the transponder providing the best signal.
7. Use the ▼ button to highlight the **Test** tab.
8. Highlight **Begin Test** and press the SELECT button.

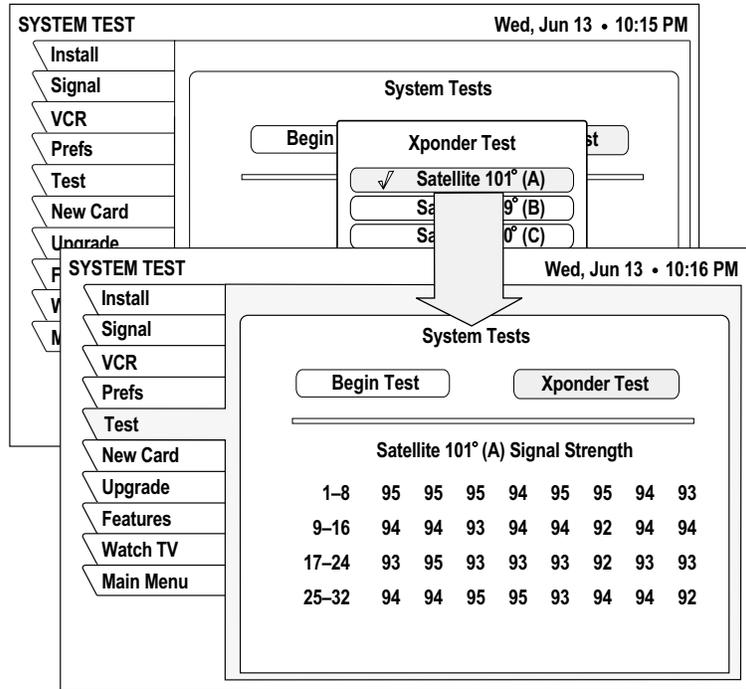
Results appear within a few seconds and should resemble those in the figure. If your test results are much different from those shown in the figures, or you receive no signal indication, refer to page 6.



To perform the Transponder test:

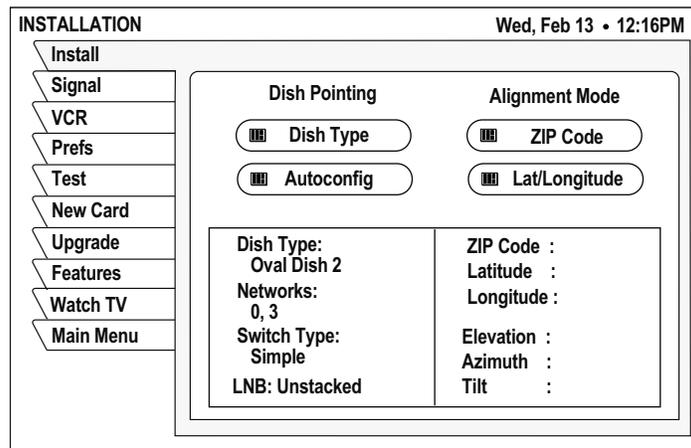
1. Move the highlight to the **Xponder Test** pull-down menu.
2. Press the SELECT button.

3. Press **SELECT** again to test the first selection on the pop-up menu.



Your results will differ slightly from those shown, depending on your geographic location and specific installation. However, if your results are very different from these examples (i.e. rows of zeros or single-digit numbers):

- Highlight the **Install** tab on the **INSTALLATION** menu. Verify your settings.



Installation pane

- Re-enter your ZIP code if necessary to verify you have used the correct antenna pointing parameters for your location.
- Check your cable connections.
- Ensure the DIRECTV® Receiver is connected to a modular telephone jack.

Once you have successfully obtained a signal and your test results resemble those shown in the figures, call DIRECTV (or your subscription service provider) to activate service if you have not done so already.

You can configure your DIRECTV® Receiver several ways depending on the additional audio/video components you want to use.

This chapter explains how to:

- Connect a terrestrial (broadcast) TV antenna (*this page*).
- Connect the optional RF remote control antenna (*this page*).
- Connect and set-up a VCR (*see page 8*).
- Integrate the DIRECTV Receiver into your existing audio or A/V system (*see page 10*).

Connecting components

At this point, you should have:

- Verified that your system is operating properly.
- Connected your DIRECTV Receiver to your TV.
- Unplugged all components from electrical outlets.

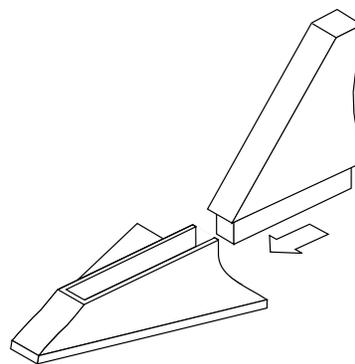
Connect a terrestrial antenna

You can connect a terrestrial (broadcast) TV antenna to your DIRECTV Receiver by connecting it to the DIRECTV Receiver's TV ANT/CABLE IN jack (refer to figures on page 2). The remote control INPUT button allows you to switch between DIRECTV® programming and input from the terrestrial antenna.

Connect the RF remote control antenna

The DIRECTV Receiver uses an optional RF (radio frequency) remote control antenna that allows you to control your receiver from other rooms in your house.

1. Slide the antenna into the base as shown. No tools are required.



Assembling the optional RF antenna

2. Plug the RF remote control cable into the RF REMOTE connector on the DIRECTV Receiver rear panel (refer to figures on page 2).
3. Extend the cable and place the antenna in the desired location.

To achieve the best operating range from the remote control, position the antenna as high and as far away from metal objects as possible.

Connecting a VCR

Follow these instructions to connect your TV and VCR to the DIRECTV® Receiver. Connect the satellite antenna RG-6 coaxial cable to the DIRECTV Receiver's SATELLITE IN jack (refer to figures on page 2).

1. Depending on your VCR, select the appropriate connection to the DIRECTV receiver:

If your VCR has A/V connectors –

- Connect the DIRECTV Receiver's AUDIO and VIDEO jacks to the VCR's A/V IN jacks.

If your VCR only has an RF (coaxial) connector–

- Connect the DIRECTV Receiver's OUT TO TV connector to the VCR's VHF/UHF IN or RF IN jack.
- If your VCR has only one AUDIO IN jack, connect the receiver's lower (mono) AUDIO L jack to the VCR's AUDIO IN jack.

2. Depending on your TV and VCR, select the appropriate method to the connect the VCR to the TV:

If your TV and VCR have A/V connector –

- Connect the DIRECTV Receiver's AUDIO and VIDEO jacks to the TV's A/V IN jacks.

If your TV or VCR only has an RF (coaxial) jack –

- Connect the VCR's VHF/UHF OUT jack to the TV's VHF/UHF IN jack.

3. Plug the TV, VCR, and DIRECTV Receiver power cords into an electrical outlet.

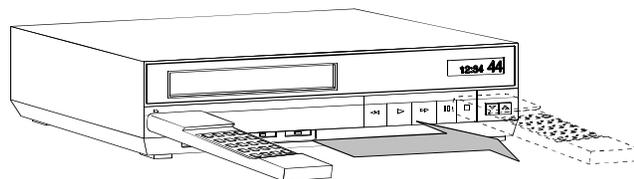
Connect the VCR Control Cable

(Model GCEB0A only) The DIRECTV Receiver can control your VCR for unattended recording, using the VCR Control Cable provided

1. Plug the VCR control cable into the rear panel VCR CONTROL jack.
2. Temporarily position the other end over the VCR's remote control sensor (normally a small dark plastic window on the VCR front panel).

The remote control sensor may be labeled or identified in your VCR manual. If it is not identified, scan the front of the VCR with your VCR remote control:

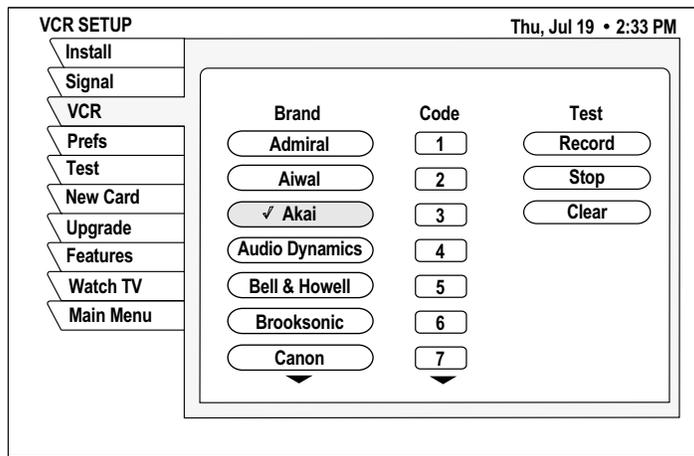
3. Hold the VCR remote control about ½-inch (1.3 cm) from the front left side.
4. Slowly move the remote control to the right as shown in the figure.
5. Repeatedly press the remote control's power key on and off.



Scanning for the VCR remote control sensor

6. When your VCR responds to your pressing the remote control power, note the position. Temporarily tape the emitter to the position you marked until you verify that it works properly.

7. Test the VCR control feature as described below.
8. Remove the temporary mounting tape. Attach the emitter permanently with peel-and-stick backing. This will not interfere with normal VCR operation. The **VCR SETUP** menu provides the settings to allow the DIRECTV® Receiver to communicate with your VCR.



VCR SETUP menu pane

9. Scroll through the VCR brands using the joystick ▲ and ▼ buttons. If you cannot find the correct code listed for your brand of VCR brand, try related brands that use the same code. Also, your VCR may respond to multiple codes.
10. Use the remote control SELECT button to try each code.
11. Alternate between this procedure and testing the code.

Test the VCR (Record/Stop)

This Record/Stop test verifies the specified brand and code controls your VCR. Before starting the test:

- Turn the VCR power on.
- Verify the VCR Control Cable is properly connected.
- Insert a recordable videotape into the VCR.

Signals coming from the remote control at the same time as signals coming from the VCR Control cable may provide unreliable test results.

Use the DIRECTV Receiver *front panel* controls, rather than the remote control, to test the codes.

Test the VCR **record** and **stop** commands. If either command does not function, try other codes shown for your VCR brand. If you are unsuccessful after trying *all* available codes, recheck your VCR Control Cable connections and IR emitter placement.

Connecting a home entertainment system

*The A/V receiver **must** be turned on in order to send the video signal to your TV.*

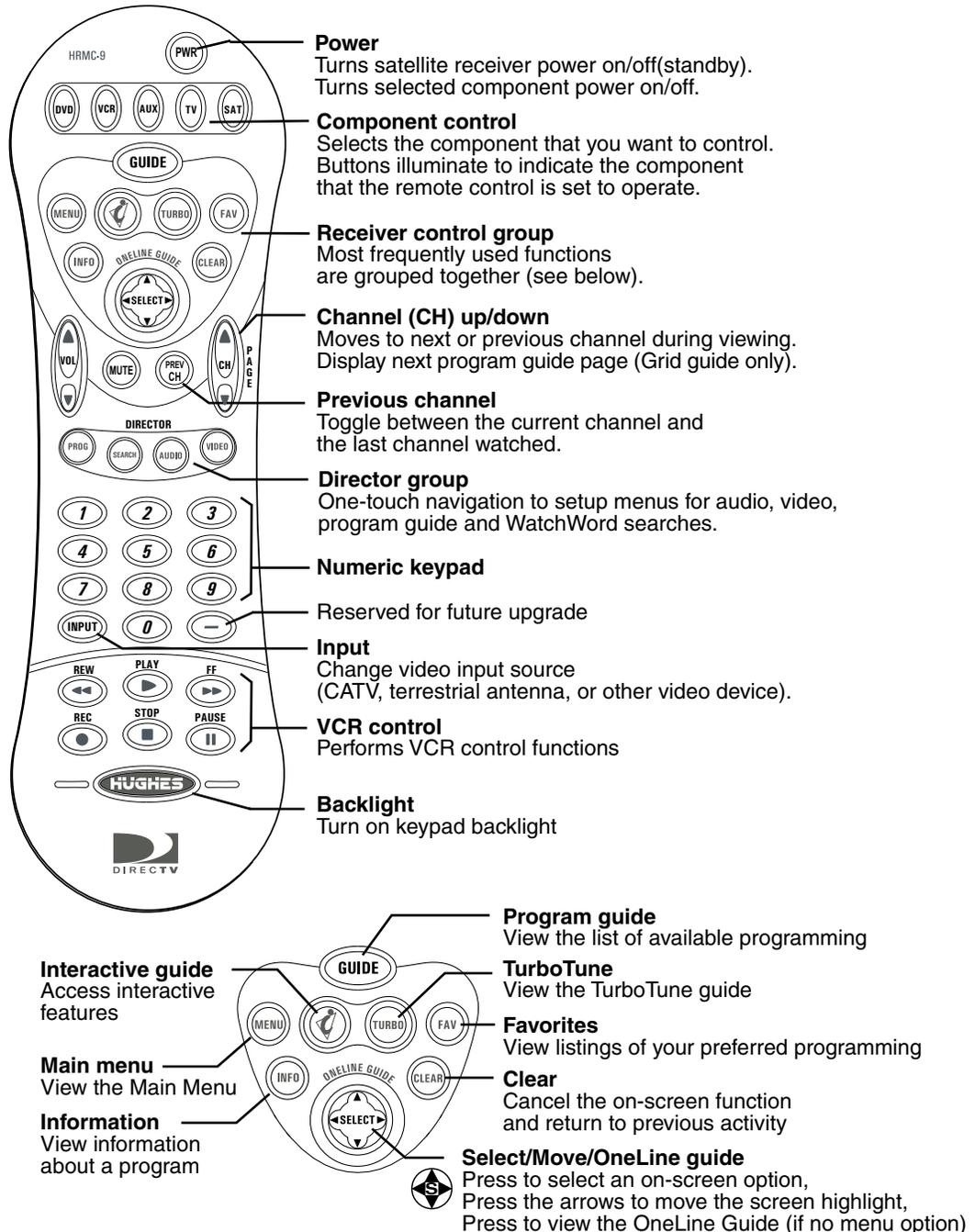
You can integrate the DIRECTV® Receiver into your entertainment system to take advantage of enhanced audio and video capability. Follow these instructions to connect your DIRECTV Receiver.

- To connect the DIRECTV Receiver to your audio system, use A/V cables to connect the satellite receiver to the audio receiver's AUDIO IN jacks.
 - Dolby Digital - With the GCEB0A model, you can enjoy programs that contain a Dolby Digital sound track. We recommend that you listen in surround sound for maximum enjoyment of these programs. You can connect the stereo outputs of the GCEB0A to a receiver that contains a Dolby Surround Pro Logic decoder. This will provide you with three audio channels in the front and a mono surround channel.
 - To take full advantage of Dolby Digital programming, connect the GCEB0A digital audio output to an external 5.1-channel Dolby Digital decoder or receiver. This provides you with three front channels, two independent surround channels, and a sub-woofer channel.
1. Connect the satellite antenna RG-6 coaxial cable to the DIRECTV Receiver's SATELLITE IN jack.
 2. Connect the DIRECTV Receiver's A/V jacks to the VCR and A/V receiver's A/V jacks.
 3. *AUX, optical connection, and digital output connections* – If your audio receiver has coaxial or optical digital connectors, connect the appropriate type of cable to the DIRECTV Receiver's DIGITAL AUDIO OUT for two-channel digital stereo. If your A/V receiver is also capable of decoding Dolby Digital, use this connection in order to listen in full 5.1-channel surround sound. Additional audio information begins on page 21.
 4. Connect the VCR's A/V OUT jacks to a pair of the A/V receiver's A/V IN jacks.
 5. Connect the A/V receiver's MONITOR OUT jack to the TV's VIDEO IN jack.
 6. Plug the components into an electrical outlet.

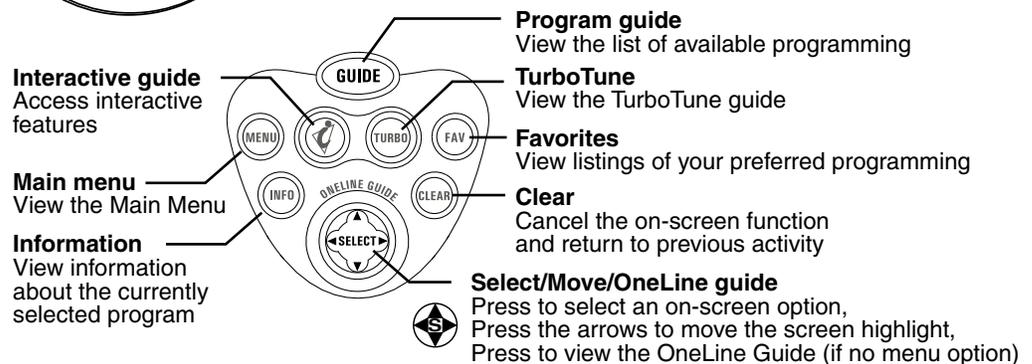
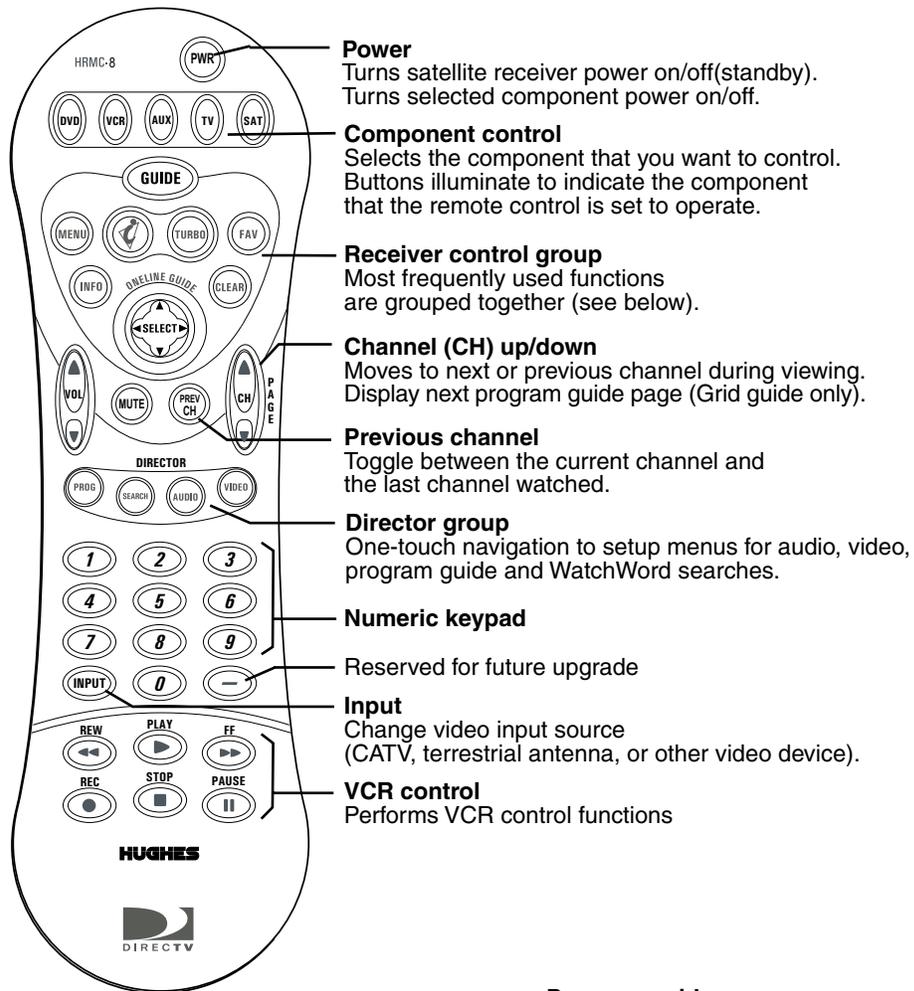
Note: If you have connected a VCR to your entertainment system in a way that routes the satellite receiver's signal to your VCR before it reaches the TV, you may see a distorted picture if you try to record a copy-protected program. A *Can't Tape* symbol in the screen banner identifies these programs. If this occurs, simply stop recording and the picture will automatically correct itself.

This chapter explains how to:

- Use the HMRC-8 and HMRC-9 remote control functions. (see page 13)
- Install and replace the remote control batteries. (see page 14)
- Program the remote to work with your system components. (see page 14)
- Access interactive programming features. (see page 15)



HMRC-9 Remote Control Function Quick Reference



HRMC-8 Remote Control Function Quick Reference

The DIRECTV® Receiver front panel buttons can provide the basic controls needed to access major DIRECTV System features. However, using the remote control simplifies accessing the basic system functions, enhances your system's capabilities, and provides convenient shortcuts to extended features. Additionally, most remote control buttons can also control other home entertainment system components.

Remote control functions



The *joystick* is the most versatile (and most used) remote control feature. Using only the joystick, you can perform virtually all on-screen functions including:

- Selecting a highlighted screen menu item.
- Moving the screen highlight (or *cursor*) up, down, left and right.
- Jumping directly to the OneLine™ Guide.
- Changing channels using the OneLine Guide.

Use the joystick to move up, down, left, or right through the on-screen displays. This  icon appears throughout this manual to instruct you to use the joystick to navigate through on-screen menus and guides. **SELECT** means press the joystick in the *center* to activate or choose a highlighted menu option.

Press the joystick up or down to display the OneLine guide while you are watching a program. When the OneLine guide appears, press the joystick up or down to step to the next higher- or lower-numbered channel.



Press the **GUIDE** button to display the current program guide. Press it a second time (while a program title is highlighted) to display the **Guide Options** menu.



Press the **INFO** button to display a brief description about the program you are viewing. For more details, press it again to display the *Information Banner*. The **INFO** button provides scheduling information (and pay per view purchase information) about the program highlighted in the program guide. See Chapter 4 – *Using program guides*, on page 27 for more information.



Use the **CHANNEL (CH)** button to move up or down to the next available channel in the OneLine Guide or scroll through a page of program guide selection.



Press the **CLEAR** button to exit from any on-screen guide, remove banners, or terminate an action.



The **INPUT** button allows you to select programming from additional program sources connected to the satellite receiver such as a DVD player, VCRs, or a terrestrial TV antenna signal. Repeatedly press **INPUT** to cycle through each available input source in your system.



Press the **SAT** component select button to control the DIRECTV® Receiver. The other component select buttons indicate the devices they control. You can program the **AUX** button to control another digital device such as an audio CD player.

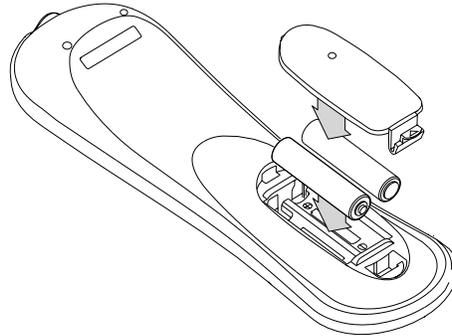


The **DIRECTOR** buttons provide convenient shortcuts to find programming and adjust system features to suit your personal preferences.

Installing remote control batteries

To install or replace the remote control batteries:

1. Locate the battery compartment on the back of the remote control.
2. Remove the battery compartment cover.
3. Insert two “AAA” size batteries as shown, observing the correct polarity.
4. Replace the battery compartment cover.

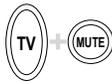


Installing batteries in the remote control

Programming the remote control

You can operate your TV, VCR, and Audio/Video receiver using your HRMC-8 or HMRC-9 remote control. Use the *Code Scanning* or *Code Entry* method to program the remote control. Code scanning may be more time-consuming, but you don't need to know manufacturer's control codes. Using the Code entry method may be quicker, but you'll need to know the correct manufacturer's control codes for each component you want to operate.

1. Aim your remote control at the component you want to use.
2. Hold down the desired device button (TV, for example).
3. Press the MUTE button for one second.
4. Release both buttons together.
5. The device button (in this example, the TV button) glows and remains lit. If the button does not light, repeat the previous steps.
6. Use one of the two programming methods described above.



Code scanning

To use this method:



1. Repeatedly tap the top part of the CHANNEL (CH) button.
2. Continue to step through the codes until the component turns off, indicating you have found the correct component code. If you accidentally pass a code that responds or realize you may not have been aiming the remote control at the component, tap the lower part of the CHANNEL (CH) button to step backward through the codes.
3. Press the remote control POWER button to verify the proper code by turning the device on and off.
4. Press the device button (in this example, TV) again to lock in the code.

Code Entry To use this method:

1. Find the three-digit code or codes for the type and brand of the component you want to control (in this example, TV). Refer to Appendix B – *Manufacturers device control codes*, on page 43.
2. If several codes are listed, you may have to try some or all of them. After entering a code, press the remote control's POWER button to test it. The correct code turns the device on and off.
3. Press the device (DVD, VCR, AUX, TV, SAT) button again to lock the code.

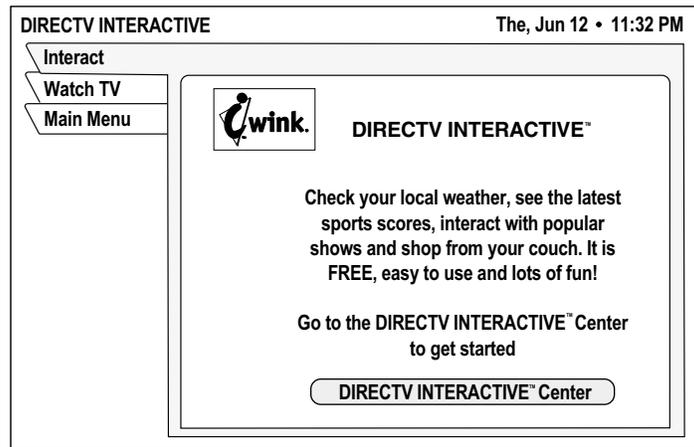
Using DIRECTV INTERACTIVE™

powered by Wink Communications®



DIRECTV INTERACTIVE™ powered by Wink Communications® is a free, easy-to-use service that allows you to interact with the television shows and advertisements. When the blinking  symbol appears in the upper left part of your screen, you know that the program you're watching has been enhanced with DIRECTV INTERACTIVE.

Simply press the  button on your remote control. You can use your remote control to access up-to-the-minute sports scores, news and weather, get program trivia, respond to offers during commercials, and purchase products, all while watching TV.



Select the **DIRECTV INTERACTIVE Center** menu bar, then follow the simple directions provided on the subsequent screens.

This chapter describes:

- How to find the menus you need to perform common tasks (*this page*).
- Using the Program Director (*see page 20*).
- How to purchase pay per view events (*see page 18*).
- How to set and modify preferences (*see page 21*).

The table below lists the **MAIN MENU** tabs, their submenus, and what they do.

Menu function overview

Main Menu tab	Screens (see page)	If you want to:
Program Guide	Program Guide	<ul style="list-style-type: none"> • View and modify the program guide.
Guide Options	Theme (<i>page 21</i>) Times (<i>page 36</i>) Favorites List (<i>page 33</i>) Favorites Setup (<i>page 33</i>) Set Options (<i>page 21</i>) Set Turbo (<i>page 31</i>)	<ul style="list-style-type: none"> • Change the name of a program list. • Change the period of time shown in the program guide • Create/edit up to four channel lists (Fav. A, Fav. B, Fav. C, Family) • Create a program listing that contains selected channels • Guide Options: <ul style="list-style-type: none"> – Guide style (grid or Logo) – Picture in guide, zoom (on or off) – Multi-Color guide (on or off) – Channel Sort (numeric or alpha) – Filters, (temporary or persistent) – Reset options to the default selections – Set and edit TurboTune guide channels
Audio & Video	Audio Adjustment (<i>page 21</i>) Video Adjustment	<ul style="list-style-type: none"> • Set Default Audio language • Set Alternate Audio language • Set left/right audio balance • Select 4:3 or 16:9 screen ratio • Center menus on your monitor (up/down and right/left)
Caller ID	Caller ID (<i>page 19</i>)	<ul style="list-style-type: none"> • See the names and telephone numbers of recent callers
Program Director	Schedule (<i>page 18</i>)	<ul style="list-style-type: none"> • Automatically tune to programs for viewing or taping
WatchWord	Setup (<i>page 23</i>) Results (<i>page 23</i>).	<ul style="list-style-type: none"> • Search for programming using specific words • Display search results
Interactive	DIRECTV INTERACTIVE™ (<i>page 15</i>)	<ul style="list-style-type: none"> • Access interactive programming features
Purchases	Upcoming & Past Purchases (<i>page 18</i>)	<ul style="list-style-type: none"> • View a list of scheduled pay per view event • Display recently purchased pay per view events
Lock & Limits	Lock (<i>page 37</i>) Fav Setup (<i>page 33</i>) Rating (<i>page 38</i>) Limits (<i>page 39</i>)	<ul style="list-style-type: none"> • Lock and unlock the system • Set viewing times and maximum viewing hours • Create/edit up to four channel lists (Fav. A, Fav. B, Fav. C, Family) • Set maximum program rating allowed for viewing • Select programming content to be shown in the program guide
View Mail	Mail (<i>page 19</i>)	<ul style="list-style-type: none"> • Read messages from DIRECTV
System Setup	Install (<i>page 2</i>) Signal (<i>page 5</i>) VCR (<i>page 8</i>) Prefs (<i>page 21</i>) Test (<i>page 5</i>) New Card Upgrade Features	<ul style="list-style-type: none"> • Determine proper antenna azimuth and elevation setting • Test signal reception • Setup VCR for unattended recording • Test system operation • Prepare a new access card • Display upgrade status and history • Display current receiver features

Purchasing pay per view (PPV)

Select the **Purchases** menu tab to display lists of recently viewed and advance purchased pay per view events. You can choose **PAST PURCHASES** and **UPCOMING PURCHASES**. The event channel, title, start date and time, and cost is shown for each purchase.

The screenshot shows a menu titled "PAST PURCHASES" with a timestamp "Thu, Jul 19 • 2:54 PM". On the left is a vertical menu with options: "Upcoming", "Past", "Watch TV", and "Main Menu". The "Past" option is selected, leading to a "Purchase History" section. This section contains two tables: "Recently viewed event" and "Previously viewed event".

Recently viewed event			
1/12	9:00PM	102	\$2.99

Previously viewed event			
2/12	8:00PM	140	\$29.99

Pay per view purchases list

The **PAST PURCHASES** pane shows recent pay per view events charged to your account. You cannot remove listed events. The list does **not** show:

- events purchased, but later canceled.
- purchased, cancelable events to which the DIRECTV® Receiver never tuned.
- events ordered by calling DIRECTV.

The **UPCOMING PURCHASES** pane displays:

- PPV events you have purchased but not yet viewed
- PPV events purchased but never viewed.

Events ordered by calling DIRECTV do **not** appear on this list. For additional information about a specific event, highlight the event and press the INFO key.

If you are not authorized for purchases using your DIRECTV® Receiver, contact DIRECTV for assistance.

To purchase a pay per view event:

1. Highlight the *Buy* menu pane option
2. Press SELECT
3. Press SELECT again to confirm your purchase.

Cancelling purchases

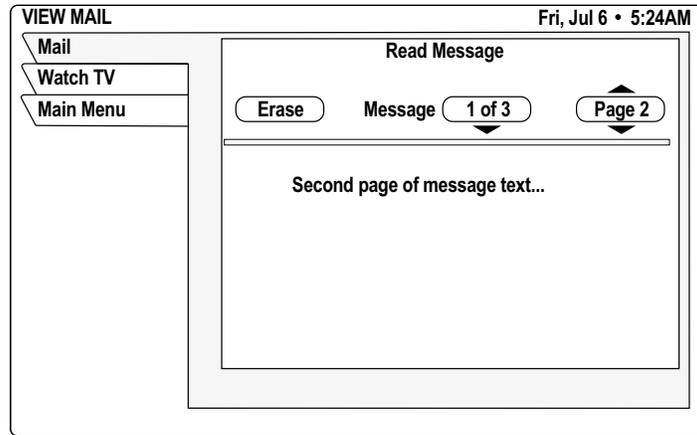
You may cancel some events after purchasing them. You can usually cancel unviewed purchases, however *some* events cannot be cancelled. If the **Cancel Purchase** button appears, you can clear the purchase. If this button is unavailable, part of the event has probably already been viewed, and you must accept the purchase.

To cancel a Pay Per View event:

1. Highlight the event you want to cancel.
2. Press CLEAR on the remote control.
3. Use the pop-up menu panel to cancel the purchase.

Viewing Mail

DIRECTV uses the **MAIL** feature to send you important information, inform you of special events, and tell you about special offers. When you receive a new message, a *New Mail* icon appears at the top of all menus until you read the message. Highlight and **SELECT** the **View Mail** tab from the **MAIN MENU**.



VIEW MAIL menu pane

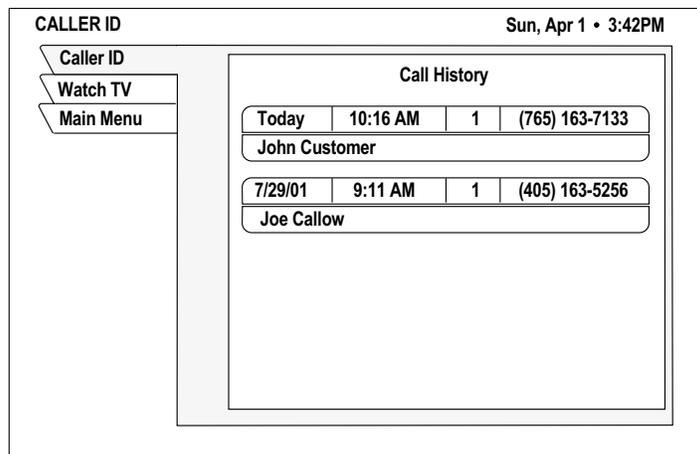
Message – Cycle through multiple messages. **SELECT** the **Messages** button. Use the  joystick to navigate messages.

Page – Use the CHANNEL(CH) button to cycle through multi-page message.

Erase – Permanently remove a message. Messages are automatically deleted as they become outdated or if space is needed for newer incoming messages.

Using Caller ID

Your DIRECTV® Receiver shows you the name, time, and telephone number of recent calls on your TV as shown in the figure below.



Call history screen

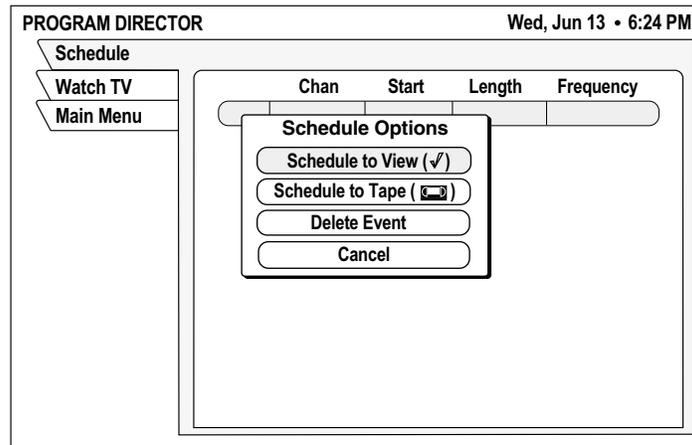
You must subscribe to Caller ID from your local telephone company to use this feature.

Highlight and **SELECT** the **Caller ID** tab from the **MAIN MENU**.

Using the program Director

You can program up to 32 events in advance for viewing or unattended recording. The **PROGRAM DIRECTOR** will tune to a program at a specific date and time, or tune on a repeating basis. As shown below, you can:

- Schedule programs for viewing (✓)
- Schedule programs for taping (📼)
- Select **Cancel** from the menu if you decide not to schedule anything.



The PROGRAM DIRECTOR Schedule pane popup menu

To schedule or edit an event

The **Schedule** pane displays up to seven previously scheduled events at a time. If more than seven events are already scheduled, use the ⤴ joystick to scroll down to view the additional events. Small arrows at the top or bottom of the list indicate that there are additional events.

You can schedule events up to eleven months in advance.

To schedule a program:

1. Highlight an upcoming program in the program guide and press **SELECT**. Press **SELECT** again to cycle through the next available option.
If you choose a scheduling option, the DIRECTV® Receiver will turn on (if necessary) and tune to the specified channel at the chosen date and time.
2. If you chose **Schedule to Tape** and you have set up your VCR (see page 8), the DIRECTV Receiver will record the event. For unattended recording:
 - Attach the VCR Control Cable and set up your VCR.
 - Set your VCR for the correct DIRECTV Receiver output: RF (channel 3/4) or A/V (phono or S-Video).
 - Insert a blank videotape and leave the VCR turned on.
3. Use the ⤴ joystick to specify AM or PM (or N for noon, or M for midnight if the you specified 12:00).
4. Use the same procedure to set the program *Length* in hours and minutes
5. Use the ⤴ joystick to advance to the *Frequency* column.
6. Specify when, or how often, the event occurs: *Today, Tomorrow, Every Mon, Every Tue, Every Wed, Every Thu, Every Fri, Every Sat, Every Sun, Everyday, Mon-Fri*, or “*f*” (specify a date).

*Select **Delete Event** to clear a scheduled event.*

If you specify a date, use the month/day format. The year is set automatically.

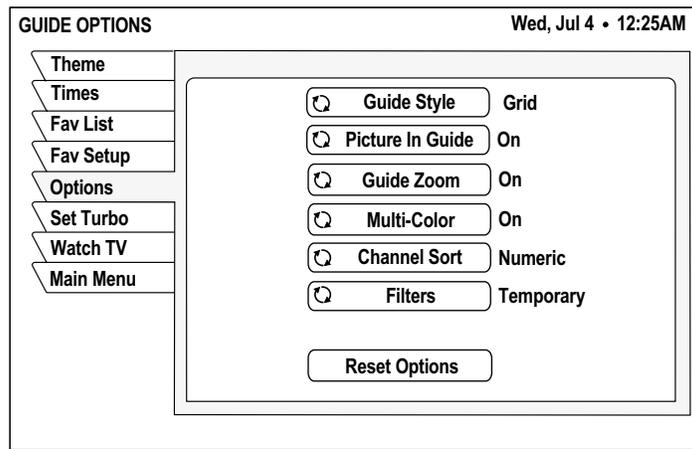
7. After setting the Frequency, use the joystick  to advance.
8. Review your settings and choose **OK**, or choose **Cancel** to delete the edits.

To cancel a program scheduled for viewing or taping:

Find the upcoming program in the program guide you wish to cancel and press **SELECT** until the check mark (✓) or videotape icon () disappears. If the program is currently airing, you must delete the event from the **Schedule** menu pane accessed from the **PROGRAM DIRECTOR**.

Setting guide preferences

Highlight and **SELECT** the **Guide Options** tab from the **MAIN MENU**. The **Options** screen (shown below) allows you to customize operation to best suit your needs.

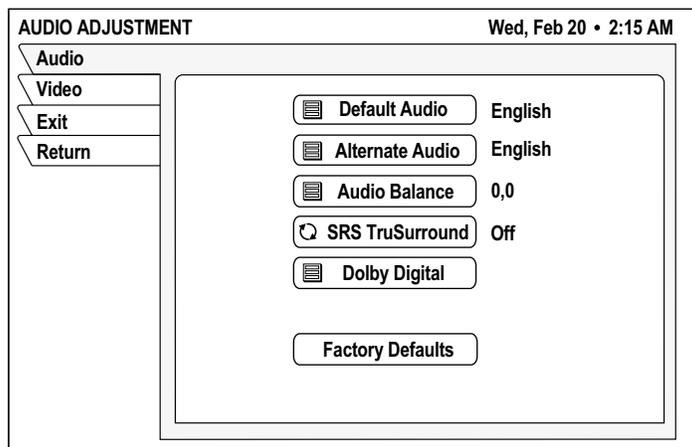


Selecting guide options

Adjusting audio and video

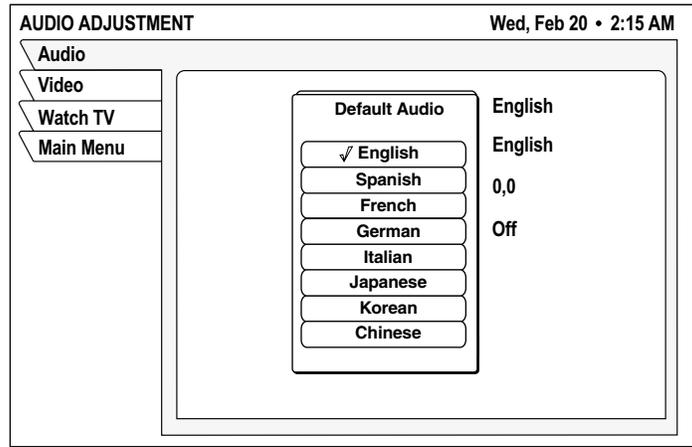
From the **MAIN MENU**, highlight and **SELECT** the **Audio & Video** tab. From the **AUDIO ADJUSTMENT** menu pane, you can change:

- Default Audio and Alternate Audio
- Audio Left/Right Balance
- TruSurround® Audio Processing
- Dolby Digital Output



Setting default and alternate audio

Your DIRECTV® Receiver supports alternate audio services. The **ALT AUDIO** icon appears below the Information Banner or program guide date and time to indicate alternate audio is available for a particular program.



Setting the default audio language

1. Press the remote control INPUT button to access these services.
2. Highlight the desired language.
3. Press SELECT.

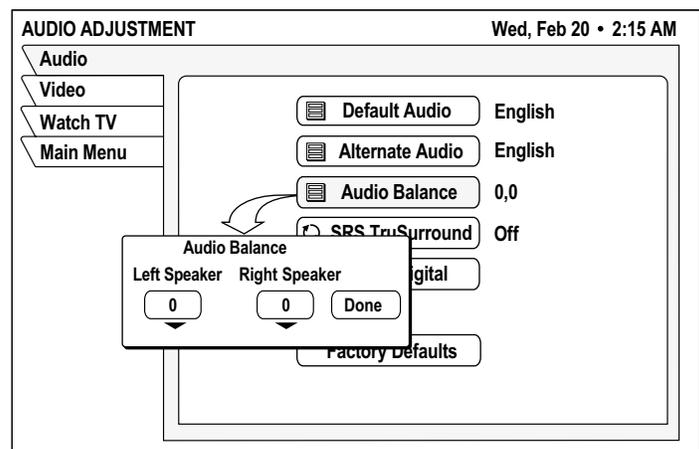
Occasionally, an audio track may be offered that is not being broadcast, in which case the audio will not change or you will not hear any audio. Change channels to restore the audio track to the one specified on the **AUDIO ADJUSTMENT** menu.

Using Dolby Digital audio

(*model GCEB0A only*) Select the Dolby Digital audio, then use the CHANNEL(CH) button to step through the audio tracks for the current program. For programs that are offered in Dolby Digital, the double-D symbol (ⒹⒹ) appears with the audio track title.

Adjusting audio balance

To adjust the left/right audio balance, highlight and SELECT *Audio Balance*.



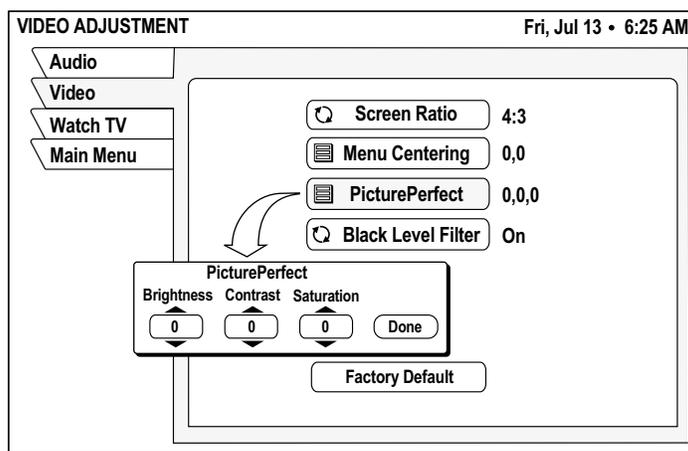
Setting left/right speaker balance

Use the  joystick to increase or decrease balance settings in the pop-up menu.

Adjusting the screen image

Adjust video display brightness, contrast, and saturation for the best image.

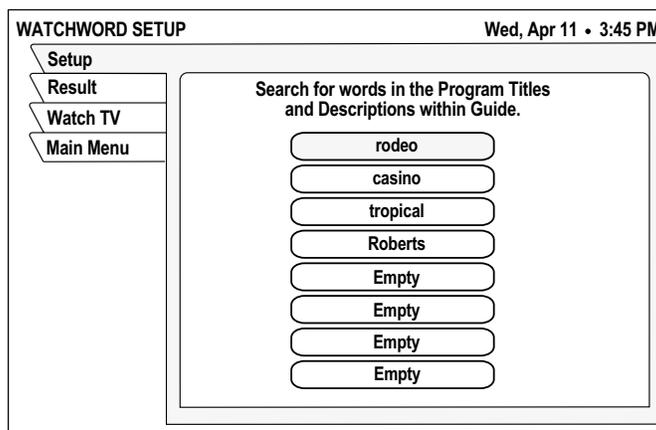
1. Highlight the **Audio & Video** tab from the **MAIN MENU**.
2. Press SELECT.
3. Highlight the *PicturePerfect* menu pane button.
4. Press SELECT.
5. Use the  joystick to increase/decrease the screen *Brightness*, *Contrast*, and image *Saturation* settings in the pop-up menu (as shown below).



Adjusting screen image controls

Using WatchWord™

Use WatchWord to search for specific words used in titles or descriptions. Press the remote control SEARCH button to access the setup pane shown below.

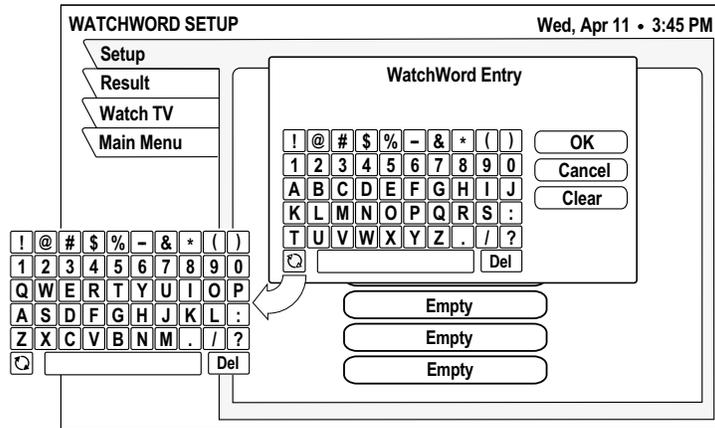


Search word entry list

You can specify up to eight search words or partial words to identify programming of interest to you. Program titles and guide descriptions containing your search words appear in the **Result** pane.

Highlight and SELECT one of the eight choices. A pop-up panel appears where you can enter a search word. If you entered "ALIEN," WatchWord might find the movie "Aliens" as well as any program which includes the word "alien" in the description.

Use the pop-up button board to enter search words. You can highlight and SELECT the *toggle* icon  on the default button board (see figure) to change it to a standard keyboard layout, if you desire. Highlight the desired letter using the  joystick. Press SELECT to enter the letter. Select **OK** when you are finished entering the desired search words.



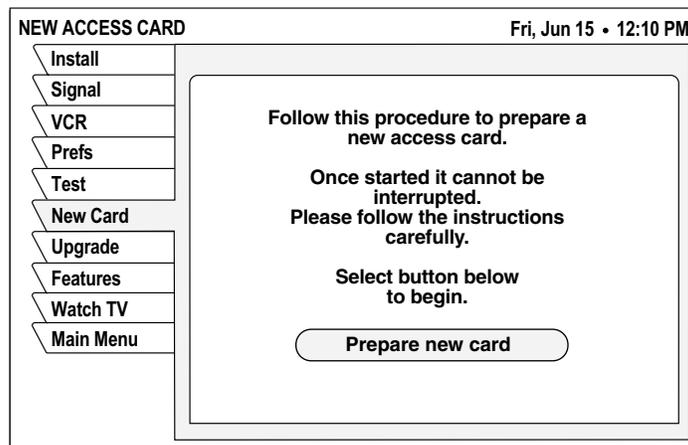
Using the toggle key to switch button board layout

Adjusting system settings

Select the **System** tab from the **MAIN MENU** to access the system functions described in this section.

New Access Card

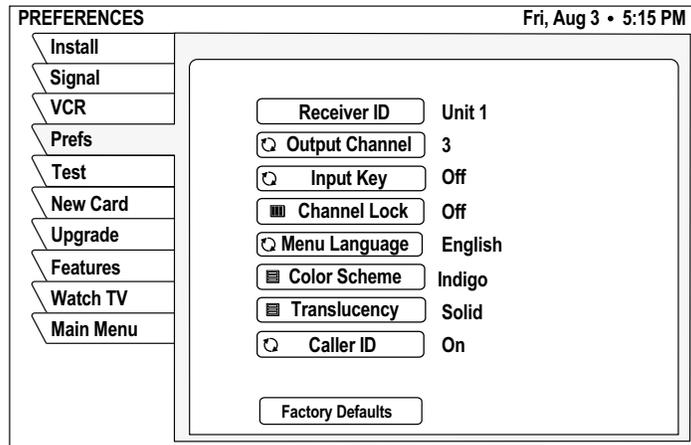
Highlight the **New Card** tab to set the receiver to use a new DIRECTV® access card. SELECT the *Prepare new card* menu button and follow the on-screen instructions.



Prepare New Card menu pane

Use the **PREFERENCES** menu pane (shown in the figure below) to change the appearance of the on-screen menus and select how your DIRECTV® Receiver operates with other devices. The **PREFERENCES** pane also allows you to:

- Change the receiver ID
- Set the receiver output channel to channel 3 or 4
- Enable or disable the INPUT button on your remote control.
- Lock the system on a particular channel.
- Select English or Spanish language menus.
- Enable or disable Caller ID on and off.



System Preferences menu pane

Change Receiver ID If you are using:

- multiple satellite receivers in the same room,
or
- multiple satellite receivers with the RF remote control on one of the receivers,

you may want to change the receiver ID to avoid interference or “cross talk.” The remote control receiver ID can be a number from “001” to “008”.

If you change receiver IDs, set your remote control to that ID number *first*. Use this procedure to set the remote control to use a different receiver ID:

1. From the **MAIN MENU**, highlight the **System Setup** menu tab. Press **SELECT**.
2. Highlight **Prefs** menu tab to display the **PREFERENCES** menu.
3. Highlight **Receiver ID** menu button.
4. Press and hold the remote control **SAT** button.
5. Press and release the **MUTE** button.
6. Release the **SAT** button. It should remain lit. If it does not, repeat steps 4-6.
7. Enter desired number (001 to 008).
8. Press the **SAT** button to lock in the code.
9. Point the remote control at the receiver. Press **SELECT**.

The number to the right the highlighted **Receiver ID** menu button will change to the new code. Check that the ID has been successfully set by testing the remote control to see that it controls that satellite receiver.

- Set output channel** Use the *Output Channel* menu button to toggle between channels 3 and 4, whichever is unused in your area.
- Input key enable/disable** The *Input Key* menu button allows you to turn the remote control TV/SAT button on and off.
- Lock a channel** Use the *Channel Lock* menu button to set the DIRECTV® Receiver to permanently stay on a specific channel. When you enter a channel number (5-0-0, for example) then select **OK**, the receiver will always power up on that channel (channel 500 in this example). The receiver will ignore any attempts to change the channel. Set this option to “Off” to permit normal channel selection.
- Select menu language** The *Menu Language* button allows you to display on-screen menus in English (default) or Spanish.
- Change color schemes** You may select a menu color combination, or *scheme*, from these choices: *Indigo, Ice, Sky, Forest, or Merlot*.
- Set translucency level** The translucency level of the on-screen display may be set to *Solid, Heavy, Medium, or Light*.
- Caller ID enable/disable** Use the *Caller ID* menu button to turn the Caller ID feature on and off. Incoming calls will not be displayed on-screen when the Caller ID feature is *disabled*.
- Restore factory default settings** SELECT the *Factory Defaults* menu button to restore the **PREFERENCES** options to the original factory settings.
Antenna, Signal, and Test functions are described Chapter 1 – *Getting started*.

This chapter describes:

- The different program guide styles (*this page*).
- Common program guide and menu features (*see page 29*).
- How to use the OneLine™ Guide (*see page 30*).
- How to set-up and use the TurboTune™ Guide (*see page 31*).

Selecting a program guide style

Personalize the program guide to show program listings that interest you. You determine how your choices appear onscreen by your guide selection. Available guide styles are:

- **Grid** with Picture-in-Guide or description
- **Logo** with Picture-in-Guide or description

Grid guide

- Easy to see what programs are available at a particular time.
- Shows up to 72 hours of current and upcoming programming.
- *Picture-in-Guide* displays the current program in the upper right corner.
- You can browse five channels of current and future programming at a time.
- Active ad highlights provide “one-click” access to products and services.
- Programs appear in a row with the channel on which they are broadcast.

Cells with arrows indicate the program started at an earlier time or continues later than can be shown in the selected time period.

PROGRAM GUIDE Thu, Feb 7 • 6:00PM

All Channels

The Weather Channel

None • 6:00PM - 7:00PM • Weather Local and national forecast, weekly planner and weekend outlook; severe weather focus at 10 minutes to the hour. Series, Interactive.

Picture-in-Guide
An image of the currently airing program highlighted in the menu selection appears here

Today	6 PM	6:30	7 PM
	The Weather Channel		Weather Channel...
	INTERACTIVE Center	DIRECTV® INTERACTIVE Center	
	DIRECTV® Pay Per View Previews		
	Local Channel Ordering Information		
	DIRECTV® FREEVIEW®		DIRECTV FREEVI...

- Browse up or down one channel at a time with the joystick when the highlight is in the grid.
- Use the remote control CHANNEL(CH) button to scroll through a full page of guide entries at a time.
- Move the highlight to the right to show future programming.

If a program title cannot entirely fit in the space provided, an ellipsis (...) indicates that a portion of the title is not shown.

The guide time expands to two hours when active ad highlights are not available. You can also turn the Picture-in-Guide feature off as shown in the figure on page 28.

PROGRAM GUIDE					Thu, Feb 7 • 6:00PM	
All Channels						
The Weather Channel						
None • 6:00PM - 7:00PM • Weather. Local and national forecast, weekly planner and weekend outlook; severe weather focus at 10 minutes to the hour. Series, Interactive.						
Today	6 PM	6:30	7 PM	7:30		
	The Weather Channel		The Weather Channel			
	DIRECTV® INTERACTIVE® Center					
	DIRECTV® Pay Per View Previews					
	DIRECTV® FREEVIEW®			DIRECTV® Customer News		
	Local Channel Ordering Information					

To turn off the Picture-In-Guide feature:

1. Press the remote control GUIDE button.
2. Press the GUIDE button again to access the **Options** menu tab.
3. Highlight the *Picture-in-Guide* menu button.
4. Press SELECT to toggle the feature off.

Press the remote control GUIDE button while the program guide appears on-screen to display the Guide Options menu.

Logo guide

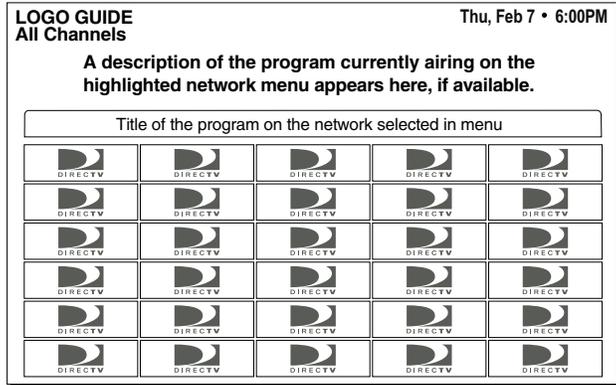
- Select your favorite channels, rather than selecting specific programs.
- The current program title appears above the logo grid as you highlight each channel. Only current programming is available in the Logo Guide.
- Video of the current program appears in the Picture-in-Guide window as you highlight each channel.

LOGO GUIDE					Thu, Feb 7 • 6:00PM	
All Channels						
A description of the program currently airing on the highlighted network menu appears here, if available.					<div style="border: 1px solid black; padding: 5px;"> <p>Picture-in-Guide</p> <p>An image of the currently airing program highlighted in the menu selection appears here</p> </div>	
Title of the program on the network selected in menu						

Logo guide with Picture-In-Guide active

Use the Channel (CH) button to scroll through the guide entries a full page at a time, or use the joystick to scroll through the guide entries one at a time.

You can display the most channels per screen as shown on page 29 by turning off the Picture-in-Guide feature, using the description-only mode.



Logo guide with Picture-In-Guide disabled (description-only mode)

To select a guide style:

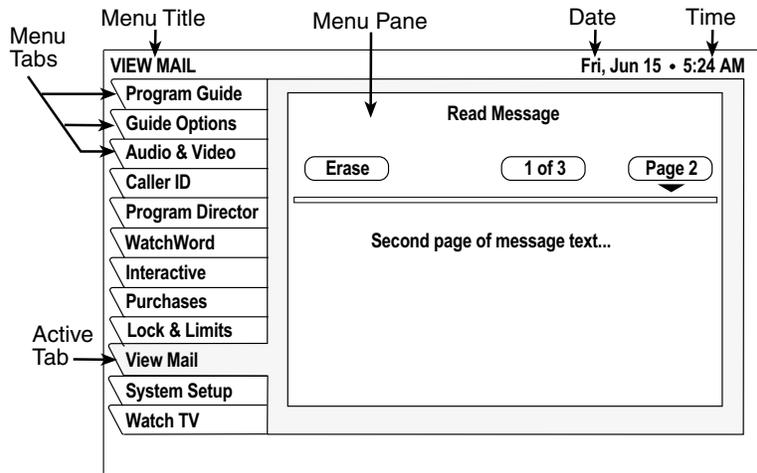
1. Press the remote control MENU button.
2. Use the joystick to highlight and SELECT the **Guide Options** menu tab.
3. From the **Options** menu tab, highlight your selection and press SELECT.
4. Highlight and SELECT the **WatchTV** tab to return to the program you were viewing.

Program guide and menu features

The on-screen guides and menus provide a logical and convenient way to access system features and settings. Every guide and menu contain these elements:

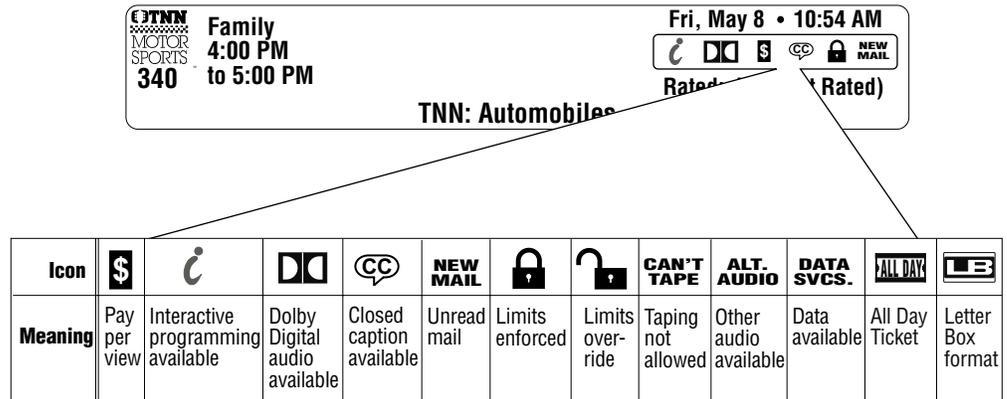
- The guide or menu title
- The day of the week, date, and time appear in the upper right corner
- Menu pane selection tabs

Use the joystick to move the highlight from tabs into menu panes.



Common menu features

- Below the date and time, small icons indicating the status of the system or details about the currently highlighted program title may appear. These icons also appear in the *Channel Banner* as shown below.



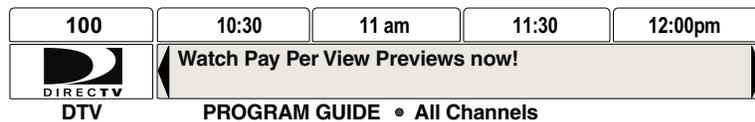
Channel Banner Icons

The Channel Banner appears at the top of the screen whenever you use the CHANNEL(CH) button to change channels. Press the remote control INFO button to display the banner at any time.

More detailed information appears in the *Info Banner* beneath the Channel Banner if you press the INFO button a second time. Banners disappear from the screen after a few seconds, but you can remove them from the screen instantly by pressing the CLEAR button on the remote control.

The OneLine™ Guide

The OneLine™ Guide appears across the bottom of your screen when you press the joystick up or down while watching TV. You will see the channel call sign and number, titles, and program start and end times as shown below.



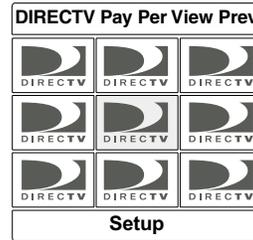
OneLine Guide

- Use the joystick to scroll to the right to see upcoming program titles.
- Display current or future program information in the Channel Banner by pressing the remote control INFO button.
- Use the joystick to move up or down while using the OneLine Guide to see the next or previous available channel. Press SELECT to tune to the channel.
- You can also enter a channel number using the numeric keypad to display the OneLine Guide for that channel. OneLine Guide content varies according to **FAV LIST** menu selections and other filters.
- Press the CLEAR button on the remote control to instantly remove the guide.

Using TurboTune™

The TurboTune™ feature is a quick access guide to nine of your favorite channels.

- Press the TURBO button on the remote control to show the TurboTune panel.
- Use the ⬇ joystick to highlight the desired channel. The panel header displays the title of the program currently airing on the highlighted channel.
- Press SELECT to tune to that channel.



TurboTune Menu

To set TurboTune channels:

- Select **Guide Options** from the **MAIN MENU**, then use the **Set Turbo** menu tab or
- Press the TURBO button on the remote control then SELECT the **Setup** pane below the TurboTune Menu.
- Highlight an unassigned channel box and press SELECT.
- Enter the desired channel using the ⬇ joystick, numeric remote control buttons, or the CHANNEL(CH) button.

This chapter explains:

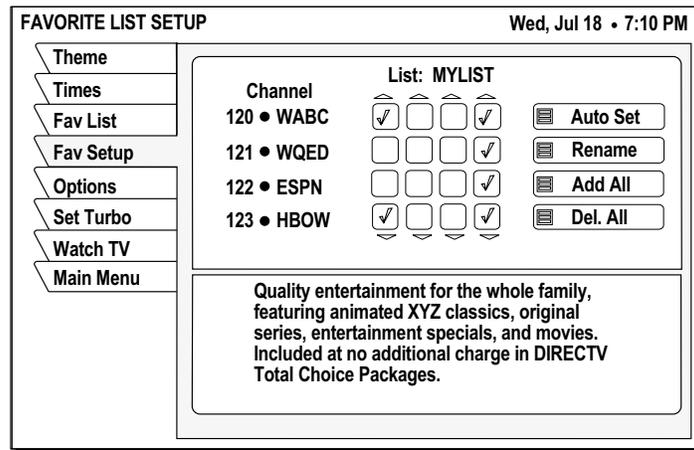
- How to create a channel list (*this page*).
- Renaming a channel list (*see page 34*).
- Using **Auto Set**, **Add All**, and **Del All** functions (*see page 34*).
- How to filter the program guide (*see page 35*).
- How to change guide times (*see page 36*).

Using favorite channel lists

Channel Lists are provided to help you organize the hundreds of available channels into groupings suitable for your household. Each list can contain as many or as few channels as you wish. You can customize these groups several ways. For example, **Fav. A** could be Dad's favorite channels, **Fav. B** could be Mom's favorites, **Fav. C** could be the kids' channels, and **Family** could be all channels that Mom and Dad have deemed appropriate for the entire family.

Creating a channel list

1. Press the remote control MENU button.
2. Select the **Guide Options** from the **MAIN MENU**.
3. Use the ⤴ joystick to highlight the **Fav Setup** tab.
4. Press SELECT to open the **FAVORITE LIST SETUP** pane shown below.



The four columns of small boxes on the right hand side of the pane are the *Tag Boxes*. The first three columns are the **Fav.A**, **Fav.B**, and **Fav.C** channel lists. The farthest right hand column is the **Family** list.

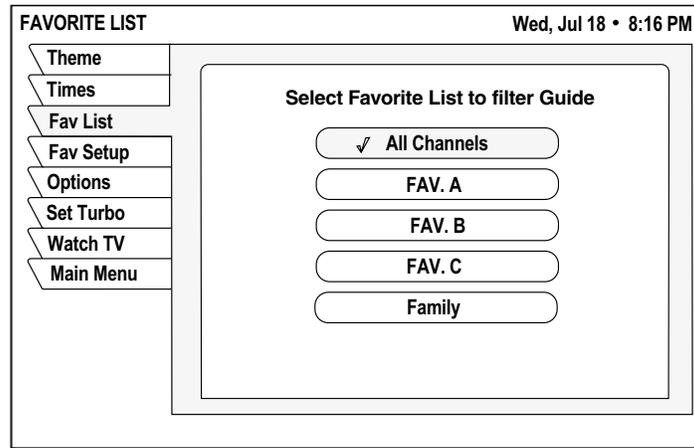
Note: If the receiver is locked, only existing Family list channels are accessible. If the **Family** list has not had channels added to it, no channels can be viewed without first unlocking the receiver. To avoid this inconvenience, create the **Family** list before locking the receiver. See Chapter 6 – *Using access controls*, on page 37 for additional details about controlling system access.

5. Use the ⤴ joystick to highlight the tag box that corresponds to the channel number and list that you wish to create or change.
6. Press SELECT to add or remove the check mark, which indicates that the channel in that row is included in the list shown at the top of the column. To

help you decide whether to include or exclude a certain channel, the title of the program currently airing on that channel appears at the top of the screen.

7. Scroll up or down to view channels and descriptions. Press **SELECT** to add channels to your list.
8. When you have added all of the channels you want to your list, use the  joystick to highlight and **SELECT** the **Watch TV** tab to resume viewing.

Once you have created your lists, use the remote control **FAV** button to cycle through them quickly and easily. Each press cycles to next channel list. You can also select a list by highlighting the **Fav List** tab.



Renaming a channel list:

1. Highlight the **Rename** button and press **SELECT**.
A **Rename List** pop-up menu appears. You can rename the first three lists. You cannot rename the **All** and **Family** lists.
2. Highlight the list you wish to rename and press **SELECT**. A buttonboard pop-up panel appears.
3. Highlight the desired letter using the  joystick.
4. Press **SELECT** to enter the letter.
5. When finished, Select **OK**.

Creating an Auto Set list

1. **SELECT** the **Auto Set** button. A pop-up menu appears showing each of the channel lists.
2. Highlight and **SELECT** a channel list to be programmed.
Once selected, the **Auto Set Progress** pop-up status panel appears. It may take several minutes for the receiver to scan through all of the channels and determine which ones you are authorized to receive. The results of this scan will be stored in the designated channel list.

Note: **Auto Set** may exclude some channels such as the Music Choice channels or include some pay per view channels. This does not mean that the receiver is faulty. These channels were excluded or included due to the DIRECTV® Receiver's analysis process. You can manually edit the lists to correct these oversights.

Adding and removing all channels

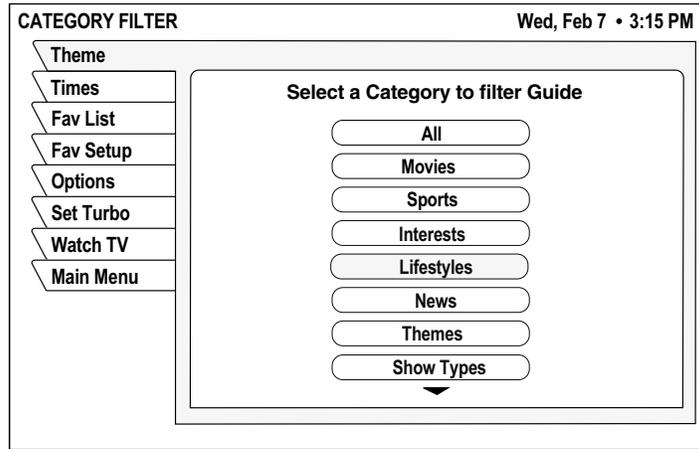
Selecting the **Del All** menu button clears all channels from the list you have chosen. **Add All** has the opposite effect, creating a list of all the channels you are authorized to receive.

Filtering the program guide

Press the remote control GUIDE button while in a guide. A pop-up menu provides filtering tools and ways to access other guide styles. By combining each of these filter options, you can quickly narrow down channels to those that match your viewing interests.

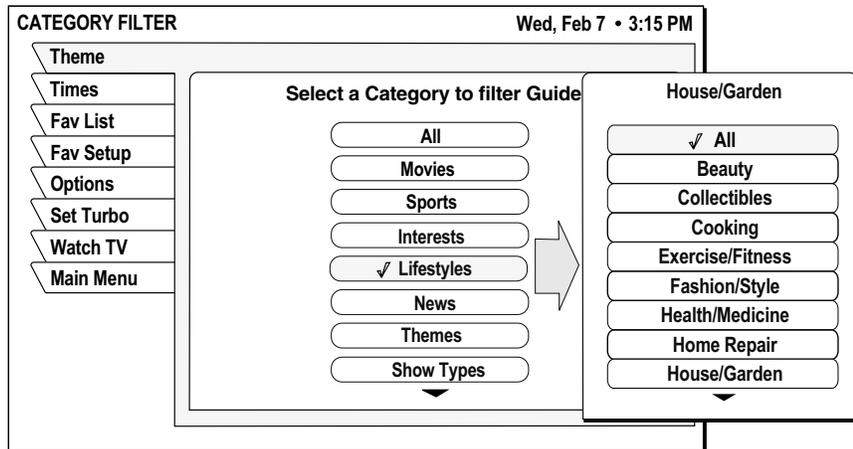
Using Theme Filters

From the **MAIN MENU**, SELECT the **GUIDE OPTIONS** tab. The **CATEGORY FILTER** menu appears, listing all available program category groups.



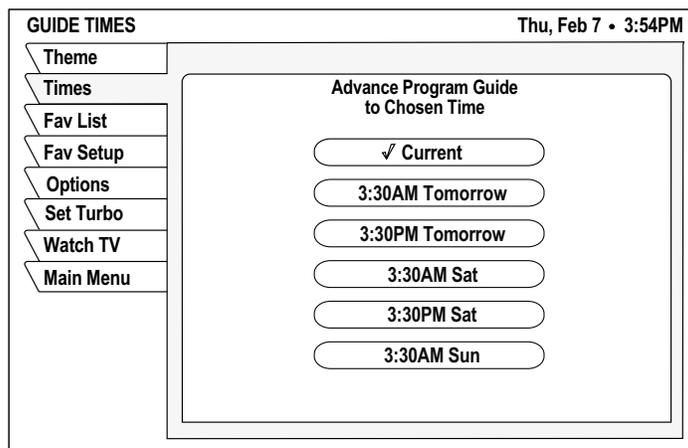
After choosing a category (other than *All*), the drop-down menu is replaced by the *Types* pop-up menu. This menu allows you to further refine a chosen theme. In addition to *All*, you can select popular categories that can be quickly selected using the remote control GUIDE button.

For example, if you select *Lifestyles* for the category, you can then choose a subcategory such as *Beauty*, *Collectibles*, *Cooking*, *Exercise/Fitness*, and others as shown in the figure below.



After selecting one of these subcategories, the guide will be further filtered to show only those channels offering programs of the selected category and type.

Selecting guide times Highlight the **Times** menu tab. The **GUIDE TIMES** menu shown below provides easy access to future programming information. Simply select the time you want the guide to begin. After a few seconds, the selected guide appears.



This chapter explains:

- How to lock and unlock the system (*this page*).
- How to set a maximum ratings limit (*see page 38*).
- Setting maximum spending and time limits (*see page 39*).

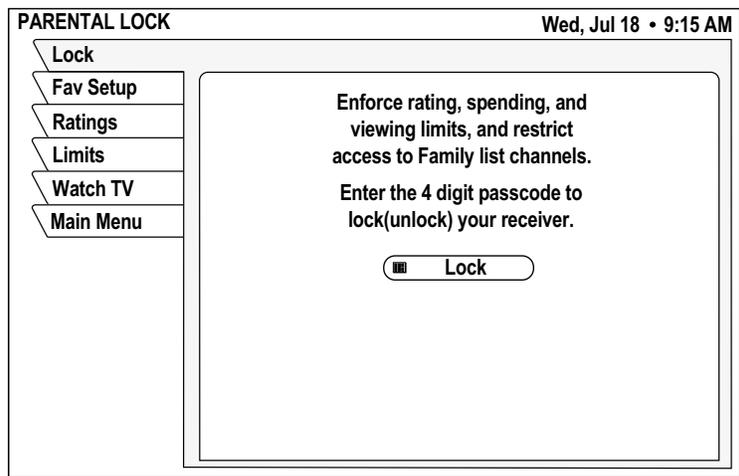
Locks & Limits provides settings to help you control the viewing restrictions of DIRECTV® programming. When accompanied by the channel lists, these limits provide a great degree of control. The DIRECTV® Receiver must be locked for the TV Timer, Rating and Spending limits to be enforced.

Locking & unlocking the system

When you first receive your satellite system, it will be unlocked; (i.e., no limits or restrictions are in effect). You must lock the system to enforce the limits (spending, ratings, TV timer, and “Family” favorite list).

Note: Once the DIRECTV Receiver is locked, only existing *Family* list channels will be accessible. If the *Family* list does not contain any channels, no channels can be viewed without first unlocking the receiver. To avoid this, verify the contents of the *Family* list before locking the receiver.

How to lock the system When you SELECT the *Lock* button, the **LOCK SYSTEM** pop-up panel appears.

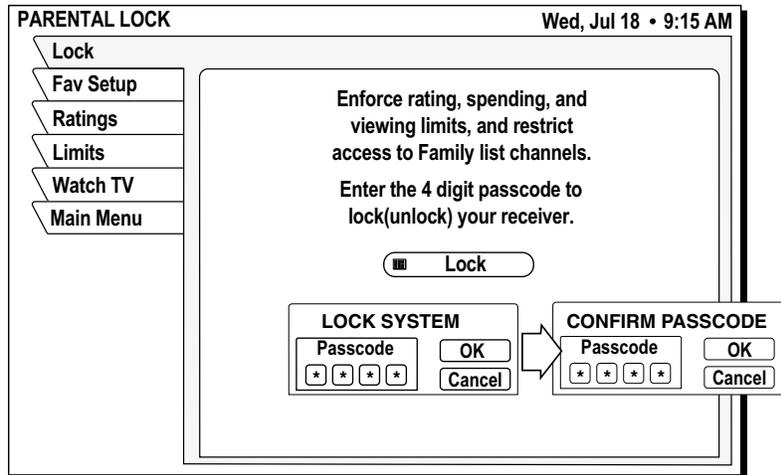


1. Enter a four-digit passcode using the remote control.
2. Highlight and SELECT **OK**.
3. Enter the code again to confirm.
4. Highlight and SELECT **OK**.

Press **Cancel** to clear the locking process.

If you forget your four-digit code, you must call DIRECTV.

Once you select **OK**, the satellite receiver is locked. You must enter the passcode to unlock it. A lock symbol icon appears at the top of every menu screen to remind you that the system is locked.



Unlocking the system To remove the lock and its restrictions:

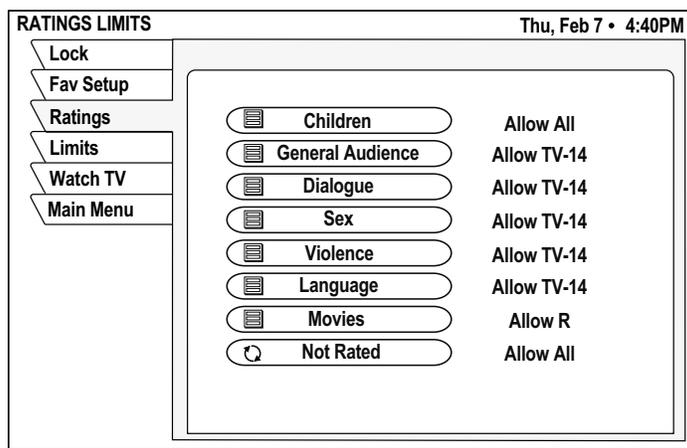
1. Highlight the **Locks & Limits** tab from the **MAIN MENU**.
2. SELECT the *Unlock* menu button.
3. Enter the code you entered to lock the system.

*The button used to lock the system is also used to **unlock** the system.*

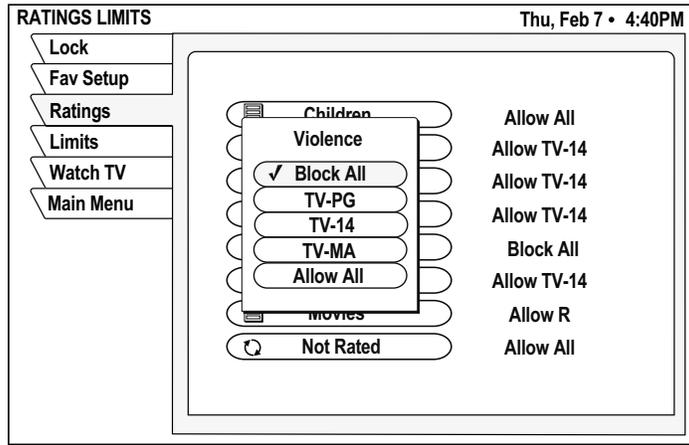
Once the system is unlocked, **all limits and restrictions are removed!** Choose **Cancel** to keep the lock in effect.

Setting ratings limits Program ratings indicate the suitability of a program's content for a given audience.

Highlight the **Ratings** tab. Highlight and SELECT the type of programming content you wish to restrict.



For example, if you select the **Violence** menu button, a ratings pop-up submenu appears as shown in the figure on page 39.



Highlight and SELECT the highest rating for violent program content you wish to allow. You may choose to **Block All** or **Allow All** instead of setting a specific limit.

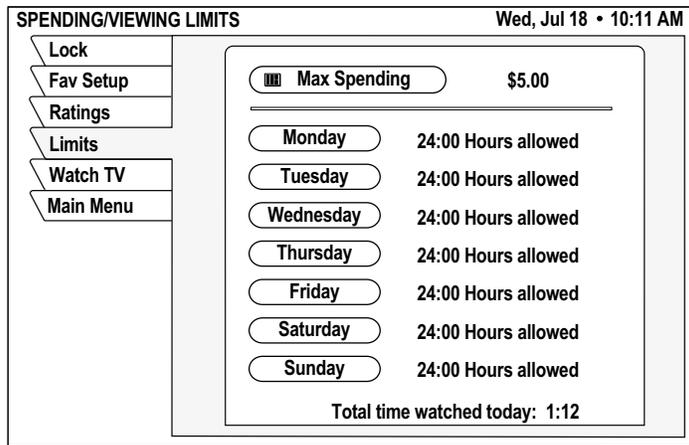
Setting spending and time limits

Highlight the **Limits** tab to set the maximum spending limit. You can set the maximum purchase price on a per-event basis.

To change the displayed limit:

1. Highlight the **Max Spending** button
2. Press SELECT to display the **SPENDING LIMIT** pop-up panel.

Use this menu to set the specific hours and maximum hours the satellite receiver can be used for viewing.



3. Use the number buttons on the remote control to set the limit or use the joystick to increase or decrease each digit.
4. Use the joystick to highlight the digit that you want to change. The maximum limit is \$655 per event.
5. Highlight **OK** and press SELECT to confirm the entered amount.

Questions? Did we forget to tell you something? We have compiled some of the most common questions and their answers here. We hope they help!

Q *I had a signal but now I am getting a message “Searching for satellite signal. To access related utilities, press SELECT.” What happened?*

A Rain clouds and snow can affect the satellite signal reception. This loss of signal is temporary. Also check for new growth on trees and bushes that could be blocking the signal. One other possibility is that the wind or someone has moved the satellite dish antenna.

Q *Why can't I control my TV?*

A Before you can control your TV, VCR, or any other device besides your satellite receiver, you must program your remote control to match your different devices. See Chapter 2 – *Using the remote control* in this manual for specific instructions. If you have already successfully programmed your remote control, try pressing the appropriate device key to put your remote in the proper mode. Then try controlling that device. Also, make sure that the batteries in the remote control are good.

Q *My satellite receiver does not respond when I press keys. What's wrong?*

A Most likely, if the front panel keys work but the remote control doesn't work, try pressing the SAT button before trying to control the digital satellite receiver. If that doesn't work, press the SAT and MUTE buttons together and try again. If that doesn't work, or if the front panel buttons don't work either, unplug your digital satellite receiver for 30 seconds, then plug it back in. Your satellite receiver is a computing device. It is susceptible to erratic changes in power and/or signal, just as any other computer, and these sudden changes can cause it to become “confused.”

Q *Some channels look good, while others freeze or indicate that no signal is available. What's wrong?*

A The most common causes for this behavior relate to an improperly grounded satellite cable. Check the cable between your digital satellite receiver and the satellite dish antenna. Confirm that RG-6 (not RG-59) cable is used and does not exceed 100 feet in length. Longer cable runs require amplification. This special amplifier is available from your dealer.

Q *How can I watch one channel while recording another?*

A With only one digital satellite receiver, unfortunately, you can't. Each receiver can only decode one channel at a time.

Q *I'm getting a message to call some extension. Why?*

A There are many different reasons for this. If you want to watch the channel that is displaying the message, call DIRECTV at 1-800-531-5000.

Q *Why don't I have an on-screen offer to purchase pay per view programs?*

A There are three possibilities; your digital satellite receiver must be connected to a phone line and it is not, or DIRECTV doesn't realize that your phone line is connected or has disabled your ability to make on-screen purchases. Call DIRECTV at 1-800-531-5000 for assistance.

Q Can I receive my local TV programs through my digital satellite receiver?

A There are three ways to receive local programming:

- If you are in an area where local programming is available via satellite and have the proper satellite dish antenna, contact DIRECTV to arrange for the necessary subscription package.
- Install a traditional antenna (i.e., roof mounted, attic mounted, rabbit ears).
- Arrange for basic or “lifeline” cable TV service from your local cable company.

If you select item 1 above, your local programming appears in the program guide like any other channel. For options 2 or 3, connect the local signal to the IN FROM ANTENNA jack on the back of your digital satellite receiver. Use the INPUT key to switch between DIRECTV® programming and local programming provided on the OUT TO TV connector.

Q I don't see Caller ID information appear on screen when I receive a telephone call. What could be wrong?

A There are several possible reasons. First, check that the satellite receiver is connected to an active telephone jack. Verify that the Caller ID feature is turned on (refer to page 26). Confirm that you subscribe to Caller ID service from your telephone company. Also check that your antenna is properly grounded as shown on page iv, as this can affect how the Caller ID feature works.

Q If I have questions about my satellite system or need to have it serviced, who should I call?

A For issues regarding your equipment, contact Hughes Consumer Care Center directly at 1-800-274-8995, or if you prefer, call your dealer first. They are most familiar with your installation and needs. Also, they are likely to be local to you.

If you need assistance with your subscription, such as adding channels, contact DIRECTV at 1-800-531-5000.

Q I think I set an event to record on my VCR, but when I played the tape back nothing was there. What could be wrong?

A There are several possible reasons for this. First, check that the VCR was programmed correctly and left turned on and the input matches the output from your digital satellite receiver. Confirm that you were authorized to tape the chosen program.

Q Why do I need to connect the satellite receiver to a telephone line?

A The telephone connection is used by the satellite receiver report purchase activity to DIRECTV.

Q I picked up my telephone and it was making a hissing and squealing sound. Why?

A Your digital satellite receiver was reporting any pay per view activity that may have occurred. This rarely happens and only lasts for a minute or so.

Q What if my question isn't listed here?

A Call your dealer or Hughes Consumer Care Center at 1-800-274-8995. We will do our very best to answer your questions.

Manufacturers device control codes



Use these codes to program your control operate your system components.

Table 3: VCR brands and remote control codes

BRAND	CODE NUMBER	BRAND	CODE NUMBER	BRAND	CODE NUMBER
Aiwa	034	Lloyd	034	Samsung	102 040 032 104 107 109 112 113 115 120 122 125 159
Akai	016 043 046 124 125 142 146	LXI	034 003 009 017	Sansui	043 048 135 022
Ampro	072	Magin	040	Sanyo	003 010 102 007 014 134
Anam	031	Magnavox	067 031 034 041 068 154 160 064	Scott	017 037 044 129 131 112 159
Audio Dynamics	012 023 039 043	Marantz	067 069 031 067 012 023	Sears	001 003 008 009 010 014 017 081 101
Broksonic	035 037 044 129 152	Marta	101	Sharp	031 054 053
Canon	028 031	Matsui	027 030	Shintom	024
Capehart	108	MEI	031	Signature	034
Craig	003 040 135	Memorex	102 101 003 010 014 031 034 053 072 139 134	Sony	003 031 052 056 057 058 149 155
Curtis Mathes	031 041 156	MGA	045 046 059	Soundesign	034
Daewoo	117 119 005 116 007 010 065 108 110 112	Minolta	001 156	STS	001
Daytron	108	Mitsubishi	001 059 061 046 051 142 045 162	Sylvania	031 059 034 067
Dimensia	156	MTC	034 040	Symphonic	034
DBX	012 023 039 043	Multitech	024 034	Tandy	010 034
Dynatech	034 053	NEC	012 023 043 048 039	Tatung	039 043 023
Electrohome	059	Nordmende	043	Teac	034 039 043 023
Emerson	006 029 035 025 027 034 036 037 046 101 129 131 138 017 031 044 152 157 153	Optonica	053 054	Technics	031 070
Fisher	003 008 009 010	Panasonic	070 133 031 066 160 161	Teknica	031 019 034 101
Funai	034	Pentax	001 013 063 156	TMK	006
GE	031 072 144 147 063 151 107 109 156 126	Philco	031 034 067	Toshiba	112 008 131 047 059 082 001 042
Go Video	040 132 136	Phillips	031 067 034 101 054 071	Totevision	040 101
Goldstar	101 123 012 001 114	Pilot	101	Unitech	040
Harman Kardon	012 045	Pioneer	021 013 048	Vector Research	012
Hughes	001	Portland	108	Video Concepts	012 046 034 141
Hitachi	001 026 034 063 137 150 156	Quartz	002 014	Videosonic	040
Instantreplay	031	Quasar	070 133 160 161 031 066	Wards	003 001 024 031 034 040 053 054 017 131
JCL	031	Radio Shack	123	Yamaha	012 043 034 039
JCPenney	001 012 040 101 156 066	RCA	001 107 109 144 147 151 041 034 040 156 031 140	Zenith	072 080 056 048 034 101 058
Jensen	043	Realistic	003 008 010 014 031 034 040 053 054 101		
JVC	048 050 043 130 060 012 031 150 055 158	Rico	058 078		
Kenwood	014 034 047 048 023	Salora	014		

Table 4: Television brands and remote control codes

BRAND	CODE NUMBER	BRAND	CODE NUMBER	BRAND	CODE NUMBER
Admiral	072 081 160 161	JBL	164	RCA	160 161 156 165 065 070 004 023 024 056 074 152 167 145
A Mark	112 143	JCPenney	070 004 008 009 024 030 065 101 160 143 156	Realistic	007 019 043 047
Akai	070 146	Jensen	013	Runco	072 130
Amstrad	052	JVC	001 034 038 083 199	Sampo	004 070 058 207
Anam	043 054 056 080 112	KEC	043	Samsung	101 004 050 089 105 160 127 143 133
AOC	070 004 058 112	Kenwood	070 001	Sanyo	007 020 053 057 082
Audiovox	076 120	Kloss	002 059	Scott	004 028 043 048 143
Blaupunkt	088	KMC	143	Sears	015 030 028 094 004 007 057 082 143 160 167
Cairn	206	KTV	043 143 154 070	Seleco	200
Candle	070 002 003 004	Lodgenet	072	Sharp	081 004 014 019 022 028 143
Capehart	058	Logik	072	Siemens	088
CCE	001 004 024	Luxman	004	Signature	072
Cetronic	043	LXI	007 015 052 081 160	Sony	001 085 126 166 079
Citizen	070 002 003 004 043 101 103 143	Magnavox	003 004 022 059 060 061 063 064 070 094 127 160 164	Soundesign	028 003 004 043
Classic	043	Marantz	070 164	Spectricon	112
Concerto	004	Matsui	164	SSS	004 043
Contec	043 050 051	Memorex	004 007 072	Supre Macy	002
Coronado	143	Metz	088	Sylvania	003 044 059 060 063 064 070 127 160 164
Craig	043 054 191	MGA	024 070 004 024 028 042	Symphonics	194 052
Crown	043 143	Minerva	088	Tandy	081
Curtis Mathes	070 101 143 004	Mitsubishi	004 024 040 042 028 146	Tatung	056 062
CXC	043	MTC	070 004 062 101	Technics	034 080
Daewoo	076 103 004 016 043 114 120 127 143 128 136 192 044	NAD	015 025	Techwood	004
Daytron	004 143	NEC	070 040 016 056 024 130 134 019 004	Teknika	002 003 004 024 028 043 072 101 143
Dynasty	043	Nikei	043	Telerent	072
Dynatech	062	Onking	043	Tera	173
Electrohome	024 076 120 143	Onwa	043	TMK	004
Emerson	004 005 028 043 047 048 050 051 076 120 143 151 153 154 155 070 096 191	Optonica	019 081	Toshiba	015 030 007 040 062 101
Fisher	007 057	Orion	201 202 203 204 205	Universal	008 009
Fujitsu	198	Panasonic	034 080 056 164	Video Concepts	146
Funai	028 043	Philco	070 003 059 060 064 004 056 063 024 164	Vidtech	004
Futuretech	043	Philips	164 093 038 005 059 127 070 003 004	Wards	004 019 064 008 009 028 060 061 063 072 074 143 164 165
GE	160 165 161 070 008 009 034 056 073 074 130 155 167 004 145	Pioneer	025 070 004 018 023 190	Westinghouse	076 120
Goldstar/LG	004 106 110 112 119 127 143 193	Portland	004 143 065	Yamaha	004 070
Gradiente	004 038 106	Proscan	160 161 167 145 065	York	004
Hall Mark	004	Proton	004 058 112 143 171 173	Yupiteru	043
Hitachi	007 011 004 009 010 012 023 072 075 143 158	Quasar	034 056 080 164	Zenith	072 073 095 103
Infinity	164	Radio Shack	004 019 043 127 143	Zonda	112

Table 5: AUX audio brands and remote control codes

AUX	CODE NUMBER	AUX	CODE NUMBER	AUX	CODE NUMBER
Adcom	146 149 227 244	Jerrold	141	Pioneer	093 132 138 210 165 189 195 201 081 230
AMC	083 084	JVC	112 198 252	Quasar	131 187
Arcam	100	Kenwood	096 104 119 125 148 151 163 171 173 242	RCA	109 213 166
Audio File	093 098	Krell	223	Realistic	103 122 123 124 172 174 177 179 180 194
Audio Technica	221	Lexicon	215 250	Rotel	204 218 239
Aiwa	111 114 117 156 170 199 203 219 231 241 254	Luxman	066 120 205 229	Sansui	196 214 126 139 075 197
Akal	181 233	LXI	123 177	Sanyo	157 129
Anam	180	Magnavox	126 162 185 186 224 228	Samsung	068
Bose	064 137 219	Marantz	074 105 126 128 139 155 162 186 232	Scott	180 190
B & K	150 152	McIntosh	251	Sharp	096 125 151 161 169 182 193
Carver	013 098 107 126 129 160 163 220 245 249	Mondial	069 225	Sherwood	089 127
Clarion	151 169	MCS	108 178	Sony	097 117 147 183 200 253 237 238 188 192
Denon	101 133 191 202 208 246 247	Mitsubishi	253	Soundstream	197
Englightened Audio	078 153	Meridian	013 067	Starcom	141
Fisher	107 129 157 163 176	NAD	128	Symphonic	124
Fosgate Audionics	228 248	Nakamichi	072 212 234 235	Teac	102 159 180 062
GE	216 123	Niles	236	Technics	131 184 187 200 202 208 165
Harmon Kardon	073 195 248 249	Onkyo	094 115 116 209 211 255	Toshiba	175
Haitai	119	Optimus	121 125 140 181	Wards	163
Hitachi	088	Panasonic	131 144 187 200	Yamaha	092 120 166 240 125 169 216
JCPenney	109 154 178	Parasound	085 086 090	Zenith	222 061
Jesen	099	Philips	136 186 126 197		

Table 6: AUX-CATV brands and remote control codes

CATV	CODE NUMBER	CATV	CODE NUMBER	CATV	CODE NUMBER
Hamlin	015 017 022	Pioneer	007 026 027	TOCOM	003
Jerrold/G.I	010 021 025	Scientific Atlanta	002 006 013	Zenith	004
Oak	008 016 023	Pioneer	007 026 027		

Table 7: DVD player brands and remote control codes

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
Alpine	009	Magnavox	038 042 008	Proscan	035 036
Apex Digital	076	Marantz	006 007	RCA	035 036
Denon	030 226	Mitsubishi	032	Samsung	029 040
GE	035 036	NAD	077	Sharp	004
Goldstar, LG	028 041	Onkyo	207	Sony	037
Harmon Kardon	217	Panasonic	003 039	Toshiba	038 001
Hitachi	011	Philips	038 042 006 007	Yamaha	039 079
JVCI	031	Pioneer	034 005 010	Zenith	028 041

Table 8: DVD-Laser Disc Player brands and remote control codes

BRAND	CODE NUMBER	BRAND	CODE NUMBER
California Audio	047	Quasar	047
Denon	043 044	Radio Shack	056
Fisher	047	RCA	046
Kenwood	060	Realistic	049
Magnavox	048 057	Runco	058
Mitsubishi	057	Sanyo	052
NAD	057	Sharp	060
Optimus	049	Sony	050 053
Panasonic	047 051 054	Technics	047 051 054
Philips	048	Toshiba	060
Pioneer	055 057	Yamaha	045 059

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Limited Warranty

Hughes Network Systems (HNS) provides the following limited equipment warranty on this equipment.

This limited warranty is in lieu of all other warranties, whether express, implied, or statutory, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. HNS shall not be liable for damages in excess of the purchase price of the product less reasonable amount for use and wear, or for any incidental, special, punitive, or consequential damages of any nature whatsoever, or for any delays, loss of use, time, profits, revenue or savings, any commercial loss, inconvenience, damage to buyer's or to other person's property, arising from the use or inability to use the product, or otherwise for any failure to perform.

HNS neither assumes nor authorizes any customer care center or any other person or entity to assume any other obligation or liability beyond that which is provided for in this limited warranty. No oral or written information or advice given by HNS, its dealers, distributors, agents or employees, shall create a warranty or in any way increase the scope of this warranty.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations of implied warranties, so the above limitations or exclusions may not apply to Purchaser.

This Limited Warranty gives specific legal rights to Purchaser, and Purchaser also may have other rights which may vary from state to state.

Provisions

Your Hughes manufactured DIRECTV Digital Satellite receiver, Satellite dish Antenna, and Remote Control are warranted against defects in materials and workmanship for parts and labor.

Part	GAEB0A Satellite Receiver	GCEB0A Satellite Receiver	HRMC-8, HRMC-9 Remote Control	HANT-XX Dish and LNB(s)
Warranty Period	1 year parts, 90 days labor	1 year parts, 90 days labor	90 days parts	1 year parts

This limited warranty does not cover:

- a unit that has been modified
- damage from misuse, negligence, or accident
- any installation, or damages caused by installation
- shipments to HNS that are damaged in transit
- removal and reinstallation of equipment for repair
- loss of programming
- cost of shipping to HNS
- batteries or cables after installation
- acts of God

This limited warranty is not transferable and is valid only in the United States.

Service

If you have any questions or encounter any problems, you may contact your authorized HNS dealer or call our Customer Care Center, at 1-800-274-8995. To ensure prompt and efficient service, please have your

model and serial numbers handy. Space to note these numbers is provided inside the front cover of this manual. In the event of repair or replacement, you will need these numbers, along with your bill of sale.

Return Procedures

If your equipment requires repair or replacement, you can:

- contact your authorized HNS dealer or call our Customer Care Center to find the authorized service center nearest you.

OR

- choose the "replace after receipt" option, whereby you must ship HNS your defective equipment and, once your unit is received, a new or refurbished unit (at the sole discretion of HNS) will be shipped to you.

Packing Instructions for Equipment to be Returned

1. Call the Customer Care Center. The Customer Care technician will give you an RMA (Return Merchandise Authorization) and a mailing address for returning your unit.
2. If you are returning the digital satellite receiver, **please keep your access card and return only the digital satellite receiver.**
3. Pack the unit in the original box and packing material, if possible, or in other packaging that provides adequate protection for shipping. Include your name and address, the model number, the serial number, and a copy of the bill of sale.
4. Write: "**Attention: RMA #**" (the number given to you by the Customer Care technician) on the return shipping label.
5. Insure the shipment for the full replacement value.

