

PARENTAL CONTROLS

SPENDING LIMITS

Limit the amount that can be spent on each Pay Per View purchase. Select "Spending Limits". Then enter your preferred spending dollar limit using the numbers on your remote.



VIEWING HOURS

Specify days and times when TV watching is allowed in your household. Select "Viewing Hours", then select the start times and durations for viewing. You can set hours based on "school nights" — Monday-Thursday — and/or weekend nights — Friday-Saturday, and Sunday.



FAVORITE CHANNELS

Create lists of your favorite channels. Use your list to see only those specific channels listed in the guide as well as, when you're channel surfing in live TV. You can create up to two custom lists on this receiver. You can also choose "Channels I Get" to see only the channels that are in your DIRECTV programming package.

Press MENU on your remote, select "Settings and Help" then "Favorite Channels". If you haven't created a Favorites list, the "Setup Custom 1" and "Setup Custom 2" options will be displayed. Select the one you want and follow the onscreen instructions to create and name your list.

Selecting a Favorites list makes it active and hides the display of all other channels in the guide. From the program guide, press the YELLOW button on your remote, select "Favorites" and then select the list you want to make active. The name of the currently selected Favorites list is displayed in the bottom left of the program guide screen to remind you which list you are currently using. To return to displaying all channels, press the YELLOW button while in the guide, select "Change favorites list", then select "All Channels".

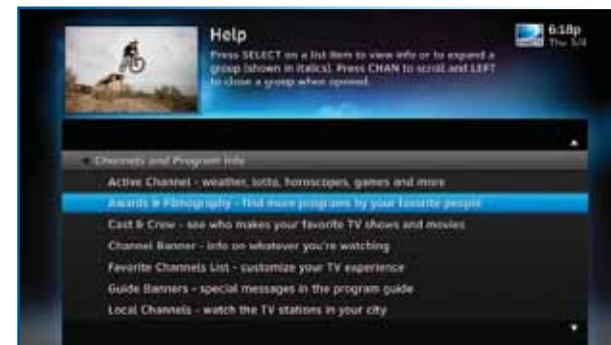


HELP

For helpful information about your receiver, as well as frequently asked questions (FAQs), press MENU, select "Settings & Help", then select "Help". Select a category folder to see its contents, then select a topic from the list for detailed information.

Tune to Channel 1 to access the interactive DIRECTV Customer Information Channel. Watch videos on a variety of topics, such as your remote control, receiver features, and troubleshooting. To exit the Customer Information channel, press CHAN UP/DOWN, press GUIDE, or enter a channel number to tune to.

You can also find answers to all your questions on DIRECTV's Answer Center at support.directv.com.



DRAFT

CHAPTER 7 - GENIE™ HD DVR

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DRAFT

GENIE™ (ADV WHOLE-HOME) HD DVR

Genie HD DVR is the most comprehensive and flexible DVR experience from DIRECTV. It introduces a new industry standard that provides HD DVR service in every room without requiring additional HD DVR's. The Genie (Adv Whole-Home) HD DVR (models HR44, HR34 and above), together with Genie clients (C31 and above) or RVU-capable TVs, can serve your entire home and allow you and your family to watch what you want, where you want, when you want!

Use this chapter to learn about all the great features of DIRECTV Genie HD DVR and Clients. This chapter highlights the additional features specific to these models.



Genie (Adv Whole-Home) HD DVR

KEY GENIE HD DVR FEATURES

- Record up to five programs simultaneously.
- Store up to 200 hours of HD programming and 800 hours of SD total on the 1TB (terabyte) hard drive.
- Actual recording capacity varies based on type of programming being recorded.
- Watch two shows at the same time with Picture In Picture.

NOTE: This feature is only available on the TV connected directly to the Genie (Adv Whole-Home) HD DVR.

- View live or recorded programming in up to four different rooms at once (Genie clients required).



Genie (Adv Whole-Home) Client

GENIE™ (ADV WHOLE-HOME) HD DVR

KEY GENIE CLIENT FEATURES

- Watch and manage recorded programming from any room.
- Pause and rewind live or recorded TV from any room.
- Access On Demand content, TV Apps and other HD DVR features from any room

SHARE PROGRAMS BETWEEN ROOMS

Genie can be configured two ways to share content across your home:

1. **As part of a Whole-Home DVR network** - Genie enhances your current Whole-Home setup. When connected to other HD receivers as the hub of your Whole-Home DVR experience, Genie allows you to stream recordings to four active rooms simultaneously (up to three Whole-Home clients).
2. **In a client-server setup** - with RVU-capable TVs or Genie clients in your home. (RVU is a technology that allows you to connect certain TVs, devices, and DIRECTV clients to your Genie HD DVR, without adding a full-featured DIRECTV Receiver.)

GENIE™ (ADV WHOLE-HOME) HD DVR

GENIE MEDIA CENTER

Use your GENIE MEDIA CENTER as a media server. An RVU-capable TV, device, or Genie client lets you watch TV via your DIRECTV Genie network.

- Start watching a show in one room, press EXIT on your remote, then resume watching in another.
- Pause or rewind live programming in any connected room.
- Schedule, watch or prioritize recordings from any room.

NOTE: Your Genie HD Receiver includes five (5) tuners. A tuner is used whenever you watch or record a program. For example, if two rooms are watching live TV, three tuners are available for recording. Watching a recorded program does not require a tuner.

See your RVU TV's User Guide for more information on connecting to the Genie (Adv Whole-Home) HD DVR. You will need to activate the RVU TV by calling DIRECTV at 1.800.531.5000.



CONNECTING CLIENTS

You may register up to eight clients per Genie HD DVR; these may be RVU TV, or Genie Clients.

Before connecting and activating a client, your Genie HD DVR must be set up, activated, and functioning.

To begin, connect, plug in and turn on the client. Once it detects the Genie HD DVR, it will prompt you to enter a PIN. On your DIRECTV HD DVR, press MENU, then select "Settings & Help", then "Settings". Select "Whole-Home" from the left menu, then select "Add a Client". Note the PIN shown on the "Add a Client" screen, and do not exit the screen!

On the client, enter the PIN you received from the Genie HD DVR using the remote. Select "Done" on the confirmation screen. The Create a Location screen displays. You may add a new location, or replace a location. Select the appropriate option and follow the onscreen instructions.

Once the location has been set up, you have a choice of copying settings from another location or accepting the DIRECTV defaults.

The following settings are copied from a server or client to another client:

(The settings from any client can also be copied to the Genie HD DVR.)

- Parental Control Settings
- Favorite Channels
- Display Settings
- Clock
- Language
- Sound Effects

SPECIAL FEATURES

PICTURE IN PICTURE

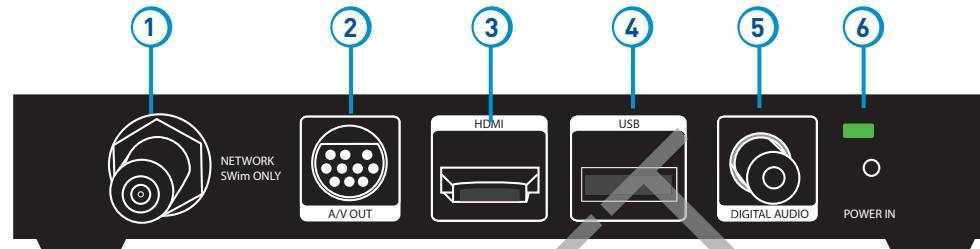
Watch two programs, live or recorded, at the same time. While watching one program, press the INFO button on your remote. Select "PIP". The program you're currently watching moves into a smaller window on your screen. The larger video is the active program and can be controlled by your remote. To switch between programs, press the DOWN ARROW.

To change the position of the smaller window, press INFO on your remote. Select "PIP" and choose a position from the options provided.

NOTE: Picture in Picture is only available on the TV connected directly to the (models HR44, HR34 and above) Genie (Adv Whole-Home) HD DVR.



BACK PANEL EXAMPLE



DIRECTV Genie™ (Adv Whole-Home) (HR44, HR34 and above)

Your equipment may not look exactly like the model illustrated. This image has enlarged features for ease the purposes of illustration.

1. **NETWORK SWM ONLY** – Connect a cable from a Single Wire Multi-Switch (SWM) to this port. This is your SAT-IN connection.
2. **A/V OUT** – A combined 10-pin output that supports both audio and video. Your Genie Client comes with an A/V Out cable for Component Video and RCA audio. An A/V Out cable for Composite Video and RCA audio can be purchased separately.
3. **HDMI** – Use this combination digital video and audio connector for the best picture quality. **This is the recommended connector for HD TV.**
4. **USB** – For future use. USB 2.0 Host (FRONT/REAR EACH 5V = 500mA)
5. **DIGITAL AUDIO OUT COAXIAL** – Use this digital audio connection for sound.
6. **POWER** – Your receiver must be plugged in at all times to function properly.

WARNING: Use only the power supply (power cord) that came with your DIRECTV receiver. Failure to use the authorized power supply (power cord) may cause electric shock, fire, bodily injury and/or property damage. If the power supply (power cord) becomes damaged or needs to be replaced, please contact DIRECTV Customer Service to obtain an authorized replacement.

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CHAPTER 8 - TROUBLESHOOTING & FAQs

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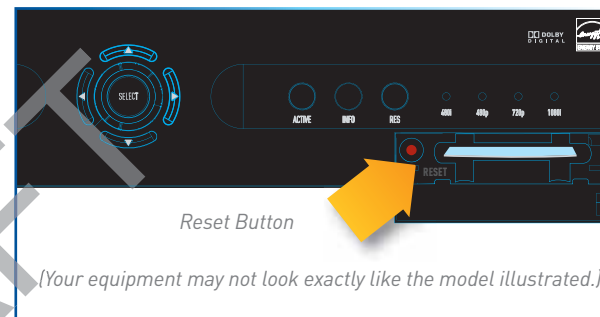
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TROUBLESHOOTING TIPS

RESET YOUR RECEIVER

Many problems can be corrected by performing a simple reset of the DIRECTV® HD DVR. If you experience frozen audio or video, blank screen, or the receiver won't respond to front panel button or remote control, you can reset your receiver with the following steps:

- Press the red RESET button behind the access card panel door on the front of the DIRECTV® HD DVR, then wait a few minutes for program guide information to be acquired.
- If you reset a Genie (Adv Whole-Home) client and the problem persists, try resetting the Genie Server.
- If the problems persist, try unplugging the power cord of the DIRECTV Receiver for 15 seconds, then plug it in again.



REAUTHORIZE YOUR RECEIVER

If your receiver displayed the message "722 - Service Expired," try reauthorizing your receiver. On a computer, go to directv.com/reauthorize and follow the onscreen instructions. You will need to be logged into your account on directv.com to complete this process.

Running the System Test (at the end of this section) can also help you diagnose and solve many common problems. Note that resetting your receiver twice in a row will clear all your program guide data. It could take as much as 48 hours to reacquire all of it.

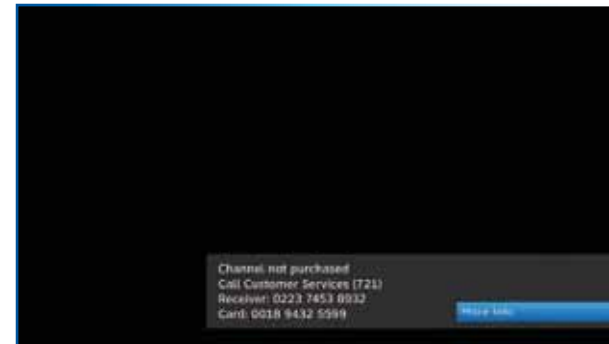
SYSTEM SOFTWARE UPDATES

DIRECTV periodically sends system software updates to your receiver to improve performance and upgrade features and functions. These updates will occur automatically. The receiver will give you the option to download software "now" or "later." Software downloads take just a few minutes and should be allowed to proceed when possible. When a download is in progress, channels, interactive functions and applications will temporarily become unavailable. After the download is complete, the receiver may reset itself. Once the receiver download and/or reset is complete, you can resume using as normal.

ONSCREEN MESSAGES

There may be times when you see an onscreen message similar to the one on the right. The top line of the message gives a brief description of what causes the onscreen message to display, while the second line displays instructions to follow. Most onscreen messages supply an error code in parentheses. Go to directv.com/troubleshooting and select the onscreen error message for solutions.

The message at the right shows an example of trying to view a channel that you have not purchased or that is not in your programming package. To resolve this error, call Customer Service at 1.800.531.5000 and mention the error code number when prompted.



TROUBLESHOOTING TIPS

RUN THE SYSTEM TEST

The System Test allows you to run a basic diagnostics check on your DVR.

First make sure that:

1. All connections — jacks, cables, etc. — are in place correctly. See Appendix 2, “Connections for TV and Equipment” for more information.
2. There are batteries in the remote control and they are working correctly.
3. The access card is inserted in the DIRECTV® Receiver.

Follow these steps to run the diagnostics system test on your DVR:

1. Turn on your TV and the DVR.
2. Slide the mode switch to the DIRECTV position, then press MENU.
3. Select “Settings & Help”.
4. Select “Settings” then “Info & Test”.
5. If you have a High-Definition DVR, select “Run System Test”.
6. If your system does not pass the System Test, check any of these potential trouble areas: cabling, pointing the satellite dish, phone connection and access card.
7. If you continue to have problems, call DIRECTV Customer Service at 1.800.531.5000.
8. You should run a system test several times before concluding that there is a problem. Occasional fluctuations in the phone line or satellite signal can give temporary false readings.

FREQUENTLY ASKED QUESTIONS

Q: What to do about temporary loss of satellite signal, “frozen” picture, or picture breaking into blocks / pixels?

The image on your screen is frozen, blocky, or you see a message that says, “Searching for Satellite Signal (x 771).

Possible Causes:

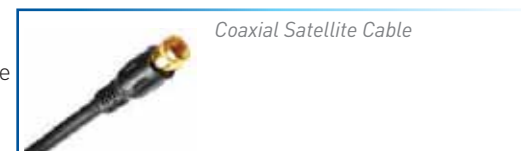
- Severe weather (rain, snow, hail etc.) may cause this issue.
- There may be an obstruction to your dish (debris, snow, ice, etc.) or a building or tree that blocks your line of sight to the satellite.
- There may be a problem with the cables running from your satellite dish to your DIRECTV® Receiver.
- If the picture is frozen, blocky, or pixels, there may be a problem with the transmission from the source.

Solution:

- Weather issues are usually temporary. Wait for the weather to clear and your signal should return to normal.
- If there are no weather problems in your area, reset your DIRECTV DVR using the red RESET button behind the door on the front of the receiver or by unplugging the receiver for 15 seconds and then plugging it back in.
- Check all the connections on the back of your receiver, starting with the SAT-IN connection, and make sure they're secure.
- If the problem is coming from the program source (for example, you see the problem on one channel, but not on any others), wait for the broadcasting channel to resolve the issue.
- If there are obstructions blocking the dish's clear view of the satellite, you should contact a professional to remove them or a DIRECTV installer at 1.800.531.5000 to relocate your dish.
- If your signal strength is lower than 70 (60 or lower on HD receivers) on most transponders in good weather, contact a professional installer to realign your dish or call us at 1.800.531.5000.



Check Satellite (SAT-IN) Connections



Coaxial Satellite Cable

FREQUENTLY ASKED QUESTIONS

Q: Why is my screen blue, black, gray or snowy?

Your TV displays a blue, black, gray or snowy screen.

Possible Causes:

- Your TV and/or your receiver are not powered on.
- The DIRECTV® Receiver and most TVs and VCRs let you toggle between different video sources. Your TV may be on a different input source than what you are trying to view.
- Your TV may not support the selected HD resolution from your receiver.

Solution:

- Check that the DIRECTV® Receiver and TV are both powered on.
- If you don't see your DIRECTV picture, verify the input your TV is on by turning the TV on and off. Most TVs display the input in the upper right- or left-hand corner. If the input is set to something other than your DIRECTV receiver, toggle through the inputs with the "input" button on the DIRECTV remote (if programmed) or TV remote until you get your picture. (If the DIRECTV remote is not working for the TV it may need to be programmed.)

If the TV remote is not available:

1. Find the Input or Source button on your TV and press it. It may be on the front panel, sides, bottom, or top edges of your TV.
 2. Slowly set the TV to each input option, one at a time. Sometimes it takes a second or two for the input to switch, so don't proceed too quickly.
 3. Set the TV to whichever input gives a picture.
- If you see a snowy screen and are using a coax connection to connect to the TV, make sure your TV is on channel 3 or 4.
 - Press the TV/VCR button on the VCR remote or on the VCR's front panel.
 - If problems persist, turn off all equipment connected to your TV, wait a few minutes, then turn the DIRECTV® Receiver back on.
 - Check your connections and cables.

FREQUENTLY ASKED QUESTIONS

- Check the HD output resolutions and deselect those not supported by your TV. For 1080p programs, some TVs do not support the 24 frame-per-second rate DIRECTV provides. Press the RES button on your receiver's front panel to change the resolution to one your TV supports.

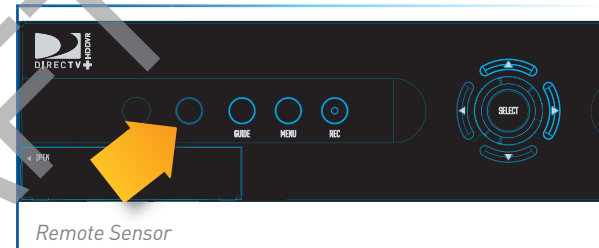
Q: Why doesn't my remote work?

Possible Causes:

- Weak batteries are almost always the problem.
- Trying to operate equipment other than your DIRECTV Receiver?
- Remote sensor on the receiver could be blocked.

Solution:

- Check that nothing is between the remote control and the remote sensor.
- Make sure the remote control is in DIRECTV mode. Slide the MODE switch on the remote to the DIRECTV position so the remote will control the DIRECTV® Receiver.
- Check the batteries in the remote control. They may be weak, dead or installed incorrectly. Try replacing batteries.
- If you're entering a channel number that is less than four digits long, the receiver might wait two seconds before tuning to the channel. Press ENTER after entering a channel number to tune immediately.
- If you are trying to operate a device other than the DIRECTV DVR that you have programmed the remote to control, make sure you first slide the MODE switch to the mode that is programmed for that device (AV1 or AV2). The indicator light for the component you're trying to control should light up when you press a valid key for that component. If it doesn't, make sure the MODE switch is in the correct position.



FREQUENTLY ASKED QUESTIONS

- Make sure the device you are trying to control has been programmed to your DIRECTV Remote Control. See Chapter 6, "Settings & Help:Settings:Remote Control" for instructions on how to program your remote to control other devices.
- If the indicator lights on the remote control start flashing, the batteries in the remote control are running low and should be replaced soon. You may also see an onscreen message that the batteries are low. Note that when you replace the batteries, you should not have to reprogram your remote to control other devices unless the batteries have been completely dead for a month or more.

Q: Why won't my DIRECTV® Receiver turn on?

Your receiver won't turn on with either the remote or from the front panel.

Possible Causes:

- Remote batteries have an insufficient charge.
- Receiver or power strip is not plugged in to a power source, or power cord is not plugged in to receiver.
- Wall outlet is not providing power.

Solution:

If your receiver won't turn on, the problem may be with the receiver itself, or with the remote control. Please try the following:

To Check the Receiver:

- Verify the detachable power cord is plugged into the back of the DIRECTV® Receiver and the wall outlet.
- Check the outlet or power strip to make sure it is "live" by plugging in something else.
- Try plugging receiver into a different wall outlet.
- Make sure the outlet is not controlled by a wall switch.
- Unplug receiver for five minutes, and then plug it in again.

FREQUENTLY ASKED QUESTIONS

- If your receiver is plugged into a power strip, check the power strip and reset by pressing its reset button. Make sure receiver is plugged into a power strip outlet that has continuous power. Some power strips have energy saving ports that only operate when a device is plug in and powered on.

To Check the Remote:

- Press the power button on the front panel. If the receiver turns on, issue is with remote.
- Make sure the remote control MODE switch is in the left-most position (DIRECTV Mode), and press PWR (power key) or press POWER button on the front panel of the receiver.
- Make sure remote batteries have sufficient charge. Green light should be solid green when the PWR button on remote is pressed. If the light blinks several times slowly, replace the batteries. If there is no light, make sure batteries are inserted with the positive and negative ends in the proper directions. Otherwise replace batteries.
- Make sure nothing is blocking the IR sensor on the on the receiver. Remote must be pointed at receiver, unless it is capable of RF and had been set up as RF.

I see a message on my TV screen that says, "Please Call Customer Service x721." What's going on?

Possible Causes

- The channel you're trying to watch may not be included in your programming package.
- Your DIRECTV® Receiver may not have the programming information for this channel.

Solutions

- If the channel is part of your programming package, try resetting your receiver by turning it off and unplugging it. Wait 15 seconds, then plug it back in and turn it on.
- If the channel is not part of your programming package, you can change your package online or call 1.800.531.5000.
- Finally, try reauthorizing your receiver. On a computer, go to directv.com/reauthorize and follow the onscreen instructions. You will need to be logged into your account on directv.com to complete this process.

FREQUENTLY ASKED QUESTIONS

Q: Why does my Progress Bar freeze while acquiring guide data / data from satellite?

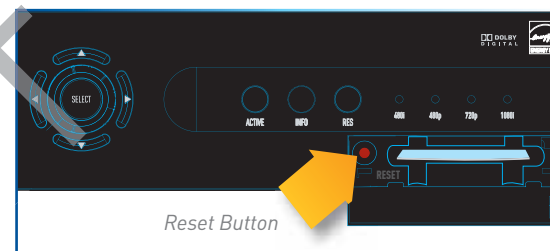
While the “Acquiring Guide Data” or “Acquiring Data From Satellite” message is on the screen, progress freezes during download.

Possible Causes:

- This may be normal. After five minutes, the screen saver will display. Press any key on the remote to see the progress bar again.
- May happen if your satellite dish isn't adjusted properly.

Solution:

- If satellite data acquisition still does not move forward, press the RESET button behind the access panel door on the front of the DIRECTV® Receiver and wait for program guide information to be acquired.



Q: Why are my video and audio out of sync?

The audio track does not match the lip movements on the screen.

Possible Causes:

- Problem with how the program was produced or how it was sent to DIRECTV for broadcast.
- Your surround sound system may be out of sync, or may be set up incorrectly.

Solution:

- Change the channel on your DIRECTV® Receiver. This may re-sync the audio.
- Rewind the program for about 5 seconds, then fast forward to live programming.
- Try replacing or switching the cables between your surround sound system and your DIRECTV Receiver. Refer to your surround sound system's manual for assistance.

FREQUENTLY ASKED QUESTIONS

- If the issue continues, reset your DIRECTV Receiver. Press the RESET button behind the access panel door on the front of the DIRECTV Receiver. You can also press MENU, press SELECT "Settings & Help", then "Settings". Select the "Reset" item from the left menu and follow the onscreen instructions.

Q: Why is there no audio with picture?

You can see a picture from your DIRECTV® Receiver, but there is no sound.

Possible Causes:

- A setting (such as mute or volume) may have changed on the receiver or your TV.
- The cables between your TV and the receiver may not be connected properly, or there may be a problem with an external stereo or surround sound system.
- Verify that your surround sound system is working, if applicable.
- Your TV may not support the selected HD resolution from your receiver.

Solution:

- Verify "MUTE" button not activated.
- Raise or lower the volume. Did volume meter display on TV?
- Test sound on TV by changing the input to another source, such as a DVD player, game box, or antenna.
- If connected to stereo or surround sound system, verify components are on and set to the correct mode, and that audio cables are secure and connected correctly.
- If the issue continues, reset your DIRECTV® Receiver. Press the RESET button behind the access panel door on the front of the DIRECTV® Receiver. You can also press MENU, select "Settings & Help", then "Settings". Select the "Reset" item from the left menu and follow the onscreen instructions.
- Check the HD output resolutions and deselect those not supported by your TV. For 1080p programs, some TVs do not support the 24 frame-per-second rate DIRECTV provides. Also, many TVs do not support 480i. You may have to press the RES button on your receiver's front panel to set the resolution to one your TV supports.

FREQUENTLY ASKED QUESTIONS

Q: What to do about partial programming loss; channels missing from Guide; channel is in the Guide but I can't tune to it?

Your Program Guide is missing channels, or you are unable to use the guide to tune to a channel.

Possible Causes:

- The channels might be excluded from the Favorites list currently in use.
- Your satellite dish may be incorrectly configured.
- Your receiver information may need to be refreshed.

Solution:

- To change your Favorites List, press GUIDE on the remote, then press the YELLOW button and select "Change Favorites List", then "All Channels".
- Enter the channel number using the number pad on the remote control.
- Check the dish type set in your receiver's preferences: Press MENU, select "Settings & Help", "Settings", "Info & Test", then "More System Info". Check the Satellite Dish Type shown on the System Setup screen to see if it is correct. If not, select "Satellite" from the left menu, then select "Repeat Satellite Setup". Follow the steps. From the Satellite Dish Type screen, make sure the proper dish type is selected.
- To refresh your receiver information, go to directv.com/reauthorize. You will need to be logged into your account on directv.com to begin this process.

FREQUENTLY ASKED QUESTIONS

Q: Why does my DIRECTV® Receiver turn off while playing?

Your receiver turns off unexpectedly.

Possible Causes:

- Excessive heat may have caused the receiver to go into a standby state.
- Electronic protection circuit may have been activated due to a power surge.
- You may have blown a circuit breaker or be experiencing a power outage.
- Parental viewing limits may have been activated on your DIRECTV® Receiver.

Solution:

- Ensure that your receiver has plenty of ventilation and that nothing is on top of the receiver.
- Wait 30 seconds for internal circuits to reset, then turn receiver back on.
- Consider using a line conditioner or surge protector.
- Consult an electrician if the problem is frequent or severe, especially if other household appliances or electronics are affected.
- If parental limits are active, turn your DIRECTV® Receiver back on and enter your parental lock code at the prompt.

Q: Why does my DIRECTV DVR turn on or change channels unexpectedly?

Your receiver changes to a different channel without a remote control command.

Possible Causes:

- A scheduled recording may be about to begin, so the receiver is changing channels to record the show as requested.
- Your TV's timer may have been activated.

FREQUENTLY ASKED QUESTIONS

Solution:

- Check your To Do List to see if there are other scheduled recordings. Press MENU, select "Recordings", then "Manage Recordings", then "To Do list".
- Check your TV owner's manual to turn off the TV's timer.

Q: Why is my screen blank?

There is no discernible video or image on the screen. Screen could be black, blue, grey or seem like TV is not on.

Possible Causes:

- Your TV and/or your receiver are not powered on.
- Your receiver may be hooked up to the TV incorrectly.
- You may be on the wrong video source for your DIRECTV® Receiver.
- You may be tuned to a channel that is not currently broadcasting, or that you don't subscribe to.

Solution:

- Check that DIRECTV DVR and TV are both powered on.
- Read Appendix 2, "Connections to TV and Equipment" for instructions about connecting your receiver.
- Press the INPUT button on the TV remote control to change video source.
- Try another channel and see if you have live video.
- Press the POWER button on the front panel of the DIRECTV® Receiver.
- Press the red RESET button behind the door on the front panel of the receiver.
- The program may have been blocked by Parental Locks.

FREQUENTLY ASKED QUESTIONS

Q: Why is Caller ID not working?

Caller ID information isn't showing on your TV screen when phone calls come in.

Possible Causes:

- You don't subscribe to Caller ID service through your local phone company.
- The Caller ID feature in your DIRECTV® Receiver is turned off. See "Caller ID" in Chapter 5.
- You are using a wireless phone jack, which usually will not transmit Caller ID information.

Solution:

- Contact your local phone company to subscribe to Caller ID service.
- Turn on Caller ID notification. Press MENU, select "Caller ID" and then select "Turn On Notices". (In some locations, you must press MENU, select "Extras", then "Caller ID", then "Turn On Notices".)
- Verify that your wireless phone jack transmits Caller ID information. If not, connect a standard phone cable to your receiver or replace your wireless phone jack.

Q: Why didn't a program I tried to record show up in the My Playlist screen?

You wanted to record a program to watch later, but it is not listed in your Playlist.

Possible Causes:

- Someone else may have prevented the recording or erased the program after it recorded.
- The recording may have been cancelled due to a conflict with another program with higher priority in the Prioritizer.
- The program may have been blocked by Parental Locks.
- You may have deleted a Series recording. If you delete a Series by pressing RECORD on an episode in the Guide, you cancel the entire series, not just the highlighted episode.

FREQUENTLY ASKED QUESTIONS

Solution:

- To see if the program was recorded then deleted, press MENU, select "Recordings", then "Manage Recordings", then in the left menu, select "History".
- If the recording was cancelled due to a scheduling conflict, you will need to record the program again and if necessary you will need to adjust the programming priority. See the "Manage Recordings: Series Manager" section in Chapter 4 for details.
- Check the Parental Locks on your receiver and TV. Adjust the content ratings, if necessary.

Q: I wanted to record a program, but I got an error message saying it conflicted with another scheduled record. What do I do?

Your DIRECTV DVR can record up to two programs at once, or it can record one program while you watch another live program.

Possible Causes:

- You tried to record three programs at the same time or tried to watch a live program while recording two others at the same time.
- There was an overlap in the programs you tried to record.

Solution:

- If you tried to record three programs at once, or watch a live TV program with two others recording, you will need to decide which recording to cancel.
- If the overlap is a couple of minutes (for example, some networks occasionally start programs at 8:59 instead of 9:00 p.m.), adjust your recording start and end time Recording Options. See the "Changing a Record Option" section in Chapter 4.
- Someone else manually deleted the program.
- The hard drive on your DVR is full. The program may not have recorded.

FREQUENTLY ASKED QUESTIONS

Q: I recorded a program and the recording got cut off just before the end so I missed the last bit of the program. Why?

Your recording stopped before the program or event ended.

Possible Causes:

- The program you were trying to record may have started or ended early.
- If you were trying to record a sporting event, the event may have run over its allotted time.
- You may have had a recording conflict with a higher priority program.
- Someone may have manually ended the recording.

Solution:

- Try setting the end time of the recording in the Record Options so the recording ends one or two minutes later (or more, if necessary). You may be able to record the same program again later in the week. Check the Program Guide for additional showings.
- For sporting events, you may want to extend the recording stop time 15 minutes or more to protect against overtime games.
- If you had a priority conflict, try adjusting your start and end times. You may need to choose a different time slot to record a program if the conflict continues.

Q: Why was a program I recorded displayed in the My Playlist screen, but deleted before I could watch it?

Your recording(s) were deleted before you had a chance to view them.

Possible Causes:

- Someone else manually deleted the program.
- The hard drive on your DVR is full. The program may not have recorded.
- The receiver may have deleted older recordings to make room for newer ones.

FREQUENTLY ASKED QUESTIONS

- You exceeded the allotted purchase or viewing time on a Pay Per View movie or event.
- Bad weather may have caused a loss in signal. Your receiver will automatically delete these incomplete programs.

Solution:

- Delete some of the content on your DVR to make room for new recordings.
- Change your recording options to keep programs until you delete them manually. See "Recording a Single Show" or "Recording a Series" in Chapter 4 for details.
- You can also change a recording you've already made to "Keep Until I Delete". See "Managing My Playlist" in Chapter 4.
- To avoid this in the future, you can change settings for recordings that you've set to occur in the future, but haven't recorded yet. Press MENU, select "Recordings", then "Manage Recordings", then "To Do List", choose the show you want to change and select it, select RECORD, press SELECT on "Keep...", press SELECT on the "Keep Until" box to change it to "I Delete", use the ARROW button to move over to Update and press SELECT.
- If you recorded a DIRECTV CINEMA movie or Pay Per View event, but did not watch it, the time which you are allowed to purchase or watch it may have expired. To avoid this in the future, check your Pay Per View recordings in the My Playlist screen for expiration dates.

Q: I've set up a series recording. Why do I get a bunch of reruns and multiple copies of the same program?

Your DVR is getting full of duplicate recordings of the same program, or old episodes of the chosen show.

Possible Causes:

- Your series is set to record both First Run and Repeat episodes.
- The programmer may not provide enough details in the program description for your receiver to determine whether the program is a repeat.

Solution:

- When you set up a series, make sure you select only the "First Run" option. This is the default for one-touch recording unless you have changed your default recording settings.

FREQUENTLY ASKED QUESTIONS

Q: Why can I not see DIRECTV menus and screens on my TV? OR

Why do I see a message that says, "This TV or its cables are not HD. To see screen graphics, press the RES key on the front of the receiver until this message no longer appears".

When the receiver resolution is set to 720p, 1080i, or 1080p, DIRECTV screens and menus ("user interface") will not appear on Standard Definition (SD) outputs. A message is displayed to notify you that the resolution setting needs to be changed.

Possible Causes:

- You have connected your receiver to your TV using both a High Definition output (HDMI) and Standard Definition (SD) outputs (S-Video, Component (Red/Yellow/White), or Coaxial) on the same receiver.
- You are using SD outputs (S-Video, Component (Red/Yellow/White), or Coaxial) and have the receiver set to HD resolutions such as, 720p, 1080i or 1080p.

Solutions:

- Change the receiver resolution to 480i or 480p by pressing the RES button on the front receiver panel until 480i or 480p is selected.
- Uncheck all resolutions except 480i or 480p on the TV Resolutions menu. Press MENU, select "Settings", "HDTV" and then "TV Resolutions". Follow the onscreen instructions.
- Turn "Native" Off. Press MENU, select "Settings", "HDTV", "Video", then "Native", and follow the onscreen instructions.



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CHAPTER 9: WARRANTY AND OTHER INFO

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LIMITED 90-DAY WARRANTY

DIRECTV warrants your DIRECTV HD DVR (Model Number: HR20, HR21, HR22, HR23, HR24) or Advanced Whole-Home HD DVR (Model Numbers: HR34, HR44 and above) and any included accessories against defects in material or workmanship for a period of ninety (90) days after the date of acquisition.

WHO IS COVERED?

You must have proof of acquisition to receive warranty service. A receipt or other document showing that you acquired the product is considered proof of acquisition. THIS LIMITED WARRANTY EXTENDS ONLY TO THE ORIGINAL CONSUMER ACQUIRER OR ANY PERSON RECEIVING THE DIRECTV HD DVR AS A GIFT FROM THE ORIGINAL CONSUMER ACQUIRER AND TO NO OTHER ACQUIRER OR TRANSFEREE. THIS WARRANTY DOES NOT EXTEND TO COMMERCIAL USERS. THIS PRODUCT IS NOT AUTHORIZED FOR USE OUTSIDE THE UNITED STATES AND ANY SUCH USE VOIDS THIS WARRANTY.

WHAT IS COVERED?

Warranty coverage begins the day you acquire the product. For ninety (90) days from the acquisition date, at the option of DIRECTV, the DIRECTV HD DVR will be repaired or replaced with a new, repaired, refurbished or comparable product (whichever is deemed necessary) if it becomes defective or inoperative. This exchange is done without charge to you for parts and labor. You will be responsible for the cost of shipping to and from the location designated by DIRECTV. If DIRECTV cannot reasonably repair or replace the Receiver then DIRECTV may, at its sole discretion, refund the price you paid for the product or the current retail price of the product.

All products, including replacement products, are covered only for the original warranty period. When the warranty on the original product expires, the warranty on the replacement product also expires. After ninety (90) days from the date of acquisition, you pay for the replacement of all parts, and for all labor charges.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

LIMITED 90-DAY WARRANTY

WHAT IS EXCLUDED?

Your warranty does NOT cover:

Labor charges for installation or setup of the product.

Installation, performance of, or repair of: audio/video cabling, telephone line, or accessory attachments used with the product.

Product replacement because of misuse, accident, lightning damage, unauthorized repair, or other cause not within the control of DIRECTV. Incidental or consequential damages resulting from the product. **SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.** Any modifications or other changes to the product, including but not limited to software or hardware modification in any way other than as expressly authorized by DIRECTV will void this limited warranty. Except in the case of hardware or software provided by DIRECTV, installing software modifications, "hacks" or utilizing service access or "back doors" will void this limited warranty.

Reception transmission problems caused by signal conditions, telephone line, or cable or antenna systems outside the unit. A product that has been modified or adapted to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications. A product used for commercial or institutional purposes.

DIRECTV makes no warranty that the access connection will be a local (not long distance) phone call.

The continued provisioning of any of the programming and other services delivered through the Receiver including but not limited to television programming, show information, program guide data, and scheduling information.

MAKE SURE YOU KEEP...

Please keep your receipt or other document showing proof of acquisition. Attach it to this User Guide (see page 10) and keep both nearby. Also keep the original box and packing material in case you need to return your product.

BEFORE REQUESTING REPAIR SERVICE...

Please check the troubleshooting section of this guide. This may save you a call to DIRECTV Customer Care.

LIMITED 90-DAY WARRANTY

TO GET WARRANTY SERVICE...

Warranty service will be provided by DIRECTV. If you believe you need service for your Receiver, contact DIRECTV at 1-800-DIRECTV. A representative will go through a diagnostic checklist with you. If it is determined that the product needs to be returned for service or exchanged, you will receive a return authorization number. The representative will give you complete shipping details.

TO GET OUT-OF-WARRANTY SERVICE...

To obtain out-of-warranty service contact DIRECTV at 1-800-DIRECTV for information on the possibility of and any costs for repair or replacement of out-of-warranty products.

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DIRECTV
2230 E. Imperial Hwy
El Segundo, CA 90245
1-800-DIRECTV

DIRECTV PROTECTION PLAN

Safeguard your DIRECTV® System with the ultimate in professional technical service. For a low monthly fee, the DIRECTV PROTECTION PLAN covers the components of your entire DIRECTV® System, giving you affordable peace of mind and comprehensive support to ensure that you and your family enjoy nonstop DIRECTV® entertainment.

DIRECTV PROTECTION PLAN Benefits

Your DIRECTV Limited Warranty provides certain remedies for this receiver during the stated coverage term. The DIRECTV PROTECTION PLAN provides comprehensive coverage for your DIRECTV® System, including:

Professional In-home service calls when needed	Dedicated Technical Support 24-hour a day
Power surge related repairs including those caused by lightning	Unlimited dish antenna alignments
Cables, switches and associated wiring throughout your home	Replacement of defective receiver equipment (if problem can not be resolved over the phone)
Defective remote control replacements	All parts and labor for repair

All this — for one low monthly fee — covers every DIRECTV component and receiver on your account.

Sign up today for the DIRECTV PROTECTION PLAN by calling 1-800-DIRECTV

The DIRECTV PROTECTION PLAN is offered by AIG Warranty Guard and underwritten by New Hampshire Insurance Company on behalf of DIRECTV where authorized by law. Certain limitations may apply. Pricing, terms and conditions of the DIRECTV PROTECTION PLAN are subject to change. Full terms and conditions will be mailed to you prior to service billing and are available at directv.com/protection.

FCC CUSTOMER INFORMATION

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:

DIRECTV
2230 E. Imperial Hwy
El Segundo, CA 90245
1-800-DIRECTV

- Trade Name: DIRECTV
- Type of Equipment: DIRECTV Satellite Receiver
- Model Number: HR34, HR42, HR44, C31, C41, C41W and above

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

This equipment has been tested and found to comply with the limits of 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.

FCC CUSTOMER INFORMATION

- CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

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 requirements, only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with Class B limits may be attached to this device. Operation with non-certified 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.

This equipment complies with Part 68 of the FCC Rules and the requirements adopted by ACTA. On the back of this equipment is a label that contains a product identifier in the format US:AAAEQ##TXXXX.

If requested, this information must be provided to your telephone company. This equipment uses the following USOC Jack: RJ11C. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant.

See installation instructions for details.

The REN (Ringer Equivalence Number) is used to determine the number of devices that may connect to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the RENs should not exceed five (5.0).

To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact your local telephone company. The REN for this product is part of the product identifier that has the format US: AAAEQ##TXXXX. The digits represented by ## are the REN without the decimal point (e.g., 03 is a REN of 0.3).

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

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance in order for you to make necessary modifications to

FCC CUSTOMER INFORMATION

maintain uninterrupted service. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

If trouble is experienced with this unit, for repair or warranty information, please contact DIRECTV Customer Care at the address and phone number listed below. If the equipment is causing harm to the network, the telephone company may request that you disconnect the equipment until the problem is resolved.

DIRECTV
2230 E. Imperial Hwy
El Segundo, CA 90245
1-800-DIRECTV

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this DIRECTV Satellite Receiver does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your alarm company, telephone company or a qualified installer.

DO NOT DISASSEMBLE THIS EQUIPMENT. It does not contain any user-serviceable components.

We recommend the installation of an AC surge arrester in the AC outlet to which this equipment is connected. Telephone companies report that electrical surges, typically lightning transients, are very destructive to customer terminal equipment connected to AC power sources.

FCC RF Radiation Exposure Statement

MPE/SAR/RF Exposure Information. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

This equipment was verified for RF exposure and found to comply with Council Recommendation 1999/519/EC and FCC OET-65 RF exposure requirements.

WARNING: While this equipment is in operation, a separation distance of at least 20 centimeters (equal to 8 inches) must be maintained between the antenna inside the equipment and the bodies of all persons exposed to the antenna in order to meet the FCC RF exposure guidelines. Making changes to the antenna or the equipment is not permitted. Doing so may result in the equipment exceeding the FCC RF exposure guidelines. This equipment must not be co-located or operated in conjunction with any other antenna or radio transmitter.

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Attention: Vice President, STB Engineering
DIRECTV
2230 E. Imperial Highway
El Segundo, CA 90245

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Version 2, June 1991

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These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

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- c) Accompany it with the information you received as to the offer to distribute corresponding source code. [This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.]

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

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DRAFT

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APPENDIX 1: SETUP AND ACTIVATION

GUIDED SETUP

If your receiver was not professionally installed, or you have had to reset your receiver for any reason, you will need to follow the guided setup screens before starting DIRECTV service.

1. Make sure the MODE switch at the top of the remote control is set to DIRECTV, which is the far-left position.
2. Press PWR. The DIRECTV® Receiver will turn on. (Make sure your TV is also turned on!)
3. The first screen will allow you to select a language. Using the arrow keys on the remote control, move to the language you prefer and press SELECT.
4. Follow the onscreen instructions.

After these setup procedures are complete, you'll see a message onscreen that says, "Acquiring Satellite Info", as the receiver gathers information from the satellite for the onscreen program guide. Next, you'll be given the opportunity to program your remote to control other equipment such as your TV and/or DVD player. Just follow the screen instructions and you'll be ready to watch in no time!

ACTIVATE YOUR DIRECTV® SERVICE

Once all the setup processes are complete, all that's left to do is activate your DIRECTV® service. Be sure to:

1. Have on hand your service address, social security number and a valid major credit card.
2. Note your receiver ID and access card numbers. The receiver ID is on a sticker behind the access card door on the front of the receiver, while the card number is on the access card itself. Use the Product Information page to note this information.
3. When you're ready, just call 1.800.531.5000 to pick the programming package that's right for you and subscribe to DIRECTV service.

APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

YOUR PHONE CONNECTION

Connecting your receiver to a land-based telephone line saves you money because it allows you to purchase Pay Per View movies and special events without calling DIRECTV® to order. It is required for sports package subscriptions and is also used to enhance the interactive features available on our interactive channels. The receiver uses a toll-free number once a month for a few minutes duration and is designed not to interfere with your regular phone service. You will need an RJ11-type modulator jack (the most common type of phone jack). If you disconnect the phone line, the receiver will not allow you to purchase PPV programs and some features of our interactive channels will be limited. If your receiver is connected to the Internet, either directly or via a DIRECTV Home Network connection, you do not need to be connected to a phone line. See "Your Internet Connection" below.

Do not connect your receiver to a digital PBX phone system — doing so may permanently damage your equipment and void your warranty.

YOUR INTERNET CONNECTION

Connecting your DIRECTV Receiver to the Internet and your home network gives you access to features like TV Apps, Music & Photos, and more.

The instructions for connecting to a network are different depending upon whether you have Whole-Home DVR Service. Please see Appendix 4.

NOTE: For the most current options and instructions to connect your receiver to the Internet, please visit directv.com/getconnected.

APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

CONNECTIONS FOR AUXILIARY EQUIPMENT

If you upgrade your TV, get a new DIRECTV® Receiver, or add new equipment such as a surround sound system, DVD player or burner, or VCR, you have various options for connecting your equipment. All of the video and audio outputs on your receiver offer good quality. Pick a video and audio output from the following lists based on the connectors your receiver and TV support; they are listed in order, with the highest quality options at the top of each list. Not all connectors are available on all receivers and TV models.

NOTE:

- Not all cables come with your digital satellite receiver; you may need to purchase additional cables depending on your setup. HDMI cables are available from DIRECTV at a nominal charge. Contact DIRECTV customer service for more information.
- Never connect an IN to an IN or an OUT to an OUT. All A/V jacks and inputs are color-coded. Always match the color of the plug to the same color of the jack.
- To obtain the best picture quality, make sure the receiver is connected directly to the TV.
- Due to restrictions imposed by copyright holders, certain programming may include content protection measures that may restrict viewing or recording with certain consumer electronics equipment attached to the receiver. Please contact the manufacturer of such equipment for additional information.

WARNING: Use only the power supply (power cord) that came with your DIRECTV receiver. Failure to use the authorized power supply (power cord) may cause electric shock, fire, bodily injury and/or property damage. If the power supply (power cord) becomes damaged or needs to be replaced, please contact DIRECTV Customer Service to obtain an authorized replacement.

WARNING: Do not connect your receiver (or any other equipment, such as a TV or VCR) to the AC power supply until you have properly connected all the other cables.

APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

The table below shows the benefits and disadvantages of each type of available video connector:

	HDMI	Component	S-Video	RCA
High Def (HD)	✓	✓	✗	✗
HD 1080p	✓	✗	✗	✗
3D	✓	✗	✗	✗
Built-in Audio	✓	✗	✗	✗
Standard Def	✓	✓	✓	✓

HD Video Connections

- **HDMI [High-Definition Multimedia Interface]** provides the best digital video and digital audio in one connector. HDMI is the only recommended cable, and is required for the highest quality 1080p signal and 3D TV.
- **Component Video Output (YPbPr)** provides high-quality HD video, but does not provide audio. You will need to connect audio separately using the digital audio or RCA audio connectors. Newer receivers have an "A/V Out" connector that provides Component Video and RCA audio output in a single, custom cable. Component cables do not provide 1080p or 3D TV.

SD Video Connections

These cables are provided for convenience only, and do not present an HD picture. They are useful if you have to connect your DIRECTV® HD DVR to an older CRT TV, a VCR, or other non-HD device.

- **S-Video** provides good video, but does not provide audio. You will need to connect audio separately using the digital audio or RCA audio connectors. (Not all receivers have S-Video outputs.)
- **RCA output (composite video)** provides good video and usually comes bundled with three cables for one video and two audio channels.

APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

Audio Connections

- **HDMI [High-Definition Multimedia Interface]** provides the best digital video and audio in one connector.
- **Digital Audio Optical** provides excellent quality digital audio and is often used on newer surround sound and DVD equipment.
- **Digital Audio Coax** provides high quality digital audio and is also found on newer surround sound and DVD equipment.
- **RCA** outputs provide good audio quality and are found on older auxiliary equipment.

There are so many makes and models of TVs and auxiliary equipment, it is impossible to fully describe all of the possible connections between them and your receiver. Refer to the manuals for that equipment to see the connection options specific to each make and model. The following images show examples of how your receiver may be connected using the supported video and audio connections for the TV, the surround sound, and the DVD player/burner or VCR. Several models of DIRECTV Receivers are shown, giving you a variety of connection options to your TV and other equipment.

APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

HD TV CONNECTIONS

Example: TV with HDMI Connector - RECOMMENDED

Here is an example using a TV that has an HDMI connector as the best video/audio input.

Note: **Only** an HDMI connection provides a 1080p picture and 3D TV.



APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

HD TV CONNECTIONS

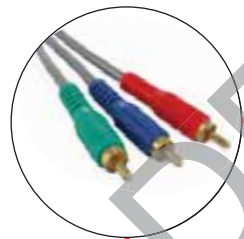
Example: TV with Component Video Connectors

Here is an example using a TV that has component video connectors as the best video input.

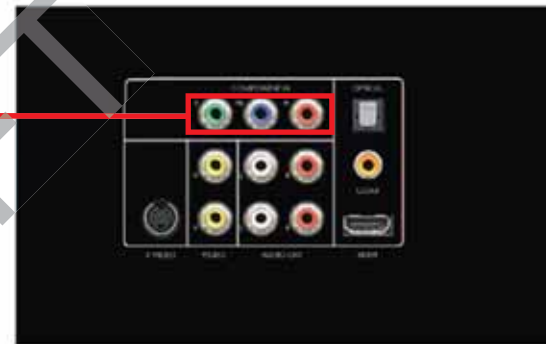
Note: A Component Video connection will not provide a 1080p picture nor 3D TV.

Component Video requires a separate audio connection.

Component Video



Television



APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

SD TV CONNECTIONS

[This connection does not provide an HD picture.]

Example: TV with RCA Connectors

Here is an example of a TV that has an S-Video connector as the best video input [Not all receivers have an S-Video connector.]

S-Video requires a separate audio connection.



APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

SD TV CONNECTIONS

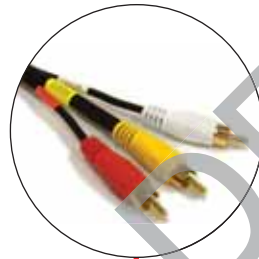
(This connection does not provide an HD picture.)

Example: TV with RCA Connectors

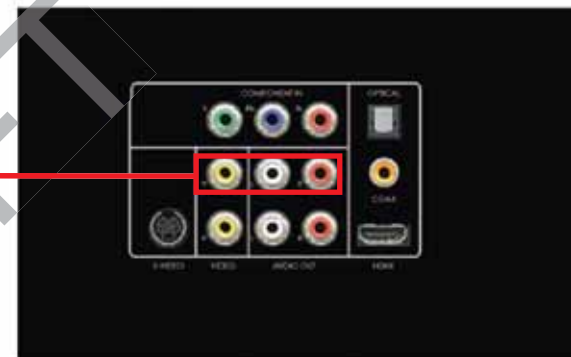
Here is an example of a TV that has RCA connectors as the best video input.

RCA cables are often bundled as a three-way cable with one video and two audio connections. You can also purchase a single-connection RCA video cable, and a separate cable for audio.

*RCA Video
and Audio*



Television



APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

AUDIO CONNECTIONS

Of all the video connections, only HDMI provides an audio signal with the video. The other connections all require a separate audio cable. Of these, your best quality signal will be from the Digital Audio Out/Optical connector, followed by the Digital Coax connector, followed by the RCA Audio Out connector.

The connector you end up using may be determined by the equipment you are connecting to. (For example, your home theater system may support only the Digital Audio Out/Optical connector.)

The red and white RCA audio out connectors are so common, it is possible you may have one of these cables already. However, these cables provide an analog signal, so you will be missing out on the benefits of digital quality sound.



APPENDIX 2: CONNECTIONS TO TV & EQUIPMENT

CONNECTIONS TO OTHER EQUIPMENT

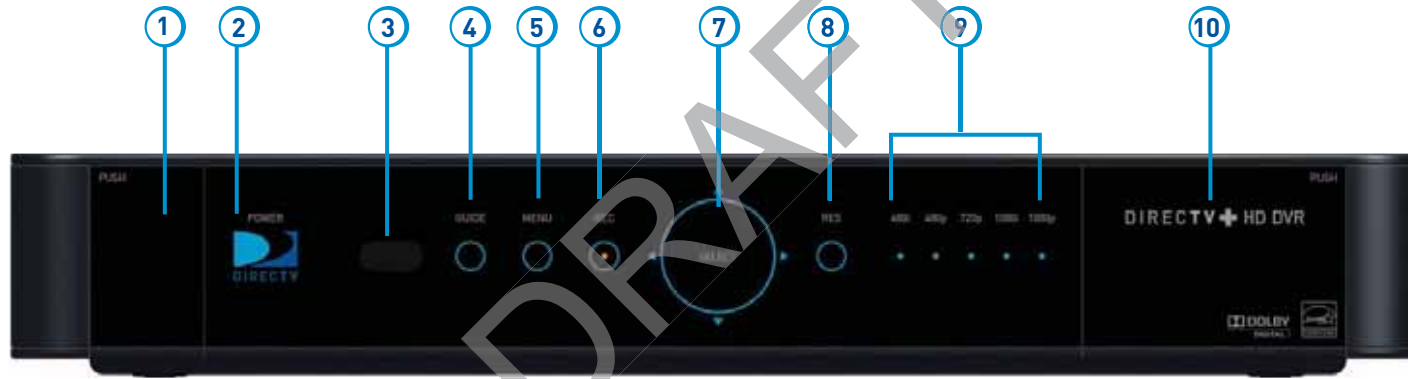
In addition to your TV, you may wish to connect other equipment, such as a DVD burner, VCR, or even a second TV to your DIRECTV® Receiver. For the best-quality picture, it is recommended you do not use a pass-through connection from your TV or other equipment as an input to a DVD burner or VCR. Instead, use an available connection from your DIRECTV Receiver. For example, if you use the HDMI connection on your DIRECTV Receiver to connect to your TV, you can use the Component Video, Composite Video RCA, or S-Video Out to connect to your DVD burner, VCR, or second TV.



APPENDIX 3: RECEIVER FRONT AND BACK PANELS

Front Panel Example

The buttons on the front panel perform the same functions as similarly named buttons on the remote control. You can use the front panel buttons at any time, but they are especially useful if you misplace your remote control or the batteries die.



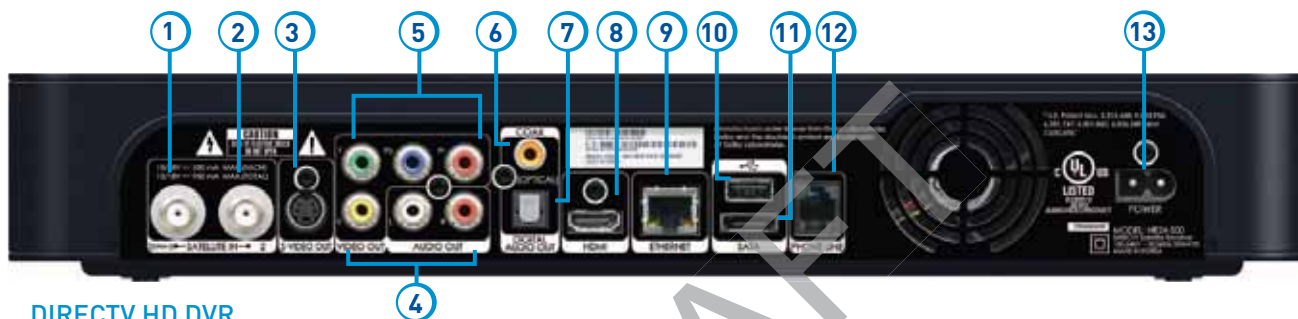
Your equipment may not look exactly like the model illustrated.

APPENDIX 3: RECEIVER FRONT AND BACK PANELS

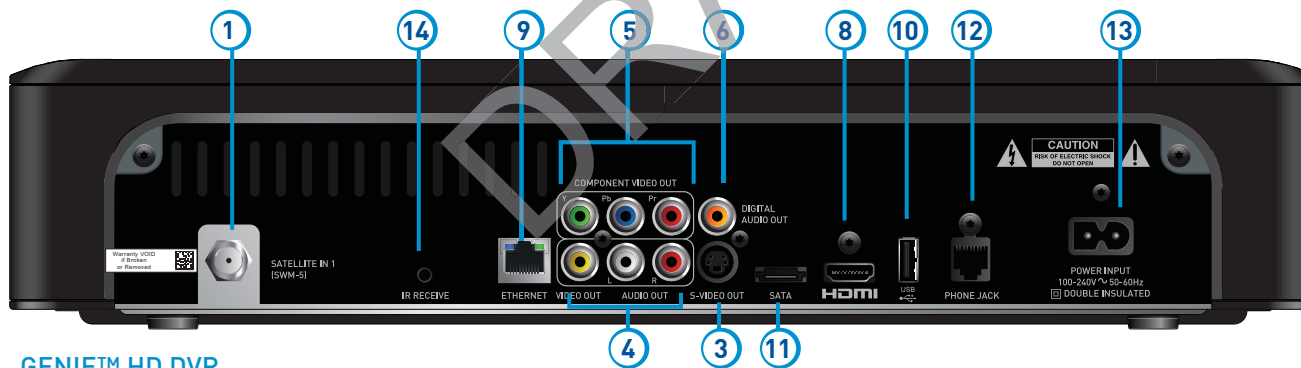
1. **DOOR PANEL, USB PORT** – For future use. USB 2.0 Host (FRONT/REAR EACH 5V = 500mA)
2. **POWER** – Turns your DIRECTV® Receiver on or off. Your DIRECTV Receiver still records and receives messages when powered off. The power light flashes when you press a key on the remote to let you know it has received the command.
3. **REMOTE SENSOR** – The infrared sensor picks up commands from the remote control. You cannot have any opaque object between the remote and this sensor or else the command will not get through. If you have an optional RF remote, this sensor is not used. With an optional RF remote, you can place your receiver inside a cabinet or any non-metal enclosure and it will receive the remote control commands up to 200 feet away.
4. **GUIDE** – Displays the onscreen program guide.
5. **MENU** – Brings up the Main Menu to access settings and services.
6. **RECORD** – This button lights orange when a recording is in progress.
7. **SELECT** – Selects the item highlighted.
8. **RES (RESOLUTION)** – The RES key switches the output resolution of the DIRECTV Receiver. Each time you press the key, it cycles to the next available resolution: 480i, 480p, 720p, 1080i and 1080p (supported on some models). Note: The RESOLUTION button on the front panel only changes the resolution. It does not change the screen format (crop, stretch, letterbox, pillarbox). The FORMAT button on the remote control cycles through all of the screen formats and resolutions. See Appendix 5 for details.
9. **RESOLUTION INDICATORS** – Lights indicate the current resolution setting. 480i is the old analog TV setting. 480p is Enhanced Definition TV, which is less than HD. 720p is the first level of HDTV. 1080p is the highest level of HDTV provided by the receiver. To get the best out of HD, you should be using 720p or higher resolution for your HDTV.
10. **DOOR / PANEL, ACCESS CARD** – The access card slot, RESET button, and receiver ID and model number are located behind the door panel.

APPENDIX 3: RECEIVER FRONT AND BACK PANELS

Back Panel Examples



DIRECTV HD DVR



GENIE™ HD DVR

Your equipment may not look exactly like the model illustrated.

APPENDIX 3: RECEIVER FRONT AND BACK PANELS

1. **SATELLITE IN 1** – Connect one line from your satellite dish here. A Single Wire Multi-Switch (SWM) connection, if applicable, is made to this satellite in port.
2. **SATELLITE IN 2** – Connect the second line from your satellite dish here.
3. **S-VIDEO OUT** – A Standard-Definition video output.
4. **RCA-Audio/Video Jacks** – Standard-Definition output. You can use the entire row of RCA connectors (yellow, white and red) to feed a VCR or DVD player/burner.
5. **COMPONENT VIDEO OUT** – Use this block to connect up component video cables (green, blue, red); use the white and red RCA connectors below it for analog audio out. **These connectors provide an HD picture, but do not support 1080p or 3D.**
6. **DIGITAL AUDIO OUT COAXIAL** – Use this digital audio connection for sound.
7. **DIGITAL AUDIO OUT OPTICAL** – Use this digital audio connection for sound.
8. **HDMI** – Use this combination digital video and audio connector for the best picture quality. **This is the recommended connector for HD TV.**
9. **ETHERNET** – Please refer to Appendix 4 for information on networking options on your HD DVR before connecting anything to the Ethernet port.
10. **USB** – For future use. USB 2.0 Host (FRONT/REAR EACH 5V = 500mA)
11. **SATA** – Use this connector to add an external hard drive to your receiver.
12. **PHONE JACK** – Connect your phone line here to enable Pay Per View purchasing and Caller ID (if your phone service package includes it).
13. **POWER** – Your receiver must be plugged in at all times to function properly.
14. **IR RECEIVE** – Connect an IR (infrared) extender or repeater here when your receiver is in a cabinet or otherwise not “visible” to your remote control.

APPENDIX 4: HOW TO NETWORK YOUR HD DVR

To use your DIRECTV HD DVR on your home network, you will need:

- A compatible DIRECTV Receiver, such as the DIRECTV HD DVR (models HR44, HR34, HR20 or later) or DIRECTV Plus® DVR (model R22)
- A broadband Internet connection, with a minimum connection speed of 750 kbps or higher (DSL or cable).
- A network router with an available Ethernet port, and/or wireless capability.

The instructions for connecting to a network vary depending on whether or not you have Genie or Whole-Home DVR Service. Please see the appropriate sections that follow.

NOTE: For the most current options and instructions to connect your receiver to the Internet, please visit directv.com/getconnected.

If you have Whole-Home or Genie HD DVR service:

- **Professionally Installed DIRECTV CINEMA Connection Kit:** Schedule a professional installation appointment at directv.com/getconnected.
- **Wireless Self-Installed DIRECTV Cinema Connection Kit:** If you already connect to the Internet via WiFi, you can order this wireless kit at directv.com and connect yourself.

If you do not have Whole-Home DVR or Genie DVR service:

- **Wired:** The fastest, most reliable connection. Your house must be wired for Ethernet, or you must run cables from a network router to your DIRECTV HD DVR.
- **Wireless:** This can be easiest method if you already connect to the Internet via Wi-Fi. However, wireless connections may be slower and somewhat less reliable than wired. You can order the Wireless DIRECTV CINEMA Connection Kit from directv.com, or at 1.800.531.5000.

APPENDIX 4: HOW TO NETWORK YOUR HD DVR

If you have Whole-Home DVR Service:

PROFESSIONALLY INSTALLED DIRECTV CINEMA CONNECTION KIT

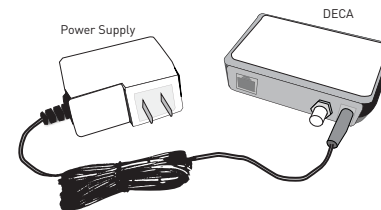
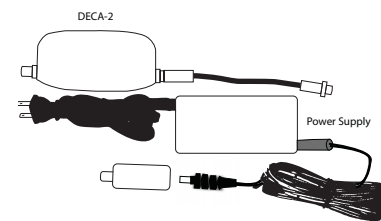
Because Whole-Home DVR service uses a network to share programs between your DIRECTV receivers, only a professionally installed DIRECTV CINEMA Connection Kit or the DIRECTV CINEMA Connection Kit - Wireless can be used to connect to the Internet.

- Never connect an Ethernet cable to an HR24 or H24 receiver with Whole-Home DVR service; this will disable the Whole-Home network and disable playlist sharing.
- If you have DECA Connected Home Adapters connected to your HD DVR (Models HR20-23, R22), you must use either a professionally installed DIRECTV CINEMA Connection Kit, or the DIRECTV CINEMA Connection Kit - Wireless, to connect to the Internet.

Your professionally installed DIRECTV CINEMA Connection Kit will include a Broadband DECA similar to one shown of the models here.

The DIRECTV CINEMA Connection Kit connects to a coaxial cable and an Ethernet cable connected to your home router to provide home network and Internet connectivity to all of the Whole-Home capable receivers in your household.

If you have Whole-Home DVR Service and are having difficulty accessing the DIRECTV CINEMA service or DIRECTV™ Media Share features, check to ensure the Broadband DECA is powered and the coaxial cable and Ethernet cable are firmly connected.



APPENDIX 4: HOW TO NETWORK YOUR HD DVR

SELF-INSTALLED DIRECTV CINEMA CONNECTION KIT - WIRELESS

You can also order the DIRECTV CINEMA Connection Kit - Wireless from directv.com, or by calling 1.800.531.5000. Please follow the installation instructions in the kit's user guide.

If you do not have Whole-Home DVR service:

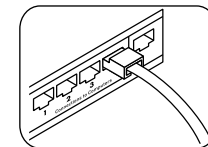
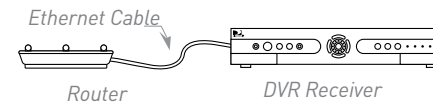
WIRED

Step 1 - Connect your DIRECTV HD DVR to your router

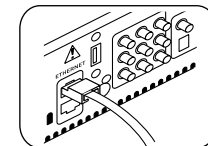
Connect one end of your Ethernet cable to the Ethernet port on the back of your router.

Connect the other end of the Ethernet cable to the Ethernet port on the back of your DIRECTV HD DVR.

Direct Connection



Ethernet cable connects to an unused port on the router



Ethernet cable plugs into receiver

APPENDIX 4: HOW TO NETWORK YOUR HD DVR

Step 2 - Verify that you are connected

To verify you are connected:

- Press **MENU** on your DIRECTV Remote
- Select **Settings & Help**
- Select **Settings**
- Select **Network Setup**
- Choose **Connect Now** (or Test Connection if you have connected previously)
- Select **Continue** after successfully connecting to DIRECTV via the Internet (See figure A).

Select **Done** to complete the setup process (See figure B).

If your DIRECTV HD DVR does not immediately recognize the network connection, you will get the option to choose the connection method. Choose **Wired** (See Figure C). Follow the onscreen instructions.

Figure A



Figure B



Figure C



APPENDIX 4: HOW TO NETWORK YOUR HD DVR

WIRELESS

Create a wireless connection between your wireless router and your DIRECTV HD DVR, so your receiver can access the Internet.

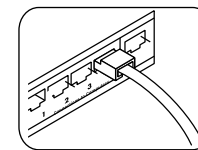
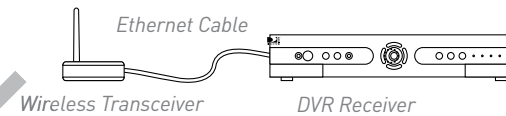
Along with the Network Requirements at the beginning of Appendix 4, you will need:

- A wireless adapter that uses an Ethernet port to connect to a media device, preferably the DIRECTV CINEMA Connection Kit - Wireless, as mentioned above [USB devices are not supported by the DIRECTV HD DVR].
- A wireless router (in place of a regular router). You must have initialized your wireless device for your home network before beginning to network your DIRECTV HD DVR.

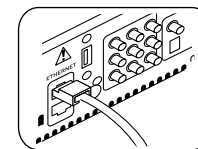
Step 1: Connect your DIRECTV HD DVR to the wireless adapter

Connect one end of the Ethernet cable to the Ethernet port on the back of the wireless adapter. Connect the other end of the Ethernet cable to the Ethernet port on the back of your DIRECTV HD DVR. If using the DIRECTV Cinema Connection Kit - Wireless, follow connection instructions found in the user's manual that came with the device (or go to directv.com/getconnected) to determine proper connection.

Plug your wireless adapter into an electrical outlet.



Ethernet cable connects to the Ethernet port of the wireless adapter.



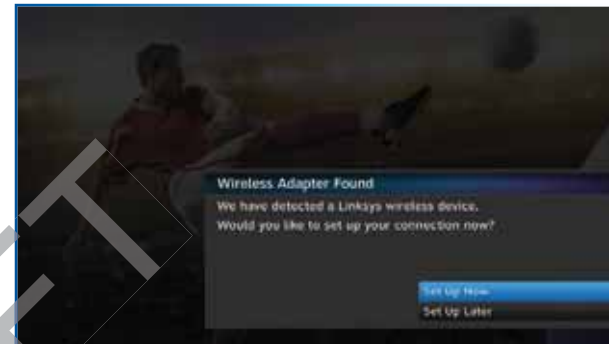
Ethernet cable plugs into DVR Receiver

APPENDIX 4: HOW TO NETWORK YOUR HD DVR

Step 2 - Ensure the wireless adapter is recognized by your home network.

- Once your router detects the wireless adapter it will prompt you to configure the two devices.
- Select **Set Up Now**.
- Highlight your wireless network and press SELECT to display a blue dot next to your network. Then select **Continue**.
- Follow the onscreen instructions to complete the set-up process of the wireless adapter.

NOTE: If you are having difficulty connecting to the Internet or need more information, visit www.directv.com/getconnected.



APPENDIX 4: HOW TO NETWORK YOUR HD DVR

Step 3 - Verify that you are connected

To verify you are connected:

- Press **MENU** on your DIRECTV Remote
- Select **Settings & Help**
- Select **Settings**
- Select **Network Setup**
- Choose **Connect Now** (or Test Connection if you have connected previously)
- Select **Continue** after successfully connecting to DIRECTV via the Internet (See figure A).

Select **Done** to complete the setup process (See figure B).

If your DIRECTV HD DVR does not immediately recognize the network connection, you will get the option to choose the connection method. Choose **Wireless** (See Figure C). Follow the onscreen instructions.

Figure A



Figure B



Figure C



APPENDIX 5: ABOUT HIGH-DEFINITION

SCREEN FORMAT & RESOLUTION

In addition to resolution and interlacing, a television picture is also defined by its aspect ratio—referring to the shape of the screen as defined by the ratio of the screen's width to its height.

For analog TV, the aspect ratio is 4 units wide by 3 units high (4:3). This is the familiar shape of conventional TVs—slightly wider than they are tall. SDTV and EDTV pictures can be either 4:3 or 16:9. For HDTV broadcasts, the aspect ratio is 16:9—nearly twice as wide as it is tall. This is approximately the shape of movies shown in theaters, which makes HD an ideal format for viewing movies on TV. You will be able to see much of what is captured on film, but lost on an SDTV display.

In order to optimize the display of programs on your television — for example, if you are watching a 4:3 channel on a 16:9 TV or vice versa — you may occasionally need to change the resolution and/or screen format. There are two keys that can be used to make changes: the FORMAT key on the remote control and the RES (Resolution) key on the front panel of the DIRECTV HD DVR. To change your Screen Format, TV Ratio, or TV Resolution settings, press MENU, select "Settings & Help", then "Settings", and then "HDTV".

FORMAT Key on Remote Control

Press the FORMAT key on your remote to cycle the resolutions settings supported by your TV, as well as the screen formats in conjunction with each individual resolution. Available screen formats such as crop, stretch or letter/pillar box, are based on the TV Ratio setting. With each press, an onscreen message will let you know what the current resolution/format setting is.

For example, if you indicated that your TV supports only 1080i, 480i and 480p and it is a 16:9 television, and Native is turned off*, the cycle of settings for the FORMAT key are as follows:

1st press: 480i/Stretch	5th press: 480p/Letter box	9th press: 1080i/Crop
2nd press: 480i/Letter box	6th press: 480p/Crop	10th press: repeat cycle
3rd press: 480i/Crop	7th press: 1080i/Stretch	
4th press: 480p/Stretch	8th press: 1080i/Letter box	

APPENDIX 5: ABOUT HIGH-DEFINITION

NOTE: * In Native mode, the receiver automatically adjusts the resolution to match individual TV programs as they are tuned.

If Native is turned on, the FORMAT key cycles through Stretch, Letter and Crop for the current TV program's native resolution. The FORMAT key allows you to easily cycle all resolution and format settings with a single key until the picture displays the way you like it.

If pressing this key causes a loss of video and audio, continue to press it until the picture returns. (Wait a second between presses to allow the Receiver to change the resolution.) This can happen if your settings include a resolution that your TV doesn't support. To correct this, you'll need to change your resolution setting: Press MENU, select "Settings & Help", "Settings", "HDTV" and then select "TV Resolutions". Mark or unmark the TV Resolutions to display the resolutions supported by your television.

Resolution (RES) Key on Receiver Front Panel

This key is used to cycle through all available resolutions on your DIRECTV HD DVR. It does not cycle through format settings. If video and audio are not appearing, it may be because the current resolution setting is not supported by your television. By pressing this key, you can check all available resolutions to see if that solves the problem. The lights next to the RES key on the front panel will light below the resolution to which the receiver is set; they will change with each key press.

APPENDIX 5: ABOUT HIGH-DEFINITION

SUPPORTED RESOLUTIONS

The following table shows the resolutions that can be output from each type of connection:

Output Connection	Available Resolutions
HDMI	1080i, 1080p, 720p, 480i, 480p
Component Video (YPbPr)	1080i, 720p, 480i, 480p
S-Video	480i
Video (RCA Type/Yellow)	480i

NOTE: 720p, 1080i and 1080p are HD formats; 480i and 480p are not. S-Video and RCA outputs display all resolutions as 480i.

APPENDIX 5: ABOUT HIGH-DEFINITION

WIDE-SCREEN VS. STANDARD FORMATS

4:3 TVs Showing 16:9 program




For a standard 4:3 TV showing a wide screen program, the program is too wide to fit on the screen. To alleviate this, choose:

Letterbox: With this format, the 16:9 image is shrunk until the entire width of the program fits on your TV. Since the aspect ratio of the program is maintained, the image is no longer tall enough to fill your screen, so gray or black bars are seen at the top and bottom of the screen. To change the bar color, press MENU, select "Settings & Help", "Settings", "HDTV" and then "Video". Select the desired bar color. See your TV's owner's manual for information on the best color for your set.

Stretch: In the Stretch setting, instead of adding bars to the top and bottom, the 16:9 program image is stretched vertically until it's tall enough to fill the screen. Your entire screen will be full, but the program images are stretched to compensate.

Crop: This format crops (cuts off) the left and right portions of the 16:9 frame so it fits the 4:3 screen.

If your display is a 4:3 format TV or monitor, your format options include these:

For 16:9 program signals:			
	Letterbox	Stretch	Crop

APPENDIX 5: ABOUT HIGH-DEFINITION

16:9 TVs Showing 4:3 programs

For a wide screen 16:9 TV showing a standard 4:3 TV program, the program is too tall to fit the screen. Your choices here include:

Pillar Box: Here the 4:3 image is shrunk until the entire height of the program fits on your TV. Since the aspect ratio is maintained, the image is no longer wide enough to fill the screen, so gray or black bars are seen at the left and right edges. To change the bar color, press MENU, select "Settings & Help", "Settings", "HDTV" and then "Video". Select the desired bar color option. See your TV's owner's manual for information on the best color for your set.

Stretch: In this setting, instead of adding bars to the sides, the 4:3 program image is stretched horizontally until it's wide enough to fill the screen. Your entire screen will be full, but the images are a little stretched to compensate.

Crop: This format crops (cuts off) the top and bottom of a 4:3 frame, keeping the 4:3 ratio intact.

If your display is a 16:9 format TV or monitor, your format options include these:

For 4:3 program signals:



Pillar Box



Stretch



Crop

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ICON REFERENCE

Arrow Icons		Indicate that a show's start or end time is earlier or later than is visible in the Guide program cell.
		LEFT and RIGHT arrows on the remote offer special functionality.
		Objects are scrollable above or below the visible window.
		UP and DOWN arrows on the receiver front panel offer special functionality.
Other Icons		Indicates a program is set to record.
		Indicates record has been set for all episodes of an ongoing program.
		Indicates showing that was set by the user conflicts with another showing.
		Indicates showing that was set by the user was canceled by the scheduler due to an unexpected conflict.
		Shows Autorecord has been set for matching programs in a Search.
		Indicates a recorded or live-stored video is fast forwarding at normal speed.
		Indicated a recorded or live-stored video is rewinding at normal speed.
		Indicates current video is paused.
		This key plays current video when paused; it displays the control bar when already playing.
		Indicates one or more new messages are in the Inbox.
		Shows that Parental Control limits are currently "locked".
		Shows that limits are temporarily unlocked.
		Shows that there are no current limits imposed.
	Indicates a rating level or channel that is blocked via Parental Controls.	

Other Icons		"All Day Ticket" indicates that the program is rented for 24 hours starting when you first view the program.
		Indicates program shown in letterbox format.
		Denotes an error condition has occurred.
		Appears when at least one rating or channel is allowed.
		Appears when at least one rating or channel is blocked.
		Used to create/enter passcodes in parental controls.
		On screen color hint indicating a special function activated by pressing the related color button on the remote control.
		
		
		
		Indicates the scheduled PPV is set to purchase.
		Program is currently downloading.
		Indicates the program is/will be broadcast in High-Definition format.
		Indicates program is ready to watch.
		Indicates a Program is in the Queue.
		All episodes of an ongoing programs are in the Queue.
		Indicates a program is about to expire
	Indicates that the programs comes from DIRECTV CINEMA.	
	Indicates a recorded program is not available for viewing.	

MODE SWITCH
Changes remote to control other equipment, for example a DVD Player.

TV INPUT
Changes the "source" - the piece of equipment whose signal is displayed on your TV.

FORMAT
Cycles through screen formats (cro, stretch, pillar box, letter box) and resolutions.

STOP
Stops Recorded Video

REPLAY
Jumps back 6 seconds. Hold down to jump back to the beginning.

REWIND
Press up to four times to rewind at increasing speed.

PAUSE
Pauses current video

ACTIVE
Displays the DIRECTV Active Channel - local weather and more!

GUIDE
Press once to see the Program Guide. Press twice to see programs by category.

SELECT
Selects any highlighted item.

BACK
Takes you back one menu screen.

MENU
Display a menu of settings and services.

RED
In Guide, jumps 12 hours back; other functions vary - look for hint onscreen.

GREEN
In Guide, jumps 12 hours forward; function varies on other screens - look for onscreen hints.

VOLUME
Raises or lowers volume.

MUTE
Toggles sound volume on/off.

NUMBERS & DASH
Tune to a channel directly; also input numbers when needed in onscreen menus.

MODE SWITCH
Changes remote to control other equipment, for example a DVD Player.

DIRECTV & TV POWER ON
Turns your DIRECTV Receiver and TV, together, on or off.

POWER
Turns on/off whichever equipment the MODE switch is set to.

ADVANCE
Jumps ahead 30 seconds. Hold down to jump forward to the end.

PLAY
Play current video; press and hold for slow motion.

FFWD
Press up to four times to fast forward at increasing speeds.

RECORD
Press once to record a live TV program or the program highlighted in the Program Guide. Press twice to record a series.

LIST
Displays the Playlist.

EXIT
Exits any menu and returns to last channel viewed.

ARROWS
Moves the highlight (up, down, left, right) within a menu.

INFO
Displays information about the program you are watching or that is highlighted in the Program Guide.

BLUE
In the TV, displays the Min guide. Function varies in other screens - look for onscreen hints.

YELLOW
Displays various options while viewing the Guide or the Playlist.

CHAN/PAGE
In the TV, changes channel up or down; in a menu, such as the guide, scrolls page up and down.

PREV
Tunes to previous channel viewed.

ENTER
Activates channel number entries quickly.

Keys in orange text can be programmed to function with your VCR, DVD player or other stand alone equipment.

* These descriptions apply to DIRECTV HD DVRs. Other equipment may behave differently.



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