



GETTING STARTED WITH THE
iO DVR and **iO DVR FOR HDTV**

INTRODUCING DVR FROM iO

With iO's new DVR capabilities, you will have more freedom, more choices, more control — and best of all — more fun! The possibilities are endless.

Record your favorite programs when you're busy

Record one program and watch another

Record two live programs while watching a third program you recorded earlier

Record and store up to 100 hours of standard-definition programming on the iO DVR and up to 24 hours of High-Definition programming on the iO DVR for HDTV

Pause live TV for up to 1 hour without missing a minute

Use Instant Replay any time you want

Watch two programs at the same time on any TV you have, using the iO DVR Picture-in-Picture feature

Note: Recording capacity varies based on the type of programming being recorded.

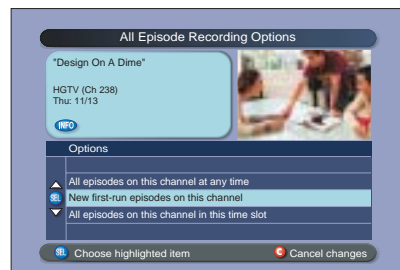


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WELCOME!

With the iO Digital Video Recorder (DVR), you can easily record your favorite programs and then play them back anytime. The iO DVR and Picture-In-Picture (PIP) features give you complete control, convenience, and choice when watching TV. Use your iO DVR to control the following features...



Control Live TV

The telephone is ringing and you do not want to miss any scenes of your favorite live TV program. iO DVR lets you **PAUSE** the live program, or **REWIND** and **PLAY** a portion of it again, or **FAST-FORWARD** it to catch up to live TV.

Sports fans can enjoy complete control by using **INSTANT REPLAY**, **SLOW MOTION**, and **FRAME ADVANCE AND REWIND** to watch their favorite play again.

Record TV Programs Without a VCR

RECORD and save your favorite TV programs to the iO DVR to watch later.

When two of your favorite TV programs are scheduled at the same time, **RECORD** one program to the built-in recorder while watching the other!

Never miss your favorite programs that are scheduled at the same time. Simply **RECORD** both programs at the same time. While recording both programs, you can play back a third program you have already recorded.

RECORD a single episode or program your iO DVR to record all episodes of your favorite TV programs.

RECORD one of your favorite TV programs and at the same time, access any advanced application, such as On Demand or iO Games.

Not sure if you have room to **RECORD** new programs? You can check your available recording space any time.

Watch Two TV Programs at the Same Time



PIP is built into the iO DVR, so you can watch two live programs at the same time on any make or model TV that is connected to your iO DVR.

When something exciting occurs in the PIP program, you can easily swap the PIP into the Main screen. Once that program is in the Main screen, you can pause, rewind, or record it.

When the PIP screen position is covering a "must see" moment on the Main screen, simply **MOVE** the PIP screen to a different corner of your TV screen.

Let's Get Started!

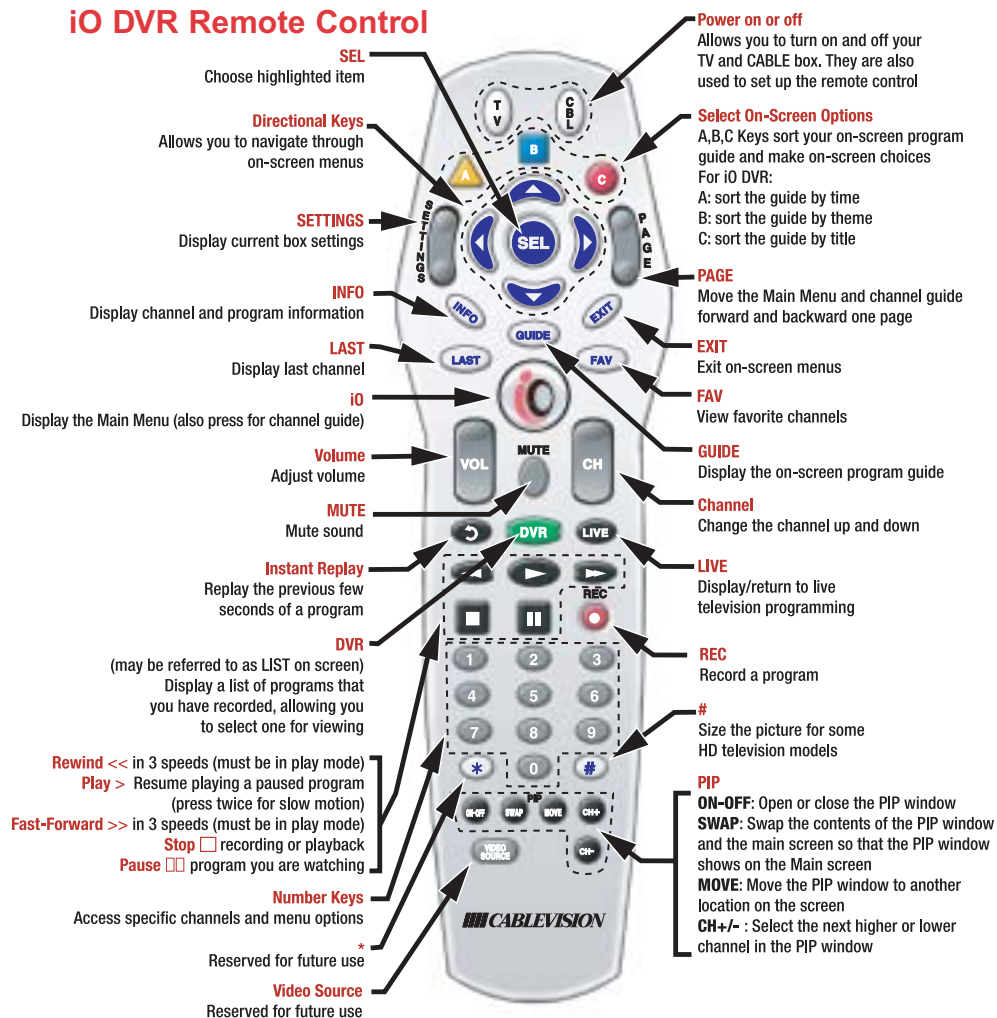
USING YOUR iO DVR REMOTE CONTROL

Use the keys on the iO DVR Remote Control to access the iO DVR and PIP features. The two main buttons are **DVR** , which accesses recorded programs, and **Record** , which allows you to record programs. For more details, see pages 9 and 10.

This guide describes the keys used to access the iO DVR and PIP features.

Important: Your remote control must be set to Cable Mode (CBL) to access the iO DVR features.

iO DVR Remote Control



PREPARING THE iO DVR TO WORK WITH YOUR HIGH-DEFINITION TV

Note: This section is for customers with HDTV. Skip to page 7 if you do not have an HDTV set.

First make sure that your iO DVR is properly connected to your HDTV television and other electronic devices. Use the component (PrPbY) or HDMI™ ports to connect the iO DVR to your HDTV.

For more information on connecting your DVR to your TV, refer to page 15 — Connecting the iO DVR and the iO DVR for HDTV.

Note: The composite ports (red, yellow, white) and the component ports (PrPbY) on the back of the iO DVR for HDTV are both active simultaneously.

Selecting HDTV Picture Formats With the HDTV Setup Wizard

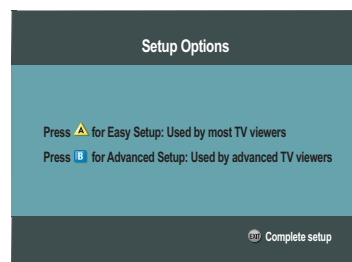
The following section provides instructions for using the HDTV Setup Wizard to select HDTV picture formats using the Easy and Advanced Setup modes.

Start the HDTV Setup Wizard



To start the HDTV Setup Wizard, follow these steps.

1. Make sure that the iO DVR is powered **OFF**, but still plugged in to an active power outlet, and connected to the HDTV using the proper connectors (HDMI or Component for an HDTV; Composite, RF, or S-Video for an SDTV).
2. Turn the TV **ON**.
3. With the iO DVR powered **OFF**, press **Guide** and **Info** at the same time. Two screens will appear: SD setup, choose ; and HD setup, choose . Select the setup for your TV. The **HDTV Setup Wizard** screen appears.
4. Press  to start the setup.
5. Choose one of the following options:
 - To choose the Easy Setup option, press ; then, go to the **Easy Setup Instructions** on page 5.



Press the **Guide** and **Info** keys at the same time




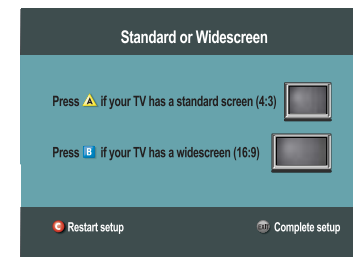
Easy Setup Instructions

1. Press  or  to select the type of TV screen you have. The setup is complete.
2. Press **Power** to begin watching TV.





Notes:



- If you pressed  for the standard screen (4:3) TV setting, the TV is set to receive programming in 480i format on non-HD channels and 1080i format on HD channels.
- If you pressed  for the widescreen (16:9) TV setting, the TV is set to only receive programming in 1080i format (even on non-HD channels).

Tip: After you complete the setup, you can use  to stretch or zoom the picture.




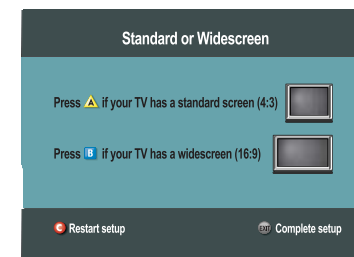
Advanced Setup Instructions

1. Press  or  to select the type of TV screen you have.
2. Follow the on-screen instructions to select your picture formats.
3. Press **SEL**  to toggle between the Save and Remove options, or press  to see how the next format looks on your TV screen.

Note: If you see a black screen, **do not** press SEL . Press  again to view the next screen format.

4. After saving the picture formats, press **EXIT**. The setup is complete.
5. Press **Power** to begin watching TV.








Tip: After you complete the setup, you can use  to stretch or zoom the picture.

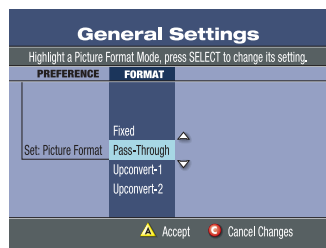


Select Picture Mode for Normal Viewing

After you use the HDTV Setup Wizard to select all the HDTV picture formats you want to use, you need to choose a General Settings picture mode for normal viewing. If you do not have your HDTV connected to the HDMI connector on the back of the iO DVR for HDTV, then Pass-Through mode is recommended for normal viewing. Pass-Through mode allows non-HD channels to be displayed using their native picture formats, which can improve picture quality on non-HD channels.

To select Pass-Through mode for normal viewing, follow these steps.

1. Press **Settings**  twice. The **General Settings** menu appears.
2. Press **Move Up**  or **Move Down**  to highlight **Set: Picture Format**.
3. Press **Move Right**  to highlight the picture format setting.
4. Press **Move Up**  to select **Pass-Through**.
5. Press **Accept**  to use this option for the iO DVR for HDTV. The DVR front panel displays **AUTO**, plus the scan rate you are viewing (for example, 1080i).
6. Press **Exit**  to return to normal viewing.



Note: When the HDMI connector is connected to the HDTV, the **General Settings - Set: Picture Format** screen displays the AutoDVI/HDMI option instead of the Pass-Through option.

Important: Do not connect the HDMI (DVI) output to an HDTV that does not support High-Definition Copy Protection (HDCP). If you connect the HDMI (DVI) output cable to an HDTV that does not support HDCP, you will not be able to see any video output. A message will be displayed instructing you to disconnect the HDMI connection and watch video output through the PrPbY component connectors.

CONTROLLING LIVE TV

Control a Live Program You Are Watching

Your iO DVR lets you pause the live program, rewind and play a portion of it again, or fast-forward to catch up to live TV. Use the following remote control keys to control the live program in the Main screen:

The **Pause**, **Rewind**, **Fast-Forward**, **Play**, **Instant Replay**, and **DVR** keys on the remote control are used to control the live program in the Main screen.



For example, when you are watching your favorite live TV program and the telephone rings, press **Pause** to pause the program for up to 1 hour. From **Pause** mode, press **Pause** or **Play** to resume the normal play mode.

While in normal play mode, press **Rewind** or **Fast-Forward** to cycle through three different speeds of rewind or fast-forward.

To reverse or advance one frame at a time, press **Pause** and then repeatedly press **Rewind** or **Fast-Forward**. For example, to advance three frames, press **Pause** and then press **Fast-Forward** three times.

To see the action in slow motion, press **Play** from normal play mode. Press **Play** again to resume normal play mode.

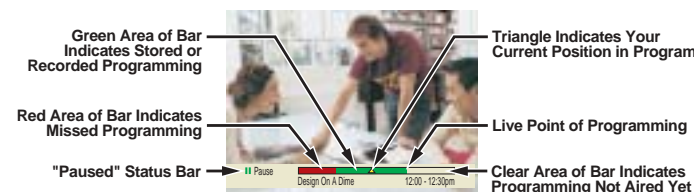
To replay the last 8 seconds of a live or recorded program, press **Instant Replay**.

If you have rewound or paused a live program, press **LIVE** at anytime to catch up to the live TV program.

Note: You can use these same dedicated iO DVR keys to control the reduced screen in the On-Screen Channel Guide and in all iO DVR screens.

Pause a Live Program






The paused status bar appears when you press **Pause**.



Note: All of the features for controlling live TV (such as Pause, Fast-Forward, Rewind) are also available when playing back recorded programs.








USING THE CHANNEL GUIDE

Find a Program to Watch








1. Press **Guide**  or  to get to the Main Menu, then **SEL**  "Channel Guide". The Channel Guide appears and lists the next 7 days of programs.
2. Press the **directional keys** () to move through the program listings and highlight the program you want to watch.
3. Press **SEL** . If the program is currently on, the Channel Guide closes and the program you selected appears in full-screen TV. If the program is on in the future, a future program option screen appears including the option to record.



Search for a Program by Channel, Title or Theme




1. Press **Guide**  or  to get to the Main Menu, then **SEL**  "Channel Guide". The Channel Guide appears and lists the next 7 days of programs.
2. Press **Browse By** . The Browse By area of the Channel Guide displays the options: Title, Channel and Theme.
3. Press **Move Up**  or **Move Down**  to highlight one of the following options:
 - **Title**, which lists programs alphabetically by program title
 - **Channel**, which lists programs numerically by channel number
 - **Theme**, which lists programs by theme, such as adventure, comedy, sports, or news
4. Press **SEL** . The Browse By area of the Channel Guide displays the programs according to the option you selected.

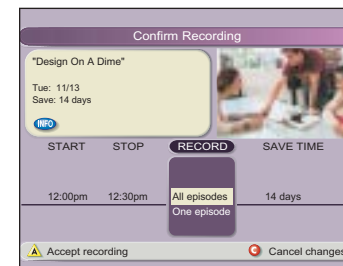
Search for a Program by Date

1. Press **Guide**  or  to get to the Main Menu, then **SEL**  "Channel Guide". The Channel Guide appears and lists the next 7 days of programs.
 2. Press **Date** . The Browse By area of the Channel Guide displays the next 7 dates.
 3. Press **Move Up**  or **Move Down**  to highlight a date.
 4. Press **SEL** . The Channel Guide displays the programs that will broadcast on that date.
- Note:** You will see the date you have selected at the bottom of the screen.






RECORDING TV PROGRAMS

Record a TV Program You Are Watching

1. Press **Record** . The **Confirm Recording** screen appears.
2. While in the **Confirm Recording** screen, choose your recording options and press . The **Record Indicator** is lit on the front panel of the iO DVR.
3. To manually stop recording before the scheduled time, press **Stop**  and then follow the on-screen choices.







Record a TV Program From the Channel Guide

1. Press **Guide**  or  to get to the Main Menu, then **SEL**  "Channel Guide".
2. Press the arrow keys to highlight a TV program, and then press **Record** .
3. In the **Confirm Recording** screen, choose your recording options and press . The recording program is highlighted in red in the Channel Guide.



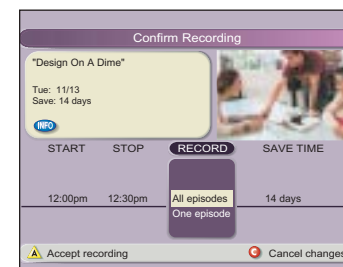
Record Multiple Episodes or New First Run Episodes of a TV Program

If you want to record all the episodes of a program, follow these steps:

1. Press **Record** .
2. Choose **All Episodes**. Press **SEL** . Notice the information in the fourth column changes, based on your selection. Press . The **All Episodes Recording Options** screen appears.
3. Choose one of the options on the screen.
4. Press **SEL**  to save your settings.



If you want to record new first-run episodes only, follow these steps:

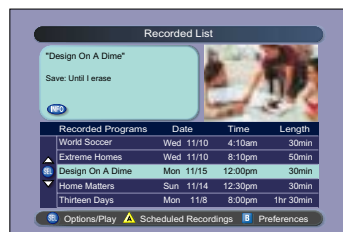
1. Choose **All Episodes** and press .
2. Highlight new first-run episodes on this channel and press **SEL** .







WATCHING YOUR RECORDINGS

Access and Play Back Your Recorded Programs Anytime



1. Press **DVR** .
2. Use the arrow keys to choose the program you want to play back.
3. Press **SEL**  to display your option.



Access and Play Back Your Recorded Programs from the Channel Guide

1. Press **Guide**  or  to get to the Main Menu, then **SEL**  "Channel Guide".
2. Use the arrow keys to choose the iO DVR Channel (Channel 1000) and press **SEL** .

Note: The iO DVR Channel is a dedicated channel that allows you to play back your recorded programs. You may also tune to Channel 1000 using the number keys on your remote control.

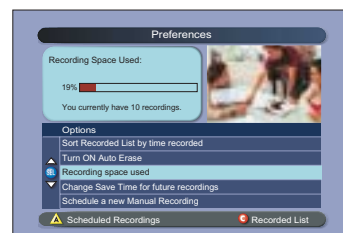
3. Press **DVR**  to list your recordings.
4. Use the arrow keys to choose the program you want to play back.
5. Press **SEL**  to play back the program.



MANAGING RECORDING SPACE

How Much Recording Space Do I Have?


1. Press **DVR** .
2. Press **B**  to display the Preferences screen, which displays the percentage of space used.

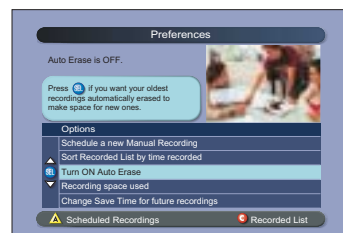


Automatically Erasing Oldest Recordings if Space is Needed


Turning Auto Erase on will automatically erase your oldest recordings one by one until there is enough space to record your new programs.


Note: Any recordings that have a Save Time of "Until I Erase" will not be automatically erased.







1. Press **DVR** .
2. Press **B**  to display the Preferences screen.
3. Choose **Turn ON Auto Erase**.
4. Press **SEL** .



How to Erase a Single Title

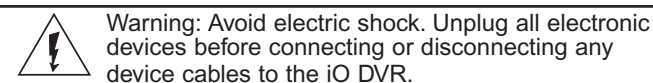
Tune to the iO DVR Channel, Channel 1000. Press **DVR**  to see your recordings.

Note: **LIST** may appear on screen. **LIST** and **DVR**  function in the same way.

Using the **directional keys** , highlight the title you want to erase. Press **SEL**  for Options/Play. Using the **directional keys** , highlight Erase and press **SEL** . Press  to erase or  to cancel.

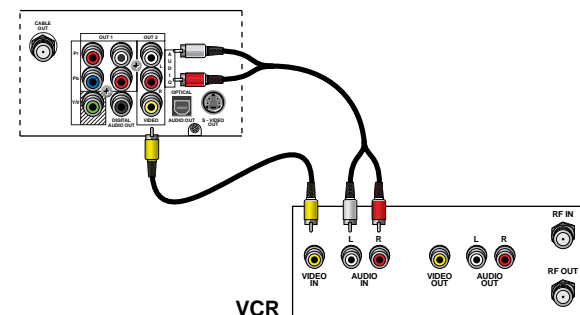
COPY RECORDINGS FROM YOUR iO DVR TO A VCR TAPE

The Copy to VCR feature lets you copy recordings from your iO DVR to a VCR tape.




Verify that the **OUT 2** outputs are connected to your VCR inputs.

Note: This graphic shows the iO DVR for HDTV back panel layout. The iO DVR back panel is slightly different.



The program that you are copying appears in the PIP window. Connecting to your VCR using the **OUT 2** outputs allows you to watch or record another program or even change channels in the Main screen, without affecting the copy in progress.

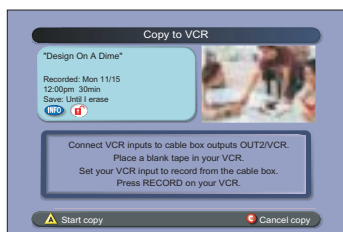
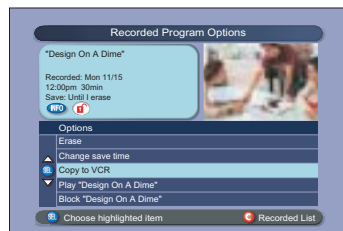
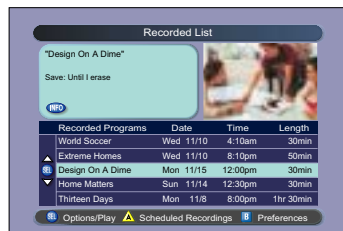
Notes:

- You can turn the PIP feature off and on without affecting the copy in progress. A "Copying to VCR" banner will be displayed for 3 seconds when you turn the PIP feature on.
- You can still record live TV directly to a VCR tape (instead of your iO DVR) by connecting the iO DVR **OUT 2** outputs directly to the VCR inputs and not using the **Copy a Recording to a VCR Tape** instructions on page 12. Recording live TV directly to your VCR causes the VCR to record all remote control activities, including information banners and on-screen displays such as when **Guide**  is pressed.

Copy a Recording to a VCR Tape

1. Connect the VCR to the **OUT 2** connection on the back of the iO DVR. See page 11 for more information.
2. Make sure that a tape is in your VCR and that the VCR is ready to record.
3. Press **DVR** . The Recorded List screen appears.
4. Press **Move Up** or **Move Down** to highlight the recording you want to copy to the VCR. Make sure to select a program that is not currently being recorded.
5. Press **SEL** . The Recorded Program Options screen appears.
6. Press **Move Up** to highlight "Copy to VCR."
7. Press **SEL** . The Copy to VCR screen appears.
8. Make sure your VCR is properly connected to your iO DVR outputs, and press **Record** on your VCR.
9. Press **Start copy** . The recording begins copying to the VCR tape. The Recorded List displays the VCR symbol for the recording that is copying to the VCR.

Note: You can watch the copying in progress through the PIP.



USING PICTURE-IN-PICTURE

Activate PIP on Your TV

While watching a program, press **PIP On-Off** to activate the PIP screen.

Notes:

- To pause or record the video in the PIP screen, you must first swap it to the Main screen, by pressing **PIP Swap** .
- You can only use the dedicated iO DVR keys (**Pause**, **Rewind**, **Fast-Forward**) to control the program shown in the Main screen.
- To change the channel in the PIP screen, use **PIP CH+** and **PIP CH-** .

Tip: While the PIP screen is activated, press **INFO** to display channel information for both the Main screen and the PIP screen.

Activate PIP from the Channel Guide

From the Channel Guide, press **Exit** or **Guide** to close the Channel Guide, and then press **PIP On-Off** to activate PIP. **You can only activate PIP from full-screen video.**

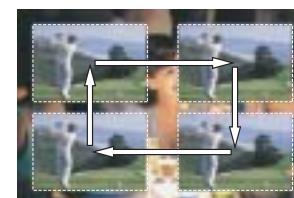
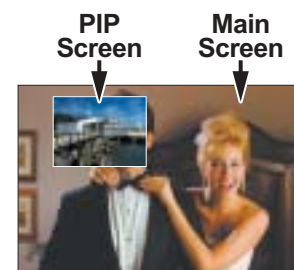
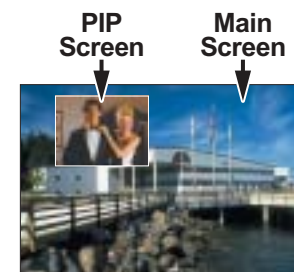
Swap the Main and PIP Screens

To swap the TV program that is in the PIP screen to the Main screen, press **PIP Swap** .

Note: You will only hear the audio for the program shown in the Main screen.

Move the PIP Screen

To move the PIP screen clockwise to a different corner of the Main screen, press **PIP Move** . You can move the PIP screen to any of the four corners of the Main screen.



USING POWER-SAVE MODE

To maximize the life of your DVR, you should power-down the DVR when it is not in use. Simply press **CBL** and then **TV** on your remote control, or press **Power** on the front panel of the DVR. The Power light turns off; but, because the DVR is still plugged in, your scheduled recordings still occur.

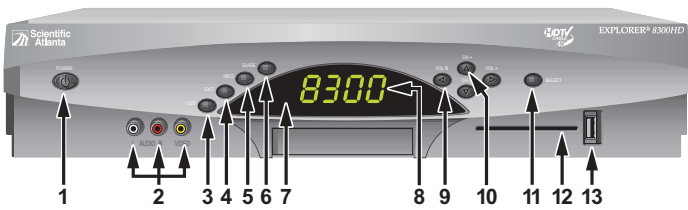
Between 1:00 a.m. and 6:00 a.m. daily, your DVR will automatically enter Power-Save mode unless you press a key on the remote control or a key on the DVR front panel at least once every 2 hours. In Power-Save mode, the set-top is powered-down, but all scheduled recordings still occur. When the DVR enters Power-Save mode, your TV displays a blank screen.

Note: Cablevision controls whether or not the automatic Power-Save mode is activated on your iO DVR.

At 1:10 a.m., the DVR displays a 5-minute warning banner, indicating that the DVR is about to enter power-save mode. When this banner appears, do one of the following:

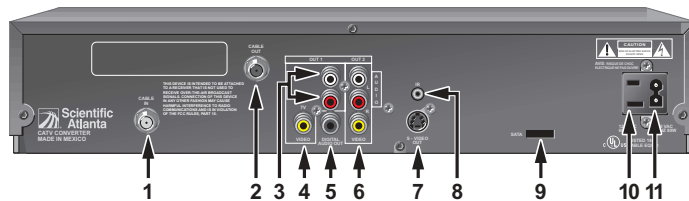
- To allow the DVR to enter Power-Save mode, do nothing when the warning banner appears. The DVR will automatically power-down. After your DVR powers down, you must press **CBL** and then **TV** on your remote control, or press **Power** on the front panel of your DVR to start watching TV again.
- To prevent the DVR from entering Power-Save mode, simply press any key on your remote or any key on the front panel of the DVR when the warning banner appears. The DVR will not attempt to enter power-save mode again until another 2 hours of inactivity has passed.

THE FRONT PANEL OF iO DVR AND iO DVR FOR HDTV



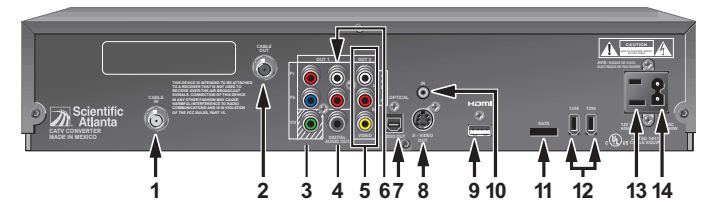
- | | |
|--------------------------------|--|
| 1 Power | Provides power to the digital cable box. The light to the left of the POWER key illuminates when the power is on. To receive nightly programming updates, turn off the box when not in use |
| 2 Video and Audio Input | Connects to video and left/right (L/R) audio outputs of an external device (e.g., video camera or game system) to display on the TV |
| 3 List | Displays the list of recorded programs |
| 4 Exit | Exits menus, the on-screen guide and program information |
| 5 Info | Displays channel and program details for channel currently selected |
| 6 Guide | Displays the Main Menu for access to Channel Guide, On Demand, Enhanced TV and iO Games |
| 7 IR Sensor | Receives the infrared signal from the remote control |
| 8 LED Display | Displays the selected channel number and time of day.
The LED also displays the following: <ul style="list-style-type: none">• Message• HDTV (if applicable)• Power• Output Resolution (1080i, 720p, 480p, 480i)• RECORD• AUTO - Automatically outputs native scan rates that your TV can accept |
| 9 VOL+ and VOL- | Increases and decreases volume |
| 10 CH+ and CH- | Scrolls up and down through the channels |
| 11 Select | Displays highlighted on screen selection |
| 12 Smart Card Slot | The slot into which Smart Card is inserted. DO NOT REMOVE CARD UNLESS INSTRUCTED! |
| 13 USB Port | Reserved for future use |

THE BACK PANEL OF THE iO DVR



- | | |
|--|---|
| 1 Cable In | Connects the coaxial cable coming from the wall |
| 2 Cable Out | Connects to coaxial cable input of TV or VCR |
| 3 Audio Out (LEFT and RIGHT) | Connects RCA cables to send analog audio signals (left and right) to a stereo receiver or TV with stereo outputs |
| 4 Video Out | Connects to video input of TV or VCR |
| 5 Digital Audio Output | Connects an RCA cable to send a digital audio signal to a surround-sound receiver or other audio device |
| 6 Secondary Video and Audio Out | Connects either to a VCR for archiving saved content from the iO DVR or connect to another set of inputs (composite) on your TV |
| 7 S-Video Out | Connects an S-Video cable to send an S-Video signal to your TV or VCR. This signal is standard definition, but higher quality than other SDTV connections |
| 8 IR | Reserved for future use |
| 9 SATA | Reserved for future use |
| 10 AC Outlet | Connects the AC power cord from another device, such as a TV |
| 11 AC Power Input | Delivers power from the AC electrical outlet to the digital cable box using the cord provided |

THE BACK PANEL OF THE iO DVR FOR HDTV



- | | |
|--|---|
| 1 Cable In | Connects the coaxial cable coming from the wall |
| 2 Cable Out | Connects to coaxial cable input of TV or VCR |
| 3 Component Outputs (Y Pb Pr) | Connects to HDTV (Y, Pb, Pr) component output ports to the HDTV input on your HDTV |
| 4 Digital Audio Output | Connects an RCA cable to send a digital audio signal to a surround-sound receiver or other digital audio device |
| 5 Secondary Video and Audio Out | Connects to either a VCR for archiving saved content from the iO DVR for HDTV or connects to another set of inputs (composite) on your HDTV |
| 6 Audio Out (LEFT and RIGHT) | Connects an RCA cable to send an analog audio signal to a surround-sound receiver or other audio device |
| 7 Optical Audio | Connects an optical cable to send a digital audio signal to a surround-sound receiver or other digital audio device |
| 8 S-Video Out | Connects an S-Video cable to send an S-Video signal to your TV or VCR. This signal is standard definition, but higher quality than other SDTV connections |
| 9 HDMI (High Definition Multimedia Interface) | Connects the HDTV HDMI connector to the HDMI port. HDMI supports both digital audio and video. May be used to connect to a DVI interface using an adaptor |
| 10 IR | Reserved for future use |
| 11 SATA | Reserved for future use |
| 12 1394 Firewire | Connects to optional 1394-equipped (FireWire) devices |
| 13 AC Outlet | Connects the AC power cord from another device, such as a TV |
| 14 AC Power Input | Delivers power from the AC electrical outlet to the digital cable box using the cord provided |

CONNECTING ENTERTAINMENT DEVICES

Where Are the Connection Diagrams?

The diagrams on the following pages show examples of common ways to connect the iO DVR to your TV, VCR and home theater receiver.

However, these diagrams do not show every possible combination of devices. Please consult the user's guides that came with your other electronic devices for further information.

What Cables Do I Need?

Some of the cables shown in the diagrams may not be included with the iO DVR. The required cables are shown in the connection diagrams on the following pages.

How Do I Connect the iO DVR to My TV and Other Entertainment Devices?

When you are ready to connect the iO DVR, follow these instructions.

1. Power off all electrical devices before connecting to avoid electrical shock.
2. Connect the iO DVR to the coaxial cable coming from the wall.
3. Connect the iO DVR to your TV, VCR and other entertainment devices as shown in the diagrams on the following pages. (The diagrams in this guide do not cover every possible combination.)
4. Plug the iO DVR and the TV into an AC power source.
5. Do *not* turn on the iO DVR or TV yet.
6. Wait until you see one of the following displays on the front of the iO DVR:
 - Current time
 - Four dashes (- - - -)
7. After the update is complete, turn **ON** the TV.

Important: It may take several minutes for the iO DVR to receive the latest software, programming and service information. When the front panel displays the time or four dashes, the update is complete.

7. After the update is complete, turn **ON** the TV.

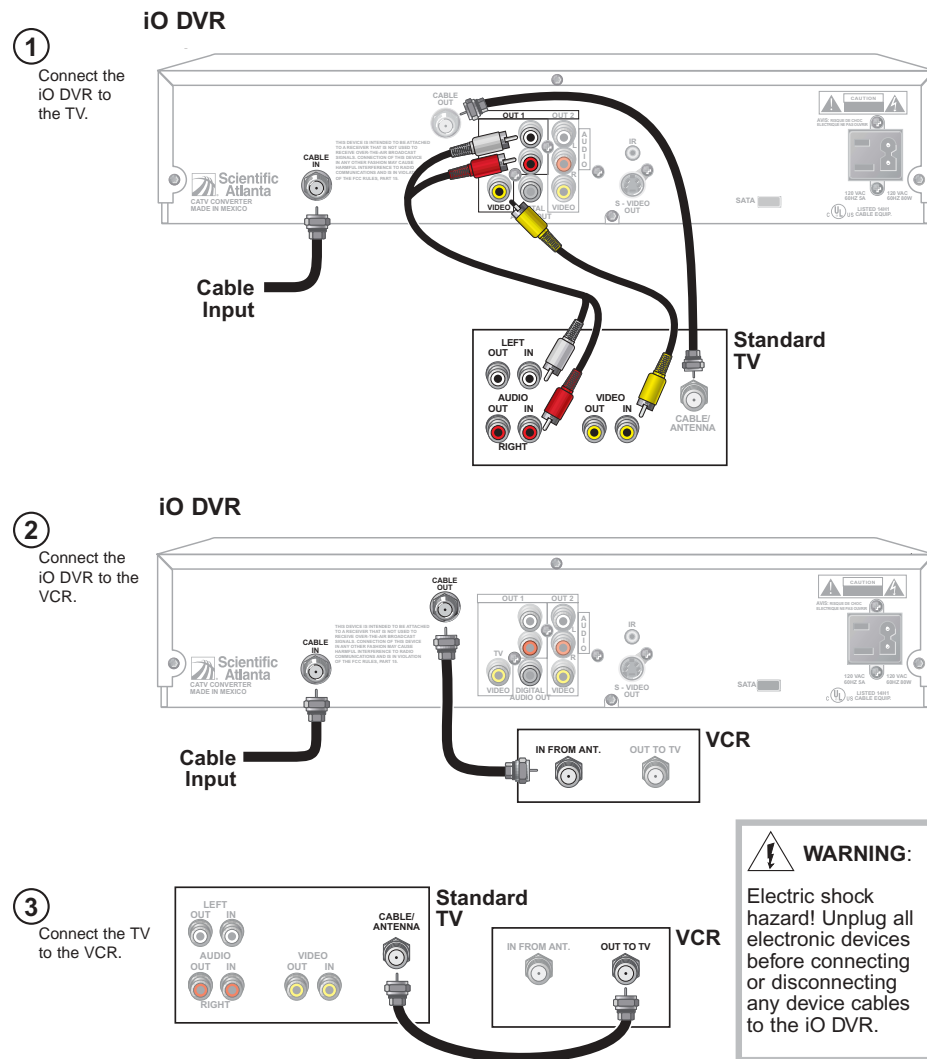
How Do I Set Up Stereo Sound?

To set up stereo sound, choose one of the following options:

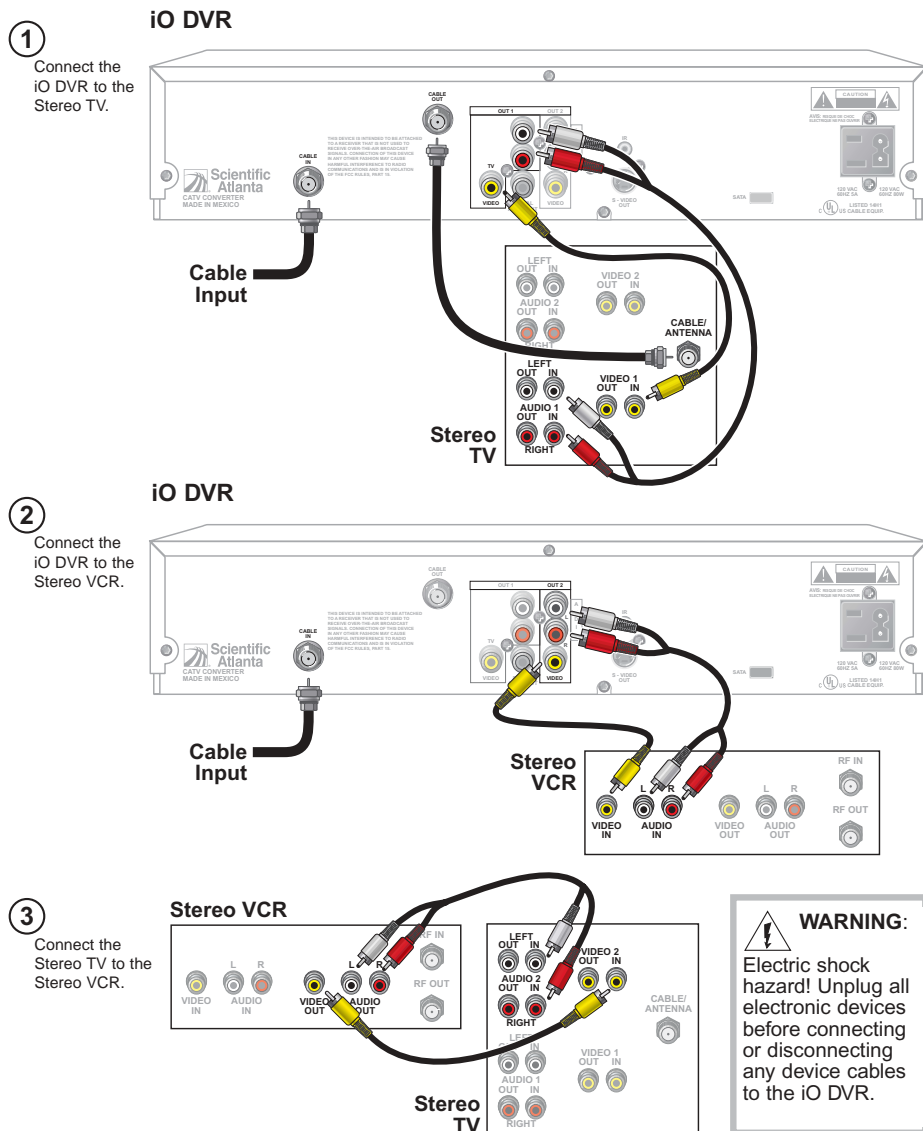
- Connect an RCA cable from the DIGITAL AUDIO OUT on the iO DVR to the DIGITAL AUDIO IN on your TV (if equipped) or stereo receiver.
- Connect stereo audio cables from the AUDIO OUT LEFT and RIGHT connectors on the iO DVR to the AUDIO IN LEFT and RIGHT connectors on your TV.

Note: Before using the iO DVR, read the SAFETY COMPLIANCE STATEMENTS section of this guide.

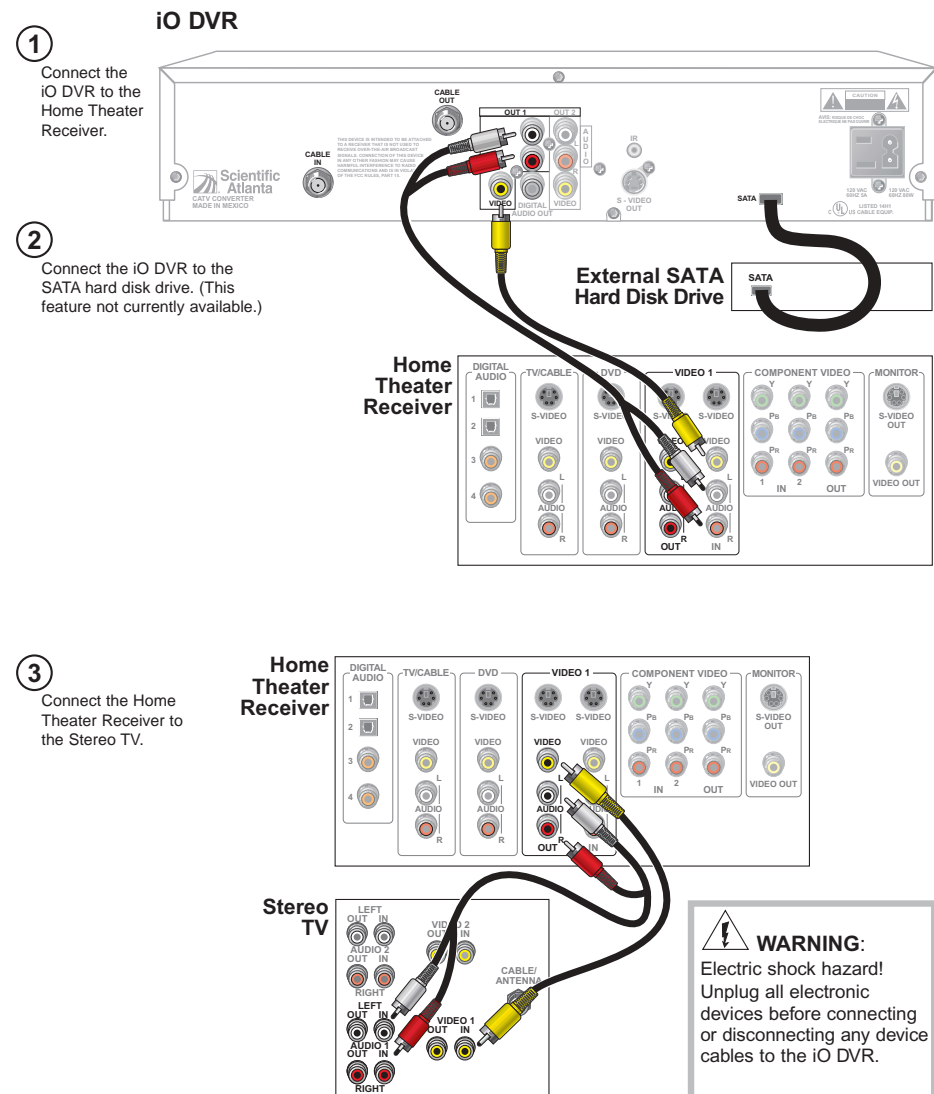
CONNECTING THE iO DVR TO YOUR TV AND VCR



CONNECTING THE iO DVR TO YOUR STEREO TV AND STEREO VCR



CONNECTING THE iO DVR TO YOUR HOME THEATER, STEREO TV AND EXTERNAL SATA HARD DISK DRIVE



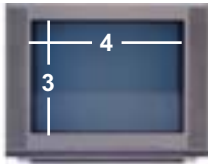
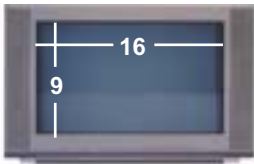
PICTURE FORMATS FOR iO DVR FOR HDTV

What is the Difference Between a Standard Screen and a Wide Screen?

The type of screen your HDTV has (wide screen or standard screen) determines how the iO DVR for HDTV displays programs on the screen. The picture format for an HDTV is a combination of *aspect ratio* and *screen resolution* and is different for standard-screen and wide-screen HDTVs.

What is Aspect Ratio?

An aspect ratio is the ratio of the width to the height of the TV screen. The aspect ratios differ because the television industry manufactures both standard-screen and wide-screen HDTVs to appeal to consumer viewing preferences.

<p>A standard-screen HDTV has a 4:3 aspect ratio. The screen is 4 units wide for every 3 units tall.</p>  <p>A screen resolution of 480p or 480i fills the screen.</p>	<p>A wide-screen HDTV is one-third wider than a standard-screen HDTV. The screen is 16 units wide for every 9 units tall.</p>  <p>A screen resolution of 720p or 1080i fills the screen.</p>
--	--

What is the Screen Resolution?

The screen resolution indicates the amount of detail that the picture displays. Resolution is identified by the number of display lines on the screen. The techniques that an HDTV uses to “paint” the picture on the screen are referred to as progressive and interlaced.

For example, a resolution of 1080i indicates that the screen shows 1080 lines in an interlaced display, and 480p indicates that the screen shows 480 lines in a progressive display.

















Note: The screen resolution (1080i, 480p, and so forth) is sometimes referred to as the scan rate. The terms are interchangeable.

With the **progressive method**, every pixel on the screen is refreshed simultaneously. The **interlace method** involves refreshing pixels in alternation — first the odd lines and then the even lines.

CONNECTING THE iO DVR FOR HDTV TO ENTERTAINMENT DEVICES

Required Connections for an HDTV








When using the iO DVR for HDTV with an HDTV set, you must make one of the following connections to view the HD content. In addition, you can make connections to a VCR or other external recording device. You also have the option to make an SD connection from the iO DVR for HDTV to an SDTV. See the tables and cabling diagrams in this section for more detailed information.

	iO DVR for HDTV Connector	HDTV Connector
Some HDTVs have an HDMI or DVI connector. The HDMI connector provides both a digital video and audio connection. The DVI connector provides a digital video connection. The HDMI connector provides the optimal connection to an HDTV with either an HDMI input or a DVI input. If your HDTV has a DVI connector, you will need an HDMI-to-DVI adaptor, and you will need to connect a separate audio connection.	HDMI 	HDMI  or DVI 
Most HDTVs have PrPbY connectors for component video inputs. When you set up the iO DVR for HDTV in HD mode, the Y/V connector supplies the “Y” component of the component video. See the diagram on page 24 for an example. Refer to this guide or your HDTV user’s guide to choose the proper scan rates (480i, 480p, 720p, 1080i) for your setup. See the Picture Formats section in this guide for more information on scan rate.	Pr  Pb  Y/V 	Pr  Pb  Y 
Some HDTVs have only RGB connectors. If you have one of these HDTVs, you need an RGB adaptor. Check with Cablevision for information about acquiring an RGB adaptor, or you can purchase the adaptor at your local electronics supplier.	HDMI  or Pr  Pb  Y/V  <i>plus</i> Adaptor Needed	R  G  B 

Note: You can stretch and zoom the displayed picture using the built-in capability of the iO DVR for HDTV by pressing the # key on your remote control.

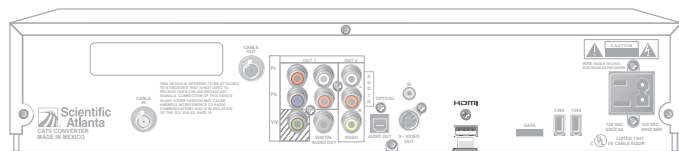
Optional Connections for a VCR

There are several brands and models of VCRs in the marketplace. The features and connectors are not the same on all brands and models. The following table describes the connectors commonly found on stereo VCRs and specifies the corresponding connector on the iO DVR for HDTV that should be used.

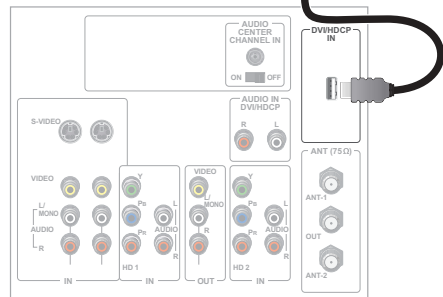
	iO DVR for HDTV Connector	VCR Connector
For VCRs that have a Video, Left, and Right connector, you can use the OUT 2 connectors (Video, Left, and Right) on the iO DVR for HDTV.	OUT 2  AUDIO  VIDEO 	L  R  VIDEO IN  AUDIO IN 

CONNECTING THE iO DVR FOR HDTV TO AN HDTV WITH AN HDMI CONNECTOR

iO DVR for HDTV

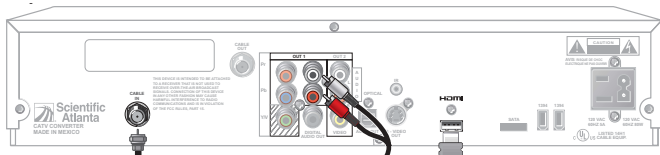


Back of HDTV



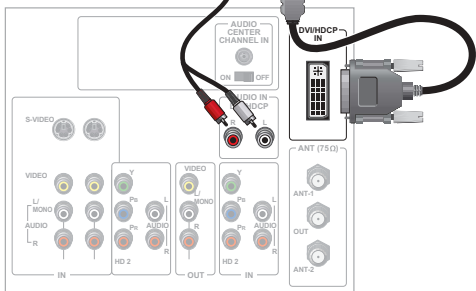
CONNECTING THE iO DVR FOR HDTV TO AN HDTV WITH A DVI CONNECTOR

iO DVR for HDTV



Cable Input

Back of HDTV

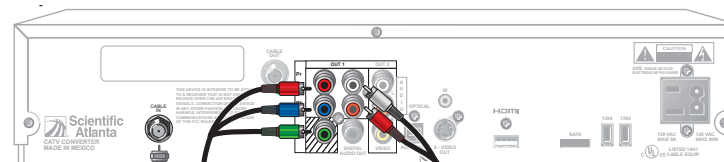


Note: When connecting the HDMI connector to the HDTV's DVI connector, you need an HDMI-to-DVI adaptor, and you need a separate audio connection.

WARNING: Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the iO DVR for HDTV.

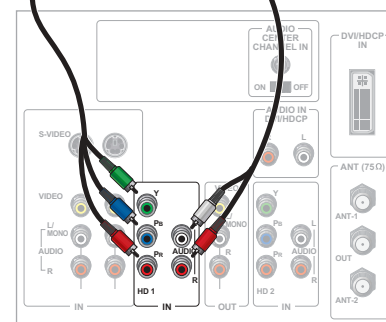
CONNECTING THE iO DVR FOR HDTV TO AN HDTV WITH COMPONENT INPUT (PrPbY)

iO DVR for HDTV



Cable Input

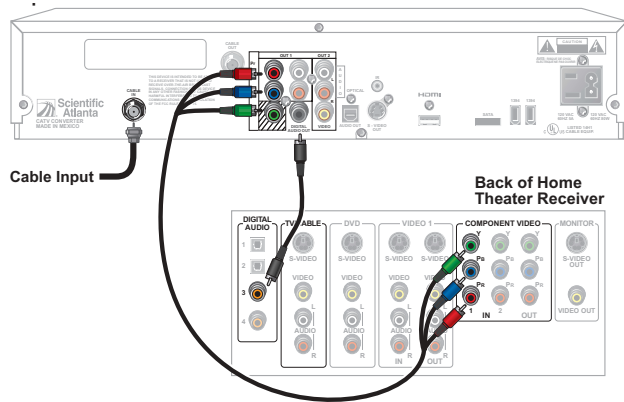
Back of HDTV



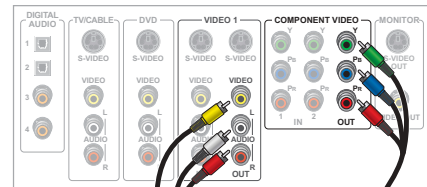
WARNING: Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the iO DVR for HDTV.

CONNECTING THE iO DVR FOR HDTV TO A HOME THEATER SYSTEM WITH COMPONENT INPUT (PrPbY)

iO DVR for HDTV

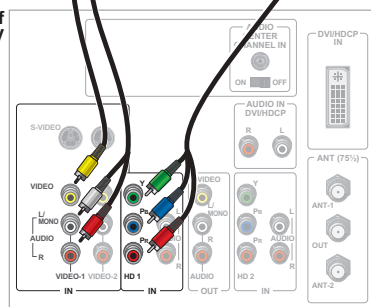


Back of Home Theater Receiver



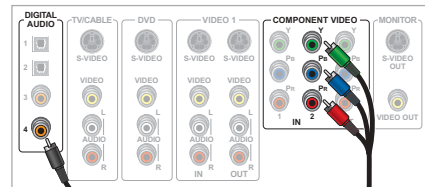
WARNING: Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the iO DVR for HDTV.

Back of HDTV

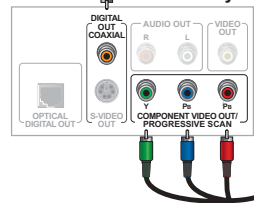


Note: This connection assumes that audio is provided by the home theater speakers.

Back of Home Theater Receiver



Back of DVD Player



TROUBLESHOOTING

If the iO DVR does not perform as expected, the following tips may help. If you need further assistance, contact your cable service provider.

No Picture

- Verify that the power to your TV is turned on.
- If plugged into a wall switch, verify the switch is in the ON position.
- Verify that all cables are properly connected.
- If your system includes a VCR and/or stereo, verify that you have properly connected them to the iO DVR.
- Verify that the TV is set to the proper input.
- Verify that the TV is connected to the proper TV input port.
- If HDTV, verify that the iO DVR is set to the proper screen type and resolution.

No Color

- Verify that the current TV program is broadcast in color.
- Adjust the TV color controls.

No Sound

- If your setup includes a VCR or stereo, verify that you have properly connected them to the iO DVR.
- Verify that the volume is turned up.
- Verify that the mute function is not engaged.

Automatic Software Updates

The TV screen displays a message that indicates the iO DVR is automatically updating its software. Wait for the time to display on the front panel of your iO DVR before continuing with the installation process. When the front panel displays the time, the update is complete.

USING PARENTAL CONTROL

Blocking and Unblocking Channels Using General Settings

Perform the following steps to select channels that you want to block.

1. Press the **SETTINGS** key twice.
2. At the General Settings menu, press the **UP** or **DOWN** arrow keys to highlight **Block: Channels**; then, press the **SEL** key.
3. Enter your Parental Control Blocking PIN, if required.
4. Press the **UP** or **DOWN** arrow keys to highlight each channel you want to block.

5. Press the **SEL** key.
Result: The channel ID is listed in the column on the right and a padlock appears in the Channels list by each channel you select.
Note: You can press the **SEL** key again to unblock the channel.
6. Continue highlighting and selecting the channels you want to block.
7. When all channels that you want to block have a padlock shown, press the **A** key to accept.
Note: Blocks do not take effect until you turn on the Parental Control feature.
8. To turn on and turn off the Parental Control feature, follow the instructions in your iO User's Guide pages 26-33 – **How To Turn On or Turn Off Parental Control**.
9. Press the **EXIT** key to return to watching TV.

GETTING CONNECTED

Important Note Regarding the HDMI Interface

The High-Definition Multimedia Interface (HDMI) is an all-digital audio and video interface. HDMI provides a digital interface between any audio and video source. HDMI supports standard, enhanced or high-definition video, plus digital audio.

Some HDTVs do not contain circuitry to decode Dolby® Digital formatted content. If you connect your iO DVR to an HDTV that cannot support Dolby Digital audio, the HDMI interface instructs the iO DVR to switch its audio outputs to 2-channel PCM audio (to be compatible with the HDTV). In this case, all digital audio outputs on the iO DVR are formatted as 2-channel PCM. As a result, you will not be able to receive Dolby Digital or DTS audio on your home theater system when connected to either the optical or coax (RCA Connector) S/PDIF ports. You can avoid this by overriding the automatic configuration through the General Settings menu and switching the audio output to Dolby Digital.

Important: If your HDTV cannot decode Dolby Digital formatted content and you have configured the DVR to output in the Dolby Digital format, you will not be able to listen to audio through the TV. Instead, you must use your home theater or your Dolby Digital decoding device in order to hear audio. Alternatively, you can reconfigure the iO DVR to output 2-channel PCM any time you want to use the TV to produce the audio portion of the content by selecting HDMI in the General Settings - Audio Output screen. Depending upon your equipment capabilities to select alternate audio sources for input, other configurations may be possible. Refer to your equipment user's guides for more information.

FREQUENTLY ASKED QUESTIONS

How far back can I rewind live TV? The length of time you can rewind live TV depends on how long you have been tuned to a single channel. Each time you change channels, a new copy is automatically stored to the built-in recorder. This copy saves up to the last 1 hour of programming. For example, if you have been watching the same channel for 15 minutes, you can rewind that 15 minutes of the program on the channel you have been watching.

Can I record the quarter screen in the Channel Guide or the iO DVR Recorded List? Yes, you can record the quarter screen on all iO DVR screens by pressing **Record**. You can also record the quarter screen in the Channel Guide. Press **Exit** to display the video in full screen, and then press **Record**.

Note: Pressing **Record** while in the Channel Guide will record the highlighted program in the grid.

Can I record or pause the video in the PIP screen? Yes, but you must swap it to the Main screen first. After pressing **Record** and confirming the recording, you can swap it back to the PIP screen and it will continue recording. You can also press **PIP On-Off**, and the video will continue to record.

Can I use PIP while copying a program to my VCR? When copying a program to a VCR, the PIP can be used only to monitor the progress of the copy status. You cannot use PIP to watch another program while copying a program to a VCR.

If I've been tuned to a program since it started, do I have to rewind to the beginning to record the entire program? No, if you have been tuned to the program since its beginning, just press **Record** from any point in the program to record the entire program. Recording will automatically stop when the program ends.

How will I know the iO DVR is almost out of recording space? When you try to schedule the next recording, a warning appears on the Confirm Recording screen. Also, you can see what percentage of recording space you have used. Press **DVR** and then press **B** for preferences.

What happens if my iO DVR loses power temporarily? Everything you have recorded is saved, based on the save time you selected in the Confirm Recording screen. Your scheduled recordings during the time the iO DVR lost power are the only recordings you may miss; recording will automatically resume when power comes back on.

Do my Parental Controls in the Channel Guide carry over to iO DVR recordings? Yes. If you block programs by channel or rating in General Settings menu, those settings are carried over to iO DVR recordings. For example, if you decide to block all R-rated programs in the General Settings menu, the R-rated programs will still be recorded, but you cannot play them back until you enter the correct PIN.

How do I block or erase individual recordings in my recorded list or change the save time for the recording? Highlight the recording on the Recorded List screen, and press **SEL** on the remote control. An Options screen appears for the program you selected.

Why are all my programs displayed in 1080i format (HD Only)? You may have selected the Easy Setup mode and the wide screen (16:9) TV setting in the HDTV Setup Wizard. Choosing these two settings together limits your programming to 1080i format, even on non-HD channels. To see your non-HD programs in 480i on a wide screen (16:9) HDTV, use the Advanced Setup in the HDTV Setup Wizard. Make sure that you select 480i as one of your saved formats, and then select Pass-Through in General Settings: Picture Format for your default picture format.

COMPLIANCE INFORMATION

United States FCC Compliance

This equipment has been tested and found to comply with the applicable limits of 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 or TV reception, which can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult your cable company or an experienced radio/TV technician for help

Any changes or modifications not expressly approved by Scientific-Atlanta could void the user's authority to operate the equipment.

Important: The information shown in the FCC Declaration of Conformity paragraph below is a requirement of the FCC and is intended to supply you with information regarding the FCC approval of this device.

FCC Declaration of Conformity

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

Canada EMI Regulation

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Software and Firmware Use

Scientific-Atlanta, Inc. owns copyrights to the software included in your iO DVR and furnishes the software to Cablevision under a license agreement. You may only use or copy this software in accordance with Cablevision.

Scientific-Atlanta, Inc. owns copyrights to the firmware in this equipment. You may only use the firmware in the equipment in which it is provided. Any reproduction or distribution of this firmware, or any portion of it, without the express written consent of Scientific-Atlanta, Inc. is prohibited.

Trademarks


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Disclaimer

Scientific-Atlanta, Inc. assumes no responsibility for errors or omissions that may appear in this guide. Scientific-Atlanta reserves the right to change this guide at any time without notice.

Note to CATV System Installer (USA/Canada Only)

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



This symbol is intended to alert you that uninsulated voltage within this product may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this product.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN


AVIS

RISQUE DE CHOC ÉLECTRIQUE
NE PAS OUVRI

CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.



This symbol is intended to alert you of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

Read and Retain These Instructions

- Read all of the instructions before you operate this DVR. Give particular attention to all safety precautions. Retain the instructions for future reference.
- Comply with all warning and caution statements in the instructions. Observe all warning and caution symbols that are affixed to this DVR.
- Comply with all instructions that accompany this DVR.

Placement

Place this DVR in a location that is close enough to an electrical outlet to accommodate the length of the power cord.

Note: Place this DVR on a stable surface. The surface must support the size and weight of this DVR.

WARNING:

Avoid personal injury and damage to this DVR. An unstable surface may cause this DVR to fall.

Ventilation

This DVR has openings for ventilation that protect it from overheating. To ensure the reliability of this DVR, follow these guidelines to avoid obstructing the openings:

- Do not place other equipment, lamps, books, vases with liquid, or any other object on the top of this DVR.
- Do not place this DVR in any of the following locations:
 - On a bed, sofa, rug, or similar surface
 - Over a radiator or a heat register
 - In an enclosure, such as a bookcase or equipment rack, unless the installation provides proper ventilation

Cleaning the DVR

Before cleaning this DVR, unplug it from the electrical outlet. Use a damp cloth to clean this DVR. Do not use a liquid cleaner or an aerosol cleaner. Do not use a magnetic/static cleaning device (dust remover) to clean this DVR.

Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Do not expose this DVR to liquid or moisture. Do not place this DVR on a wet surface. Do not spill liquids on or near this DVR.

WARNING: Avoid electric shock and fire hazard. Never push objects through the openings in this equipment. These objects can cause electrical shorts that can result in electric shock or fire. Do not expose this DVR to rain or moisture. Do not place objects filled with liquid (such as vases) on this DVR.

Accessories

Do not use accessories with this DVR unless recommended by your cable service provider.

Overloading

Do not overload electrical outlets, extension cords, or integral convenience receptacles, as this can result in a risk of fire or electric shock. For equipment that requires battery power or other sources to operate, refer to the operating instructions for that equipment.

Lightning and Power Surges

Ground (earth) your cable system to provide some protection against voltage surges and built-up static charges. Plug your DVR into a surge protector to reduce the risk of damage from lightning strikes and power surges. If you have questions, call your cable service provider.

Power Cord Protection

Arrange all power cords so that people cannot walk on the cords, place objects on the cords, or place objects against the cords, which can damage the cords. Give particular attention to the cords at the point at which the cord connects to the plug, at electrical outlets, and at the places where the cords exit the DVR.

Power Sources

A label on this DVR indicates the correct power source for this DVR. Operate this DVR only from an electrical outlet that has the voltage and frequency that the label indicates. If you are unsure of the type of power supply to your residence, consult your local power company.

Power Cord Polarization

This DVR has a two-prong plug. Properly ground (earth) this DVR by inserting the plug into a grounded electrical, two-socket outlet. If this plug is polarized, it has one wide prong and one narrow prong. This plug fits only one way.

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

If you are unable to insert this plug fully into the outlet, contact an electrician to replace your obsolete outlet.

Servicing

Do not open the cover of this DVR. If you open the cover, your warranty will be void. Refer all servicing to qualified personnel only. Contact Cablevision for instructions.

Damage that Requires Service

For damage that requires service, unplug this DVR from the electrical outlet. Refer to qualified personnel when any of the following occurs:

- There is damage to the power cord or plug
- Liquid enters the DVR
- There is exposure to rain or water
- Operation is not normal (the instructions in this guide describe the proper operation)
- If you drop this DVR, or damage the cabinet of this DVR
- If this DVR exhibits a distinct change in performance

Upon completion of any service or repairs to this DVR (home terminal), the service technician will perform safety checks to determine that the equipment is in proper operating condition.

Identify your iO DVR

To find the serial number for your iO DVR, look on the back for a label that is similar to the example shown here. The serial number begins with SA and is located in the lower left corner of the bar code.

If the iO DVR requires troubleshooting in the future, Cablevision may ask for this serial number.

Use the space provided here to record the serial number:_____.

