**Scientific
Atlanta**

Explorer® 8000HD™
Home Entertainment Server
User's Installation Guide
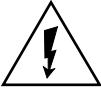
In This Guide

Safety Compliance Statements

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.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

AVIS

RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR

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 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.

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 set-top. 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 set-top.
- Comply with all instructions that accompany this set-top.

Placement

Place this set-top in a location that is close enough to an electrical outlet to accommodate the length of the power cord. Place this set-top on a stable surface. The surface must support the size and weight of this set-top.

⚠ **WARNING:**
Avoid personal injury and damage to this set-top. An unstable surface may cause this set-top to fall.

Ventilation

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

- Do not place other equipment, lamps, books, or any other object on the top of this set-top.
- Do not place this set-top 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 Set-Top

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

Safety Compliance Statements

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 set-top to liquid or moisture. Do not place this set-top on a wet surface. Do not spill liquids on or near this set-top.

Accessories

Do not use accessories with this set-top 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 set-top 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 set-top.

Power Sources

A label on this set-top indicates the correct power source for this set-top. Operate this set-top 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 cable service provider or your local power company.

Power Cord Polarization

This set-top has a two-prong plug. Properly ground (earth) this set-top 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 set-top. If you open the cover, your warranty will be void. Refer all servicing to qualified personnel only. Contact your cable service provider for instructions.

Damage that Requires Service

For damage that requires service, unplug this set-top 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 set-top
- There is exposure to rain or water
- Operation is not normal (the instructions in this guide describe the proper operation)
- If you drop this equipment, or damage the cabinet of this set-top
- If this set-top exhibits a distinct change in performance

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

Introduction

Change the Way You Watch TV

Use the Explorer® 8000HD™ Home Entertainment Server to control live high definition TV, record TV programs without a VCR, and watch two programs at the same time.

When two of your favorite programs are scheduled at the same time, you can record one program on the built-in digital video recorder (DVR) while watching the other.

With the 8000HD you can watch two programs at the same time, even if your TV does not have picture-in-picture (PIP) capability.

Follow the instructions in this guide to install the 8000HD, to become familiar with the buttons on the front panel, and to access your cable services. Then, enjoy the features of the 8000HD and change the way you watch TV!

Safety First

Before using the 8000HD, read the **SAFETY COMPLIANCE STATEMENTS** section of this guide.

The Explorer eClub

The online Explorer eClub provides news and information about the 8000HD. You can access the Explorer eClub on the Internet at the following web address: **www.scientificatlanta.com/explorerclub**

To join and access the online Explorer eClub you need the serial number of the 8000HD.

Identify Your 8000HD

To find the serial number for your 8000HD, 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.
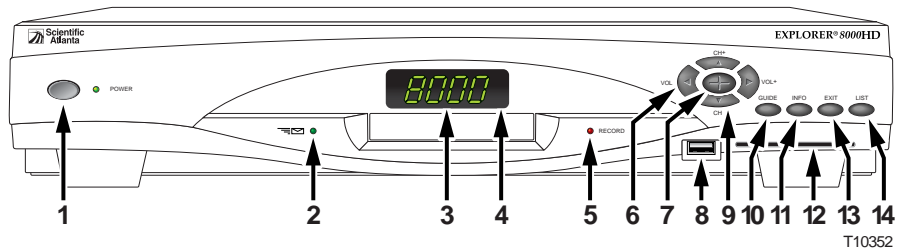
If the 8000HD requires troubleshooting in the future, your cable service provider or Scientific-Atlanta may ask for this serial number.

0003B4287797

SABDQXTL   N0006246618

Use the space provided here to record the 8000HD serial number :

_____

**8000HD
Front Panel**

T10352

1	**Power**	Provides power to the 8000HD. The light to the right of the Power button illuminates when the power is on. **Note:** When not watching TV, turn off the 8000HD to help conserve energy.
2	**Message Indicator**	Indicates a message is waiting for you from your cable service provider when blinking or illuminated. To access the message press the Info button
3	**LED Display**	Displays the selected channel number and time of day
4	**IR Sensor**	Receives the infrared signal from the remote control
5	**Recording Indicator**	Indicates the DVR feature is active when illuminated
6	**VOL+, VOL-**	Increases and decreases volume
7	**Select**	Accesses your on-screen selection
8	**USB Port***	(Universal Serial Bus) Connects to external equipment, such as a keyboard
9	**CH+, CH-**	Scrolls up and down through the channels
10	**Guide**	Accesses on-screen services, such as the on-screen guide, video-on-demand, or pay-per-view
11	**Info**	Displays a description of the selected program. Available from the on-screen guide and while viewing a program
12	**Smart Card Slot***	Allows smart card access
13	**Exit**	Exits menus, on-screen guide, and program information
14	**List**	Accesses list of recorded programs displayed on the TV screen

* This connector is reserved for future use or may not be available on all 8000HD models.

Safety Tip   *Keep the top of the 8000HD free of all objects and electronic devices, including your TV.*

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What's On the Back Panel?

8000HD Back Panel

T10967
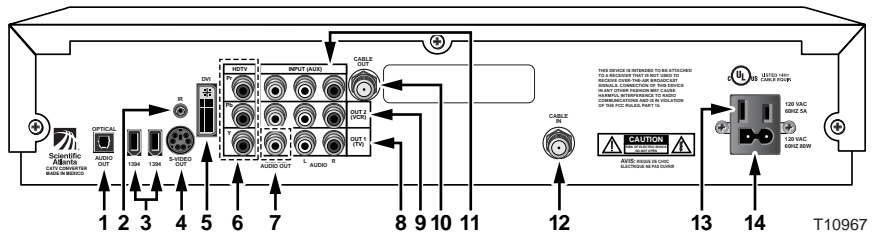
1	**Optical Audio Out**	Connects to the optical digital audio input of an A/V receiver
2	**IR Port***	Connects to optional VCR Commander™ service
3	**1394***	Connects to optional 1394-equipped (fire wire) devices
4	**S-Video Out**	Connects to S-Video input of TV or VCR (standard definition)
5	**DVI***	(Digital Video Interface) Provides digital video signals to a high definition TV (HDTV)
6	**Y/V Video Out**	(HD Component Video Out) Connects to HDTV input of TV (high definition). The component video cables (YPrPb) must be connected here to provide HD signals to your HDTV. See **SD Mode or HD Mode** on page 9 for more information about this connector
7	**Digital Audio Out**	Connects to the coaxial digital audio input of an A/V receiver
8	**Audio Out**	Connects to left/right (L/R) audio inputs of TV or A/V receiver
9	**VCR Archive***	Connects to video and left/right (L/R) audio inputs of a VCR. These outputs are used for archiving programs that are stored on the 8000HD to a VCR
10	**Cable Out**	Connects to cable input of a VCR or TV (standard definition)
11	**Input Video & Audio***	(Auxiliary video and audio inputs) Connects to video and left/right (L/R) audio output of an external device to deliver the audio and video to a TV or other device
12	**Cable In**	Connects to cable signal from cable service provider
13	**AC Switched Outlet**	Connects to the AC power cord from another device, such as a TV
14	**AC Power Input**	Connects the 8000HD to an AC electrical outlet

* This connector is reserved for future use or may not be available on all 8000HD models.

Be Prepared

You have several options for connecting your TV to entertainment devices. The connection option you choose depends on the type of TV you have and the entertainment devices you want to connect to your TV. For the best results, read this section to learn more about HDTV and SDTV connection options and screen resolutions before you begin to connect the 8000HD to your entertainment devices.

What Are the Differences Between Widescreen TVs and Standard TVs?

The widescreen TV is 1/3 wider than a standard TV. The widescreen TV aspect ratio is 16:9 (compared to 4:3 for SDTV).

HDTV uses a much finer screen resolution to create the TV picture—1125 lines for HDTV compared to 525 lines for SDTV. This means that the screen resolution for HDTV can be up to 1920x1080 pixels, compared with 720x480 pixels for SDTV.

In the USA, HD programming is always broadcast with digital signals. SD programming is currently broadcast in both digital and analog. (However, HD programming and digital SD programming do *not* use the same digital signal.)

Generally, all HDTV-ready monitors or integrated HDTV sets are capable of supporting an SDTV 480i or 480p signal. Not all HDTV monitors support both 720p and 1080i HDTV signals. For instance, some plasma screens only support 720p.

What Are Screen Resolutions?

You want to set up the 8000HD to provide your TV with the best picture size and format that your TV supports.

Your cable service provider broadcasts programming in SDTV or HDTV format. The screen resolution that your TV supports determines how the program will look on your TV screen.

For this reason, the 8000HD needs to know the screen resolution that is best for your TV. If the 8000HD is not set up to provide video in the proper screen resolution, you will see a black screen or a distorted picture when you turn on your TV.

The 8000HD provides video in the following screen resolutions.

SDTV Screen Resolutions	• 480 lines, interlaced (480i) • 480 lines, progressive (480p)
HDTV Screen Resolutions	• 1080 lines, interlaced (1080i) (This is the default setting for the 8000HD.) • 720 lines, progressive (720p)

HDTV vs SDTV

**About HDTVs
(High Definition)**

There are several brands and models of HDTVs in the marketplace. The features and connectors are not the same on all brands and models.

- Most HDTVs have YPbPr connectors for component video inputs.

Y
Pb
Pr

- Some HDTVs have a DVI connector. The DVI connector provides the optimal connection to an HDTV. **Note**: This connector is reserved for future use or may not be available on all 8000HD models.

DVI

- Some HDTVs have only RGB connectors. If you have one of these HDTVs, you may need an RGB adaptor. Check with your cable service provider for information about receiving an RGB adaptor.

R
G
B

- The S-Video Out connection is active only if the 8000HD has been set up to be in standard definition only mode. See **About SDTVs (Standard Definition)** for more information.

**S-VIDEO
Out**

- The Cable Out connector is active only if the 8000HD is set to standard definition mode. If you connect the 8000HD to your SDTV using only the coaxial cable at the CABLE OUT connection, your SDTV will not receive stereo sound from the 8000HD. See **About SDTVs (Standard Definition)**, next, for more information. **Note:** S-Video and coaxial cables deliver SDTV programming. They do not deliver HDTV programming.

**Cable
Out**

**About SDTVs
(Standard Definition)**

If you have an SDTV , you will need to go through the set-up mode on the 8000HD to set it to SD mode.

If your SDTV has YPbPr inputs, the 8000HD will function with these inputs only when outputting in the 480i screen resolution mode.

**HD Mode or
SD Mode?**

When you set up the 8000HD in HD mode, the connector Y/V Video Out becomes the HD Y video output (Y portion of the YPbPr video output).

See the connection diagrams in the **Connecting Entertainment Devices** section.

When you set up the 8000HD in SD mode, the connector labeled Y/V Video Out acts as an SD video out connector (V). See the diagram on page 14 for an example.

**Y/V
VIDEO OUT**

**How Do I Connect
the 8000HD to My
TV and Other
Entertainment
Devices?**

When you are ready to connect the 8000HD and to choose the screen type for your TV, follow these instructions.

1. Connect the 8000HD to your HDTV, 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.)
2. Connect the 8000HD to the coaxial cable coming from the wall.
3. Plug the 8000HD and the TV into an AC power source.
4. Do *not* turn on the 8000HD or HDTV yet.
5. Wait until you see one of the following displays on the front of the 8000HD:
   • Current time
   • Four dashes (- - - -)

   Important: It may take several minutes for the 8000HD to receive the latest software, programming, and service information. When the front panel displays the time or four dashes, the update is complete.
6. After the update is complete, turn ON the TV. Do *not* turn the 8000HD on yet. Go to **How Do I Choose the Screen Type**, next in these instructions.

**How Do I Choose
the Screen Type?**

After you connect your entertainment devices, follow these instructions before you begin watching TV.

1. Turn **on** the TV.
2. Do *not* turn the 8000HD on yet.
3. Press the **INFO** and **GUIDE** buttons on the front of the 8000HD simultaneously.
4. Follow the easy instructions on the TV screen.
5. Press the **CBL** and **POWER** keys on the remote control, and the 8000HD will turn on.

HDTV vs SDTV

How Do I Set Up Stereo Sound?

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

- Connect stereo audio cables from the AUDIO OUT LEFT and RIGHT connectors on the 8000HD to the AUDIO IN LEFT and RIGHT connectors on your HDTV.

- Connect an RCA cable from the DIGITAL AUDIO OUT on the 8000HD to the DIGITAL AUDIO IN on your HDTV (if equipped) or stereo receiver.

- Connect an optical digital audio cable from the OPTICAL AUDIO OUT on the 8000HD to the OPTICAL AUDIO IN on your HDTV (if equipped) or stereo receiver.

Connection Diagrams

The diagrams on the following pages show examples of common ways to connect the 8000HD to your HDTV, 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.

Cables

Some of the cables shown in the diagrams may not be included with the 8000HD.

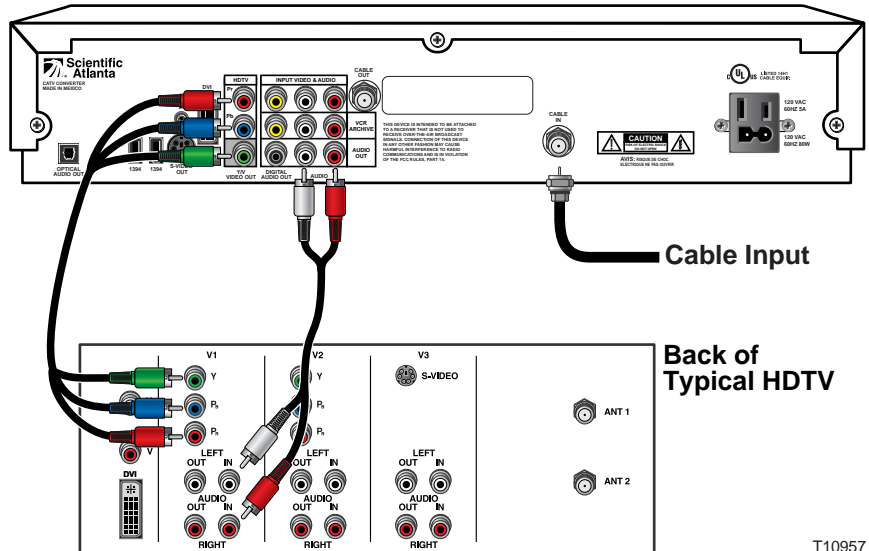**Connect the 8000HD to a typical HDTV using YPbPr Cables and Audio Cables**

⚠ WARNING:

Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the 8000HD.

8000HD

Cable Input

Back of Typical HDTV

Before you connect or turn on the 8000HD, read the **HDTV vs SDTV** section of this guide.

T10957

Power Surge Protection   *It is recommended that you connect a surge protector to your cable equipment and electronic devices.*
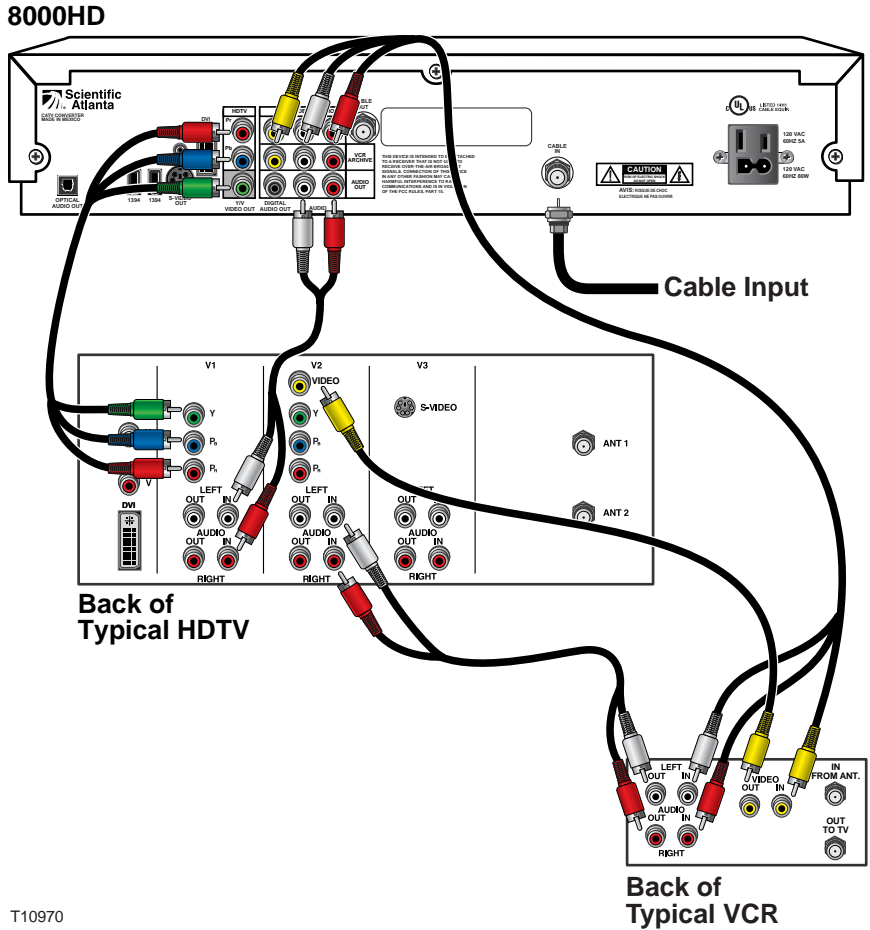
11

Connecting Entertainment Devices

Connect the 8000HD to an HDTV and Stereo VCR

⚠️ **WARNING:**

Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the 8000HD.

Before you connect or turn on the 8000HD, read the **HDTV vs SDTV** section of this guide.

Note: The VCR connection shown here is for archiving program content stored on the 8000HD to a VCR. The VCR archive connectors will be activated as a future feature.

8000HD

Cable Input

Back of Typical HDTV

Back of Typical VCR

T10970

Power Surge Protection   *It is recommended that you connect a surge protector to your cable equipment and electronic devices.*

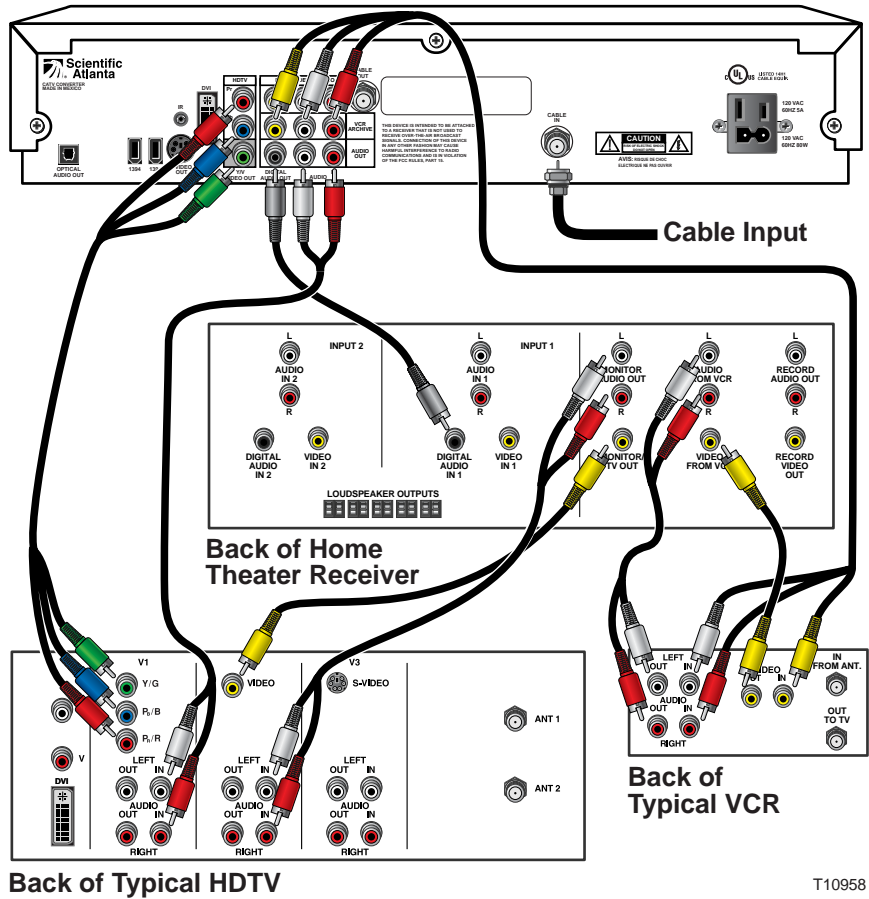**Connect the 8000HD to a Home Theater Receiver, a Typical HDTV, and VCR**

⚠️ **WARNING:**

Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the 8000HD.

Before you connect or turn on the 8000HD, read the **HDTV vs SDTV** section of this guide.

Note: The VCR connection shown here is for archiving program content stored on the 8000HD to a VCR. The VCR archive connectors will be activated as a future feature.

8000HD

Cable Input

Back of Home Theater Receiver

Back of Typical VCR

Back of Typical HDTV

T10958

Power Surge Protection

It is recommended that you connect a surge protector to your cable equipment and electronic devices.

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Connecting Entertainment Devices

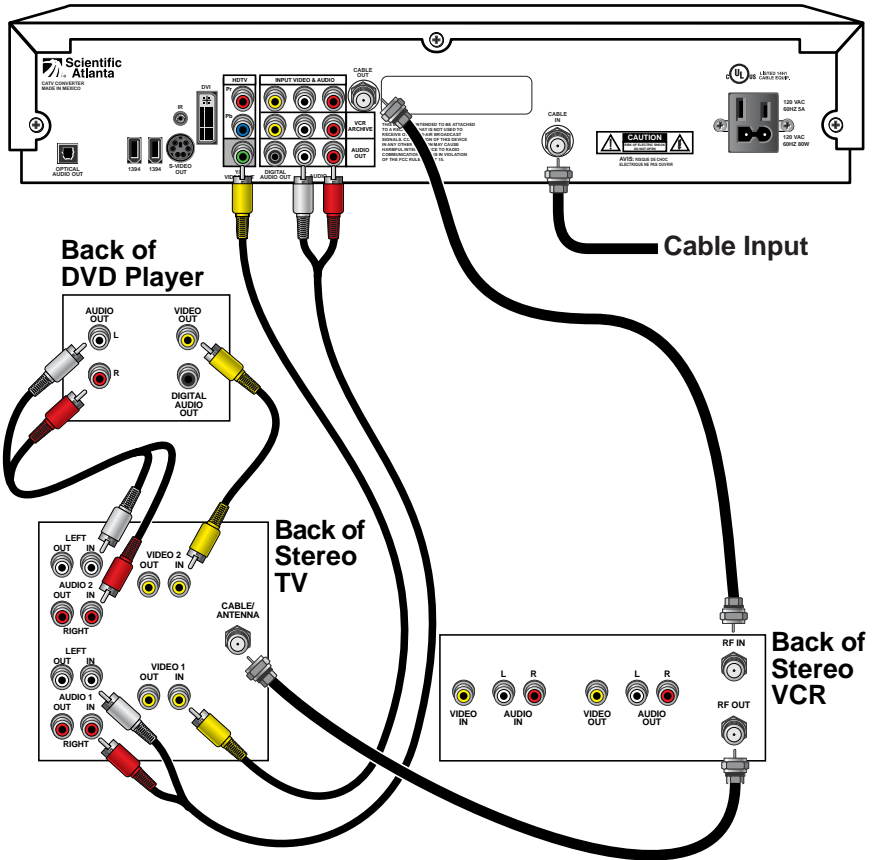### Connect the 8000HD to a Standard Definition TV, VCR and DVD Player

Use this type of connection when setting the 8000HD to Standard Definition mode and connecting to a TV that is not HD (high definition), a DVD player, and a VCR.

⚠️ **WARNING:**

Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the 8000HD.

Before you connect or turn on the 8000HD, read the **HDTV vs SDTV** section of this guide.

Note: The VCR connection shown here is for archiving program content stored on the 8000HD to a VCR. The VCR archive connectors will be activated as a future feature.

T10959

Power Surge Protection

It is recommended that you connect a surge protector to your cable equipment and electronic devices.

Access Services and Programs

Access cable services and programs by pressing the following keys on the remote control:

- **Guide**–Access the on-screen guide. The on-screen guide displays schedules of TV programs and other services available from your cable service provider, such as video-on-demand and pay-per-view programs.
- **Arrows**—Highlight a program in the schedule.
- **Info**—Display a specific program description (either from the on-screen guide or while viewing a program).
- **Select**—View a specific program in the guide.

Record One Program While Watching Another

When two of your favorite programs are scheduled at the same time, you can record one program on the built-in digital video recorder (DVR) while watching the other. Use the DVR keys on the remote to record programs or to play back recorded programs.

T10964

Watch Two Programs At the Same Time

You don't need a special TV to watch two programs at the same time. Use the picture-in-picture (PIP) keys on the remote and you will see a PIP screen on your TV.

T10965

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Watching TV

How Do I Change the Screen Type?

You can change the screen type settings at any time by following these instructions.

1. Turn **on** the TV.
2. Turn **off** the 8000HD.
3. Press the **INFO** and **GUIDE** buttons on the front of the 8000HD simultaneously.
4. Follow the easy instructions on the TV screen.
5. Press the **CBL** and **POWER** keys on the remote control, and the 8000HD will turn on.

Avoid Screen Burn-In!

⚠ **WARNING:**

To avoid screen burn-in, do not display the same fixed images on your HDTV screen for extended periods of time.

Images such as letterbox bars or side bars, bright closed-captioning backgrounds, station logos, or any other stationary images may cause the picture tubes in your HDTV to age unevenly and cause damage to your HDTV. Refer to the user's guide that came with your HDTV for more information about screen burn-in.

Performance Tips   If the 8000HD 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 8000HD.
- Verify that the TV is set to the proper input.
- Verify that your TV is connected to the proper TV input port.
- Verify that the 8000HD 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 8000HD.
- Verify that the volume is turned up.
- Verify that the mute function is not engaged.

Automatic Software Updates   You will see a message on the TV screen that indicates the 8000HD is automatically updating its software. Wait for the time to display on the front panel of your 8000HD before continuing with the installation process. When the front panel displays the time, the update is complete.

Frequently Asked Questions About HDTV

Are Local TV Stations Broadcasting in HDTV?

Many local TV stations are transmitting digital signals. However, transmitting a digital signal does not mean transmitting an HDTV signal. Some stations are using the new bandwidth to broadcast several standard-definition channels. Most stations however, once they begin broadcasting in digital, are offering HD content from their parent network (for example, CBS, ABC, NBC, Fox, WB, UPN, PBS).

Why Are Some HDTVs 4:3 Aspect Ratio and Others 16:9?

The aspect ratios differ because the television industry manufactures both standard and wide-screen HDTVs to appeal to consumer viewing preferences.

- On wide-screen HDTVs, the programming is displayed on the full screen.
- On standard HDTVs, the programming is displayed in letterbox format in the middle of the screen. (There are bars surrounding the picture.)

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. *The phone numbers listed are for FCC-related questions only and not intended for questions regarding the connection or operation for this device. Please contact your cable service provider for any questions you may have regarding the operation or installation 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.

EXPLORER® 8000HD Home Entertainment Server:
Model 8000HD
Manufactured by: Scientific-Atlanta, Inc.;
5030 Sugarloaf Parkway;
Lawrenceville, Georgia 30042; USA
Telephone **770-236-1077**

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 Réglement sur le matériel brouilleur du Canada.

Software and Firmware Use

Scientific-Atlanta, Inc. owns copyrights to the software included in your set-top and furnishes the software to your cable service provider under a license agreement. You may only use or copy this software in accordance with the terms of your cable service provider.

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.

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