



**Scientific
Atlanta**

Explorer[®] HDTV Setup Wizard

User's Guide

In This Guide

Introducing the Setup Wizard	2
Picture Formats	3
Setting Up Your HDTV With the Setup Wizard	7
Easy Setup Instructions	11
Advanced Setup Instructions	12
Changing the Settings While Watching TV	13
Closed Captioning	16

Introducing the Setup Wizard

What Is the Setup Wizard?

The Explorer HDTV Setup Wizard is an on-screen program that helps you set up your high-definition TV (HDTV) to receive the best picture quality that the HDTV supports. The Setup Wizard is currently available on select Explorer® Digital Home Communications Terminal set-top models.

Before You Begin

Before you begin to set up your HDTV, you may want to have available the users guide that came with your HDTV for reference.

Is It Necessary To Use the Setup Wizard?

It depends on how the HDTV is connected to the set-top. If the **Y, Pb, Pr ports** on the back of the set-top are connected to one of the video ports on the HDTV, you should use the Setup Wizard to ensure that your HDTV receives the best picture quality that it supports. **Note:** Make a note of which video input port the set-top is connect to on the HDTV. For example: Video input port 6.

If the HDTV is connected to the **composite port** on the back of the set-top, it is not necessary to use the Setup Wizard. Broadcasts coming in through the composite port automatically adjust to the picture size and formats supported by the HDTV.

If the HDTV is connected to the **DVI port** on the back of the set-top, it may not be necessary to use the Setup Wizard. TV programs coming in through the DVI port of the HDTV are automatically adjusted if the broadcasted format is supported by the HDTV. If the format is not supported, use the Setup Wizard.

Notes:

- The analog Y, Pb, Pr ports become inactive when the HDTV is connected to the DVI port.
- If the HDTV is connected to the DVI port on the back of the set-top and you see this DVI alert on the screen, it means that the HDTV and the set-top are not compatible. If this occurs, reconnect the set-top to the Y, Pb, Pr ports on the set-top.



Picture Formats

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

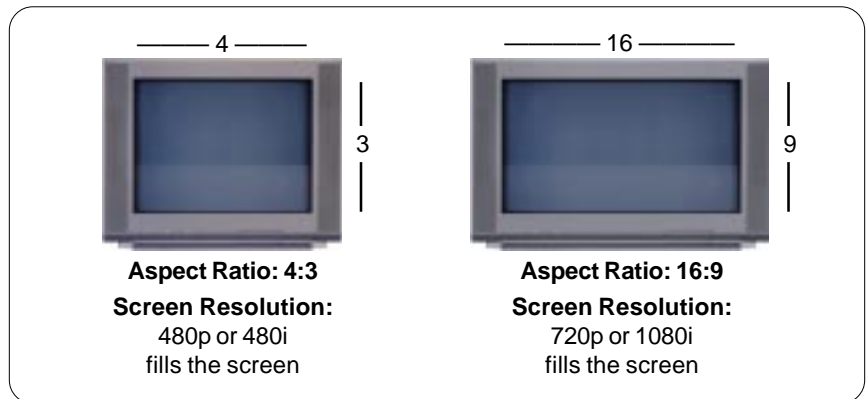
The type of screen your HDTV has (wide screen or standard screen) determines how the set-top displays programs on the screen. The picture format for an HDTV is a combination of *aspect ratio* and *screen resolution* and is different for standard-screen and wide-screen HDTVs.

What Is An 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.

A standard-screen HDTV has a 4:3 aspect ratio. The screen is 4 units wide for every 3 units tall.

A wide-screen HDTV is one-third wider than a standard-screen HDTV. The screen is 16 units wide for every 9 units tall.



Picture Formats

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 means that the screen shows 480 lines in a progressive display.

Note: The screen resolution (1080i, 480p, etc.) 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 **interlaced method** involves refreshing pixels in alternation—first the odd lines and then the even lines.



**How Do I
Know Which
Picture Format
To Choose?**

The type of screen your HDTV has determines how the set-top displays programs on the screen. The following examples show how programs will look when the picture format is set to Normal mode (not Stretch or Zoom modes).

Standard-Screen HDTVs

On a standard HDTV, these picture formats:

Automatically display in this manner:

480p or 480i standard



Full screen format



720p or 1080i wide



Letterbox format



Picture Formats

Wide-Screen HDTVs

On a wide screen HDTV, these picture formats:

Automatically display in this manner:

480p or 480i standard



Pillarbox format



720p or 1080i wide



Full screen format



Setting Up Your HDTV With the Setup Wizard

Before you begin to set up your HDTV using the Setup Wizard, there are two things you need to do:

- Download the latest information to the set-top. (You only need to do this for the initial setup. After the initial set up, programming information is downloaded to the set-top automatically on a regular basis.)
- Prepare the set-top to send picture formats that your HDTV supports.

Download the Latest Programming Information to the Set-Top

Assuming that you have connected the Y, Pb, Pr ports on the back of the set-top to one of the video ports on the HDTV, complete the following steps to download latest software, programming, and service information to the set-top. (Be sure you have made a note of which video input port the set-top is connected to on the HDTV. For example: Video input port 6.)

Note: You only need to do this for the initial setup.

1. Plug the set-top and the TV into an AC power source.
2. Do *not* turn on the set-top or TV yet.
3. Wait until you see one of the following displays on the front of the set-top:
 - Current time
 - Four dashes (- - - -)

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

4. **STOP!** Before you turn on the TV or the set-top, you should have read the information in the **Picture Formats** section, earlier in this guide.

Setting Up Your HDTV With the Setup Wizard

Prepare the Set-Top to Send Picture Formats That Your HDTV Supports

If your HDTV displays a black screen when you turn it on, the set-top may be sending a picture format that your HDTV does not support. Prepare the set-top to send all picture formats that your HDTV supports. Later, while watching TV, you will be able to toggle among the different settings to select the format that provides the best picture quality for the program you are watching.

Complete these steps to prepare the set-top to deliver programming in the picture format settings that your HDTV supports.

Important: Before you start, read these instructions carefully. When you get to step 5 you have 20 seconds to begin selecting picture format settings. After 20 seconds, the set-top is no longer in the Picture Format mode. If this occurs, repeat this process, starting at step 2.

1. Refer to the user's guide that came with your HDTV to find the picture formats that your HDTV supports.
2. If the set-top is turned off, press the **Power** key to turn it on.
3. On the front of the set-top, press and hold the **Select** button until the Message Light blinks.
4. Then, press the **Vol—** key to indicate that you want to select a picture format setting. The LED display shows HdSr to indicate that the set-top is in the Picture Format mode for HDTV settings.
5. In the following table, find each of the picture formats that your HDTV supports. Then, press the corresponding buttons on the front panel of the set-top.

Note: If 1080i is one of the settings that your HDTV supports, we suggest you select it last. Then, when you turn on the TV to use the Setup Wizard, the picture format will be 1080i.

To select this picture format:	Press this button on the Front Panel:	The set-top briefly displays:	And then briefly displays:
480i	CH+	480i	SEt
720p	VOL—	720p	SEt
480p	CH—	480p	SEt
1080i	VOL+	1080	SEt

Setting Up Your HDTV With the Setup Wizard

Is There More Than One Setup Option?

Yes. The Setup Wizard provides two options for selecting your screen type:

- If you choose the **Easy** option, the Setup Wizard automatically sets up the HDTV to receive programming in 1080i and 480i format.
- If you choose the **Advanced** option, you can toggle through all the picture formats and select the formats that look best on the HDTV screen.

Note: Use the **A**, **B**, **C** keys on the remote control to navigate through the Setup Wizard menus and options. You may want to have available the user's guide that came with your HDTV for reference.

How Do I Start the Setup Wizard?

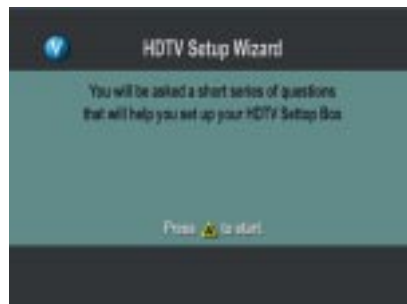
1. Make sure that the set-top is **OFF** and the HDTV is **ON**.



2. Press the **GUIDE** and **INFO** keys at the same time.

Setting Up Your HDTV With the Setup Wizard

1. Press **A** to start the set up.



2. Choose one of the following options:
 - To choose the Easy Setup option press **A**; then, go to the **Easy Setup Instructions** on page 11.
 - To choose the Advanced Setup option press **B**; then go to the **Advanced Setup Instructions**, on page 12.



Easy Setup Instructions

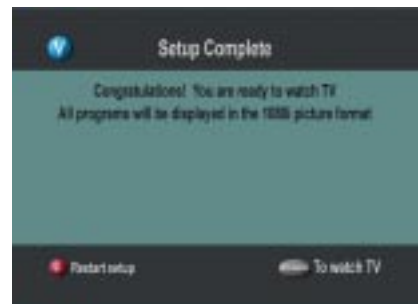
1. Press **A** or **B** to select the type of TV screen you have.



2. Press **Power** to begin watching TV.

Notes:

- If you pressed **A**, the setup is complete. The TV is set to receive programming in 1080i and 480i format.
- If you pressed **B**, the setup is complete. The TV is set to receive programming in 1080i format.



Advanced Setup Instructions

1. Press **A** or **B** to choose the type of TV screen you have.



2. Press **A** to see how various formats look on your TV screen.



3. Press **SELECT** to toggle between the Save and Remove options, or press **B** to see how the next format looks on your TV screen.

Important: If you see a black screen, press **B** again to view the next screen. Do *not* press **SELECT**. The black screen means that your TV does not support that particular format, so you do not want to select it.



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



Changing the Settings While Watching TV

Some channels are high definition (HD) and some are not. To maximize viewing of non-HD channels, you can toggle between an HD scan rate (either 1080i or 720p) and a standard definition scan rate (either 480i or 480p).

How Do I Change the Picture Size?

Press the **#** key on the remote control to toggle through the picture size options (Normal, Stretch, and Zoom) while in fixed mode, or press the **#** key to toggle through the picture format options (SD Normal and HD Zoom) while in pass-through mode. (See the **Changing the Settings While Watching TV** section on the next page for more information about the pass-through mode.) Notice as you toggle from one format to another that the scan rate (1080i, 480i, etc.) appears briefly in the bottom right corner of the screen.

Standard-Screen HDTV:

maximize viewing on non-HD channels.



Note: HD channel programs automatically fill the entire HDTV screen.

Wide-Screen HDTV:

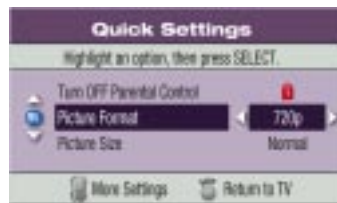
maximize viewing of any channel.



Changing the Settings While Watching TV

How Can I Change the Picture Settings If There Is Not a # Key On the Remote Control?

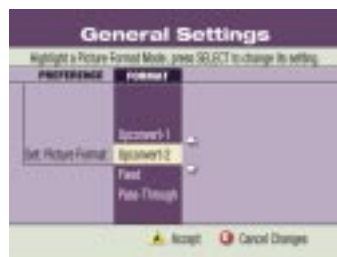
1. Press **Settings** to access the Quick Settings menu.
2. Scroll to **Picture Format** or **Picture Size**. (You will only see the Picture Size if the Set Picture Format is set to Pass-Through in the General Settings menu.)
3. Press ◀ or ▶ to view the options.
4. As you scroll through the options, notice how the picture on the screen changes.
5. Select the picture size and/or format of your choice.



How Can I Change How the Picture Looks On My TV?

Press **Settings** *twice* to display the General Settings menu. Then, choose one of the following options.

Fixed—The screen resolution you selected from the Setup Wizard can be seen in the Quick Settings menu. The screen resolution remains the same (fixed) until you change it.



Pass-Through—This option provides a built-in convenience factor. The set-top attempts to convert the signal of an incoming program to the best picture format for your HDTV screen. However, if you have not selected all the screen resolutions that are available, the screen resolution defaults to the best selection available based the selections you made in the HDTV Setup Wizard.

Upconvert 1 and Upconvert 2—The operation of these two options is similar to that of the Pass-Through option. See the **Display Formats For Digital Sources** table on the next page.

Auto DVI—If your HDTV is connected through the DVI port, you will see this option and not the Pass-Through option. Incoming programming is automatically formatted to the scan rate supported by your HDTV.

Display Formats For Digital Sources

The following table illustrates the relationship between the format option you chose, the signal the set-top receives, and how the picture is displayed on the TV screen.

If you chose this picture format option:	When the set-top receives this type of signal:	The picture is displayed on the HDTV screen in this format:
Fixed	All formats	1080i, 720p, 480i, 480p (Depending on your selections made in the Setup Wizard and Quick Settings menu)
Pass-Through	480i 480p 720p 1080i	480i 480p 720p 1080i
Upconvert 1	480i / 480p 720p / 1080i	480p 1080i
Upconvert 2	480i / 480p 720p / 1080i	480p 720p

Closed Captioning

What Is Closed Captioning?

Closed captioning is text on the TV screen related to the programming being viewed. What you see is an abbreviated version of the actors' dialogue and indications of important background sounds. For sporting events, closed captioning provides realtime play-by-play descriptions from the announcers. Closed captioning is provided for those requiring assistance understanding and enjoying sound.

Does My TV Support Closed Captioning?

Many TVs support closed captioning through the RF and baseband inputs. When your HDTV-to-set-top connection is through the YPrPb port or the DVI port, closed captioning is decoded and displayed by the Explorer set-top.

Who Provides Closed Captioning?

Several companies (sources) provide closed-captioning service to television networks and production companies for standard (analog) and digital programming.

Closed-Captioning Sources for Standard (Analog) Programming

- Std CC1 is the primary caption service for non-digital programming.
- Std CC2 through Std CC4 are text services that may contain different information, including alternate languages.
- T1 through T4 are text services that may also provide additional information from the closed-caption provider.

Closed-Captioning Sources for Digital Programming

- Digital 1 is the primary caption source.
- Digital 2 is the suggested choice for alternate languages.
- Digital 3 through Digital 6 are undefined at this time.

Choose a Closed Captioning Source

1. Press **Settings** *twice* to access the General Settings menu.
2. Scroll to **CC:Source**.
3. Press ► to access the STD (analog) and digital source options.
4. Scroll through the options and select the recommended sources: Std CC1 and Digital 1.

Control the Audio Volume While Closed Captioning Is Turned On Or Off

1. Press **Settings** *twice* to access the General Settings menu.
2. Scroll to **Audio:Volume Ctrl**. There are two setting options:
 - **Fixed** – The Fixed setting controls the audio volume through the TV and enables you to have closed captioning turned on or off while listening to the programming audio.
 - **Variable** – The Variable setting controls the audio volume through the set-top and enables you to have closed captioning turned on or off while listening to the programming audio, or you can have closed captioning on while the set-top audio is muted.
3. **Select** either the **Fixed** or **Variable** setting.

Turn Closed Captioning On and Off

You can turn closed captioning on and off at any time through the Quick Settings menu.

1. Press **Settings** to access the Quick Settings menu while watching TV.
2. Turn caption on or off.
3. If you chose the Fixed setting for the audio volume:
 - A. Scroll to **Caption Off/On**.
 - B. Press ► to access the options.
 - C. Scroll through the options and press **Select** to set your choice.
4. If you chose the Variable setting for the audio volume:
 - A. Scroll to **Caption Off/On/On with Mute**.
 - B. Press ► to access the options.
 - C. Scroll through the options and press **Select** to set your choice.

Closed Captioning

Change the Look of Closed Captioning

Depending on the program or caption provider, you may or may not be able to change how the closed captioning looks on the TV screen.

1. Press **Settings** *twice* to access the General Settings menu.
2. Scroll to **CC:Options**.
3. Press **▶** to access the **CAPTION STYLE** column.
 - If you selected the Set by Program option, the style is set by the caption provider for each program, and you cannot change the settings.
 - If you select the Set by Viewer option, you can use the instructions in the remainder of this section of the guide to change the caption styles.

Note: You may be able to change the appearance of closed captioning on most HD channels and on some digital channels using the procedures in this section. Closed captioning on analog channels and on most digital channels appears on the screen with white letters on a black background, and the format cannot be changed.

Change the Background Shading and Color

The following instructions make the following assumptions:

- You have accessed the General Settings menu by pressing Settings *twice*.
- The caption style setting in the General Settings menu is Set by Viewer.

Change the Background Shading

1. Scroll to **CC:Background**.
2. Press **▶** to access the **Shading** column.
3. Press **▲** and **▼** to scroll through the options. There are five background shading options:
 - **Clear** — allows video to be seen behind the captions
 - **Slight** — shows both the background and the video behind it
 - **Solid** — hides the video behind the captions
 - **Flashing** — a solid background turning on and off at a rate determined by the caption provider
 - **Default** — the background is determined by the caption provider
4. **Select** your choice.

Change the Background Color

1. Scroll to **CC:Background**.
2. Press **▶** to access the **Color** column.
3. Press **▲** and **▼** to scroll through the several color options.
4. **Select** your choice.

Change the Shading and Color of the Characters

The shading and color options for the text (characters) is the same as for the background shading and color.

Change the Character Shading

1. Scroll to **CC:Characters**.
2. Press ► to access the **Shading** column.
3. Press ▲ and ▼ to scroll through the options.
4. **Select** your choice.

Change the Character Color

1. Scroll to **CC:Characters**.
2. Press ► to access the **Color** column.
3. Press ▲ and ▼ to scroll through the options.
4. **Select** your choice.

Change Style of the Characters

There are eight font styles to choose from, and they are numbered Style 1 through Style 8. The styles may not look the same on all TVs. Select the different fonts to see how they look on your TV.

Change the Text Style

1. Scroll to **CC:Characters**.
2. Press ► to access the **Style** column.
3. Press ▲ and ▼ to scroll through the options.
4. **Select** your choice.

Change the Size of the Characters

Change the Character Size

1. Scroll to **CC:Options**.
2. Press ► to access the **Text Size** column.
3. Press ▲ and ▼ to scroll through the options (Small Text, Medium Text, Large Text, Default).
4. **Select** your choice.

Record HD Programs

If the program contains closed caption information, it will be recorded by your VCR. When the tape is played back, turn on the closed captioning feature on your TV to view the captions.

Note: An HD program records to your VCR in SD (standard definition) format.



© 2004 Scientific-Atlanta, Inc. All rights reserved.
Explorer, Scientific-Atlanta, and the Scientific-Atlanta logo are registered trademarks of Scientific-Atlanta, Inc.
All other trademarks shown are property of their respective owners.
Product and service availability subject to change without notice.

Scientific-Atlanta, Inc., 5030 Sugarloaf Parkway, Box 465447, Lawrenceville, GA 30042
www.scientificatlanta.com
January 2004 Printed in USA.

Part Number 4003114 Rev B