



ScreenBeam Pro Wireless Display Education Edition

Model #: SBWD100A EDU

User Manual

Ver 1.0

Solutions for the Digital Life™

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Introduction

1

Thank you for purchasing Actiontec's ScreenBeam Pro Wireless Display Receiver Education Edition. ScreenBeam Pro wirelessly streams what's on your Intel WiDi or Miracast™ compatible device to your HDTV, including movies, videos, photos, music, and more.

ScreenBeam Pro features fast setup, enhanced security and IT manageability, smooth video playback, full 1080p HD support, ultra-low delay, Windows 8.1 optimization, versatile compatibility, low power consumption.

With ScreenBeam Pro, it's easy to supplement traditional lectures with rich, engaging multimedia like videos, apps, educational programming, even specialized online course material. This wireless display adapter lets teachers and students wirelessly share content from compatible tablets, smartphones, and laptops onto a projector screen or other display.

This user manual will take you through the procedures needed to install, connect to, operate, configure, and upgrade the Receiver, and also describe a few different possible scenarios about locating faults.

Package Contents

The following items are in the ScreenBeam Pro Education Edition package:

- ScreenBeam Pro Education Edition Wireless Display Receiver (1)
- HDMI Cable (1)
- HDMI-to-VGA adapter (1)
- AC power adapter (1)
- Quick Start Guide

Features



- **Reset Button:** resets ScreenBeam Pro to its default setting
- **Video Out Port (HDMI):** connects ScreenBeam Pro to HDTV/projector for video and audio output.
- **Power Input:** connects to AC adapter
- **LED Indicator:** displays status of power supply
- **USB Port:** used for firmware upgrades

System Requirements

- Display device with one Type A HDMI port or VGA port
- Available power outlet

Compatible Devices

- Laptop or notebook computer with Intel WiDi 4 or higher
- Smartphone, tablet, or laptop running Windows 8.1
- Wi-Fi Miracast™ certified smartphones and tablets
- Non WiDi/Miracast ready laptops and PCs with Actiontec USB Transmitter (Windows 7 or higher)

Setting Up ScreenBeam Pro

2

This chapter details how to connect ScreenBeam Pro to an HDTV monitor, and how to set it up for the first time. Make sure you have all the contents from ScreenBeam Pro's package available before beginning the installation.

Connecting ScreenBeam Pro to an HDTV

To connect the ScreenBeam Display Receiver to an HDTV monitor, make sure you have the following items handy:

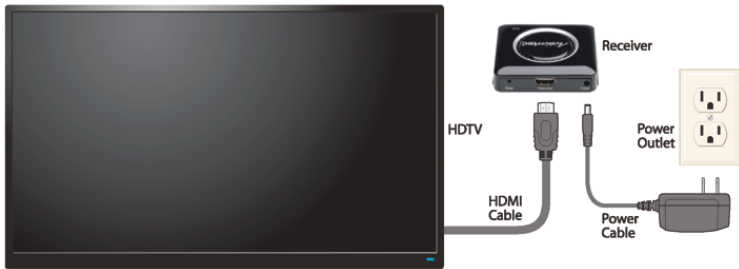
- ScreenBeam Pro Display Receiver
- HDMI cable
- AC power cord

To connect ScreenBeam Pro to an HDTV monitor:

1. Plug one end of the supplied HDMI cable into the HDMI port (Video Out) on ScreenBeam Pro, and the other end into an available HDMI port on the HDTV.
2. Plug the other end of the power cord into a nearby electrical outlet. The Power LED will illuminate green.

Setting Up ScreenBeam Pro

When Steps 1 and 2 are complete, the hardware should be connected as shown in the figure below:



3. Turn on the HDTV and set it to display the input from the correct HDMI port connected in step 1.
4. Verify that the “Ready To Connect” screen appears on the HDTV.



The Receiver is now connected to the HDTV monitor, and is ready to use.

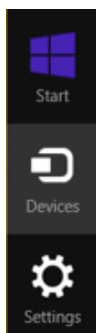
Setting Up the First Time

This section explains how to connect ScreenBeam Pro for the first time to a source device. There are three source device options: Windows 8.1, Intel WiDi, and Miracast™.

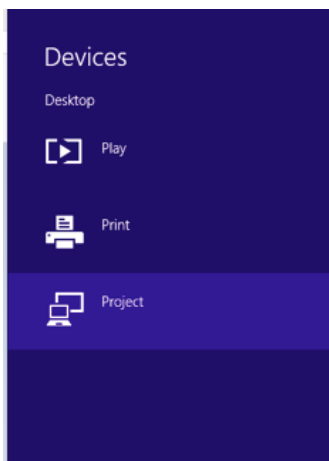
Windows 8.1

To connect to a source device running Windows 8.1:

1. From the Windows desktop, go to the **Charms** menu and select **Devices**. You can also use the shortcut keys (Windows logo + K).

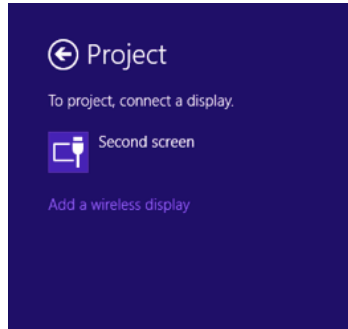


2. When the Devices menu appears, select **Project**.



Setting Up ScreenBeam Pro

3. When the “Project” menu appears, select **Add a wireless display**. Windows will search for available devices.



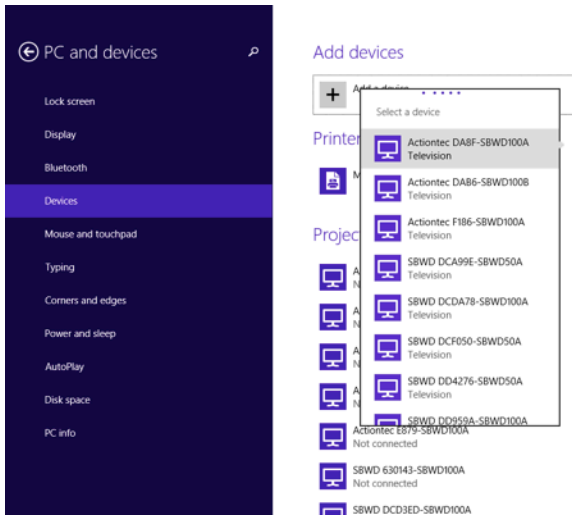
Note: If the device is running Windows 8.1 and the previous screens do not appear, go to

<http://www.actiontec.com/widi81>

to update the software. Alternatively, the Windows 8.1 device can be updated via the Windows Update application.

Setting Up ScreenBeam Pro

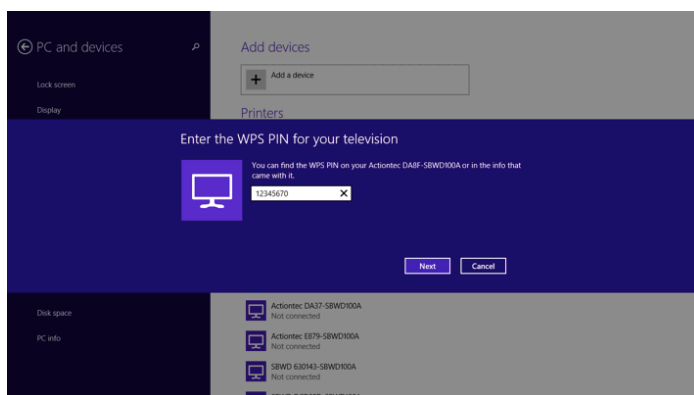
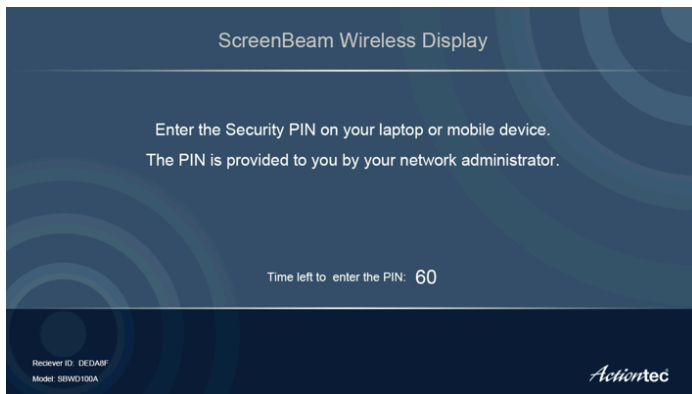
4. A “PC and devices” screen appears. Click **Devices** and, from the list that appears, select ScreenBeam Pro.



Setting Up ScreenBeam Pro

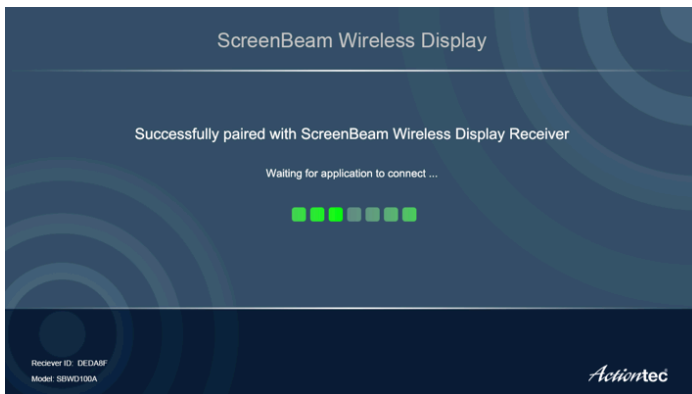
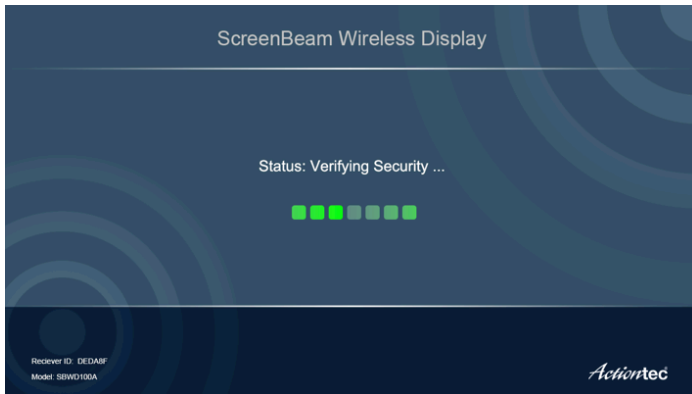
1. A PIN entry box is displayed on the screen of your Windows 8.1 device and a PIN entry countdown on the HDTV. Type the PIN provided by your network administrator in the PIN entry box and click **Next** to continue.

Note: Obtain the security PIN from your network administrator if no PIN is displayed on the connected display device. By default, the security PIN is “12345670.” If a PIN is displayed on the connected display device (see lower figure), type this PIN in the PIN entry box.

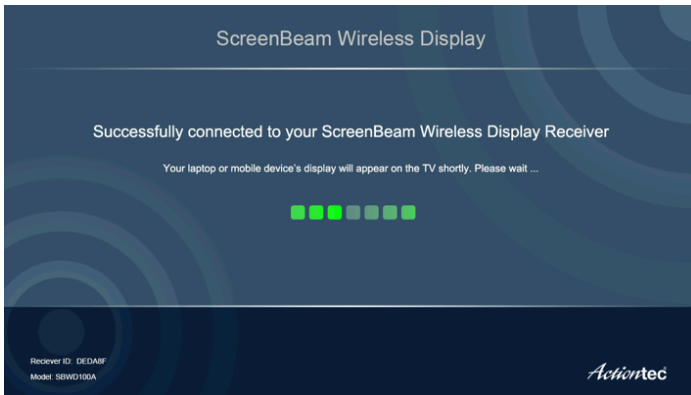


Setting Up ScreenBeam Pro

2. The HDTV displays messages to show the status of the connection.



Setting Up ScreenBeam Pro

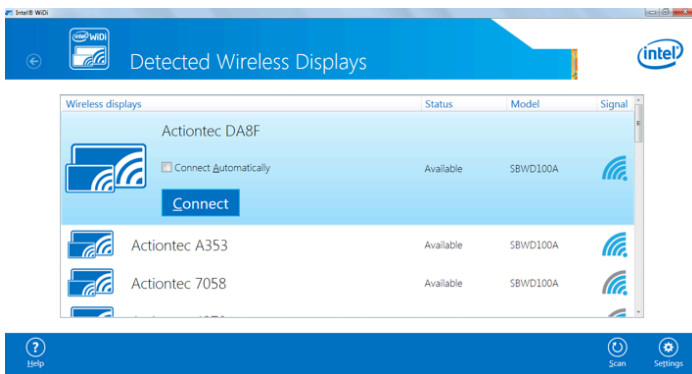


3. When the last screen, above, is displayed, the device has connected to ScreenBeam Pro. The device's screen should be displayed on the HDTV.

Intel WiDi

To connect to a source device running Intel WiDi:

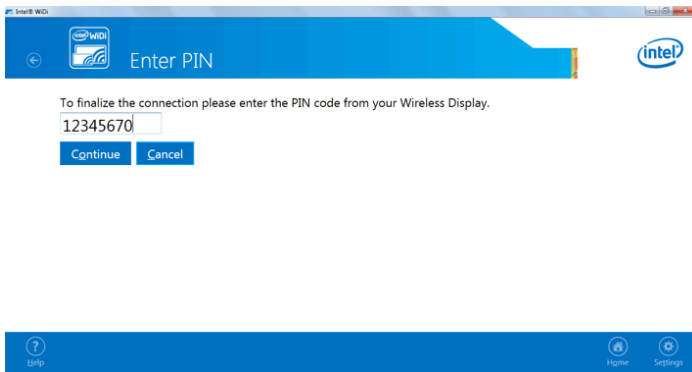
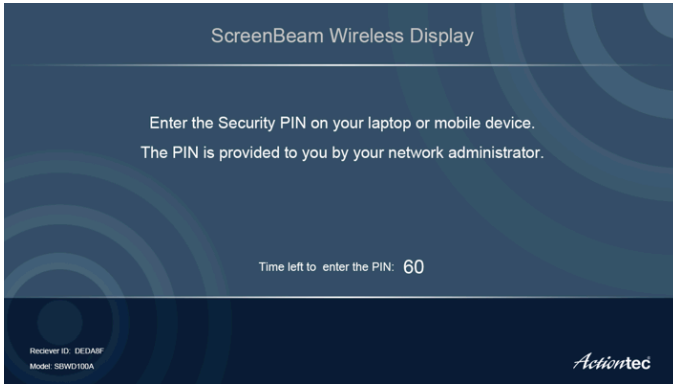
1. Launch the **Intel Wireless Display** application on the device. To find the application, go to **Windows Search** on the device and search for "Intel WiDi".
2. The application scans for available receivers automatically. Select your ScreenBeam Pro and click **Connect**. (The "Connect Automatically" checkbox is optional.) If your ScreenBeam Pro is not listed, click **Scan**.



Setting Up ScreenBeam Pro

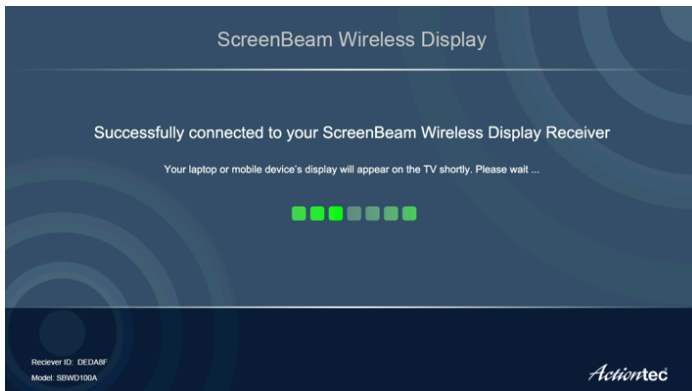
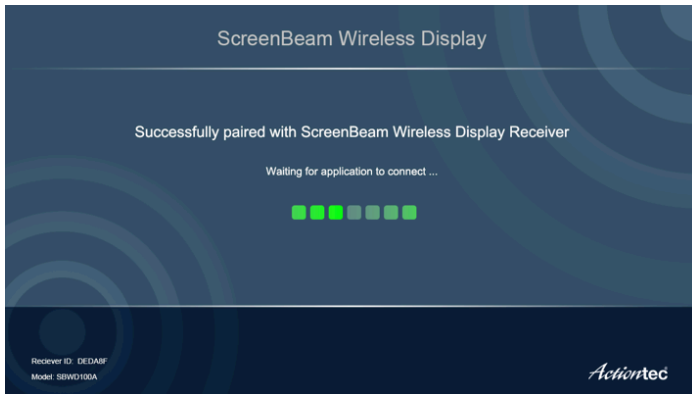
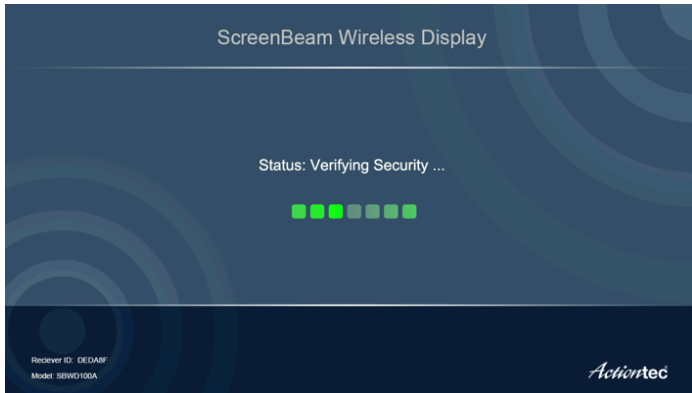
3. A PIN entry box is displayed on the WiDi device's screen, and a PIN entry countdown on the HDTV. Type the PIN provided by your network administrator in the PIN entry box on the WiDi device, then click **Continue**.

Note: Obtain the security PIN from your network administrator if no PIN is displayed on the connected display device. By default, the security PIN is “12345670.” If a PIN is displayed on the connected display device (see lower figure), type this PIN in the PIN entry box.



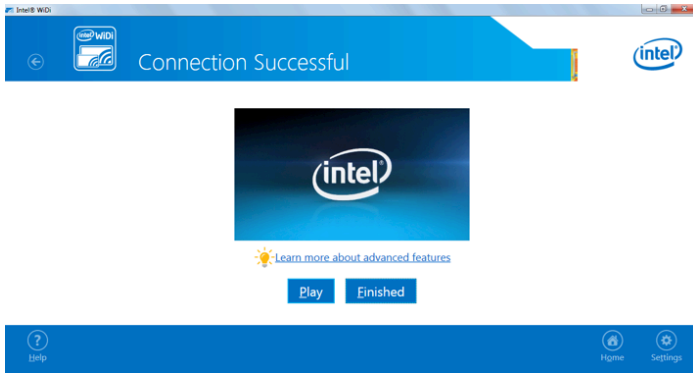
Setting Up ScreenBeam Pro

4. The HDTV displays messages to show the status of the connection.



Setting Up ScreenBeam Pro

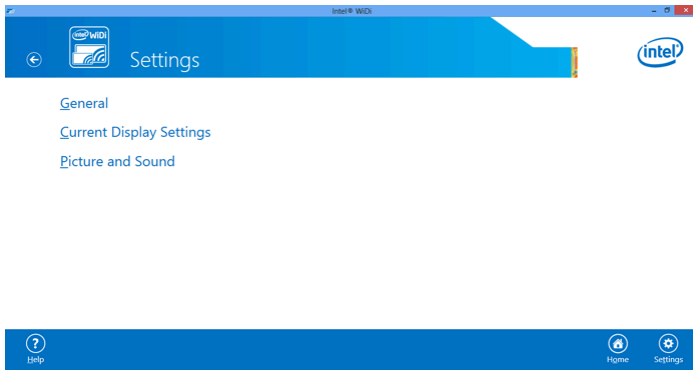
5. A “Connection Successful” screen appears on the device’s screen. Click **Finished**, and the device’s screen is displayed on the HDTV.



Adjusting the HDTV Picture

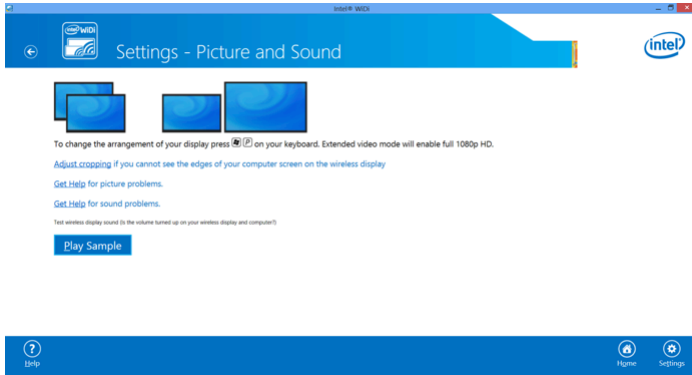
If edges of the device screen cannot be seen on the HDTV screen, or there are black around the picture, ScreenBeam Pro’s cropping settings can be adjusted. To do this:

1. From the Intel WiDi application, click **Settings**. The “Settings” screen appears.

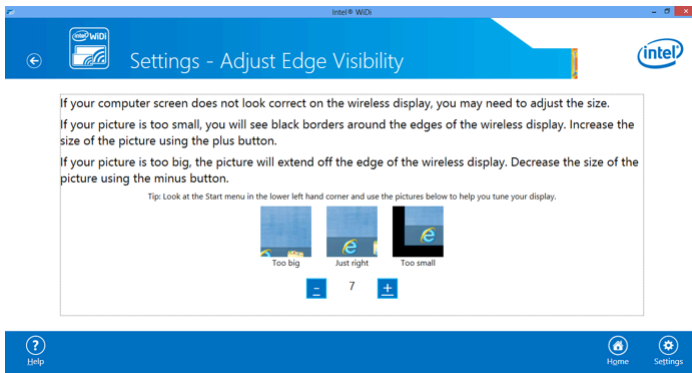


Setting Up ScreenBeam Pro

2. In the “Picture and Sound” section, select **Adjust cropping**.



3. Adjust the HDTV picture by clicking + (plus sign) or - (minus sign).



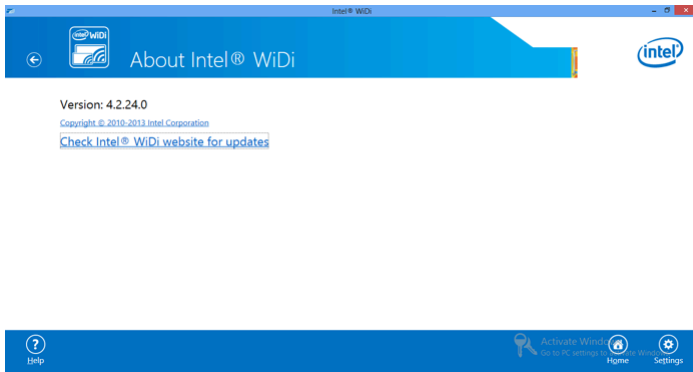
Setting Up ScreenBeam Pro

WiDi Software Version Support

Make sure the device supports Intel Wireless Display (WiDi) software version 3.5 or higher. To find out which version of Intel WiDi the device is running, launch the Intel WiDi application and click **Help**, then navigate to the “About Intel® WiDi” section. To obtain the latest Intel WiDi software and drivers, go to:

<http://www.intel.com/go/wirelessdisplayupdate>

or click **Check Intel® WiDi website for updates**.



Setting Up ScreenBeam Pro

Miracast™

To connect a Miracast™-enabled Android device to the ScreenBeam Pro, use the following procedure. For best performance, the Miracast™ device should be running the latest software.

1. On a Miracast™-enabled Android device, locate and open the Wireless Display Application (check for the application under “Settings”).

Note: The name of the Wireless Display application depends on the device type and model. Refer to the device’s user manual for more details.

2. The Wireless Display application scans for available devices. Select ScreenBeam Pro from the device list. You may be required to enter a PIN.

Note: Obtain the security PIN from your network administrator if no PIN is displayed on the connected display device. By default, the security PIN is “12345670.” If a PIN is displayed on the connected display device, enter this PIN in the PIN text box.

3. Enter the PIN in the PIN text box, then click **Connect**.
4. Wait for the device to pair with and connect to your receiver. When it does, the device’s screen will be displayed on the HDTV.

Tips for Optimal Performance

To get the most out of ScreenBeam Pro, note the following:

- Keep ScreenBeam Pro in line-of-sight in relation to the source device. Doing this will help ensure ScreenBeam Pro receives the best possible signal.
- ScreenBeam Pro’s optimal wireless range is within 30 feet of the source device. However, actual range and effectiveness depends on many factors, including the amount of existing signal interference and the building materials used in the surrounding structure.
- Avoid placing ScreenBeam Pro near other possible sources of interference (such as electric fans or other devices with electric motors), microwave ovens, and cordless phones.

Display and Control Options

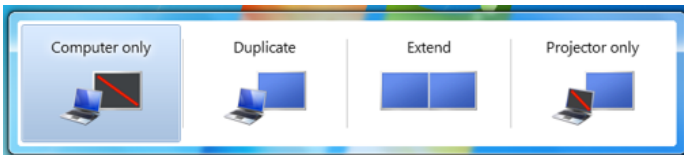
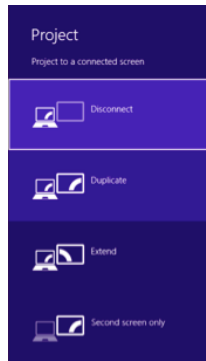
3

This chapter describes the various display modes and control options that are supported by ScreenBeam Pro.

Display Mode

ScreenBeam Pro supports three display modes when connected with a compatible wireless display application (Intel WiDi or Windows 8.1 Project, for example).

In Windows, press the Windows logo + P keys simultaneously to launch the display options and select the desired display mode from the options.



Display Options

Duplicate

The Duplicate mode is used to display the same content on both the device's screen and the HDTV simultaneously.

Note: There may be minor delay between the content displayed on the HDTV screen compared to the device's screen. This is due to the current state of wireless display technology.

Extend

The Extend mode creates a single, extended "screen" between the source device and the HDTV. When in Extend mode, dragging windows to the right side of the device's screen displays those windows on the HDTV, while dragging windows to the left of the HDTV screen displays them back on the device's screen. This mode allows users to display selected content on the HDTV, while all other windows remain on the device's screen. When this mode is first selected, the HDTV displays only the Windows desktop.

Second Screen Only

The Second Screen Only mode causes the HDTV to be the only display for the device. All content will be displayed on the HDTV; the source device's screen will be blank.

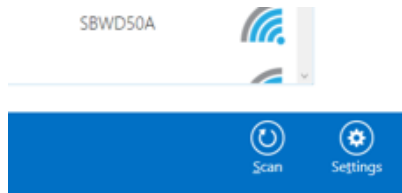
Ultra-Low Delay

ScreenBeam Pro also supports Ultra-Low Delay mode, which helps reduce end-to-end wireless display latency. Real-time applications, such as games, can run without noticeable delay when Ultra-Low Delay mode is enabled on supported devices.

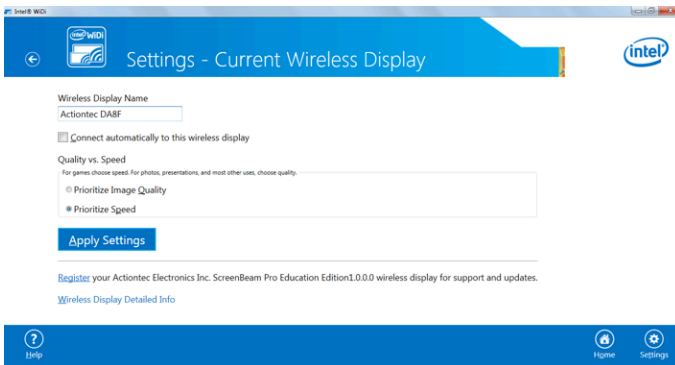
Intel WiDi

You can activate Ultra-Low Delay on a device running Intel WiDi 3.5 or higher. Follow the steps below to switch to ultra-low delay mode:

1. Launch the Intel WiDi application, connect to ScreenBeam Pro, then click **Settings**.



2. In the “Settings” screen, select **Current Display Settings**.



Display Options

NVIDIA Shield

To activate ultra-low delay with NVIDIA Shield running:

1. Go to “Settings”, then select **Miracast**.
2. Tap on the toggle switch to turn “Game Mode” on.

Note: The output resolution will be set to 720P once this mode is enabled. Refer to the device’s user manual for more information.

Restore Default Settings

To restore ScreenBeam Pro’s default settings:

1. Power on ScreenBeam Pro and wait until the “Ready to Connect” screen appears.
2. Hold down ScreenBeam Pro’s “Reset” button with the end of a paper clip.
3. When the “Reset to Default” screen appears on the HDTV, release the Reset button.

ScreenBeam Pro reboots. When it finishes, it will running with its default settings.

Advanced Settings

4

This chapter details the procedures to upgrade the ScreenBeam software and firmware, in addition to other advanced settings. ScreenBeam Pro provides a local management web server to access advanced settings. With the web server, IT administrators can setup, configure and upgrade ScreenBeam Pro. These settings should only be accessed by an experienced network technician.

Logging Into the Web Server

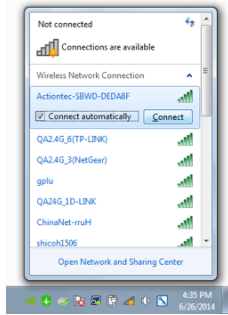
Follow the procedure below to log into the local management web server:

1. Find ScreenBeam Pro's SSID in the lower left corner of the "Ready To Connect" screen.



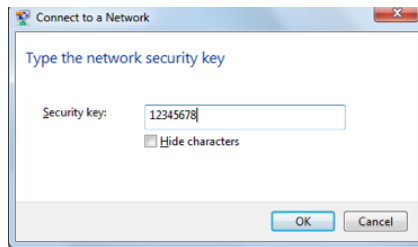
Advanced Settings

2. Connect to ScreenBeam Pro's SSID from a wireless-enabled laptop (or other device with Wi-Fi access ability and a web browser).



3. Enter the network security key in "Security key" text box of the "Connect to a Network" dialog box, then click **OK**.

Note: The default network security key is "12345678."



4. A URL is displayed on the connected HDTV display. After a few seconds, the URL will be displayed in the lower left-corner of the screen.



Advanced Settings

5. Enter the URL in the address bar of a web browser on a computer connected to the same network.



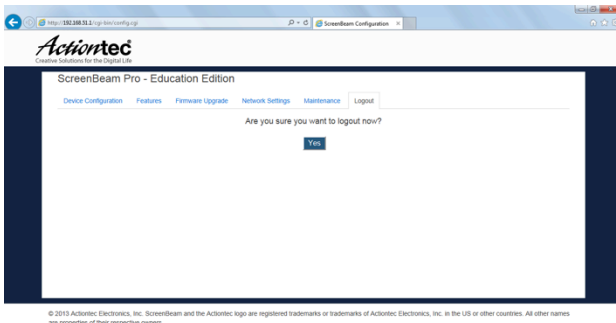
6. The web server login screen appears. Type the username and password in the appropriate text boxes and click **Login**.

A screenshot of a login form. It contains two text input fields: "Username" and "Password". Below the "Password" field is a blue button labeled "Login".

Note: The default username is “Administrator” and the default password is “Actiontec.” Both the user name and password are case sensitive.

Logging Out

To log out from the web server, click **Logout** from any web server screen, then click **Yes**.



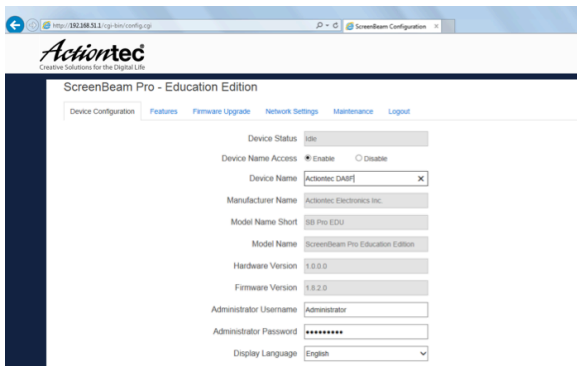
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Configuring ScreenBeam Pro

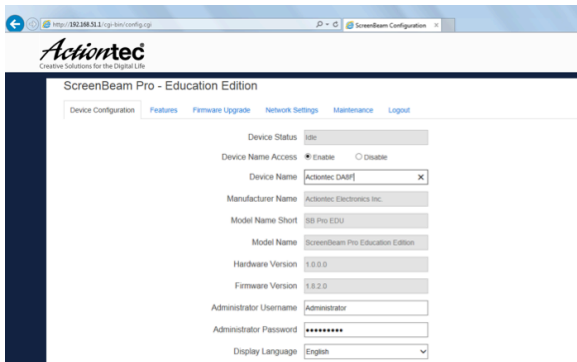
After logging into the web server, you can access the ScreenBeam Pro advanced settings through the web browser.

Renaming ScreenBeam Pro

1. Click Device Configuration from any web server screen. The Device Configuration screen appears. Click in the “Enable” button next to “Device Name Access.”

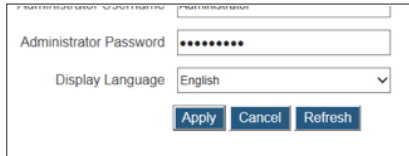


2. Enter a new name in the “Device Name” text box.

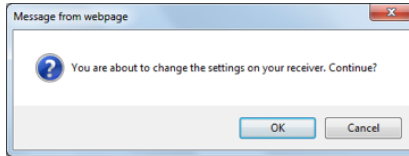


Advanced Settings

3. Click **Apply**, then click **OK** in the pop-up window.



A screenshot of a web form titled "Advanced Settings". It contains three input fields: "Administrator Username" with the value "Administrator", "Administrator Password" with masked characters "*****", and "Display Language" with a dropdown menu set to "English". At the bottom of the form are three buttons: "Apply", "Cancel", and "Refresh".

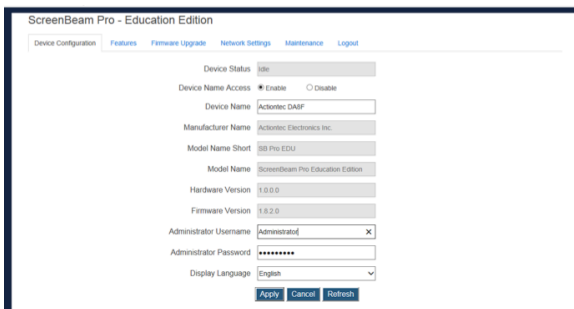


A screenshot of a "Message from webpage" dialog box. It features a question mark icon and the text "You are about to change the settings on your receiver. Continue?". At the bottom are two buttons: "OK" and "Cancel".

The new settings take effect immediately.

Changing the Username and Password

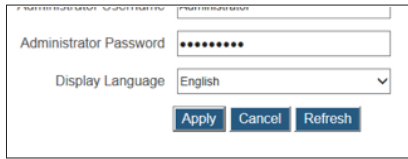
1. Click **Device Configuration** from any web server screen, then enter a new username and password in the "Administrator Username" and "Administrator Password" text boxes, respectively.



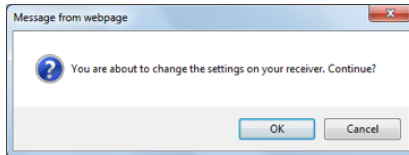
A screenshot of the "ScreenBeam Pro - Education Edition" web interface. The "Device Configuration" tab is selected. The page shows various device settings: "Device Status" (On), "Device Name Access" (Enable), "Device Name" (Acsonic DAEF), "Manufacturer Name" (Acsonic Electronics Inc.), "Model Name Short" (S8 Pro ECU), "Model Name" (ScreenBeam Pro Education Edition), "Hardware Version" (1.0.0.0), and "Firmware Version" (1.0.2.0). At the bottom, there are fields for "Administrator Username" (Administrator), "Administrator Password" (masked with *****), and "Display Language" (English). "Apply", "Cancel", and "Refresh" buttons are at the bottom right.

Advanced Settings

2. Click **Apply**, then click **OK** in the pop-up window.



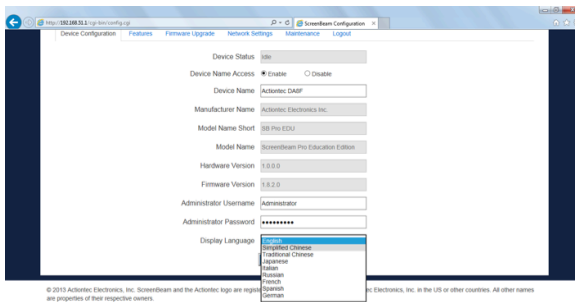
A dialog box titled "Advanced Settings" with a close button (X) in the top right corner. It contains two input fields: "Administrator Password" with a masked password of seven asterisks, and "Display Language" with a dropdown menu currently set to "English". Below the fields are three buttons: "Apply", "Cancel", and "Refresh".



The username and password have been changed.

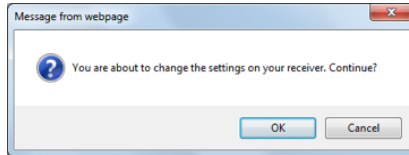
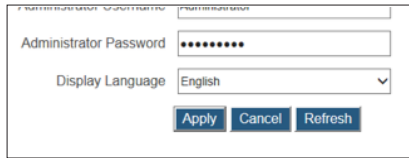
Changing the Language

1. Click **Device Configuration** from any web server screen, then select a language from the “Display Language” drop-down menu. Currently available languages are English, French, Italian, Japanese, Simplified Chinese, Traditional Chinese, Russian, Spanish, and German.



Advanced Settings

2. Click **Apply**, then click **OK** in the pop-up window.



The language has been changed.

Setting Up PIN Pairing

1. Click **Features** from any web server screen, and set the “Force PIN Pairing on First Connection” feature to On or Off.

On - Select “On” to enable the PIN enforcement function. In this case, you must enter a PIN code on the device connecting to ScreenBeam Pro for the first time. When this function is enabled, the system provides two PIN generation methods: Random and Static.

Random causes a randomly generated PIN to be created by ScreenBeam Pro, which will be displayed on the HDTV or projector screen.

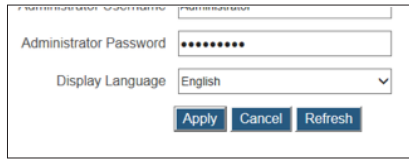
Static allows the user to create a custom PIN. Enter the seven digits in the “Static” text box, then click **Apply**. ScreenBeam Pro creates an eight-digit PIN and displays it in the “Static PIN” text box. This PIN will not be displayed on any connected display.

Off - Select “Off” to disable the PIN enforcement function. PIN entry or PBC is used when connecting your device to the receiver for the first time.

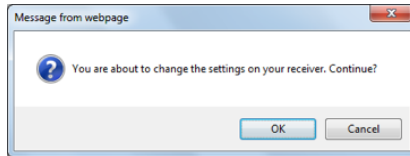
Note: Some source devices may not support PIN entry and may not be able to connect with ScreenBeam Pro if this mode is enabled. Refer to the device’s user manual for detail about enabling the PIN connection.

Advanced Settings

2. Click **Apply**, then click **OK** in the pop-up window.



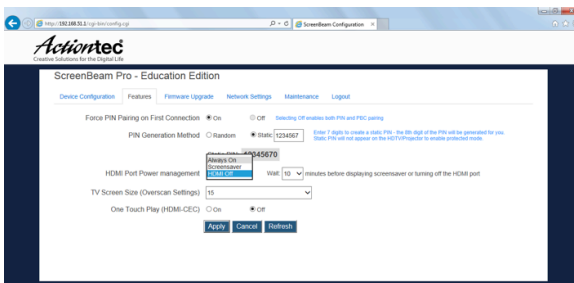
A screenshot of a web form titled "Advanced Settings". It contains two input fields: "Administrator Password" with a masked password of seven asterisks, and "Display Language" set to "English" with a dropdown arrow. Below the fields are three buttons: "Apply", "Cancel", and "Refresh".



The PIN Pairing option has been changed.

Managing HDMI Port Output

To manage the output from ScreenBeam Pro's HDMI output, click **Features** from any web server screen, then select the option in the "HDMI Port Power management drop-down menu. Options include **Always On**, **Screensaver**, and **HDMI Off**.



Always On

HDMI output is always on.

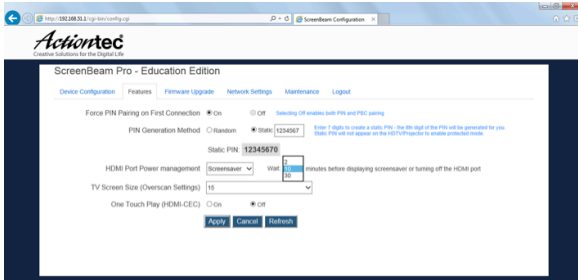
Screensaver

The screensaver will run after the defined idle time expires. Users can define the idle time (2, 10, or 30 minutes) in the "Wait" text box.

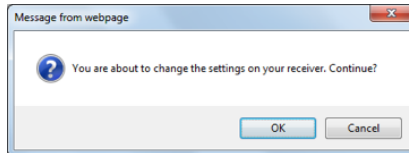
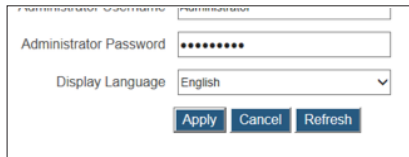
Advanced Settings

HDMI Off

HDMI output will be turned off after the defined idle time expires. Users can define the idle time (2, 10, or 30 minutes) in the “Wait” text box.



After finishing with this setting, click **Apply**, then click **OK** in the pop-up window.

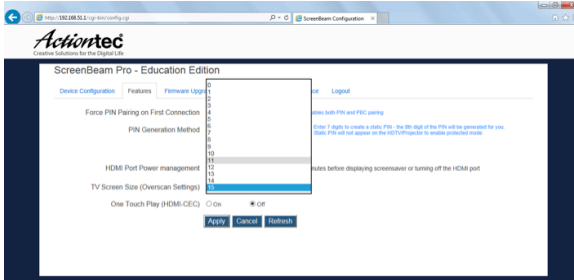


The HDMI Port output option has now been configured.

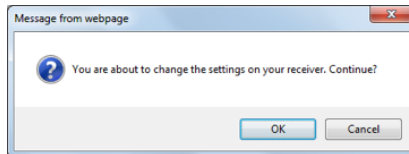
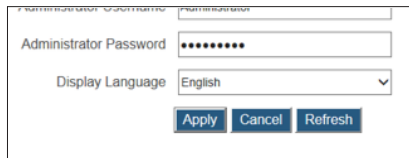
Advanced Settings

Adjusting Screen Size

To adjust screen size, click **Features** from any web server screen, then select the option in the “TV Screen Size (Overscan Settings)” drop-down menu.



After finishing with this setting, click **Apply**, then click **OK** in the pop-up window.

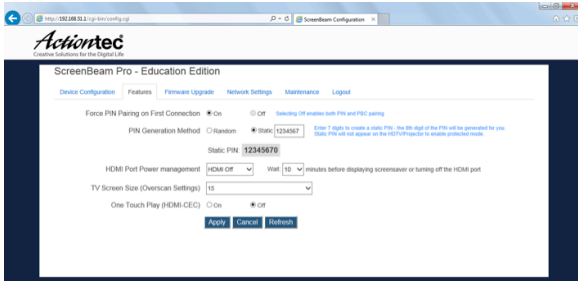


The TV Screen Size option has now been changed.

Advanced Settings

One Touch Play

“One Touch Play” enables ScreenBeam Pro to wake up the connected display and switch automatically to the connected source. To set up One Touch Play, click **Features** from any web server screen, then turn “One Touch Play (HDMI-CEC)” **On** or **Off**.

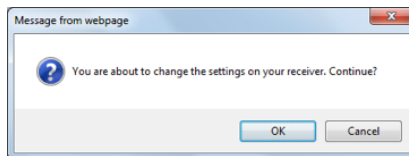
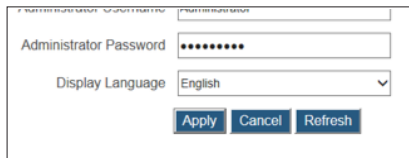


Once One Touch Play has been activated, the display device will wake when one of the following events occurs:

- ScreenBeam Pro is powered up
- a connection to the receiver is established
- a powered-up receiver is connected to the display device

Note: To use this function, the connected display device must support HDMI-CEC.

After finishing with this setting, click **Apply**, then click **OK** in the pop-up window.



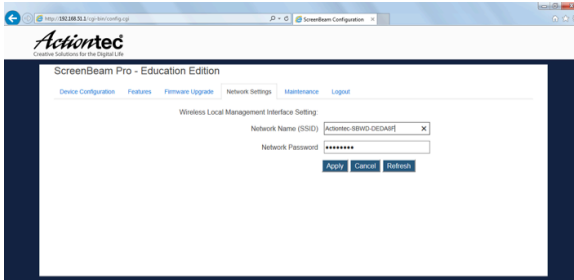
The TV Screen Size option has been changed.

Advanced Settings

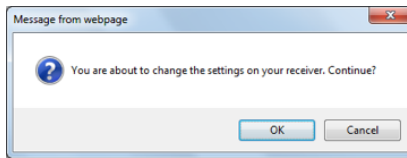
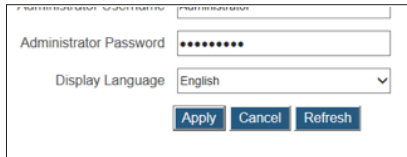
Modifying ScreenBeam Pro's SSID

To change ScreenBeam Pro's network name:

1. Click **Network Settings** from any web server screen, then type a new name in the Network Name (SSID) box and a new password in the "Network Password" text box.



2. After finishing with this setting, click **Apply**, then click **OK** in the pop-up window. ScreenBeam Pro will reboot.



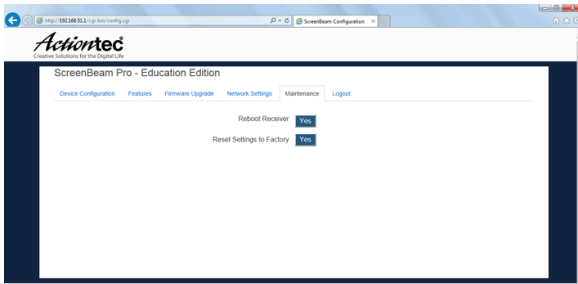
After finishing its reboot, ScreenBeam Pro's network name (SSID) is changed.

Advanced Settings

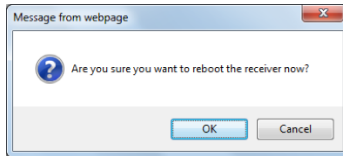
Rebooting ScreenBeam Pro

To reboot ScreenBeam Pro:

1. Click **Maintenance** from any web server screen, then click **Yes** next to “Reboot Receiver”.



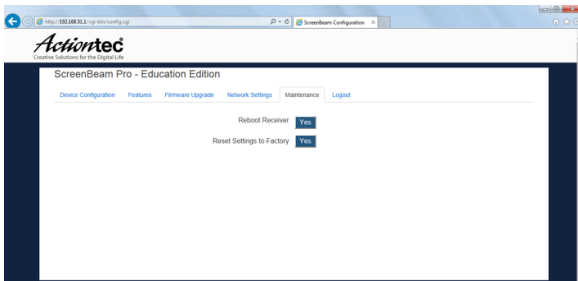
2. Click **OK** in the pop-up window. ScreenBeam Pro will reboot.



Reapplying Default Settings

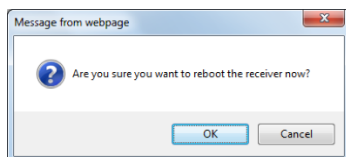
To reapply ScreenBeam Pro's factory default settings:

1. Click **Maintenance** from any web server screen, then click **Yes** next to “Reset Settings to Factory”.



Advanced Settings

2. Click **OK** in the pop-up window. ScreenBeam Pro will reboot.



After ScreenBeam Pro reboots, it will be running with its default settings.

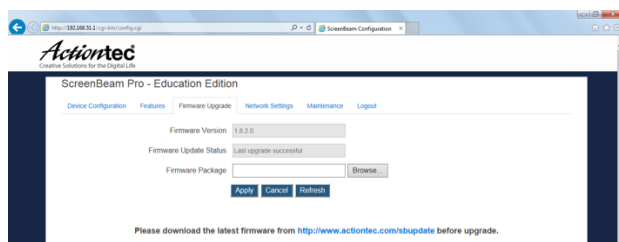
Updating ScreenBeam Pro's Firmware

To update ScreenBeam Pro's firmware

1. Download the latest firmware from Actiontec's website:
<http://www.actiontec.com/sbupdate>

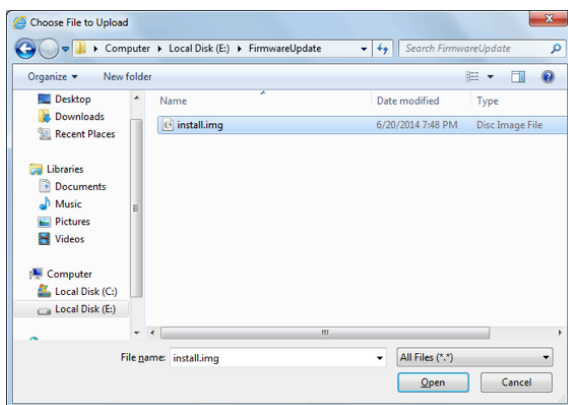
Note: You should disconnect from the receiver's SSID and connect to a router's SSID before downloading firmware.

2. Log into ScreenBeam Pro's web server, then click **Firmware Upgrade**. On the Firmware Upgrade tab page, you can check the current firmware version in the "Firmware Version" section.

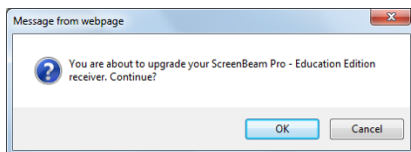


Advanced Settings

3. Click **Browse**. The “Choose File to Upload” dialog box appears.
4. Select the firmware file (“install.img”) and click **Open**.



5. Click **Apply**, then click **OK** in the pop-up window.



6. The firmware begins updating. After reboot, ScreenBeam Pro will be running with updated firmware.

Warning! Do not power off your receiver during the upgrade process. The upgrade may take some time.

Troubleshooting and FAQs

2

This chapter describes some problems you may encounter using ScreenBeam Pro, and possible solutions to those problems. Also included are frequently asked questions (FAQs), and answers to those questions.

Troubleshooting

I'm not seeing anything on my HDTV after powering on ScreenBeam Pro.

Check the cable connections and make sure the TV Input setting is the same as the HDMI port to which ScreenBeam Pro is connected.

After upgrading from Windows 8 to Windows 8.1, I can no longer connect to ScreenBeam Pro, or I'm having problems with my connection.

Make sure you've followed Intel's instructions after the upgrade. Refer to Intel's WiDi website (URL: <http://www.actiontec.com/widi81>) for more information.

Intel WiDi does not work after upgrading to Windows 8.1 and I can't connect to ScreenBeam Pro.

Windows 8.1 provides native Miracast feature. Previous Intel WiDi systems upgraded to Windows 8.1 must use the Project feature. To connect with ScreenBeam Pro receiver: Go to Charms > Devices > Project > Add a wireless display > Connect to ScreenBeam Pro receiver.

In some instances, I can't connect to ScreenBeam Pro from WiDi after installing antivirus software.

This is also a known issue with Intel WiDi. To solve the problem, add Intel WiDi to the antivirus-approved whitelist of applications, and then reconnect.

Troubleshooting

I'm seeing artifacts and experiencing a choppy, juddering video stream.

In noisy Wi-Fi environments, audio and video freezes may be observed while playing video content, and longer than expected latency may occur when streaming. To ensure you have an optimal Wi-Fi environment:

- Disconnect and reconnect ScreenBeam Pro.
- If the source device is connected to a wireless router, restart the router, or change the wireless channel on your wireless router/AP. Refer to the wireless router's user manual for more information.

I'm seeing choppiness and brief pauses while watching Internet video on my Miracast™ device.

Wireless interference may cause Internet video playback to be choppy. If this occurs, try the following:

- Disconnect the device from ScreenBeam Pro. Make sure the Internet connection is good and that the video playing on the phone is smooth.
- Clear the YouTube cache and try playing the video again.

NVIDIA Shield does not see ScreenBeam Pro receiver or may see ScreenBeam Pro as "unavailable" or "busy" even after a rescan.

Exit out of the NVIDIA's Miracast settings window, then reload the window.

My Windows 8.1 displays to the TV but the four edges are cut off (overscan).

This is expected with some system's supported display resolution. You can adjust Windows screen resolution settings to fit the PC's screen on your TV display.

When I connect to an access point or wireless router with an active WiDi session, the WiDi connection drops.

This is a known issue with Intel WiDi. It happens with either 3.5.41.0 or 4.0.1.8 on both Windows 7 or 8. Reconnect the WiDi session or connect to the AP first before starting a WiDi session.

I encounter connection failure with ScreenBeam Pro and my device can't connect to it any more.

- Reboot ScreenBeam Pro and try connection again. Or, reboot your device (laptop/Ultrabook/tablet/smartphone) and try connection again.
- Reboot both the ScreenBeam Pro and your device and try connection again.
- If you are using a Windows 8.1 operating system, go to Change PC settings > PC and Devices > Devices > Projectors, remove the profile of ScreenBeam Pro from your device (PC/laptop/Ultrabook), and try connection again.

I can't connect to ScreenBeam Pro with ScreenBeam Configuration Utility on my device. The Utility can't find ScreenBeam Pro.

ScreenBeam Pro Education Edition is not compatible with the ScreenBeam Configuration Utility

Frequently Asked Questions (FAQs)

Can my device connect to ScreenBeam Pro?

To connect to ScreenBeam Pro, your device must be Intel WiDi compatible or Wi-Fi Miracast-capable.

For a system to support Intel WiDi 3.5 (or later), it should have most if not all Intel chipsets (Processor, Graphic Card, and Wireless chipset). Here are some tips on the types of PC system that can support Intel WiDi.

- If your system is an Ultrabook (4th Gen Intel Core processor), it's most likely to support and have Intel WiDi 4.x preinstalled.
- If your system is an Ultrabook (3rd Gen Intel Core processor or older), it should have the required chipsets to support Intel WiDi. Update your drivers and download the Intel WiDi software at: <http://www.intel.com/go/wirelessdisplayupdate>.

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- If your system is a laptop or notebook computer, it may support Intel WiDi if it meets the following requirements:

Processor - One of the following processors is required:

- 2nd generation Intel Core i3/i5/i7 Mobile Processor
- 3rd Generation Intel Core i3/i5/i7 Mobile and Desktop Processor
- 4th Generation Intel Core i3/i5/i7 Mobile and Desktop Processor
- Intel Pentium N3510 Processor
- Intel Celeron N2805 Processor
- Intel Celeron N2810 Processor
- Intel Celeron N2910 Processor
- Intel Atom Z3740 Processor
- Intel Atom Z3740D Processor
- Intel Atom Z3770 Processor
- Intel Atom Z3770D Processor

Graphics - One of the following graphics solutions is required:

- Intel Iris Pro Graphics 5200
- Intel Iris Graphics 5100
- Intel HD Graphics 5000
- Intel HD Graphics 4600
- Intel HD Graphics 4400
- Intel HD Graphics 4200
- Intel HD Graphics 4000
- Intel HD Graphics 3000 (mobile)
- Intel HD Graphics 2500
- Intel HD Graphics 2000 (mobile)

Wireless Adapter - One of the following wireless adapters is required:

- Intel Centrino Wireless-N 1000, 1030, 2200, or 2230
- Intel Centrino Wireless-N 2200 for Desktop
- Intel Centrino Advanced-N 6200, 6205, 6230, or 6235
- Intel Centrino Advanced-N 6205 for Desktop
- Intel Centrino Wireless-N + WiMAX 6150

Troubleshooting

- Intel Centrino Advanced-N + WiMAX 6250
- Intel Centrino Ultimate-N 6300
- Intel Dual Band Wireless-N 7260
- Intel Dual Band Wireless-AC 7260
- Intel Dual Band Wireless-AC 7260 for Desktop
- Intel Dual Band Wireless-AC 3160
- Intel Wireless-N 7260
- Broadcom BCM43228
- Broadcom BCM43241
- Broadcom BCM4352

Operating System - One of the following operating systems is required:

- Microsoft Windows 7
 - Microsoft Windows 8
 - Microsoft Windows 8.1
- System requirements for Wi-Fi Miracast™
 - Android 4.2
 - Windows 8.1
 - ScreenBeam Pro is not compatible with Apple devices.

How can I tell if my device supports Wi-Fi Miracast?

Look for one of the following Miracast applications on your device. Only some application names are listed below. Different manufacturers may have different names for the Miracast apps on their products. But, it should indicate similar meaning.

- Wireless display
- Wireless mirroring

Troubleshooting

- Screen mirroring
- AllShareCast (Samsung devices only)
- Cast screen

See the ScreenBeam Pro compatibility page for recommended Miracast devices.

Do I need to install drivers/apps to use the ScreenBeam Pro Receiver?

- For Windows 7/8, you may need to install the Intel WiDi (3.5 or higher) application.
- For Windows 8.1, you only need to install the latest Windows updates.
- For Android 4.2 or higher, no app is required.

Note: Your device must be Intel® WiDi-compatible or Wi-Fi Miracast™-capable.

How can I improve my video/audio performance?

You can try the following methods to improve the ScreenBeam Pro's video/audio performance:

- Place your device closer to ScreenBeam Pro.
- Connect your device to a wireless network that is using a cleaner wireless channel or change the wireless channel on the current wireless network, and then connect the device to ScreenBeam Pro.
- Turn off the Wi-Fi devices that are not in use currently.

What wireless signal range can I expect with ScreenBeam Pro?

ScreenBeam Pro is designed to be used in the same room with the source device. For best performance, the source device should be placed within 20 meters of ScreenBeam Pro.

Do I need an existing wireless network to use ScreenBeam Pro?

No. ScreenBeam Pro connects directly with the Intel WiDi or Miracast™-enabled device, and no wireless network is needed. However, the source device needs to be connected to an Internet router or data network to view

Troubleshooting

online content.

How can I upgrade ScreenBeam Pro's firmware?

You can upgrade ScreenBeam Pro's firmware wirelessly by using ScreenBeam Pro's webpage.

Log into ScreenBeam Pro's web server, and upgrade your receiver in the Firmware Upgrade page.

How do I configure ScreenBeam Pro's general settings, such as changing language, rename ScreenBeam Pro, enable/disable screensaver, and idling time for screensaver?

You can configure ScreenBeam Pro's general settings wirelessly by using ScreenBeam Pro's webpage.

How can I adjust the display to fit properly to my TV screen?

You can adjust the display by using ScreenBeam Pro's webpage.

Log into ScreenBeam Pro's web server, and adjust the display in the TV Screen Size (Overscan Settings) section of the Features page.

Can I extend my Windows desktop to the HDTV or Projector from my Intel WiDi device?

Yes. After the connection to ScreenBeam Pro receiver is established, by default you should see the laptop screen mirrored to the HDTV or Projector.

To extend your Windows desktop to an HDTV or a Projector, press the Windows key and P key together, and select "Duplicate", "Extend" or "Second screen only" mode.

Where can I find more information and get support for Intel WiDi?

Troubleshooting

For more information about Intel Wireless Display, access this page: http://www.intel.com/p/en_US/support/highlights/wireless/wireless-display.

My device can support Intel WiDi. Where can I find Intel WiDi on my device? And where can I obtain the latest Intel WiDi application and graphic drivers for my Intel WiDi device?

In Windows, search for “Intel WiDi” and launch the application if you find it. If Intel WiDi software is not available on your system, go to <http://www.intel.com/go/wirelessdisplayupdate> and download the latest Intel WiDi software for your system. Make sure to also upgrade your system to the latest Graphics and Wireless drivers for best wireless display experience.

What is Wi-Fi Miracast™?

Wi-Fi Certified Miracast™ is a groundbreaking solution for seamlessly displaying video between devices, without cables or a network connection. Users can view pictures from a smartphone on a big screen television, share a laptop screen with the conference room projector in real-time, and watch live programs from a home cable box on a tablet. Miracast™ connections are formed using Wi-Fi Certified Wi-Fi Direct™, so access to a Wi-Fi® network is not needed—the ability to connect is inside Miracast™-certified devices.

What is Wi-Fi Direct and can I connect to ScreenBeam Pro using Wi-Fi Direct?

Wi-Fi Direct is a peer-to-peer technology that Miracast™ connections are formed in. Even though some newer Android 4.0 and Windows 8.1 devices may detect ScreenBeam Pro in the Wi-Fi Direct devices scan list, they will not be able to connect to ScreenBeam Pro. The device must support Miracast™ to connect with ScreenBeam Pro.

Can I connect to the Wi-Fi router and ScreenBeam Pro simultaneously with my Intel WiDi laptop?

Yes. Connect the laptop to an available Wi-Fi router first, and then connect to ScreenBeam Pro. You can then view online content and beam it to the HDTV.

Can I connect to the Wi-Fi router and ScreenBeam Pro simultaneously with my Miracast™ device?

Some Miracast™ devices cannot connect to both the Wi-Fi router and

Troubleshooting

ScreenBeam Pro at the same time. Refer to the device manufacturer's or carrier's user manual for more information.

Can I connect several Intel WiDi or Miracast devices to ScreenBeam Pro simultaneously?

No. You can connect one device to ScreenBeam Pro at a time.

Can I connect to multiple ScreenBeam Pro Receivers simultaneously?

No. You can only connect to one ScreenBeam Pro Receiver at a time.

My TV/Projector does not have an HDMI Input. Can I still use ScreenBeam Pro?

Yes. An HDMI-to-VGA adapter is included for compatibility with legacy display devices.

Can Microsoft Surface Pro tablet output Intel WiDi?

Originally, Microsoft Surface Pro does not support wireless display. However, it can support wireless display after you upgrade its operating system to Windows 8.1. The latest Microsoft Surface 2 and Surface Pro 2 with Windows 8.1 can support wireless display.

Can I use the ScreenBeam Pro to access online content directly?

No. ScreenBeam Pro does not directly connect to the Internet. You must use a source device (laptop/Ultrabook/tablet/smartphone) to wirelessly stream the online content to your Receiver.

Can ScreenBeam Pro support VoIP?

No.

Does ScreenBeam Pro support NVIDIA Shield game console?

Yes. ScreenBeam Pro supports NVIDIA Shield.

Troubleshooting

Can I push media to ScreenBeam Pro using DLNA?

No. ScreenBeam Pro is not a DLNA media receiver.

Does ScreenBeam Pro work with the Apple iPhone, iPad, or iPod?

No. ScreenBeam Pro does not support Apple devices or the AirPlay protocol.

How to set my receiver to use the 5G frequency?

Generally, the 5G band can provide clearer channels, and ScreenBeam Pro works in this band can produce better performance.

To set your receiver on the 5G band, you must prepare a 5G router first.

Note: not all routers support the 5G band. You can confirm this with the product manufacturer.

When a 5G router is available, connect your device to the 5G router first, and then connect your device to your receiver. Then your receiver will work in the 5G band.

How to identify if my device can connect to ScreenBeam Pro?

ScreenBeam Pro supports Intel WiDi ready and WiFi Certified Miracast devices.

- If the Intel WiDi (3.5 or higher) application is already installed on your device, your device can connect to ScreenBeam Pro.
- If your device does not have Intel WiDi, try this simple method to check if your device supports Intel WiDi. Download the Intel WiDi (3.5 or higher) application and try installing it on your device. If it can be installed, your device supports Intel WiDi. If the application can't be installed, update the drivers of the graphic adapter and wireless adapter on your device first, and then install the application. If it can be installed, your device supports Intel WiDi. Otherwise, your device doesn't support Intel WiDi.
- To check if your device is Miracast enabled, check if the WiFi Certified Miracast logo is printed on the package of your device or directly on your device, or, if the wireless display app is available on your device. If yes, your device can connect to ScreenBeam Pro.

Specifications



General

Language: English, French, German, Italian, Japanese, Simplified Chinese, Traditional Chinese, Russian, and Spanish

Dimensions: 3.07 x 2.95 x 0.79 inch (78 x 75 x 20 mm)

Video

H.264 compression

Supports up to full HD 1080p30 resolution

Audio

LPCM & AAC

Supports up to 5.1 channels

A/V interface

HDMI Type-A female connector

VGA via adapter (included)

Wireless

802.11 a/b/g/n Dual-band 2.4 & 5 GHz

WPA2, WPS virtual PBC, AES 128-bit

Content Protection

HDCP 2.x for HDMI

Electrical

Input: 5V/2A

Consumption: Less than 4W

LED Indicator: Power On

Firmware Upgrade

Wireless upgrade

USB

Specifications

Certifications

Wi-Fi Miracast™
Intel® WiDi (Gen 4)

Regulatory Compliance

FCC, IC, UL, CE, SRRC, C-Tick, TELEC, RoHS, and WEEE
Warranty: Localized to country of sale

Environmental

Operating temperature: 0 °C to 40 °C (32 °F to 104 °F)
Storage temperature: 0 °C to 70 °C (32 °F to 158 °F)
Operating humidity: 10% to 85%, non-condensing
Storage humidity: 5% to 90%, non-condensing

HDMI-to-VGA (YZ-050)

Supports VGA output, 10-bit resolution up to 165MHz pixel rate of up to (1080p and UXGA)
Supports LPCM and compressed surround sound
Supports VGA output: 480I/P, 576I/P, 720P, 1080I/P, 640x480, 800x600, 1024x768, 1280x720, 1280x768, 1280x800, 1280x960, 1360x768, 1366x768, and 1920x1080
Does not support protected content playback

Compatibility

Intel WiDi-ready Ultrabooks, laptops, and tablets
Wi-Fi Miracast smartphones, tablets, and laptops running Windows 8.1 or Android 4.2 and higher
Non-WiDi/Miracast ready laptops and PCs with Actiontec USB Transmitter running Windows 7 and higher
Not compatible with Apple devices

System Requirements

Windows 8.1 or higher (with Miracast support)
Intel WiDi capable laptop or tablet with Intel WiDi 4 (and higher)
Wi-Fi Miracast capable smartphone, or tablet, or laptop

Note: Specifications are subject to change without notice.

Warranty

This product has a one-year Limited Hardware Warranty and 90-day free software updates from the date of purchase.

Local Law

This Limited Warranty Statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state in the United States, from province to province in Canada, and from country to country elsewhere in the world.

To the extent that this Limited Warranty Statement is inconsistent with local law, this Statement shall be deemed modified to be consistent with such local law. Under such local law, certain disclaimers and limitations of this Warranty Statement may not apply to the customer.

Go to <http://www.actiontec.com/products/warranty.php> for more information.

GPL Info

For GNU General Public License (GPL) related information, go to <http://opensource.actiontec.com>.

EU CE Declaration of Conformity

To obtain the complete Declaration of Conformity form in softcopy, go to the Actiontec Electronics Declarations of Conformity EU/EEA website at <http://international.actiontec.com/support/doc>.

The symbol below is placed in accordance with the European Union Directive 2002/96 on the Waste Electrical and Electronic Equipment (the WEEE Directive). If disposed of within the European Union, this product should be treated and recycled in accordance with the laws of your jurisdiction implementing the WEEE Directive.



Technical Support

Go to <http://www.actiontec.com/sbupdate> for product support, updates, and more information including:

- Firmware updates
- Troubleshooting
- Registration
- FAQs

Technical Support Phone Number

United States: 1-888-436-0657