*Action*tec®

ScreenBeam
Wireless Display Kit

Model #: SBWD100KIT

User Manual
Ver 1.0

Solutions for the Digital Life™

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Introduction

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Thank you for purchasing Actiontec's ScreenBeam Wireless Adapter Kit. ScreenBeam allows you to wirelessly display whatever is on your computer, tablet, or smartphone screen, on an HDTV monitor. ScreenBeam is compatible with computers running Windows 7 or 8, and connects seamlessly with smartphones, tablets and other devices running Miracast™ or Intel's WiDi™ technology.

Package Contents

The following items are in the ScreenBeam package:

- ScreenBeam Display Adapter (SBWD100A)

- ScreenBeam Transmitter (SBT100U)

- ScreenBeam display software CD

- HDMI cable

- Power cable

- Quick Start Guide

Features

- Compatible with virtually every HDTV monitor

- HD quality wireless display, up to 1080p

- The only wireless display solution to support Windows 7/8 laptops, Miracast-compatible devices, and Intel WiDi systems

- No existing wireless network or line of sight connection required

System Requirements

Display Adapter

- HDTV monitor with at least one free HDMI port

- Available power outlet

Display Software

- PC laptop

- Windows 7 or 8 (32/64 bit)

- Minimum system requirements:
  Processor: Intel Core2 Duo 2.5 GHz+ or equivalent AMD A4+ CPU
  Memory: 2GB+ RAM

- Recommended system requirements (for video streaming):
  Processor: Intel Core2 i Series 2.2 GHz+ or equivalent AMD A6+ CPU
  Memory: 3 GB+ RAM

Miracast/WiDi Devices

- **Miracast**:
  Miracast-certified smartphone, tablet, or laptop
  Native or third party wireless display application

- **Intel WiDi**:
  Intel WiDi system
  Intel WiDi 3.5 or higher software and driver
  (see http://www.intel.com/go/wirelessdisplayupdate)

Getting to Know the ScreenBeam Components

The ScreenBeam Kit contains two components: Display Adapter and Transmitter. The Display Adapter is the main component of the ScreenBeam kit. It receives video transmissions from devices running Windows 7/8, Miracast, or Intel's WiDi. The Transmitter is only used to connect non-Miracast or non-WiDi devices.

ScreenBeam Display Adapter

The Display Adapter features 1 LED and two ports:

Power Light

The Power light glows green when the Display Adapter is powered up.

HDMI Port

The HDMI port is used to connect an HDMI cable from the HDTV monitor to the Display Adapter.

Power Port

The Power port is used to connect the Display Adapter's Power cord.

USB Port

The USB port is used for software upgrades via a USB flash drive.

ScreenBeam Transmitter

The Transmitter has a single USB connection, used to connect it to a USB port on a Windows7/8 computer that is not running Miracast or WiDi. To use ScreenBeam in this manner, you must install the ScreenBeam software on the computer (see chapter 2 of this manual).

Connecting to ScreenBeam

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This chapter details how to connect the ScreenBeam Display Adapter to an HDTV monitor, as well as connecting to a source device running either Miracast, WiDi, or Windows 7/8.

Connecting the Display Adapter to an HDTV Monitor

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

- ScreenBeam Display Adapter
- HDMI cable
- Display Adapter power cord

To connect the Display Adapter to an HDTV monitor:

1. Plug one end of the power cord into the power port on the back panel of the Display Adapter.

2. Plug the other end of the power cord into a nearby electrical outlet. The Display Adapter's Power LED will illuminate green.

3. Plug one end of the HDMI cable into the HDMI port on the back panel of the Display Adapter.

4. Plug the other end into an HDMI port on the HDTV monitor.

5. Set your HDTV monitor to display content from the HDMI port (HDMI 1, HDMI 2, etc.) used in step 4.

The Display Adapter is now connected to the HDTV monitor. To connect the Display Adapter to a Miracast, WiDi, or Window 7/8 device, refer to one of the following sections of this chapter..

Setting Up a Windows 7/8 Computer

If your Windows 7/8 computer does not have Miracast or WiDi installed, you must load the ScreenBeam software onto the laptop, connect the Transmitter, and then pair the Display Adapter to the Transmitter. Make sure you have the following items handy:
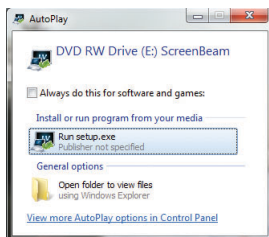
- ScreenBeam Transmitter

- ScreenBeam CD

- A desktop or laptop computer running Windows 7 or 8

Loading the Sofware and Connecting the Transmitter

To load the ScreenBeam software and connect the Transmitter to a computer:

1. Insert the ScreenBeam CD (included in the ScreenBeam package) into the CD drive of the computer.

2. An AutoPlay window appears. Click **Run setup.exe**, then follow the onscreen instructions.
If you don't see the AutoPlay screen, locate the CD-ROM folder from Windows Explorer, then double-click on **setup.exe**. If your computer does not have a CD/DVD drive, go to **www.actiontec.com/screenbeam** to download the ScreenBeam software.

**3.** A series of screens will appear, detailing the steps to connect the Display Adapter to the HDTV monitor (see the previous section of this chapter). Click through them.

4. When the screen shown below appears, get the ScreenBeam Transmitter and insert it into a USB drive on the computer. Click **Next**.

5. Click in the button next to "Yes, I want to restart my computer now," then click **Finish**.
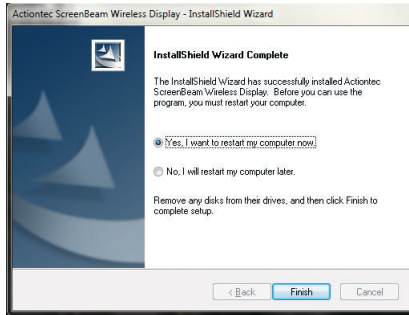

The computer reboots. After it finishes rebooting, go on to the next section, "Pairing the Transmitter and Display Adapter."

Pairing the Display Adapter and Transmitter

After you have connected the Display Adapter to an HDTV monitor, and the Transmitter to a computer, you must pair the two ScreenBeam components. To do this:

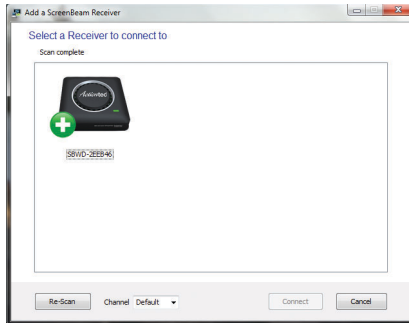**1.** After the computer finishes rebooting, click the ScreenBeam icon on your computer's desktop.
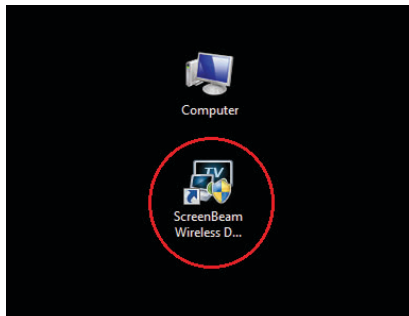
2. The main ScreenBeam screen appears. Click **Add a Display Adapter**.

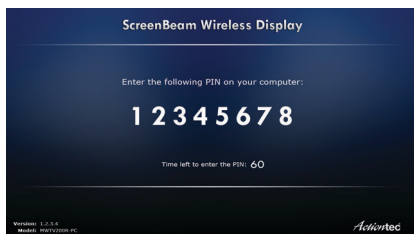**3.** A new screen appears. Select your Display Adapter, then click **Connect**.

4. A PIN (Personal Identification Number) appears on the screen of the HDTV monitor connected to the Transmitter.

5. Enter the PIN in the ScreenBeam screen on your computer within 60 seconds, then click **Next**.
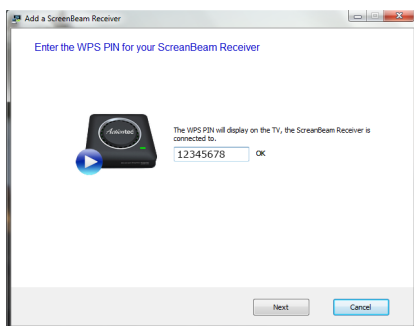
The ScreenBeam Display Adapter and Transmitter are now paired. As a result, you should see the computer's screen on the HDTV monitor. See chapter 4, "Preferences," to adjust the picture on the HDTV monitor.

Setting Up a Miracast-enabled Device

You can set up ScreenBeam to display what is on your smartphone or tablet screen, if your device is Miracast-enabled. To do this:

1. Disconnect the computer from the Display Adapter if it is connected to a computer via the Transmitter.

2. From your Miracast device, launch the wireless display application. If using an Android-native wireless display application, refer to the Android user guide to launch the application. If using a third party wireless display application, refer to that application's user guide to launch.

3. Search for the Display Adapter's display adapter name "SBWD-XXXX" and select it from the menu.

The content on your Miracast device is now displayed on the HDTV monitor connected to the Display Adapter.

Note: See the online FAQ (frequently asked questions) for the latest updates on how to connect Miracast-enabled mobile devices.

Setting Up an Intel WiDi-enabled Device

You can also set up ScreenBeam to display what is on your smartphone or tablet screen, if your device is Intel WiDi-enabled.

Note: ScreenBeam supports devices with WiDi 3.5 or higher only. Make sure your smartphone or tablet is running the latest WiDi software.

To set up:

1. Disconnect the computer from the Display Adapter if it is connected to a computer via the Transmitter.

2. From your Miracast device, launch the Intel WiDi application. Make sure the WiDi application is version 3.5 or higher.

3. Search for the Display Adapter's display adapter name "SBWD-XXXX" and select it from the menu.

The content on your Intel WiDi device is now displayed on the HDTV monitor connected to the Display Adapter.

Note: Your WiDi system must be updated with the latest drivers and software (version 3.5 or higher) to work properly with ScreenBeam. For more information, go to the following link:
http://www.intel.com/go/wirelessdisplayupdate

Setting Wireless Display Preferences

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This chapter details how to adjust the options available to you when transmitting a device's display to an HDTV monitor using ScreenBeam. Most of these settings reside in the ScreenBeam Preferences window.

Preferences Window

To open the Preferences window, right-click on the ScreenBeam icon from the system tray of the computer's desktop. When the ScreenBeam main window appears, click **Preferences**.

Note: Changing these preferences affects Windows 7/8 systems only.
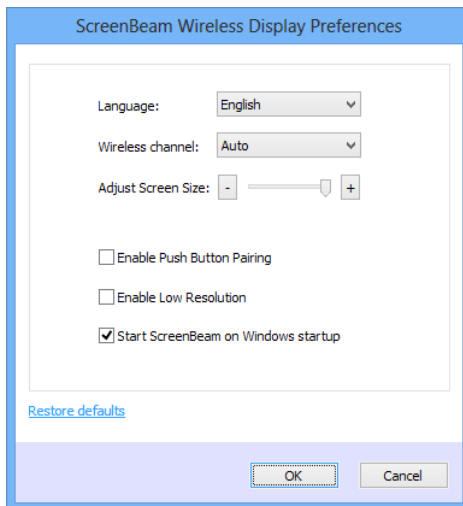
Language

Select the language used by the ScreenBeam program..

Wireless Channel

The wireless channel at which ScreenBeam operates can be changed here. Options include channels 1 through 11, and "auto," which automatically selects the clearest channel available.

Adjust Screen Size

Adjusting this slider turns changes the size of the picture on the HDTV monitor. This setting is useful if the picture on the HDTV screen is overscanned–that is, the picture looks too big to fit on the screen. If this occurs, adjust this setting down until the entire picture appears on the HDTV screen.

Enable Push Button pairing

Activating this option allows other ScreenBeam Transmitters to connect with this Display Adapter without having to enter a Personal Identification Number (PIN).

Enable Low Resolution mode

Activating this option transmits a lower resolution picture to the HDTV monitor, which can be useful when viewing video content (movies, television shows, etc.).

Start ScreenBeam on Windows startup

Activating this option causes the ScreenBeam software to start up anytime the computer is turned on or rebooted.

Restore defaults

Clicking **Restore defaults** resets all the settings in the Preferences window to their factory default settings.

After changing any of the settings in the Preferences window, click **OK** to save the changed settings.

Windows 7/8 Viewing Configuration

Mirroring

Extended Desktop

Feature is currently not available for ScreenBeam display software. Check online FAQ for more details on how you can set extend mode using Windows display setting. For WiDi or Miracast devices, refer the to user guide for those software.

Monitor Only

Need guidance as to whether we want to document these Windows-only settings. Also, do they have these settings on Miracast/WiDi, and do we want to document those as well?
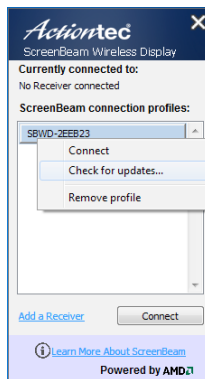
Updating the ScreenBeam Firmware

4

This chapter details the procedures to upgrade the ScreenBeam firmware. The first section details updating the ScreenBeam firmware if you are using ScreenBeam with a Windows 7/8 computer; the second explains how to update the firmware on the ScreenBeam Display Adapter if you are using Miracast or WiDi.

## Updating Firmware on Windows 7/8 Devices

This section explains how to update your ScreenBeam firmware if you are using both the ScreenBeam Display Adapter and Transmitter with a Windows 7/8 computer.

1. Make sure that ScreenBeam is disconnected. Then, right-click on a profile from the main ScreenBeam window and select "Check for updates…"

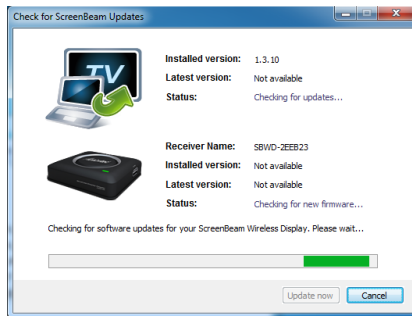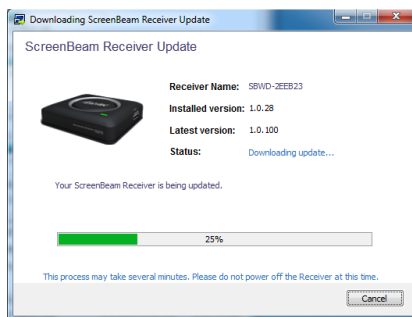**2.** Another window appears, checking for available updates.
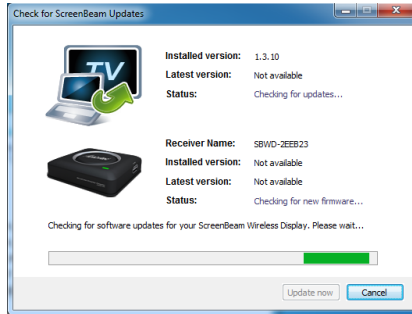
3. The check completes, and displays whether an update is available. If there is, click **Update now**.

4. The Display Adapter's firmware update is performed first.

5. The firmware is transferred to the Display Adapter. Do not power off the Display Adapter during this transfer.

6. Once the firmware transfer is complete, the Display Adapter reboots. If there are more updates available for the ScreenBeam application, click **Next**.
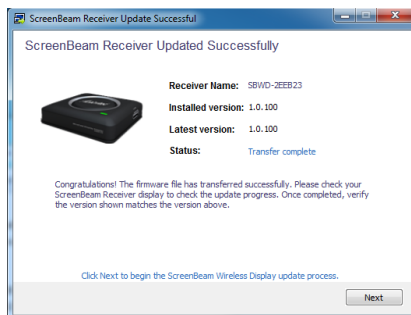
7. The ScreenBeam application update setup files downloads.

8. When the download is complete, click **Update** to upgrade the installer and follow the onscreen instructions.

The Display Adapter's firmware has been updated, as well as the Screenbeam application.

Updating the Display Adapter Firmware Only

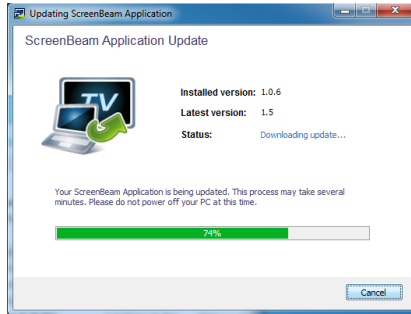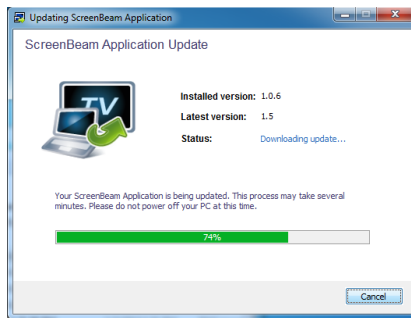If you are using ScreenBeam with a Miracast or WiDi device, use the following procedure to update the Display Adapter's firmware.

1. Download the latest ScreenBeam firmware for SBWD100A.

2. Extract the "install.img" from the zip file.

3. Copy "install.img" file to a USB flash drive in its root directory.
   Note: Do not use a portable USB hard drive. Use a USB flash drive only.

4. Plug the USB flash drive into the USB port on the ScreenBeam Display Adapter.

5. Unplug the Power connector from Display Adapter.

6. Press and hold the Reset button on the Display Adapter with the tip of a pen.

7. While holding the Reset button, plug the Power connector into the Display Adapter and wait.

8. When the Upgrade message appears on your HDTV screen, release the Reset button.
   Note: Do not power off or remove USB flash drive while the Display Adapter is upgrading.

9. Wait until the upgrade completes and then remove the USB flash drive.

The ScreenBeam Display Adapter's firmware is now upgraded.

Frequently Asked Questions

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This chapter lists a series frequently asked questions concerning the operation of the ScreenBeam components.

I've inserted the software CD into the CD-ROM drive, but it doesn't install. What should I do?

In Windows Explorer, browse to the CD-ROM drive (e.g., D:\), then locate and double-click on the file named "Setup.exe".

My laptop computer does not have a CD-ROM drive. How can I install the ScreenBeam display software?

If your computer doesn't have a CD-ROM drive, go to the following link: http://www.actiontec.com/products/sbupdate.php

Then, download the software. When doing this, make sure you have the ScreenBeam Receiver information ready.

Do I need to use ScreenBeam display software if I already have a device with Miracast™ or Intel® WiDi 3.5 or higher?

No. For WiDi-capable systems, make sure your system driver and WiDi software are up-to-date (3.5 or   higher). For Miracast™ devices, refer to the user guide of the device's manufacturer.

The ScreenBeam display software can't launch–it says it can't find a USB Transmitter. How can I solve this?

First, if the display software doesn't launch, wait about a minute before trying anything else. Then, unplug and plug the USB Transmitter device back in, and try launching the display software again. If that doesn't work, open the Windows Device Manager and make sure the ScreenBeam Transmitter is not disabled (locate it under "Network").

Why can't I see anything on my TV screen?

If you're not getting a picture on your TV, make sure the ScreenBeam display adapter is connected, powered on, and the correct TV input (HDMI 1, HDMI 2, etc.) has been selected.

I cannot detect the ScreenBeam Display Adapter from my laptop computer using the ScreenBeam display software. What's wrong?

First, make sure the ScreenBeam Transmitter is connected to the USB port. Then, select "Add a receiver" and try again.

My laptop computer displays the following message: "Color scheme has been changed." Is this a problem?

No. Your laptop color scheme will return to normal once you disconnect from the ScreenBeam Transmitter.

Why is my laptop computer audio muted once I connect to ScreenBeam Display Adapter?

It is muted because the audio is now being broadcast to the TV.

Why is the text blurry on the TV when I use the ScreenBeam display software?

Your TV may not be able to support the resolution sent from your PC. Try changing your laptop's display resolution to either 1280x720 or 1920x1080.

Why am I experiencing stuttering video and out-of-sync audio?

If this occurs, make sure your system meets the recommended requirements for video playback. You can also place the ScreenBeam display adapter in an open space and try again.

If running your laptop on battery, make sure its power settings are configured for "Maximum Performance."

My audio volume is too low. What's wrong?

If your volume is set too low, increase the audio output from ScreenBeam Preferences > Adjust volume level.

Why does the image appear larger than what my TV can display?

This is known as "overscan." To adjust the screen size, go to the ScreenBeam Preferences > Adjust Screen Size.

Why can't my Google Nexus 4 connect to ScreenBeam Display Adapter?

If this occurs, update your ScreenBeam display adapter to firmware 1.0.26 or higher. Refer to the ScreenBeam and Nexus 4 User Guide documentation for more information.

Why can't my Android device connect even though I have the Wi-Fi Direct option?

For an Android device to connect, it must have the Wireless Display software application. Check your device user guide to see if the "Wireless display" or "Miracast screen mirroring" feature is available. Refer to your Miracast mobile device latest user guide for more information.

Can I connect my Apple iPad or iPhone to the ScreenBeam Display Adapter?

No. Currently, ScreenBeam only supports Windows 7/8 computers, WiDi-capable systems, and Miracast-enabled devices.

Does ScreenBeam support iTunes Airplay?

No. ScreenBeam is not designed for Airplay. However, once the laptop computer is connected to the ScreenBeam display adapter, you'll be able to play your iTunes content and it will display on the TV.

Can I connect to multiple ScreenBeam Display Adapters simultaneously?

No. You can only connect to one ScreenBeam Display Adapter at a time.

Specifications and Technical Support

A

General

Model Number

SBWD100KIT (ScreenBeam Wireless Display Adapter Kit)

Certifications

Wi-Fi Certified Miracast™
HDMI
HDCP

Wireless

Wi-Fi 802.11 IEEE standard 5GHz/2.4GHz
Wi-Fi Direct
WMM

Access Methods

PIN
Virtual PBC pairing

LED Indicators

Power

Environmental

Power

External, 110 - 240v 0.2a, 50 - 60 Hz

Certifications

FCC part 15, CE

Operating Temperature

0º C to 40º C (32ºF to 104ºF)

Storage Temperature

0ºC to 70ºC (32ºF to 158ºF)

Operating Humidity

10% to 85% non-condensing

Storage Humidity

5% to 90% non-condensing

Note: Specifications are subject to change without notice.

Technical Support

If you need technical assistance, contact Actiontec's Technical Support Department through the following:

Phone: (USA) 1-888-436-0657

Email: http://support.actiontec.com/email_support/support_form.php

Internet: www.actiontec.com/support