

ScreenBeam 960 Wireless Display Receiver

Quick Start Guide

This Quick Start Guide provides the instructions on how to install ScreenBeam 960 receiver, connect client devices, and setup for deployment. Refer to the support website for the full deployment guide, latest updates, and best practices.

Before Beginning Deployment

Before deploying ScreenBeam products, check for the latest firmware, release documentation and tech tips.

- For ScreenBeam receiver's deployment guide, firmware upgrades, and release notes, go to: <https://support.screenbeam.com/960>
- For Miracast™ or native macOS/iOS wireless display connection tutorial, go to: <https://www.screenbeam.com/setup>
- For ScreenBeam Central Management System (CMS) software, go to: <https://support.screenbeam.com/cms>
- For Open Source information, go to: <https://opensource.screenbeam.com>

Package Contents

- ScreenBeam 960 receiver
- *Quick Start Guide* (this document)
- Power supply
- Regulatory documents
- HDMI cable



Documentation

For FAQs, troubleshooting tips and support, visit:

<https://support.screenbeam.com>

Need Help?

To open a ticket for support, visit:

<https://support.screenbeam.com/ticket>

Requirements

Minimum System Requirements

The latest Windows 7 and later, macOS 10.10 and later, iOS 9 and later, or Android 4.2 or later with Miracast; refer to online support for the latest list.

Network Requirements

Refer to the online support for the most recent information.

Note: Additional network configuration is not required for Wi-Fi Miracast enabled device to connect. Verify Group Policy and firewall settings to allow Wi-Fi Direct groups or hosted networks.

Setup Requirements

- ScreenBeam 960 receiver
- Display with an available HDMI input
- An ethernet network connection with DHCP IP or a Wi-Fi router

A. Connect Receiver to Display

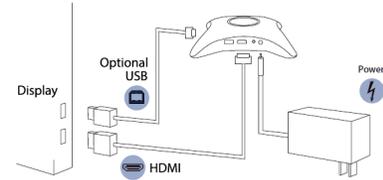


Figure 1 Connection guide

- 1 Place the receiver next to the display.
- 2 Connect one end of the provided HDMI cable to the receiver's HDMI port and the other end to an available HDMI port on the display.

Note: For VGA connection details, refer to the ScreenBeam 960 User Guide.

- 3 **Optional:** If the display has USB HID touch capability, insert the HID USB connector into the USB port of the receiver. (USB Cable is not included)
- 4 Connect the receiver's power supply to the receiver's power port, then to an electrical outlet.
- 5 **Optional:** Connect one end of the Ethernet cable to the receiver's Ethernet port and connect the other end to the network switch with DHCP IP. (Ethernet cable is not included).

Note: Refer to section B for more information on setting up a network connection.

- 6 Turn on the display and switch to the corresponding input connected to the receiver.
- 7 Wait about 30 seconds, then verify the **Ready to Connect** screen appears on the display.

B. Set Up Network Connection

ScreenBeam requires network connection for various purposes; Wireless display over LAN support and management of the receiver. ScreenBeam can be connected to the network via wired or Wi-Fi connection.

Wired Connection

If ScreenBeam is connected to a DHCP-enabled network, the **Ready to Connect** screen will show the IP address assigned to the ScreenBeam.

Wi-Fi connection or Static IP address

This requires additional steps to configure the receiver with the proper network information. Detailed instructions are available online at <https://support.screenbeam.com>. For initial testing purpose, we recommend using wired network connection with DHCP-enabled.

C. Connect Client Device

This section provides instructions on how to connect using native screen mirroring from the most common operating systems. Refer to www.screenbeam.com/setup for details and instructions for all other operating systems.

Note: The web page will display the instructions based on the client-device OS. Use the links at the bottom of the web page to select OS-specific instructions.

Connect using Windows 10/8.1

To connect using Windows 10, follow the instructions below. Steps for Windows 8.1 may vary.

- 1 Open the action center by swiping from the right side of the touchscreen *or* selecting the speech bubble icon in the lower right corner of the screen. (Windows key + K)
- 2 Select **Connect** and wait for available receiver(s) to appear.
- 3 Select the receiver name that matches the receiver name shown on the **Ready to Connect** screen.
- 4 Enter in the PIN code if required. If the PIN code is not displayed, try the hidden PIN “12345670” or contact the admin for ScreenBeam.
- 5 **Optional:** Select the box **Allow mouse, keyboard, touch, and pen input from this device** if the display panel/projector supports interactive touch. Refer to section F for more details on using interactive touch.
- 6 **Optional:** Select **Change projection mode** and choose **Extend** or **Duplicate** if desired.

Note: To disconnect or change the projection mode, return to the **Connect** menu.

Connect using iOS

To connect using iOS 11 or 12 on iPad or iPhone, follow the instructions below. Steps for other iOS versions may vary.

- 1 Verify the iOS device's Wi-Fi is on and connected to the same network to which the ScreenBeam 960 is connected.
- 2 Open the **Control Center** by either swiping up from the bottom or swiping down from the upper right corner of the iOS device's screen. Tap the **Screen Mirroring** icon and wait for the available receiver(s) to appear.
- 3 Select the receiver name that matches the receiver name shown on the **Ready to Connect** screen.
- 4 Enter in the PIN code if required.

Note: To disconnect, return to the Screen Mirroring option in the Control Center and select **Stop Mirroring**.

Connect using macOS

To connect using macOS on a MacBook, follow the instructions below. Steps for other macOS versions may vary.

- 1 Verify the macOS device's Wi-Fi is on and connected to the same network to which the ScreenBeam 960 is connected.
- 2 On the menu bar, select the screen mirroring icon and wait for the available receiver(s) to appear.

Note: If the screen mirroring option icon is not visible, go to Apple menu > System Preferences > Displays, then select the “**Show mirroring options in the menu bar when available**” check box.

- 3 Select the receiver name that matches the receiver name shown on the **Ready to Connect** screen.
- 4 Enter in the PIN code if required.
- 5 Select **Use as Separate Display** option to extend the desktop.

Note: To disconnect, return to the screen mirroring menu and select **Mirroring Off**.

Congratulations!

The display is now enabled for wireless screen mirroring.

The following sections cover the receiver's management and configuration. For FAQs, troubleshooting tips and support, visit: <https://support.screenbeam.com>.

D. Configure ScreenBeam Receiver

ScreenBeam 960 can be configured by using the ScreenBeam CMS software or accessing the ScreenBeam's local management interface (LMI).

Using ScreenBeam CMS Software

ScreenBeam Central Management System (CMS) is a highly recommended complimentary tool for multi-unit deployment, configuration and administration.

- 1 To obtain CMS software and the *CMS User Guide*, go to: <https://support.screenbeam.com/cms>.
- 2 Refer to the *CMS User Guide* for setup instructions.

Note: Access to the LMI is prohibited by default if ScreenBeam 960 is connected to ScreenBeam CMS for management. This option can be changed in the receiver's settings.

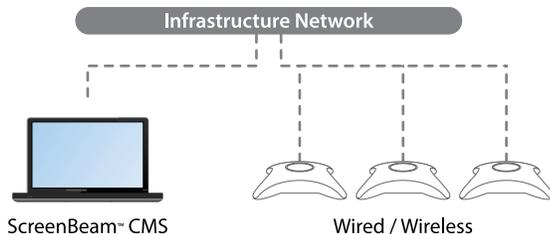


Figure 2 Receivers managed by ScreenBeam CMS

Using Local Management on ScreenBeam

Local management interface can configure and update a single ScreenBeam. LMI is not needed when using ScreenBeam CMS.

Accessing the ScreenBeam LMI

Two methods exist to access the LMI.

Method 1: Network Connection via DHCP

- 1 Using a shielded RJ-45-terminated Cat5e or better Ethernet cable, connect the ScreenBeam Ethernet port to a DHCP-enabled network.
- 2 The Ready to Connect screen on the display will show the assigned IP address of the ScreenBeam. Enter this address into the web browser of a PC or Apple device on the same network as the ScreenBeam.
- 3 The browser may give an error stating "The connection or site is not secure or private." Manually accept the connection as follows:
 - **Chrome browser:** click **Advanced**, then click **Proceed**.
 - **Edge/IE browser:** click **Details**, then **Go on to the web page** (not recommended).
 - **Firefox browser:** click **Advanced**, then click **Add Exception**, then click **Confirm Security Exception**.
- 4 When the ScreenBeam management page appears, enter the Username **Administrator** and Password **screenbeam** (both are case-sensitive).
- 5 Click **Login**, and the Device Configuration page appears.

Method 2: Wireless P2P Direct Connection

- 1 Using a Windows 10/8.1 device, connect the device to the ScreenBeam per Section B above.
- 2 Once connected, use a web browser and enter <https://192.168.16.1> to access the LMI.
- 3 Follow the directions from Method 1 from Step 3 on.

Note: Sections E and F provide the necessary configurations and customizations for deployment.

E. Customize ScreenBeam Settings

Under the Device Configuration Page

Assign new Device Name

- 1 From the **Device Name Access** option, select **Enable**.
- 2 Select the **Device Name** text box, then enter a new name (example: Conference TV).

Note: Each receiver should have a unique name; this makes it easier for users to identify and connect to the correct display. Supported naming characters are A-Z, a-z, 0-9, -, _.

Change the Administrator's Password

- 1 Select the **Administrator Password** text box and enter the new password.
- 2 Select **Apply/Save** button to save any changes.

Under the Features Page

Configure Force PIN Pairing Option

By default, the Force PIN Pairing option is Enabled and the PIN code is generated randomly. A unique PIN is will be generated each time a new user/device attempts to connect. To change the PIN pairing type or PIN code:

- 1 Select either **ON** to force PIN or **OFF** to *not* force PIN upon connection.
- 2 If Force PIN Pairing is **ON**, select either **Each connection** or **First connection only**.
- 3 Select **Random** or **Static** for PIN code generation.
- 4 If **Static**, then enter PIN of choice. Keep note of the new PIN for user distribution.

Note: Only the first seven digits of the PIN can be set in configuration; the eighth digit will be automatically chosen by the ScreenBeam and appended to the first seven.

- 5 Select **Apply/Save** button to save any changes.

Configure HDMI/VGA Port Power Management

By default, ScreenBeam is designed to display the Ready to Connect screen continuously. To extend display life and/or reduce power consumption:

- ❶ Select either **Screen Saver** or **Display Off**.
- ❷ Enter a desired time for setting to take effect.
- ❸ **Optional:** Select a Wake up mode.
- ❹ Select **Apply/Save** button to save any changes.

F. Using Interactive Touch Display

ScreenBeam 960 supports touch or pen over wireless connection with Windows 10 for collaboration using the touch display.

System Requirements

OS: Windows 10 build version 1607 (or later)

CPU: 4th Gen Intel Core i-Series 4xxx or AMD equivalent (or better)

RAM: 4 GB

Setup Requirements

- Interactive touch display or projector
- USB Type-A to Type-B cable

Supported Features

- Support USB HID display, projector, or white board
- Up to 20-point touch
- Up to four simultaneous passive pens

Works best with InGlass™ Technology enabled display.

Refer to the online compatibility list at:

<https://support.screenbeam.com/touch/compatibility>

Setup and Instructions

- ❶ Connect the USB Type-A end to the ScreenBeam 960 receiver's USB port.
- ❷ Connect the USB Type-B end to the USB Touch input on the display or projector.

Note: If the display provides more than one touch output, make sure the USB Type-B end is connected to the same touch output as the HDMI input.

- ❸ Connect Windows 10 device to ScreenBeam 960 (see instructions in section B).
- ❹ Start using the display by touching the screen. Launch an app and draw using finger or pen.

G. Deploying ScreenBeam Receiver

Please read the deployment guide for best practices and tips before placing the ScreenBeam 960 to the site for users.

- 1 Unplug the power supply and HDMI cable from ScreenBeam 960 receiver.
 - 2 Move the receiver to its permanent location.
- Note: Access to a wired or wireless LAN connection is required.**
- 3 Plug the HDMI cable to the receiver and the display.
 - 4 Plug in the receiver's power supply.
 - 5 Switch the display to the correct input and verify the **Ready to Connect** screen appears.
 - 6 Verify the ScreenBeam 960 obtains a valid IP address.

Support Information

For FAQs, troubleshooting tips and support, visit:
<https://support.screenbeam.com>

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Website: www.screenbeam.com

This product is intended to be supplied by a Listed Direct Plug-In Power Unit marked "Class 2", Listed Power Adapter or DC power source marked "L.P.S." (or "Limited Power Source") and rated 5Vdc, 2A minimum.