

## USB 3.2 Extender over CAT 6a/7 Cable, Local and Remote

The USB-EXT-3-LOCAL and USB-EXT-3-REMOTE are USB extenders that offer USB 3.2 signal extension to support peripherals such as UC soundbars and cameras. The USB extenders also provide simultaneous extension of all USB signals up to 330 ft (100 m) over CAT 6a/7 cable at speeds up to 5 Gbps.

The USB extenders are used together in point-to-point applications:

- The USB-EXT-3-LOCAL provides connectivity for a single USB host such as a computer. The extender supports plug-and-play functionality with a USB host running a Windows®, macOS®, Linux®, or Chrome OS™ operating system.
- The USB-EXT-3-REMOTE provides connectivity for up to four USB Type-A devices. The extender is expandable to support up to 30 USB devices with the connection of up to three USB hubs (not included).



## Install the Extenders

The USB extenders may be placed on flat surfaces or mounted to flat surfaces or rack rails.

### Place onto a Flat Surface

Place the USB-EXT-3-LOCAL on a secure, level surface near the host computer, and place the USB-EXT-3-REMOTE on a secure, level surface near the USB device(s). The rubber feet on the bottom of each extender help prevent the extenders from shifting.



## In the Box

1 USB-EXT-3-LOCAL and USB-EXT-3-REMOTE

### USB-EXT-3-LOCAL (6511972)

- 1 Power Adapter, 24VDC, 1A, 100-240VAC (2058634)
- 1 Power Cable, 6 ft (1.83 m) (2058628)
- 1 Cable, USB 3.1, A-B, 5.91 ft (1.8 m) (2058635)
- 1 Kit, Mounting Hardware (2058627)

### USB-EXT-3-REMOTE (6511973)

- 1 Power Adapter, 24VDC, 2.71A, 100-240VAC (2058629)
- 1 Power Cable, 6 ft (1.83 m) (2058628)
- 1 Kit, Mounting Hardware (2058627)

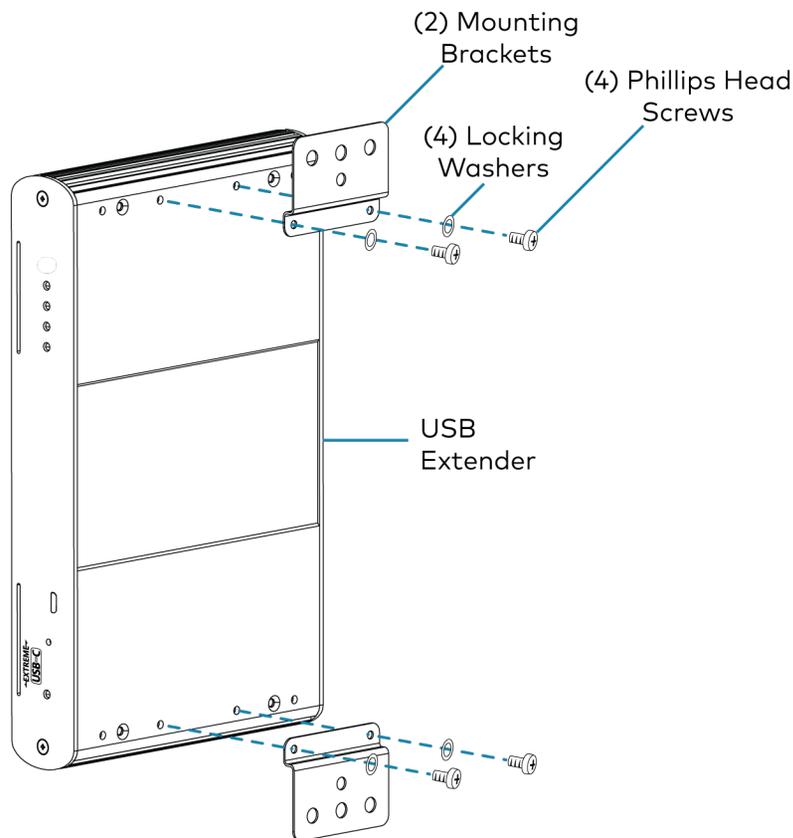
## USB 3.2 Extender over CAT 6a/7 Cable, Local and Remote

### Mount the USB Extender

To mount the USB extender, attach the two supplied mounting brackets to the rear of the device using the four supplied Phillips head screws and locking washers (two screws and washers for each bracket) as shown below.

Once the mounting brackets are attached, mount the USB extender onto either of the following:

- [Mount onto a Flat Surface](#)
- [Mount onto a Rack Rail](#)



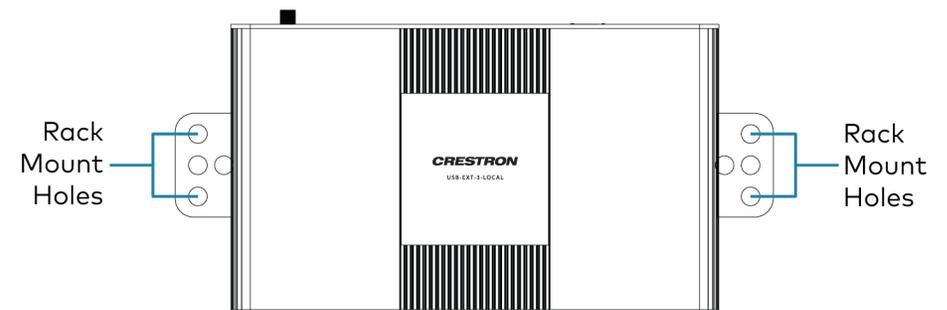
### Mount onto a Flat Surface

Attach a USB extender to a flat surface using the outer-middle surface mount hole of each mounting bracket and mounting screws (not supplied).



### Mount onto a Rack Rail

Mount the USB extender to a rack rail using either the left or right mounting bracket. Attach either bracket to a rack rail using the top and bottom rack mount holes and mounting screws (not supplied).



## USB 3.2 Extender over CAT 6a/7 Cable, Local and Remote

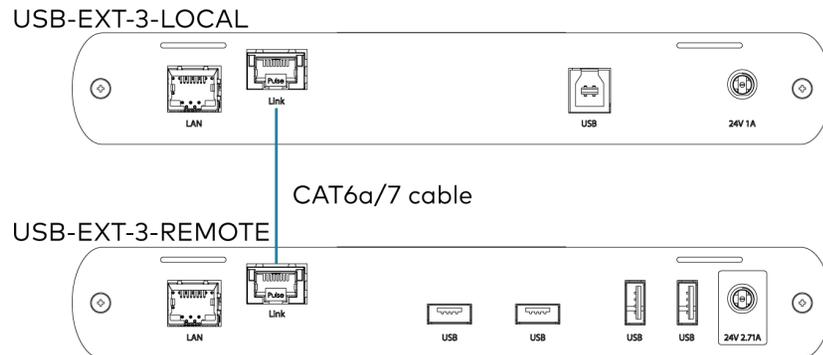
### Connect the Extenders

To connect the USB extenders:

1. Connect the Link ports on the two extenders using a single CAT 6a/7 cable. The maximum cable distance is 330 ft (100 m).

**CAUTION:** Do not connect either Link port to an Ethernet LAN. To connect the extenders to an Ethernet LAN, refer to [step 6](#).

**NOTE:** If using preinstalled in-wall CAT wiring, connect CAT 6a/7 patch cables from the Link port of each extender to the nearest CAT wall outlets. Ensure that the patch cables and the in-wall cabling do not exceed 330 ft (100 m) in total.



2. Connect the USB port on the USB-EXT-3-LOCAL to a host device using the included USB cable.

USB-EXT-3-LOCAL

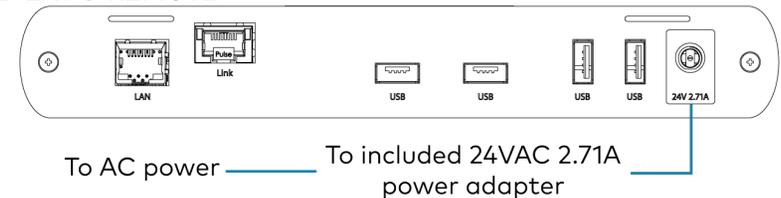


3. Connect each USB extender to its included power adapter, then connect each power adapter to an AC power source.

USB-EXT-3-LOCAL



USB-EXT-3-REMOTE

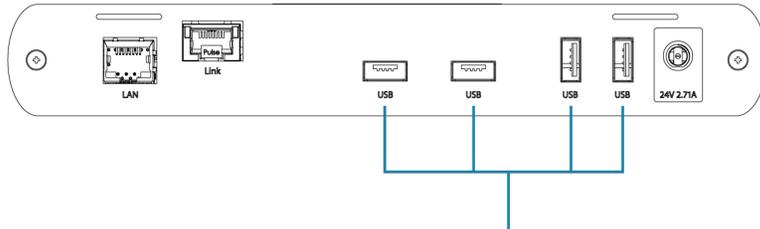


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4. Install any software on the host computer that is required to operate the USB device(s). Refer to the USB device documentation for installation instructions.
5. Connect up to four USB Type-A devices (USB 3.2 Gen 1, 2.0, or 1.1 compatible) to the USB-EXT-3-REMOTE. The USB-EXT-3-REMOTE supports up to 30 USB devices with the connection of up to three USB hubs (not included).

**NOTE:** The USB extender is engineered to deliver maximum compatibility with the widest possible range of devices. Crestron does not guarantee that all USB devices or hosts are compatible with the USB extender.

USB-EXT-3-REMOTE



USB Type-A (4):  
To remote USB device(s)  
(USB 3.2 Gen 1, 2.0, or 1.1 compatible);  
Supports up to 30 USB devices with the  
connection of up to three USB hubs  
(not included)

6. (optional) The USB extenders provide functionality for a pass-through 100BASE-TX/1000BASE-T network connection. To make a pass-through connection:

**TIP:** A pass-through network connection can give network access to remote devices, or it can use existing cabling to offer USB connectivity without losing network connectivity.

- a. Connect the LAN port on the USB-EXT-3-LOCAL to an Ethernet network using a CAT 5e/6a/7 cable. The maximum cable distance is 330 ft (100 m).

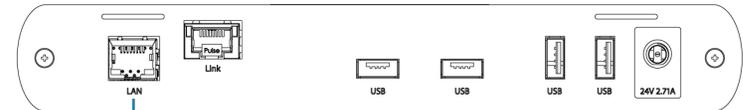
USB-EXT-3-LOCAL



Connect to Ethernet network

- b. Connect the LAN port on the USB-EXT-3-REMOTE to a network-enabled device using a CAT 5e/6a/7 cable. The maximum cable distance is 330 ft (100 m).

USB-EXT-3-REMOTE



Connect to network-enabled device

## USB 3.2 Extender over CAT 6a/7 Cable, Local and Remote



### Observe the LED Indicators

The following table describes the behavior of the LEDs on the front panel of the USB extender.

LED	Color	Description
Power	Green	The USB extender is receiving power.
Status	Solid green	The USB extender is functioning normally.
	Flashing green	The USB extender is powering on.  When flashing in unison with the Link, USB 2, and USB 3 LEDs, the unit is or was operating at an unsafe temperature. To resolve this issue, refer to <a href="#">Troubleshoot the USB Extender</a> .
Link	Green	A link has been established between the local and remote USB extenders.
USB 2	Solid green	A USB 2 connection is detected on the USB port on the USB-EXT-3-LOCAL.
	Flashing green	A USB 2 connection on the USB port on the USB-EXT-3-LOCAL has been suspended or is in sleep mode.
USB 3	Solid green	A USB 3 connection is detected on the USB port on the USB-EXT-3-LOCAL.
	Flashing green	A USB 3 connection on the USB port on the USB-EXT-3-LOCAL has been suspended or is in sleep mode.
LAN	Solid green	A link has been established between the USB extender and the network or network device.
	Flashing green	There is Ethernet activity.



### Check the Installation

To check if the USB extender system has been installed correctly on the host computer, refer to the following instructions.

For Windows Software:

1. Open **Device Manager**.
2. Expand the **Universal Serial Bus** controllers node.
3. Check to see if the extender system appears on the list of controllers. If the extender system has been properly installed, it appears on the list as a "Generic USB Hub."

For macOS Software:

1. Open **System Profiler**.
2. In the left column under Hardware, select **USB**.
3. Check to see if the extender system appears in the USB Device Tree at the top right of the System Profiler window. If the extender system has been properly installed, it is listed as a "Hub" under the **USB High-Speed Bus/USB Bus** node.

If the USB extender system does not detect correctly or fails to detect, refer to [Troubleshoot the USB Extender](#).

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### Troubleshoot the USB Extenders

The following table provides troubleshooting information for the USB extenders. If further assistance is required, contact [Crestron True Blue technical support](#).

Symptom	Issue	Action
All LEDs are OFF.	The USB extender is not receiving power from the AC power adapter.	Ensure that both AC power adapters are connected to the extenders, and ensure that the AC adapter is connected to a live source of AC power.
The Power LED is ON, but the Status LED is OFF.	The unit has malfunctioned.	Contact <a href="#">Crestron True Blue technical support</a> for assistance.
The Link LEDs are OFF on both extenders.	There is no connection between the Local and Remote Extenders.	<ol style="list-style-type: none"> <li>1. Ensure that no more than 330 ft (100 m) of CAT 6a/7 cabling is connected between the extenders.</li> <li>2. Connect a short CAT 6a/7 patch cable between the extenders. If the Link LED lights, then the previous cable is defective or not capable of supporting the link.</li> </ol>
The Link LEDs on both extenders are ON, but the USB 2 and USB 3 LEDs are OFF.	The host device is not powered on.	<ol style="list-style-type: none"> <li>1. Disconnect all USB devices from the USB-EXT-3-REMOTE.</li> <li>2. Disconnect the USB-EXT-3-LOCAL from the host device.</li> </ol>
	The USB-EXT-3-LOCAL is not connected to a host device.	<ol style="list-style-type: none"> <li>3. Disconnect the power adapters from both extenders.</li> <li>4. Reconnect the USB-EXT-3-LOCAL to the host device.</li> </ol>
	The host device does not support USB Hubs.	<ol style="list-style-type: none"> <li>5. Reconnect the power adapters to both extenders.</li> <li>6. Check that both extenders are listed as USB hubs in Windows Device Manager or macOS System Profiler, or use the "Isusb" command in a Linux Terminal.</li> </ol>
	The unit is malfunctioning.	<ol style="list-style-type: none"> <li>7. If the problem is not resolved, contact <a href="#">Crestron True Blue technical support</a>.</li> </ol>

## USB 3.2 Extender over CAT 6a/7 Cable, Local and Remote

Symptom	Issue	Action
The USB 2 LED is solid ON, but the USB 3 LED is OFF.	The USB-EXT-3-LOCAL is not connected to a USB 3.0 port.	<ol style="list-style-type: none"> <li>1. Ensure that the USB-EXT-3-LOCAL is connected to a USB 3.0 port on the host device.</li> <li>2. Ensure that the included USB 3.1 Gen 1 cable is used to connect the host device to the USB-EXT-3-LOCAL.</li> <li>3. Cold boot the host device.</li> <li>4. Replace the USB 3.1 Gen 1 cable with a different cable.</li> <li>5. If the problem is not resolved, contact <a href="#">Crestron True Blue technical support</a>.</li> </ol>
	The USB-EXT-3-LOCAL is connected to the host device using a USB 2.0 cable.	
	The USB 3.0 cable connecting the USB-EXT-3-LOCAL to the host device is defective.	
	The host device's USB 3.0 controller has malfunctioned.	
The USB 3 LED is solid ON, but the USB 2 LED is OFF.	The USB cable connecting the USB-EXT-3-LOCAL to the host device is defective.	<ol style="list-style-type: none"> <li>1. Ensure that the included USB 3.1 Gen 1 cable is used to connect the host device to the USB-EXT-3-LOCAL.</li> <li>2. Cold boot the host device.</li> <li>3. Replace the USB 3.1 Gen 1 cable with a different cable.</li> <li>4. If the problem is not resolved, contact <a href="#">Crestron True Blue technical support</a>.</li> </ol>
	The host device's USB 2.0 controller has malfunctioned.	
	The host device does not support USB 2.0.	
Both extenders are working, but the USB 2 or USB 3 LEDs on both extenders are blinking.	The USB-EXT-3-LOCAL and/or the USB-EXT-3-REMOTE is in suspend mode. This may occur when no USB devices are attached, the USB device is asleep, or the host device is asleep.	<ol style="list-style-type: none"> <li>1. Wake the host device's operating system (refer to your operating system's documentation).</li> <li>2. Connect a USB device to the USB-EXT-3-REMOTE.</li> <li>3. Test the connected USB device's functionality and observe USB LEDs. If the problem persists, contact <a href="#">Crestron True Blue technical support</a>.</li> </ol>

## USB 3.2 Extender over CAT 6a/7 Cable, Local and Remote

Symptom	Issue	Action
<p>All LEDs on both extenders are solid ON, but a connected USB device is not operating correctly, or is detected as an "Unknown Device" in the operating system.</p> <p>A USB 3 device is not listed as USB 3 on the host device's operating system, or the operating system is notifying the user that the device can "Perform Faster if connected to a USB 3 port."</p>	<p>The USB device is malfunctioning.</p> <hr/> <p>The host device does not recognize the USB device.</p> <hr/> <p>The application software for the USB device is not operating.</p> <hr/> <p>The extenders are malfunctioning.</p>	<ol style="list-style-type: none"> <li>1. Disconnect the USB-EXT-3-LOCAL from the host device.</li> <li>2. Connect the USB device directly to the host device. If the USB device does not operate as expected, consult the device's documentation.</li> <li>3. If the issue is not resolved by the USB device's documentation, update the host device's BIOS, chipset, or USB controller drivers from the manufacturer's website. Test the USB device again.</li> <li>4. If the USB device operates as expected when directly connected to the host device, connect another USB device to the USB-EXT-3-REMOTE and reconnect the USB-EXT-3-LOCAL to the host device.</li> <li>5. If the second USB device does not operate, the extender may be malfunctioning. Contact <a href="#">Crestron True Blue technical support</a>. If the second device operates as expected, then the first device may not be compatible with this extender. Contact <a href="#">Crestron True Blue technical support</a>.</li> </ol>
<p>All LEDs are flashing and the system is operational.</p>	<p>The extender is or was operating at an unsafe temperature.</p>	<ol style="list-style-type: none"> <li>1. Check ambient temperature. If the ambient temperature exceeds 122°F (50°C), remove external sources of heat and change the location of the extender.</li> <li>2. Power cycle the unit to remove LED status.</li> </ol>
<p>All LEDs are scrolling left to right, starting with Status.</p>	<p>The extender is programming.</p>	<p>Wait for the unit to finish programming.</p>

## USB 3.2 Extender over CAT 6a/7 Cable, Local and Remote



### Visit the Product Page

Scan the QR code to visit the product page.

USB-EXT-3 KIT



[www.crestron.com/model/6511976](http://www.crestron.com/model/6511976)

### Additional Information

#### Original Instructions

The U.S. English version of this document is the original instructions. All other languages are a translation of the original instructions.

#### Regulatory Model: USB-EXT-3

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