USB-EXT-2-LOCAL-1G/USB-EXT-2-REMOTE-1G

The Crestron® USB over Category Cable Extender Wall Plates (USB-EXT-2-LOCAL-1G and USB-EXT-2-REMOTE-1G) deliver reliable, high-speed USB signal extension for USB 1.1 and 2.0 devices in a conference room, classroom, auditorium, command center, medical facility, public space, or residence. Without requiring any special configuration or drivers, the USB extenders enable wire runs up to 330 ft (100 m) over a single CAT5e (or better) shielded twisted-pair (STP) cable. The USB extenders support most USB device types and are plug-and-play compatible with computers running Windows®, macOS®, and Linux® operating systems.

The USB-EXT-2-LOCAL-1G and USB-EXT-2-REMOTE-1G are functionally similar. For simplicity within this guide, the term "USB extender" is used except where noted. The USB extenders are also compatible with the USB over Twisted Pair Extender (USB-EXT-2).

In the Box

1 USB-EXT-2-LOCAL-1G [1] or USB-EXT-2-REMOTE-1G [1]

Additional Items

2 Screw, 6-32 x 1/4 in., Pan Head, SEMS (2007218)
1 Ferrite Bead, Cable Mount (2054945)

USB-EXT-2-LOCAL-1G Only

1 Connector, 2-Pin (2003574)
1 PW-2407WUL, Wall Mount Power Pack, 24 VDC, 0.75 A, 100-240 VAC (2045866)

1. Refer to the USB-EXT-2-LOCAL-1G and USB-EXT-2-REMOTE-1G product pages for color variations.

Install the USB Extender

The USB extender mounts in a North American, unobstructed, 1-gang electrical box (not included). A minimum mounting depth of 2 in. (51 mm) is required.
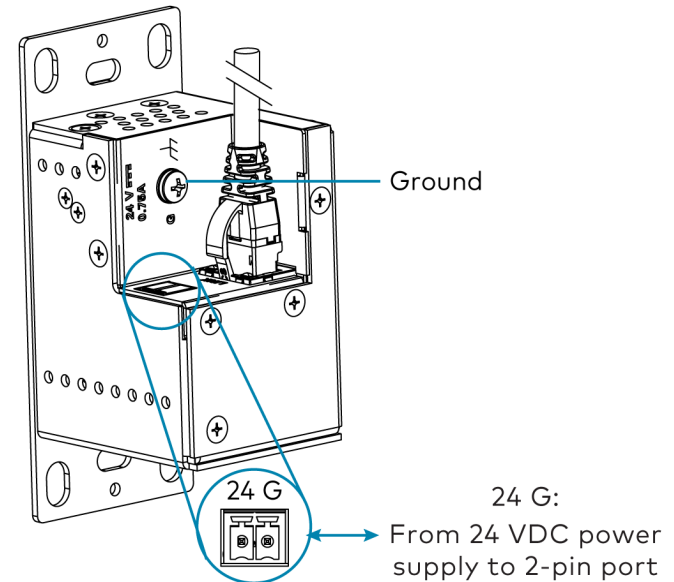
Power the USB Extender

The USB extender requires a 24 VDC power supply. The USB-EXT-2-REMOTE-1G ships with the PW-2407WUL: a universal, outlet-mounted, 24 VDC 0.75 A power supply with flying leads that wire directly to the USB extender via a 2-pin 3.5 mm detachable terminal block. To use the PW-2407WUL power supply, refer to the PW-2407WUL Installation Guide (Doc. 6923). Alternatively, the USB extender may be powered by any 24 VAC power source (for example, from the Cresnet® network).

> **NOTES:**
>
> - The 24 VDC power supply must be connected to either the USB-EXT-2-LOCAL-1G or USB-EXT-2-REMOTE-1G, not both. Power is passed from one extender to another via the LINK connection.
> - A ferrite bead is provided to reduce or prevent EMI (electromagnetic interference). Crestron recommends installing this ferrite bead on the included 24 VDC power supply cable closest to the device.

1. Feed the ground connection and the 24 VDC cable of the power supply through the opening on the top of the electrical box.
2. Connect the 24 VDC cable to the 24 pin and the G pin on the USB extender.
3. Attach the ferrite bead onto the 24 VDC power supply cable closest to the USB extender.

4. Connect the chassis ground lug to a known earth ground circuit (such as building steel) to ensure that the control system is grounded properly.
5. If using the included PW-2407WUL power supply, plug the PW-2407WUL into an AC outlet.

Ground

24 G:
From 24 VDC power supply to 2-pin port

> **NOTE:** The USB extender should be installed and used in accordance with appropriate electrical codes and regulations.

Connect the USB Extenders

Connect the USB-EXT-2-LOCAL-1G extender to the USB-EXT-2-REMOTE-1G extender.

1. Feed the CAT5e (or better) shielded twisted-pair (STP) cable through the opening on the top of the electrical box.
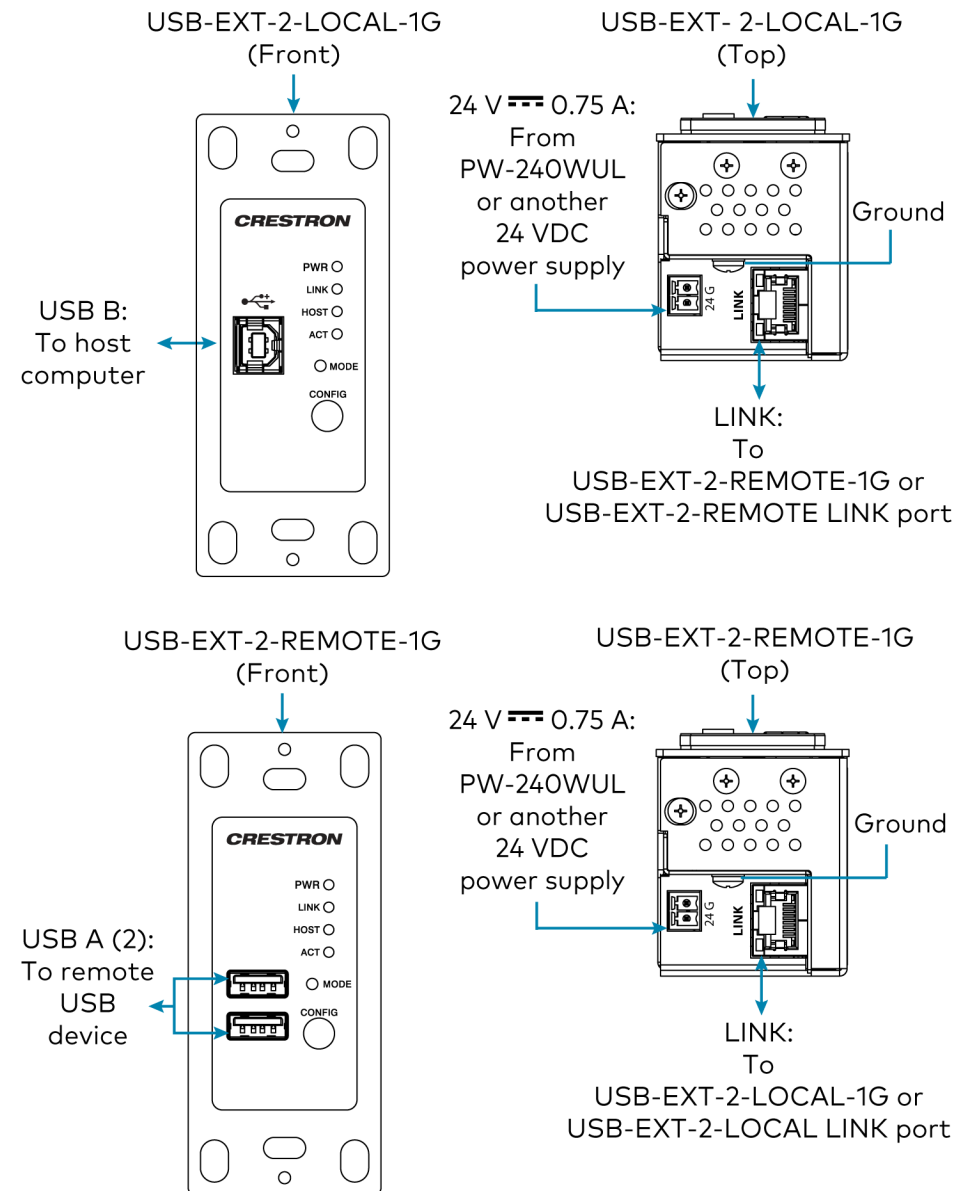
2. Connect one RJ45 connector end of the CAT5e (or better) cable to the LINK port on the USB-EXT-2-LOCAL-1G, and then connect the other RJ45 connector end to the LINK port on the USB-EXT-2-REMOTE-1G. The maximum cable distance is 330 ft (100 m).

> **CAUTION:** The USB-EXT-2-LOCAL-1G and USB-EXT-2-REMOTE-1G are intended for use as point-to-point USB extenders. and must not be connected an Ethernet LAN or any other network device via the LINK port.
>
> Do not connect the USB-EXT-2-LOCAL-1G and USB-EXT-2-REMOTE-1G to a USB-NX2-LOCAL-1G and USB-NX2-REMOTE-1G.

> **NOTE:** The CAT5e (or better) shielded twisted-pair (STP) cable must have a straight-through conductor configuration with no crossovers and must be terminated with 8-conductor RJ45 connectors at both ends.
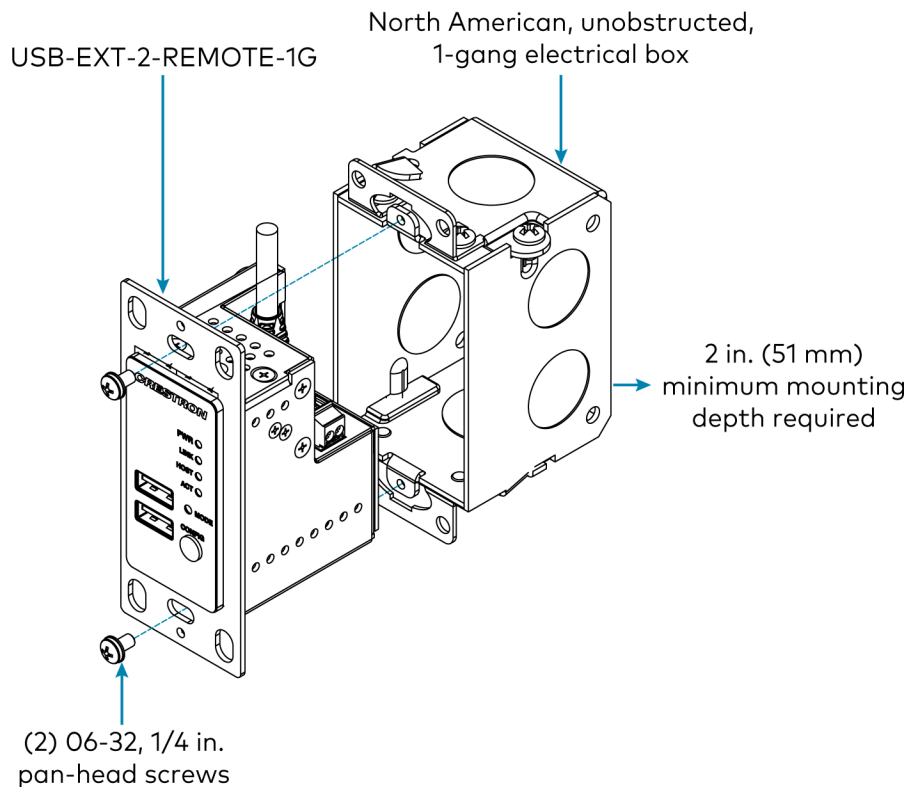
3. Using a USB 2.0 A to B cable (not included), connect the USB B end into the USB-EXT-2-LOCAL-1G host port (⬤⇄), and then connect the USB A end of the cable into a USB type A port on the host device (USB 1.1 or 2.0 compatible).

USB-EXT-2-LOCAL-1G (Front)

USB-EXT- 2-LOCAL-1G (Top)

24 V ⎓ 0.75 A: From PW-240WUL or another 24 VDC power supply

Ground

USB B: To host computer

LINK: To USB-EXT-2-REMOTE-1G or USB-EXT-2-REMOTE LINK port

USB-EXT-2-REMOTE-1G (Front)

USB-EXT-2-REMOTE-1G (Top)

24 V ⎓ 0.75 A: From PW-240WUL or another 24 VDC power supply

Ground

USB A (2): To remote USB device

LINK: To USB-EXT-2-LOCAL-1G or USB-EXT-2-LOCAL LINK port

> **NOTE:** The Config jack on the USB extender is reserved for factory use only.

Mount the USB Extender

1. Place the USB extender into the electrical box.

2. Use two included 6-32 x 1/4 in. pan-head mounting screws to attach the USB extender to the electrical box.

3. Attach a faceplate (not included) to the USB extender.

USB-EXT-2-REMOTE-1G

North American, unobstructed, 1-gang electrical box

2 in. (51 mm) minimum mounting depth required

(2) 06-32, 1/4 in. pan-head screws

Connect the USB Devices

1. 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.

2. Using USB 2.0 cables (not supplied), connect the USB devices (USB 1.1 or 2.0 compatible) to the USB-EXT-2-REMOTE-1G. Up to two USB devices may be connected.

3. Confirm that each USB device is properly installed on the host computer and that it is detected by the operating system.

> **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.

Verify the Installation

Check that the ACT, HOST, LINK, and PWR LEDs light on both the USB-EXT-2-LOCAL-1G and the USB-EXT-2-REMOTE-1G. If the HOST or LINK LEDs do not light, then the cabling between the USB extenders may be installed incorrectly or may be defective.

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

LED	Color	Description
ACT	Flashing amber	Data transmission is occurring between the USB-EXT-2-LOCAL-1G and the USB-EXT-2-REMOTE-1G.
HOST	Solid green	The host device is recognizing the USB extender.
LINK	Solid green	A valid link is established between the USB extender.
	Fast-flashing green	The USB extender is in Pairing mode.
	Slow-flashing green	The USB extender is attempting to establish a link.
PWR	Blue	The USB extender is receiving power.

Additionally, check to see whether USB extender system has been installed correctly on the host computer. Refer to the below 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."

🔧 Troubleshoot the USB Extender

The following table provides corrective actions for possible trouble situations. If further assistance is required, please contact a Crestron Customer service representative.

Symptom	Issue	Action
The USB device is attached to the USB-EXT-2-REMOTE-1G, but the device does not function.	The USB device requires drivers that are not installed on the host computer.	Install the required USB device driver on the host computer operating system prior to attaching the USB device to the USB-EXT-2-REMOTE-1G. Refer to the USB device documentation for more information.
	The USB device does not support USB hubs.	Check that the device displays in the Device Manager tool (Windows) or the System Profiler tool (macOS).
	The USB device has malfunctioned.	Refer to the USB device documentation for more information.
	An overcurrent condition has occurred because the USB device drew more power than can be supplied per the USB specification.	Cycle the power of the USB-EXT-2-REMOTE-1G by unplugging the power supply from the USB-EXT-2-REMOTE-1G. Wait approximately 30 seconds, and then plug the power supply back into the remote extender. If the overcurrent condition continues to occur, the USB device may use more power than can be supplied per the USB specification, or the USB device may be damaged. Refer to the USB device documentation for powering the USB device with the required power supply.
The LINK LEDs on the USB-EXT-2-LOCAL-1G and the USB-EXT-2-REMOTE-1G do not light.	The USB-EXT-2-LOCAL-1G or the USB-EXT-2-REMOTE-1G is not receiving power.	Ensure that the host computer is powered on and is properly connected to the USB-EXT-2-LOCAL-1G. Ensure that the power supply is properly connected to either the USB-EXT-2-LOCAL-1G or the USB-EXT-2-REMOTE-1G.
	The CAT cable connecting the USB-EXT-2-LOCAL-1G and the USB-EXT-2-REMOTE-1G is malfunctioning.	Ensure that a CAT5e (or better) cable is properly installed. Replace the cable if necessary.
	The USB-EXT-2-LOCAL-1G or the USB-EXT-2-REMOTE-1G is malfunctioning.	Ensure that the power supply is connected to a live source of electrical power.

Visit the Product Page

Scan the QR code to visit the product page.

USB-EXT-2-LOCAL-1G

www.crestron.com/model/6510558

USB-EXT-2-REMOTE-1G

www.crestron.com/model/6510560

Additional Information