



# USB 2.0 SR Extender over one CAT-5 Cable

EXT-USB2.0-SR



## User Manual

Version A1

# Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Batteries that may be included with this product and/or accessories should never be exposed to open flame or excessive heat. Always dispose of used batteries according to the instructions.

# Warranty Information

For the latest warranty coverage information, refer to the Warranty and Return Policy under the Connect section of the Gefen Web site at <http://www.gefen.com/connect/warranty-and-return-policy>

## Technical Support

1-707-283-5900      1-800-472-5555  
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<http://www.gefen.com>

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## Important

The EXT-USB2.0-SR can extend USB up to a maximum of 165 ft (50m). Actual extension distance will depend on cable quality, the use of USB hubs, and interference from other devices nearby.

Using a USB hub on the output of the EXT-USB2.0-SR would reduce the extension range to approximately 40 meters/132 feet. The exact range reduction would depend on the USB hub design. Some hubs may perform better than others.

- Use industry standard CAT-5e or better cables. Gefen recommends solid core cables for best performance.
- The USB 2.0 SR Extender is USB 2.0/1.1 compliant.
- The included power supplies should be used on both the Sender and the Receiver units.
- The USB 2.0 LR supports all major operating systems -- Windows, macOS, and Linux. No software drivers are required.
- The information in this manual has been carefully checked and is believed to be accurate. However, Gefen and Core Brands, LLC assume no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen and Core Brands, LLC be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual.
- All information contained herein is subject to change without notice.



This product uses UL-Listed power supplies



# Features & Packing List

## Features\*

- Extends USB 2.0 peripherals up to 165ft (50m) away from a computer
- Supports USB 1.1 and 2.0
- Uses industry-standard CAT-5e or better cable
- Supports all major operating systems -- Windows, macOS and Linux
- True plug-and-play, 100% hardware solution with no drivers required
- Can support the full 480 Mbps speed of USB 2.0
- Receiver supports a powered USB connection up to 2A at 5V
- Sturdy metal construction of the enclosures help provide immunity against
- Electromagnetic Interference (EMI) and radiated noise (RFI)
- Compact enclosures are easy to install and can be hidden away

## Packing List\*

The following items are shipped with the EXT-USB2.0-SR. If any of these items are not present in the box when you first open it, immediately contact your dealer or Gefen.

- (1) USB 2.0 SR Extender - Sender Unit
- (1) USB 2.0 SR Extender - Receiver Unit
- (1) 6 ft. USB Cable (A-B)
- (2) 5V DC Locking Power Supplies (EXT-PS526AIP-LP-6)
- (1) Quick-Start Guide

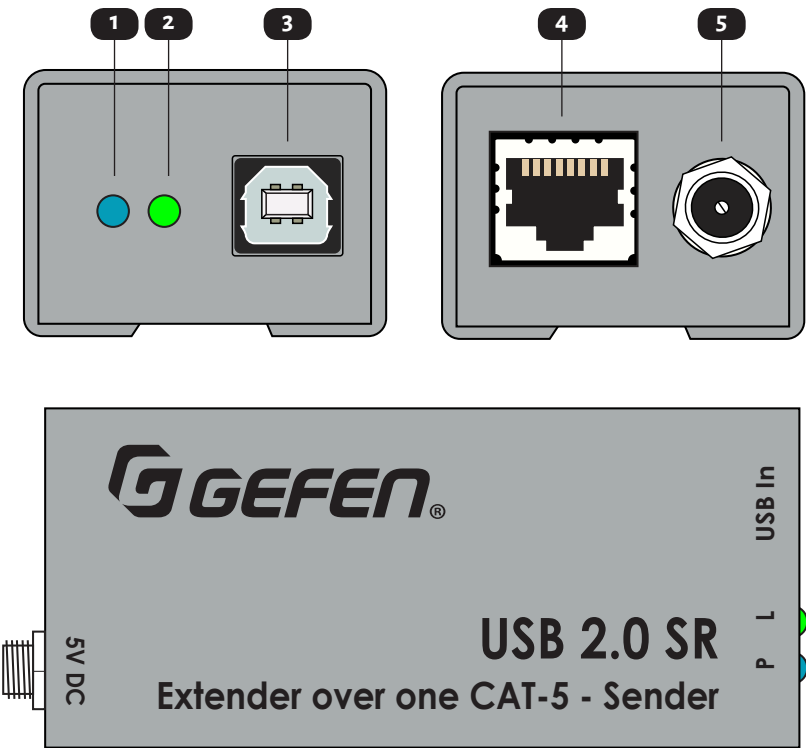
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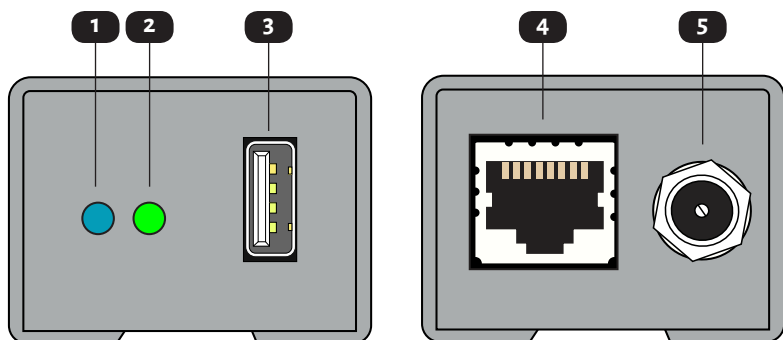
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Sender Unit



| ID | Name   | Description                                                                                                                                           |
|----|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Power  | This LED indicator glows solid blue when the unit is powered. See <a href="#">LED Status (page 14)</a> for more information.                          |
| 2  | Link   | This LED glows solid green when a link is established between the Sender and Receiver. See <a href="#">LED Status (page 14)</a> for more information. |
| 3  | USB In | Connect the USB host device to this port.                                                                                                             |
| 4  | Link   | Connect an RJ-45-terminated CAT-5e or better cable, up to 165 feet (50 meters), from this port to the <b>Link</b> port on the Receiver unit.          |
| 5  | 5V DC  | Connect one of the included 5V DC power supplies to this connector.                                                                                   |

## Receiver Unit



| ID | Name    | Description                                                                                                                                           |
|----|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Power   | This LED indicator glows solid blue when the unit is powered. See <a href="#">LED Status (page 14)</a> for more information.                          |
| 2  | Link    | This LED glows solid green when a link is established between the Sender and Receiver. See <a href="#">LED Status (page 14)</a> for more information. |
| 3  | USB Out | Connect the USB device to this port.                                                                                                                  |
| 4  | Link    | Connect an RJ-45-terminated CAT-5e or better cable, up to 165 feet (50 meters), from this port to the <b>Link</b> port on the Sender unit.            |
| 5  | 5V DC   | Connect one of the included 5V DC power supplies to this connector.                                                                                   |

## Connection Instructions

### ► USB

1. Connect the included USB cable from the **USB In** port of the Sender unit, to a USB host device such as a computer.
2. Using another USB cable, connect your USB device to the **USB Out** port on the Receiver unit.

### ► CAT-5

3. Connect an RJ-45-terminated CAT-5e or better cable, up to 165 feet (50 meters), from the **Link** port on the Sender to the **Link** port on the Receiver unit.

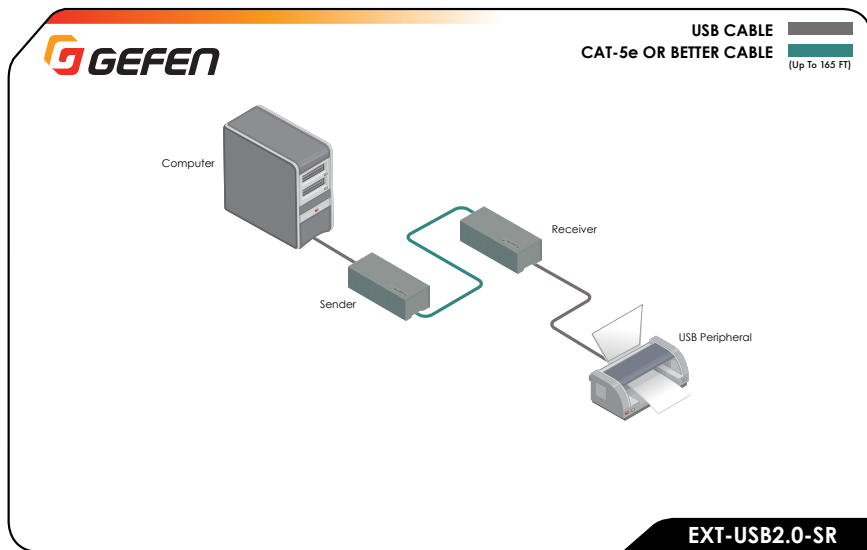
### Important

Using a USB hub on the output of the EXT-USB2.0-SR would reduce the extension range to approximately 40 meters/132 feet. The exact range reduction would depend on the USB hub design. Some hubs may perform better than others.

### ► Power

4. Connect one of the included power supplies to the **5V DC** connector on the Sender unit. Connect the other power supply to the **5V DC** connector on the Receiver unit.
5. Plug both power supplies into available electrical outlets.

## Sample Wiring Diagram



# LED Status

The **Power** and **Link** LED indicators on the Sender and Receiver unit provides basic information on the current status of each unit.

The information, in the table below, applies to both the Sender and Receiver unit.

| Power      |                                                                                   | Description                                                                                                                                                                           |
|------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solid blue |  | <ul style="list-style-type: none"><li>· The Sender / Receiver unit is powered.</li></ul>                                                                                              |
| Off        |  | <ul style="list-style-type: none"><li>· Check the power supplies between the Sender and the Receiver unit.</li><li>· Make sure the electrical AC outlet is providing power.</li></ul> |

| Link        |                                                                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solid green |  | <ul style="list-style-type: none"><li>· Link integrity is good between the Sender and Receiver unit.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Off         |  | <ul style="list-style-type: none"><li>· Make sure that the Power LEDs are ON on both Sender and Receiver. If they are not on, go back to "Power LED Off" troubleshooting procedure above. If both Power LEDs are on:<ol style="list-style-type: none"><li>1. Try a known-to-be-good short (about 6 feet) link cable. If the link LEDs on both units turn on, then:</li><li>2. Check the original link cable and the RJ-45 connectors for integrity.</li><li>3. Ensure that the original link cable is of good quality.</li><li>4. Ensure that cable length is within specifications. Remember that adding USB hubs will reduce extension range.</li><li>5. Ensure that the link cable is installed away power lines and other source of possible Electro-Magnetic Interference.</li></ol></li></ul> |

| Supported Formats |                                                                                |
|-------------------|--------------------------------------------------------------------------------|
| USB               | <ul style="list-style-type: none"> <li>• USB 2.0</li> <li>• USB 1.1</li> </ul> |

| Connectors & Indicators                   |                                        |
|-------------------------------------------|----------------------------------------|
| Link Connectors (Sender/Receiver)         | • 1 x RJ-45, shielded                  |
| USB Connector (Sender)                    | • 1 x USB type B                       |
| USB Connector (Receiver)                  | • 1 x USB type A                       |
| Power Supply Connectors (Sender/Receiver) | • Locking-type, 5.5mm barrel/2.5mm pin |
| Link Indicator (Sender/Receiver)          | • 1 x LED, green                       |
| Power Indicator (Sender/Receiver)         | • 1 x LED, blue                        |

| Operational                            |                                 |
|----------------------------------------|---------------------------------|
| Power Supply Voltage (Sender/Receiver) | • 5V DC                         |
| USB Port Current Capability (Receiver) | • 2A at 5V DC                   |
| Power Consumption (Sender/Receiver)    | • 0.65W / 0.8W (max.)           |
| Operating Temperature                  | • +32 to +122 °F (0 to +50 °C)  |
| Operating Humidity                     | • 5% to 90% RH, non-condensing  |
| Storage Temperature                    | • -4 to +158 °F (-20 to +70 °C) |
| Storage Humidity                       | • 0% to 95% RH, non-condensing  |
| MTBF                                   | • 50000 hours                   |

| Physical                                                                 |                                              |
|--------------------------------------------------------------------------|----------------------------------------------|
| Dimensions (W x H x D)<br>(Sender/Receiver),<br>not including connectors | • 3.4" x 1.1" x 1.5" (85 mm x 28 mm x 38 mm) |
| Net Weight (Sender/Receiver)                                             | • 0.3 lbs (0.13 kg) each                     |
| Shipping Weight (Sender/Receiver)                                        | • 2.2 lbs. (1 kg)                            |

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