

Gefen®

Mini USB-2 Extender

EXT-USB-MINI2
USER'S MANUAL



www.gefen.com

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Notice

Gefen LLC reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

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INTRODUCTION

Congratulations on your purchase of the Mini USB-2 Extender. Your complete satisfaction is very important to us.

Gefen

Gefen delivers innovative, progressive computer and electronics add-on solutions that harness integration, extension, distribution and conversion technologies. Gefen's reliable, plug-and-play products supplement cross-platform computer systems, professional audio/video environments and HDTV systems of all sizes with hard-working solutions that are easy to implement and simple to operate.

The Gefen Mini USB-2 Extender

The Mini USB-2 Extender extends any USB device up to 150 feet from the location of your computer, eliminating the 17.5 feet distance limitation of USB. The Mini USB-2 sender and receiver units use one CAT-5 cable for extension. It is optimized for applications where two devices, such as the keyboard and mouse, must be operated remotely. The USB-2 Extender can even be used to extend surveillance cameras for security purposes.

How It Works

The Mini USB-2 Extender sender unit is connected to the computer using the supplied USB cable. The remote peripheral(s) are connected to the receiver unit. A category-5 (CAT-5) cable is used to link the sender to the receiver.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE MINI USB-2 EXTENDER

- The Mini USB-2 Extender sender and receiver were designed to operate on USB type computers. DO NOT attempt to use this equipment with any other type of device.
- Use the computer's USB port when using a local keyboard that is not extended with the Mini USB-2 Extender sender unit.
- Only dedicated Category 5 UTP type cable (CAT-5) is recommended for this application (pin to pin). Filed termination should adhere to the TIA/EIA-568-B Scheduling
- The length of cable used to connect the Mini USB-2 Extender sender unit to the Mini USB-2 Extender receiver unit MUST NOT EXCEED 150 feet.

FEATURES

Features

- Extends any USB 1.1 device up to 150 feet (45 meters) using CAT-5 cable
- Requires no external power adapter
- Contains internal USB hub
- Provides support for any full-speed 12 Mb/s or low-speed 1.5Mb/s USB device
- Use either PC or Mac with USB keyboard/mouse

Package Includes

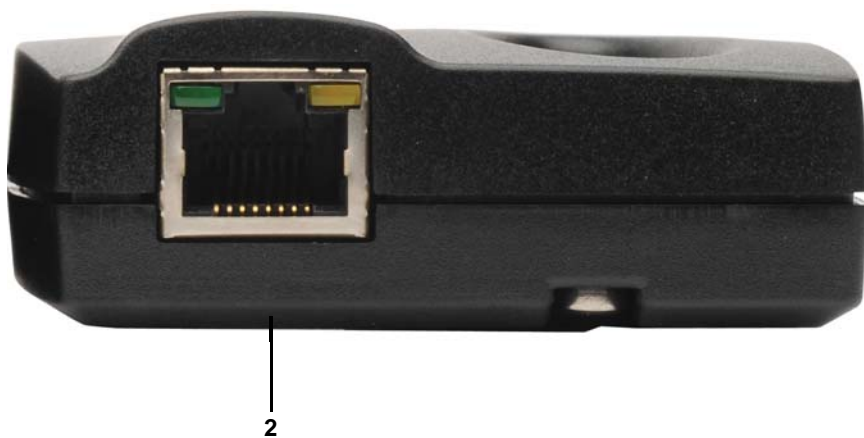
- (1) Mini USB-2 Extender Sender unit
- (1) Mini USB-2 Extender Receiver unit
- (1) User Manual

SENDER PANEL LAYOUT

Front Panel



Back Panel



SENDER PANEL DESCRIPTIONS

1 USB Type B Input

This connector will accept a USB Type B cable to connect to a USB host device (i.e. Computer).

2 RJ-45 Link Connector

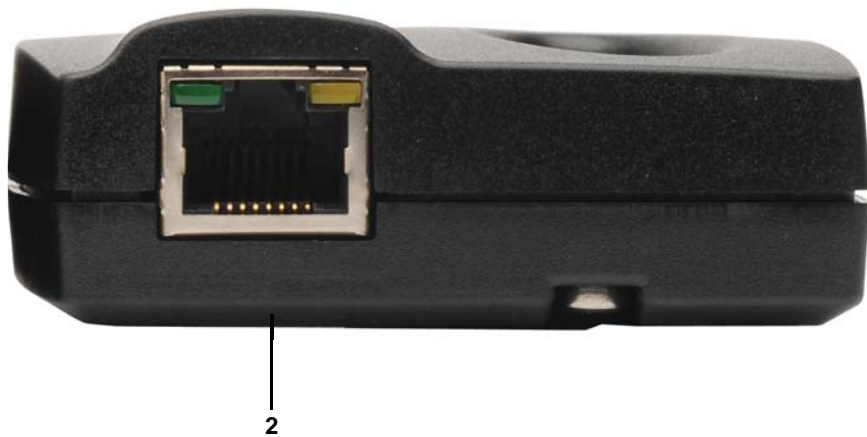
This connector will accept a CAT-5 UTP cable to link the sender and receiver units together.

RECEIVER PANEL LAYOUT

Front Panel



Back Panel



RECEIVER PANEL DESCRIPTIONS

1 *USB Type A Input*

This connector will accept a USB Type A cable to connect to a USB peripheral device (i.e. Keyboard & Mouse). Two USB peripherals can be connected at the same time.

2 *RJ-45 Link Connector*

This connector will accept a CAT-5 UTP cable to link the sender and receiver units together.

CONNECTING AND OPERATING THE MINI USB-2 EXTENDER

How to Connect the Mini USB-2 Extender

1. Connect the USB host device to the USB Type B port on the Mini USB-2 Extender Sender unit using a user supplied USB Type A-B cable.
2. Connect the sender and receiver units together using a CAT-5 UTP cable.

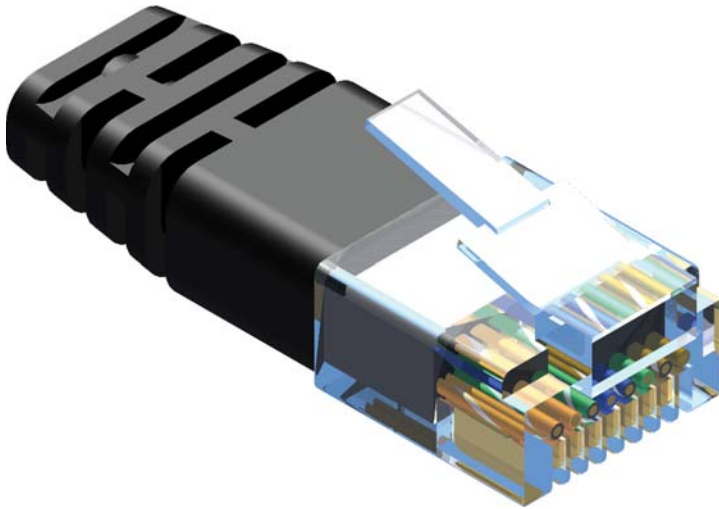
NOTE: Maximum distance of CAT-5 cable should not exceed 150 feet. If field terminating CAT-5 cabling, please adhere to the TIA/EIA-568-B scheduling. Please see page 9 for more information.

3. Connect up to two USB peripherals to the USB Type A ports on the Mini USB-2 Extender Receiver unit using user/device supplied USB cables.

How to Operate the Mini USB-2 Extender

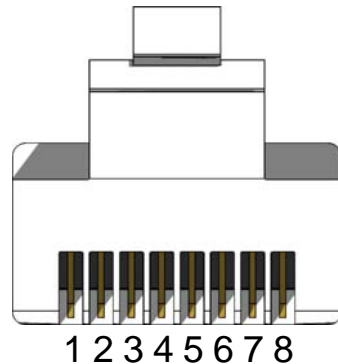
No user configuration or additional operations are necessary to operate the Mini USB-2 Extender.

NETWORK CABLE WIRING DIAGRAM



Gefen has specifically engineered their products to work with the TIA/EIA-568-B specification. Please adhere to the table below when field terminating cable for use with Gefen products. Failure to do so may produce unexpected results and reduced performance.

Pin	Color
1	Orange / White
2	Orange
3	Green / White
4	Blue
5	Blue / White
6	Green
7	Brown / White
8	Brown



CAT-5, CAT-5e, and CAT-6 cabling comes in stranded and solid core types. Gefen recommends using solid core cabling.

Each cable run must be one continuous run from one end to the other. No splices or use of punch down blocks.

TROUBLESHOOTING

Symptoms/Cause	Remedy
<p>All LEDs on the Sender are off. Cause: The Sender unit is not receiving power from the computer</p>	<ol style="list-style-type: none"> 1. Ensure that the Sender unit is connected to a USB port on the computer 2. Check that the computer is switched on and that the OS is running (not in Sleep mode).
<p>Host LED on Sender is on; Link LED on Sender is off. Cause: There is no connection between the Sender and Receiver units.</p>	<ol style="list-style-type: none"> 1. Ensure that a Category 5 UTP cable with straight-through conductors is connected between the Sender and Receiver units. 2. Ensure that Category 5 cables and connectors are used throughout the entire link between Sender and Receiver. 3. Check that Category 3 cable has not been substituted. 4. Check that the cable length between Sender and Receiver does not exceed 50 metres. 5. Connect a short Category 5 patch cord between the Sender and Receiver units. Recheck the operation of the system.
<p>Link LED on Sender is on; Host LED on Sender is on. Link LED on Receiver is on; Device LED on Receiver is off. Cause: a) The USB device is not connected to Receiver. b) The USB device is malfunctioning. c) The computer does not recognise the USB device. d) The computer does not support USB hubs. e) The extender is malfunctioning.</p>	<ol style="list-style-type: none"> 1. Check that the USB device is securely connected to the USB port on the Receiver unit. 2. Disconnect the Sender unit from the computer. 3. Connect the USB device directly to the USB port on the computer. 4. If the device does not operate properly, consult the user documentation for the device. 5. If the device operates properly when directly connected to the computer, connect another full speed device (of a different type) to the Receiver unit. Connect the Sender unit to the computer. 6. If the second device does not operate, the extender may be malfunctioning. Contact Gefen technical support for assistance. 7. If the second device does operate properly, the first device may not be compatible with the extender. Contact Gefen technical support for assistance.

TROUBLESHOOTING

Symptom/Cause	Remedies
<p>All LEDs on both Sender and Receiver are on but the device does not operate correctly</p> <p>Cause:</p> <ul style="list-style-type: none">a) The USB device is malfunctioning.b) The computer does not recognise the USB device.c) The extender is malfunctioning.	<ol style="list-style-type: none">1. Disconnect the Sender unit from the computer.2. Connect the USB device directly to the USB port on the computer.3. If the device does not operate properly, consult the user documentation for the device.4. If the device operates properly when directly connected to the computer, connect another full speed device (of a different type) to the Receiver unit. Connect the Sender unit to the computer.5. If the second device does not operate, the extender may be malfunctioning. Contact Gefen technical support for assistance.6. If the second device does operate properly, the first device may not be compatible with the extender. Contact Gefen technical support for assistance.

SPECIFICATIONS

USB device support	Full-Speed 12 Mbs / Low-Speed 1.5 Mbs
USB Input Connectors	Type B
USB Output Connectors	Type A
Link Connector	RJ-45 Shielded
Dimensions	3.8" W x 1.2" H x 2.7" D
Shipping Weight	1 lbs.

WARRANTY

Gefen warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen is notified within two (2) years from the date of shipment, Gefen will, at its option, repair or replace the equipment, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications. Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of reshipment to the Buyer.

This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

1. Proof of sale may be required in order to claim warranty.
2. Customers outside the US are responsible for shipping charges to and from Gefen.
3. Copper cables are limited to a 30 day warranty and cables must be in their original condition.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding the features and specifications is subject to change without notice.

For the latest warranty coverage information, please visit Gefen's Warranty web page at <http://www.gefen.com/kvm/aboutus/warranty.jsp>

PRODUCT REGISTRATION

Please register your product online by visiting Gefen's web site at <http://www.gefen.com/kvm/Registry/Registration.jsp>

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