



Extend USB up to 150 feet

Optional Accessories



CAT-5 Cables

Mini USB-2 extender

Extends any USB device up to 150 feet (45 meters) with built-in 2 port HUB over one CAT-5 cable.

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.

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

Specifications:

- USB device support: full-speed 12 Mb/s Low-speed 1.5 Mb/s
- USB Input Connectors: type B
- USB Output Connectors: type A
- Link Connector: RJ-45 shielded
- Dimensions: 4" W x 2.8" H x .5" D
- Shipping Weight: 2 lbs.

Package Includes:

- Mini USB-2 Extender send unit
- Mini USB-2 Extender receive unit
- 6.6' USB cable (A-B)
- User Manual



EXT-USB-MINI2



**Mini USB
Extender
USER MANUAL**

ASKING FOR ASSISTANCE

Technical Support:

Telephone (818) 772-9100
(800) 545-6900
Fax (818) 772-9120

Technical Support Hours:

8:00 AM to 5:00 PM Monday thru Friday.

Write To:

Gefen Inc.
C/O Customer Service
20600 Nordhoff St.
Chatsworth, CA 91311

support@gefen.com
www.gefen.com

Notice

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

Mini USB Extender is a trademark of Gefen Inc.
ExtremeUSB is a trademark of **Gefen Inc.**
Macintosh is a trademark of Apple Computer Inc.

TABLE OF CONTENTS

1	Introduction
2	Operation Notes
3	USB Series Installation
4	Mini USB Extender Panel Layout
5	Troubleshooting
6	Troubleshooting
7	Link Cable Diagram
8	Warranty

INTRODUCTION

Thank you for purchasing the extend•it Mini USB Extender Series. Incorporating *ExtremeUSB*, the new Mini USB Extender model allows users the benefits of USB technology beyond the desktop, extending your computer keyboard, mouse, trackball, and any USB device up to 150 feet away from the location of your Macintosh or PC.

The Mini USB Extender system consists of two units: the Mini USB Extender Sender resides next to the host computer, and the Mini USB Extender Receiver resides next to the extended USB devices.

The Mini USB Extender signal controls the keyboard, mouse, trackball and all other USB devices by buffering the USB signal through the send and receive line drivers and the signal is extended by using standard Category 5 (CAT-5) cabling.

You can connect additional Mini USB Extenders to the same computer, allowing you to access the computer from multiple locations up to 150 feet apart.

There are two versions of the Mini USB Extender, one is the Mini USB-2 and the other is the Mini USB-1. The Mini USB-2 has a two port USB hub built in. The Mini USB-1 has a single port USB hub built in.

Product Contents

- (1) Mini USB Sender
- (1) Mini USB Receiver
- (1) Manual
- (1) USB cable 6ft (A-B)

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE MINI USB EXTENDER SYSTEM.

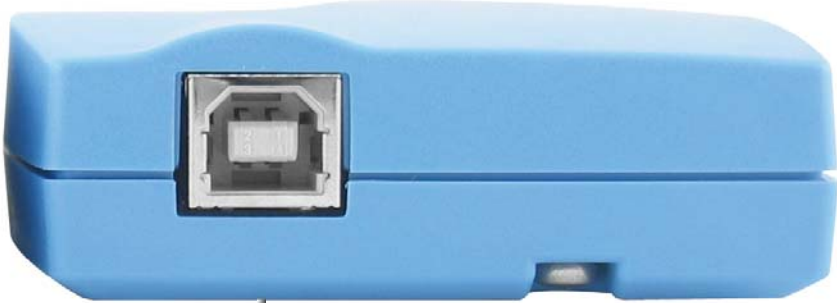
- * The Mini USB Extender sender and receiver were designed to operate on USB type computers. **DO NOT** attempt to use this equipment with any other type of device.
- * Use the computer's USB port when using a local keyboard that is not extended with the Mini USB Extender sender unit.
- * Only dedicated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

MINI USB EXTENDER SERIES INSTALLATION

1. Place the Mini USB Extender receiver unit close to the USB devices at the remote end.
2. Connect the USB devices to the Mini USB Extender receiver unit
3. Place the Mini USB Extender sender unit close to the host computer.
4. Connect the Mini USB Extender sender unit to the Mini USB Extender receiver unit using the desired length of CAT5 cable
6. Connect the Mini USB Extender sender unit to the host computer using the USB cable supplied with the unit .
This connection should be made last.

MINI USB EXTENDER PANELS LAYOUT

MINI USB EXTENDER SENDER



USB In from computer

MINI USB-2 RECEIVER



2 port USB Hub connects to USB devices

MINI USB-1 RECEIVER



1 port USB Hub connects to USB devices



Device LED (green) Link LED (yellow)

TROUBLESHOOTING

Symptoms/Cause	Remedy
<p>All LEDs on 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. Re-check 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.

LINK CABLE - WIRING DIAGRAM

RJ-45 Jack



White/Blue

Blue

White/Green

Brown

White/Brown

Green

White/Orange

Orange

1

2

3

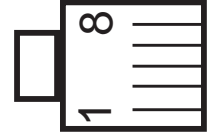
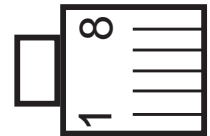
4

5

6

7

8



WARRANTY

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

If equipment fails because of such defects and Gefen Inc. is notified within two (2) year from the date of shipment, Gefen Inc. 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 cable must be free from any scratches, markings, and neatly coiled.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen Inc. assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen Inc., 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 EXT-USB-MINI features and specifications is subject to change without notice.