



USB Extender - Isolator

Model UEF10M



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**Thank you for purchasing the Ulinx Extender/Isolator.
Please read this guide thoroughly before installation.**

This document applies to part numbers: UEF10M, UEF10M-EU and UEF10M-UK.

FCC Radio Frequency Interference Statement Warning

The Ulinx Extender/Isolator has been tested and found compliant with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when installed and operated in a commercial environment. The Ulinx Extender/Isolator generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user guide, may cause harmful interference to radio communications. Operation of the Ulinx Extender/Isolator in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Statement

Conforms with European Standard EN 55022/A1 Class B, and EN 55024.

IC Statement

This Class B digital apparatus complies with Canadian ICES-003.

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Introduction

This will help you install the Ulinx Extender/Isolator. The instructions in this guide assume a general knowledge of computer installation procedures, familiarity with cabling requirements, and some understanding of USB devices.

 **NOTE:** Notes give additional information that could make installation easier.

Product Contents

When you open your product for the first time you should find the following items:

- Ulinx USB Extender/Isolator User Guide
- Local Unit and Remote Unit with integral cable
- AC power adapter

To complete the installation, you will also require the following items that are not included with the product:

- USB compatible computer
- USB device

About the Ulinx Extender/Isolator

The Ulinx Extender/Isolator breaks the five-meter distance barrier for the connection of USB devices and allows users to enjoy the benefits of USB technology beyond the desktop. With the Ulinx Extender/Isolator, USB devices can be located up to 10 meters from the host computer. In addition, the Ulinx Extender/Isolator provides electrical isolation between the host and the device.

The Ulinx Extender/Isolator is composed of two individual units, the Local Unit and the Remote Unit connected by a custom length of fiber cable.

The Local Unit

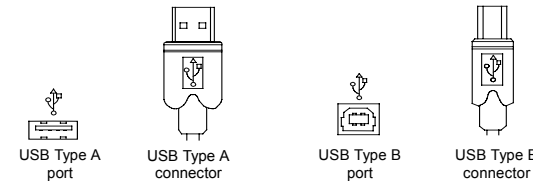
The Local Unit connects to the host computer through a captive USB Type A connector. The Local Unit is powered by the host over USB.

The Remote Unit

The Remote Unit connects to the USB device through a USB Type A receptacle. An external AC adapter provides power to the unit and to any USB device that may be connected. The Remote Unit of the Ulinx Extender/Isolator enables you to connect one full-speed or low-speed USB device.

USB Cables

USB cables have two distinct connectors. The Type A connector is used to connect the cable from a USB device to the Type A port on a computer or hub. The Type B connector is used to attach the USB cable to a USB device.



Compatibility

The Ulinx Extender/Isolator complies with USB 1.1 specifications governing the design of full-speed and low-speed USB devices. However, B&B Electronics does not guarantee that all USB 1.1 devices are compatible with the Ulinx Extender/Isolator.

Before You Begin

Before you can install the Ulinx Extender/Isolator, you need to prepare your site.

1. Determine where the host computer is to be located and set up the computer.
2. Determine where you want to locate the USB device.

Installing the Local Unit

1. Place the Local Unit near the host computer.
2. Plug the Type A connector from the Local Unit into the USB port on the computer.

Installing the Remote Unit

1. Place the Remote Unit near the USB device.
2. Plug the AC adapter into an available AC outlet. Connect the DC power cord to the Remote Unit.

Completing the Installation

1. Switch on the computer and check that the AC adapter is powered on.
2. Depending on the operating system you are using, open the Device Manager dialog box.
3. Expand the entry labeled Universal Serial Bus Controllers.
4. In the expanded entries you should find one for a Generic USB Hub.

Connecting a USB Device

1. Install any software required to operate the USB device. Refer to the documentation for this device, as required.
2. Connect the USB device to the USB port on the Remote Unit.

Troubleshooting

The following table provides troubleshooting help. The topics are arranged in the order in which they should be executed in most situations. If you are unable to resolve the problem after following these instructions, please contact technical support for further assistance (see page 6).

<i>Symptoms/Cause</i>	<i>Remedy</i>
Generic USB Hub does not appear in Device Manager. Cause: Installation is not complete.	<ol style="list-style-type: none">1. Ensure that the Local Unit is connected to a USB port on the computer2. Check that the AC adapter is connected to the Remote Unit and that it is provided with power.3. Disconnect the Local Unit from the computer and then reconnect it.
The USB device does not operate correctly. Cause: a) The USB device is not connected to the Remote Unit. 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 Ulinx Extender/Isolator is malfunctioning.	<ol style="list-style-type: none">1. Check that the USB device is securely connected to the USB port on the Remote Unit.2. Disconnect the Local 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 Remote Unit. Connect the Local Unit to the computer.6. If the second device does not operate, the extender may be malfunctioning. Contact technical support for assistance.7. If the second device does operate properly, the first device may not be compatible with the Ulinx Extender/Isolator. Contact technical support for assistance.

Specifications

Maximum range	10 meters (32 ft)
Cable characteristics	Riser jacket of retardant PVC with 2 strands of multimode fiber of dimension 62.5/125 µm. Tensile strength: 1200 N Minimum bend radius: 6.8 cm Outside diameter: 4.5 mm
USB device support	1 x full-speed (12 Mb/s) or low-speed (1.5 Mb/s) device.
USB hub support	Up to 4 hubs may be connected in series with the Ulinx Extender/Isolator.
Maximum power available to USB at Remote Unit	500 mA
Local Unit connector (upstream)	1 x USB Type A
Remote Unit connector (downstream)	1 x USB Type A
Local Unit dimensions	8.7 x 3 x 1.6 cm (3.5 x 1.2 x .7 in)
Remote Unit dimensions	8.7 x 3 x 1.6 cm (3.5 x 1.2 x .7 in)
Total system shipping weight	0.8 kg (1.8 lb)
Temperature range	0°C to 50°C
Regulatory testing	FCC, CE Class B

Contacting Technical Support

If you require technical assistance, send an e-mail message to:
support@bb-elec.com

To help us serve you better, please include the following information with your technical support request:

- Description of the problem
- Host computer make and model
- Type of operating system installed (e.g. Win98, Mac OS X, etc.)
- Part number and serial number of the Local Unit and Remote Unit
- Make and model of any USB device attached to the extender
- Description of the installation