

## 4 Port USB 2.0 Extender over Gigabit Ethernet or Cat5e, Cat6, or Cat7 Cabling - 100m (330ft)

USB2G4LEXT2NA



\*actual product may vary from photos

DE: Bedienungsanleitung - [de.startech.com](http://de.startech.com)

FR: Guide de l'utilisateur - [fr.startech.com](http://fr.startech.com)

ES: Guía del usuario - [es.startech.com](http://es.startech.com)

IT: Guida per l'uso - [it.startech.com](http://it.startech.com)

NL: Gebruiksaanwijzing - [nl.startech.com](http://nl.startech.com)

PT: Guia do usuário - [pt.startech.com](http://pt.startech.com)

For the most up-to-date information, please visit: [www.startech.com](http://www.startech.com)

## FCC Compliance Statement

This equipment has been tested and found to comply 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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## EU Declaration of Conformity

We, StarTech.com, declare under our sole responsibility that the USB2G4LEXT2NA to which this declaration relates, is in conformity with European EMC Directive 2014/30/EU.

A copy of the Declaration of Conformity is available on request.

## WEEE Statement

The European Union has established regulations for the collection and recycling of all waste electrical and electronic equipment (WEEE). Implementation of WEEE regulations may vary slightly by individual EU member states. Please check with your local and state government guidelines for safe disposal and recycling or contact your national WEEE recycling agency for more information.

## Address

StarTech.com

45 Artisans Crescent

London, ON N5V 5E9 Canada

Toll Free: 1 800 265 1844

## Industry Canada Statement

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

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

## Use of Trademarks, Registered Trademarks, and other Protected Names and Symbols

This manual may make reference to trademarks, registered trademarks, and other protected names and/or symbols of third-party companies not related in any way to StarTech.com. Where they occur these references are for illustrative purposes only and do not represent an endorsement of a product or service by StarTech.com, or an endorsement of the product(s) to which this manual applies by the third-party company in question. Regardless of any direct acknowledgement elsewhere in the body of this document, StarTech.com hereby acknowledges that all trademarks, registered trademarks, service marks, and other protected names and/or symbols contained in this manual and related documents are the property of their respective holders.

# Table of Contents

<b>Introduction</b> .....	<b>1</b>
Package contents .....	1
System requirements .....	1
<b>Product overview</b> .....	<b>2</b>
The Local unit .....	2
The Remote unit .....	3
<b>Installation</b> .....	<b>4</b>
Network connect .....	4
Direct Connect .....	7
Verify installation .....	10
<b>Pairing and Unpairing</b> .....	<b>11</b>
Pair the Local and Remote units .....	11
Unpairing units .....	11
<b>Compatibility</b> .....	<b>11</b>
<b>Troubleshooting</b> .....	<b>12</b>
<b>Technical Support</b> .....	<b>15</b>
<b>Warranty Information</b> .....	<b>15</b>

# Introduction

## Package contents

- 1 x USB 2.0 extender local unit
- 1 x USB 2.0 extender remote unit
- 1 x USB cable
- 1 x mounting kit
- 1 x power adapter
- 1 x quick-start guide

## System requirements

- Windows® 8 (32/64 bit), 7 (32/64 bit), Vista (32/64 bit), XP (32/64 bit), 2000, Windows® Server 2012, 2008 R2, 2003 (32/64 bit), Windows CE 6.0, Mac OS 10.x (tested up to 10.9), Linux®
- USB-enabled computer system with an available USB port
- Available AC power outlet
- Cat5e, Cat6, or Cat7 Ethernet cable(s)
- Preconfigured Local Area Network (for network connect setup)

# Product overview

## The Local unit

The Local unit connects to the computer using a standard USB 2.0 cable. Power for this unit is provided by the host computer.

Front view



Rear view



Item	Type	Description
1	Power LED (blue)	LED is on when power is being supplied, and is off when no power is being supplied by the host computer.
2	Link LED (green)	Indicates that a valid USB link is established between the Local and Remote units. The LED is on when a link between the Local and Remote units is established, and is off when there is no link. If the LED blinks quickly, it indicates that the unit is in Pairing mode, and if the LED blinks slowly it indicates that the unit is attempting to establish a link.
3	Host LED (green)	Indicates that the extender is properly connected to the host computer. The LED blinks when the extender is in a suspended state.
4	Activity LED (amber)	Indicates that data transmission is occurring between the Local and Remote units. The LED blinks intermittently with or without a USB device connected. When the Local and Remote unit are in Suspend mode, the LED is off.
5	Config	Used to troubleshoot issues and update the firmware.
6	Mode	Used to enter modes, including Boot loader mode and Pairing mode.
7	USB host port	Used to connect the Local unit to the host computer.
8	Link Port (RJ45)	Accepts a RJ45 connector for Cat5e, Cat6, or Cat7 cabling to connect the Local unit to the Remote unit.

# The Remote unit

The Remote unit features USB Type A ports that are compatible with standard USB devices, and enables you to connect up to four USB devices directly. You can connect additional devices by attaching USB hubs to the Remote unit. The Remote unit is powered by an external AC adapter and can supply up to 600ma to each USB port.

Front view



Rear view



Item	Type	Description
1	USB device ports	Accepts USB device(s) with Type A connectors.
2	Power LED (blue)	LED is on when power is supplied, and is off when no power is supplied.
3	Link LED (green)	Indicates that a valid USB link is established between the Local and Remote units. The LED is on when a link between the Local and Remote units is established, and is off when there is no link. If the LED blinks quickly, it indicates that the unit is in Pairing mode, and slow blinking indicates the unit is attempting to establish a link.
4	Host LED (green)	Indicates that the extender is properly connected to the host computer. The LED blinks when the extender is in a suspended state.
5	Activity LED (amber)	Indicates that data is being transmitted between the Local and Remote units. The LED blinks intermittently with or without a USB device connected. When the Local and Remote unit are in Suspend mode, the LED is off.
6	Power port	Connects to the AC power supply. Required at the Remote unit for proper operation.
7	Config	Used to troubleshoot issues and update the firmware.
8	Mode	Used to enter modes, including Boot loader mode and Pairing mode.
9	Link Port (RJ45)	Accepts a RJ45 connector for Cat5e, Cat6, or Cat7 cabling to connect the Local unit to the Remote unit.

# Installation

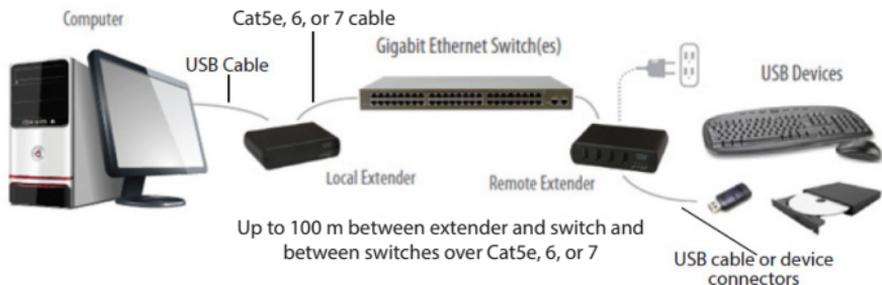
## Network connect

### Install the USB2G4LEXT2NA on a Local Area Network

#### Requirements

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

- USB compatible computer (host computer) with a USB compliant operating system
- USB compatible device(s)
- Two Cat5e, Cat6, or Cat7 Ethernet cables
- Pre-configured Local Area Network



#### Prepare your network

You need to configure your network properly to achieve USB 2.0 throughput and for maximum stability and reliability of your devices. For more information about configuring your network, consult your network administrator. To use the USB2G4LEXT2NA over a network, you require the following:

- The Local unit and Remote unit need to be on the same subnet
- A pre-installed and configured Local Area Network

**Note:** Some networks may be configured to block devices with unfamiliar MAC addresses. If this occurs, you need to provide your network administrator the MAC addresses of the Local and Remote units. The addresses can be found on the label on the bottom of each unit.

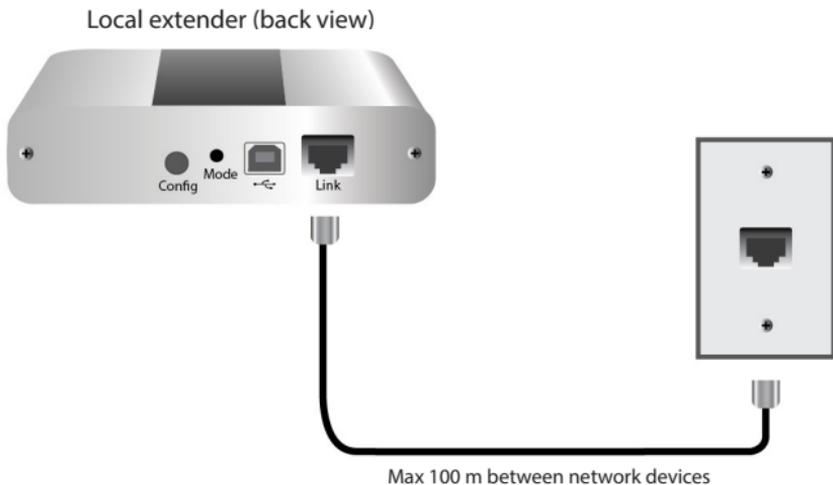
## Prepare your site

1. Set up the computer where you want it.
2. Make sure that the USB device(s) are located within 100 m (330 ft) of the switch.
3. Make sure that the computer is located within 100 m (330 ft) of the switch.

**Note:** The cable distance between switches should not be more than 100 m (330 ft).

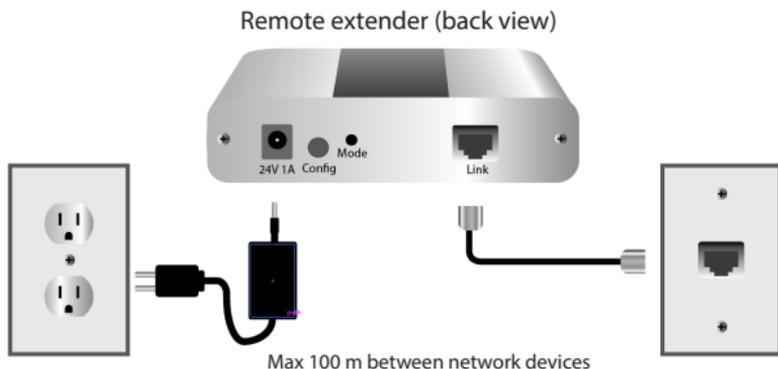
## Install the Local unit

1. Place the Local unit near the computer.
2. Connect the provided USB cable to the Host port on the Local unit and a USB port on the host computer.
3. Connect a Cat5e, Cat6, or Cat7 cable to the Link port on the Local unit and to a network switch or wall network port connected to a switch.



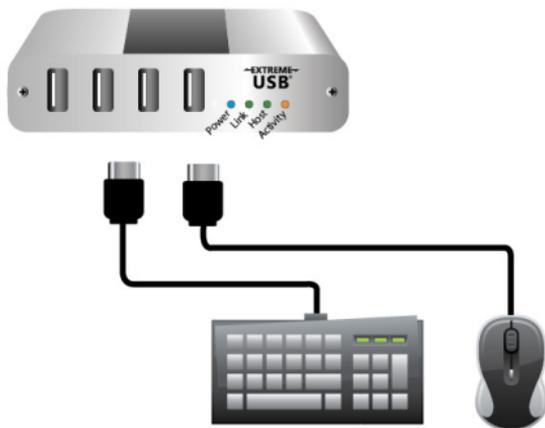
## Install the Remote unit

1. Connect a Cat5e, Cat6, or Cat7 to the Link port on the Remote unit and a network switch or wall network port connected to a switch.
2. Position the Remote unit near the USB device(s).
3. Connect the provided power adapter to an available AC power outlet and to the Power port on the Remote unit.



4. Attach USB device(s) to the Remote unit.

Remote extender (front view)

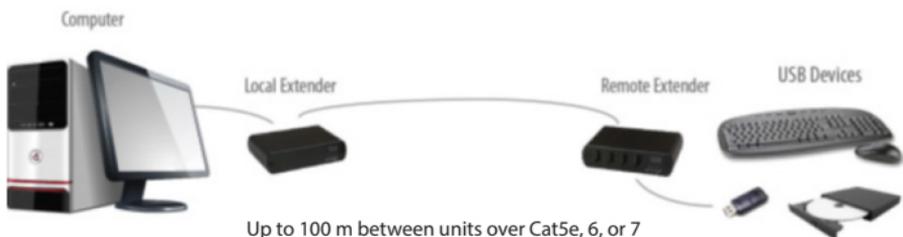


# Direct Connect

## Requirements

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

- A USB compatible computer (host computer) with a USB compliant operating system
- USB compatible devices
- One or two Cat5e, Cat6, or Cat7 cables

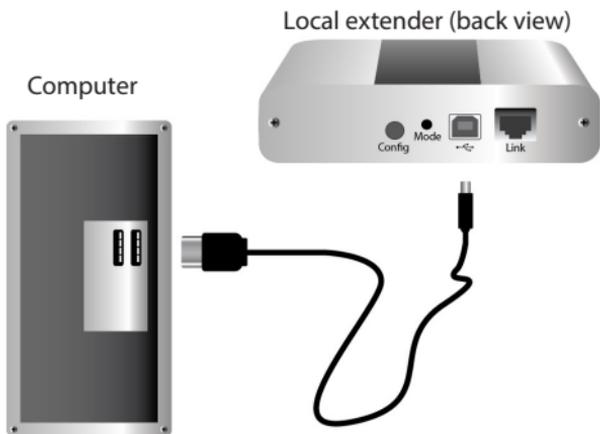


## Prepare your site

1. Set up the computer where you want it.
2. Position the USB device(s) within 100 m (300 ft) of the computer.

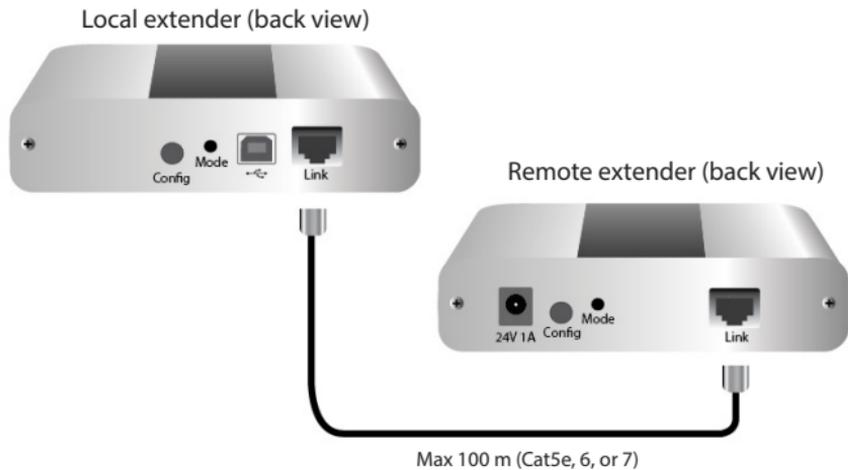
## Install the Local unit

1. Place the Local unit near the computer.
2. Connect the provided USB cable to the Host port on the Local unit and a USB port on the host computer.



### Use surface cabling to connect the Local unit to the Remote unit

1. Connect the Cat5e, Cat6, or Cat7 cable to the Link port on the Local unit.
2. Connect the Cat5e, Cat6, or Cat7 cable to the Link port on the Remote unit.



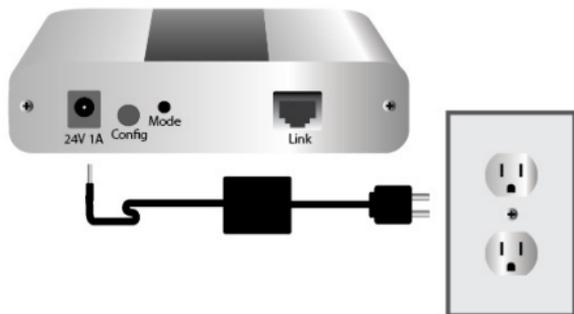
## Use wall network ports to connect the Local unit to the Remote unit

1. Connect a Cat5e, Cat6, or Cat7 cable to the Link port on the Local unit and to a RJ45 wall outlet near the host computer.
2. Connect a Cat5e, Cat6, or Cat7 cable to the Link port on the Remote unit and to a RJ45 wall outlet near the USB devices.

## Install the Remote unit

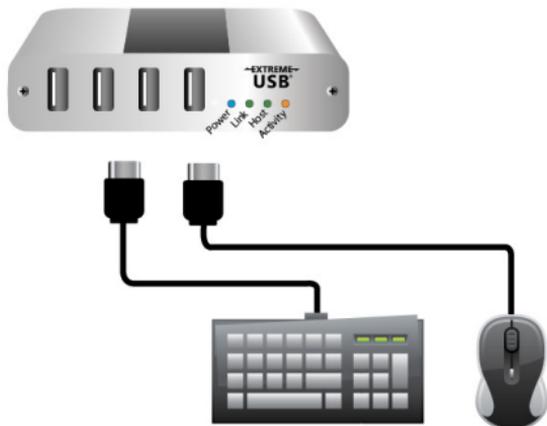
1. Position the Remote unit near the USB device(s).
2. Connect the provided power adapter to the Power port on the Remote unit and to an available AC power outlet.

Remote extender (back view)



3. Attach your USB device(s) to the Remote unit.

Remote extender (front view)



## Verify installation

On the Local and Remote units, check that the Power, Status, Link, and Host LEDs are illuminated.

For direct connect, if the Host or Link LEDs are permanently off, then the cabling between the Local and Remote units may not be installed properly or may be defective.

For network connect, if the Link LED is blinking, then the network connection between the Local and Remote unit is not complete and there may be faulty cabling, network components, network components configured incorrectly, or the Local and Remote unit may need to be re-paired (see the section on pairing a Local and Remote unit).

### Windows

1. Right-click **Computer** and select **Manage** to open the Device Manager.
2. In the **Computer Management** window, in the left panel, select **Device Manager**. (In Windows 8, open the **Control Panel** and select **Device Manager**).
3. Click the **plus sign** to expand the entry for Universal Serial Bus controllers.

If the USB2G4LEXT2NA is installed correctly, it will be listed as a **Generic USB Hub**.

### Mac OS

1. Open the **Finder** and select **Applications**.
2. Open the **Utilities** folder and double-click the **System Profiler** icon.
3. Under **Hardware**, select **USB**.

If the USB2G4LEXT2NA is installed correctly, it will be listed as a **Hub** under the **USB High-Speed Bus/USB Bus**.

# Pairing and Unpairing

## Pair the Local and Remote units

The Local and Remote units come paired out-of-the-box, so you don't need to pair the units initially.

If you want to change the Local and Remote unit pairings across a network, complete the following steps:

1. Make sure that the Local and Remote units are directly connected to each other or are connected to the same subnet on your network.
2. Press and hold the **Mode button** on the back of the Local unit for 10 seconds. The Link LED will start blinking.
3. Within 10 minutes of activating the pairing mode on the Local unit, press and hold the **Mode button** on the back of the Remote unit for 10 seconds. The Link LED will start blinking.

**Note:** If more than 10 minutes pass before the units are paired, then the units will switch back to regular mode and re-establish the previous links they had. To cancel pairing mode, press and hold the **Mode button** again for 10 seconds.

The Link LED on both units may start blinking slowly. When the Link LEDs are on and no longer blinking, the link between both units has been established.

## Unpairing units

To unpair units, press and hold the **Mode button** on one of the units for more than 10 seconds.

## Compatibility

The USB2G4LEXT2NA complies with USB 1.1 and USB 2.0 specifications but not all USB devices or hosts are compatible with the USB2G4LEXT2NA, as there are a number of different characteristics that may impact the operation of USB devices over extended distances.

# Troubleshooting

The following table provides troubleshooting tips. The topics are arranged in the order in which they should be completed in most situations.

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
All LEDs on the Local unit are off.	<ul style="list-style-type: none"><li>• The Local unit is not receiving power from the USB port.</li></ul>	<ol style="list-style-type: none"><li>1. Ensure that the host computer is connected to the Local unit.</li><li>2. Move the USB connector to another USB port on the host computer.</li></ol>
All LEDs on the Remote unit are off.	<ul style="list-style-type: none"><li>• The Remote unit is not receiving power from the AC adapter.</li></ul>	<ol style="list-style-type: none"><li>1. Ensure that the AC power adapter is properly connected to the Remote unit.</li><li>2. Make sure that the AC adapter is connected to a live source of electrical power. Check that the Remote power LED is illuminated.</li></ol>
Link LEDs on the Local and the Remote units are off.	<ul style="list-style-type: none"><li>• There is no connection between the Local and Remote units.</li></ul>	<ol style="list-style-type: none"><li>1. Make sure that a Cat5e, Cat6, or Cat7 cable is connected between the Local and Remote units. Make sure that the Cat cable you are using features UTP with a straight through connector and no crossovers, and 8 conductor RJ45 connectors at both ends.</li><li>2. Connect a short Cat5e, Cat6, or Cat7 patch cord between the Local and Remote units to determine if the original Cat cable is defective.</li></ol>

---

Link LEDs are blinking.

- There is no connection between the Local and Remote units.
- Units may not be paired to each other.
- Network switches exist on different subnets.
- Network switches are blocking traffic from the units.

1. Make sure that both the Local and Remote units are directly connected to each other or are connected to active network switches.
  2. Re-pair the units together.
  3. Make sure that the network switches can communicate with each other and are on the same subnet.
  4. Ensure the network switches are not blocking traffic from the units based either on a MAC address or due to traffic patterns.
  5. Consult with your network administrator.
- 

Link LED on the Local and the Remote units are blinking slowly.

- The units are paired with each other but have not established a link yet.

1. Wait for a few minutes for the LEDs to stop blinking.
  2. If LEDs do not stop blinking, contact your network administrator to determine if any traffic is being blocked between the units.
- 

Link LED on the Local unit is on and Host LED on the Local unit is off.

- The host computer is not powered on.
- The Local unit is not connected to the computer.
- The host computer is not recognizing the Local unit.
- The computer does not support USB hubs.
- The RG2304GE-LAN is malfunctioning.

1. Disconnect all USB devices from the Remote unit.
  2. Disconnect the Local unit from the computer.
  3. Disconnect the Remote unit from the AC power adapter.
  4. Reconnect the Local unit to the computer.
  5. Reconnect the Remote unit to the AC power adapter.
  6. In the Universal Serial Bus controllers section of Device Manager, check that the RG2304GE-LAN is recognized as a "Generic USB Hub."
-

---

My USB device does not work properly.

- Insufficient bandwidth is available on the network to support the device.

1. Connect the Local and Remote units directly to each other and try the USB device again.
- 

My USB device does not work at all.

- Insufficient bandwidth is available on the network to support the device.
- The Local unit is paired to the wrong Remote unit.

1. Connect the Local and Remote unit directly to each other and try the USB device again.
  2. Follow the instructions to pair the Local unit to the Remote unit that is connected to the device you want to use.
-

# Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit [www.startech.com/support](http://www.startech.com/support) and access our comprehensive selection of online tools, documentation, and downloads.

For the latest drivers/software, please visit [www.startech.com/downloads](http://www.startech.com/downloads)

## Use of Trademarks, Registered Trademarks, and other Protected Names and Symbols

This manual may make reference to trademarks, registered trademarks, and other protected names and/or symbols of third-party companies not related in any way to StarTech.com. Where they occur these references are for illustrative purposes only and do not represent an endorsement of a product or service by StarTech.com, or an endorsement of the product(s) to which this manual applies by the third-party company in question. Regardless of any direct acknowledgement elsewhere in the body of this document, StarTech.com hereby acknowledges that all trademarks, registered trademarks, service marks, and other protected names and/or symbols contained in this manual and related documents are the property of their respective holders.

## Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

### Limitation of Liability

In no event shall the liability of StarTech.com Ltd. and StarTech.com USA LLP (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product. Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

### Product Operation and Storage

Please read and follow all instructions provided with this product, and operate for intended use only. Do not attempt to open the product casing as this may cause damage and will void the warranty. Use only the power supply provided with this product. When not in use, product should be stored in a dry location between -20°C and 70°C.

Hard-to-find made easy. At StarTech.com, that isn't a slogan. It's a promise.

StarTech.com is your one-stop source for every connectivity part you need. From the latest technology to legacy products — and all the parts that bridge the old and new — we can help you find the parts that connect your solutions.

We make it easy to locate the parts, and we quickly deliver them wherever they need to go. Just talk to one of our tech advisors or visit our website. You'll be connected to the products you need in no time.

Visit [www.startech.com](http://www.startech.com) for complete information on all StarTech.com products and to access exclusive resources and time-saving tools.

*StarTech.com is an ISO 9001 Registered manufacturer of connectivity and technology parts. StarTech.com was founded in 1985 and has operations in the United States, Canada, the United Kingdom and Taiwan servicing a worldwide market.*