



16 Port USB 3.0 Metal Hub w/Surge Protection – Rack/DIN-RAIL Mountable

Product Manual



Coolgear, Inc.

Version 1.1

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Model Number: USB3-16U1

Revision History

Revision	Date	Author	Comments
1.0	9/17/2014	Coolgear	Original format
1.1	10/6/2017	Coolgear	New Manual Format

About this document

This product manual outlines installation and features of the USB3-16U1, 16 Port USB 3.0 Metal Hub w/Surge Protection – Rack/DIN-RAIL Mountable.

Scope

The scope of this manual is to give the user of the product an understanding of its use with detailed diagrams and verbiage. The manual allows the users to apply the product to their application.

Intended Audience

This product is intended for use in numerous industries including but not limited to applications such as; Automotive, Machine Equipment, Kiosk, Office, Charge & Sync and others.

Product Support

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1. Introduction

The USB3-16U1 USB 3.0 16 Port USB 3.0 DIN-Rail mounted hub provides an ideal solution for expanding your application by 16 USB 3.0 ports. Also supports Sync and Charging Simultaneously.

WEIGHT	2.5 lbs
DIMENSIONS	12.15”(L) x5.12”(W) x1.74”(H) (30.85 x 13.02 x 4.42 cm)
UPC	729440692094
WARRANTY	1 year from date of purchase
COLOR	Black
DOWNSTREAM PORTS	16 USB 3.0 Type-A Ports
UPSTREAM PORTS	2 USB 3.0 Type-B Port

1.1 Features

<ul style="list-style-type: none"> • Compliant with USB Specification Revision 3.0 • Rigid and Wall-mountable Metal Case • Provides 2 Selectable Upstream and 16 Downstream USB 3.0 Facing Ports • Supports 5Gbps (Super-Speed), 480Mbps (High-Speed), 12Mbps (Full-Speed), and 1.5Mbps (Low-Speed) speed 	<ul style="list-style-type: none"> • Supports 350-Watt Surge Protection for each Port • Multi Transaction Translators (TT) per Hub • Supports USB Battery Charging: CDP and DCP modes • Supports USB Screw-Lock Cable Mechanism • Supports DIN RAIL Mounting Kit
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1.2 Connector Layout

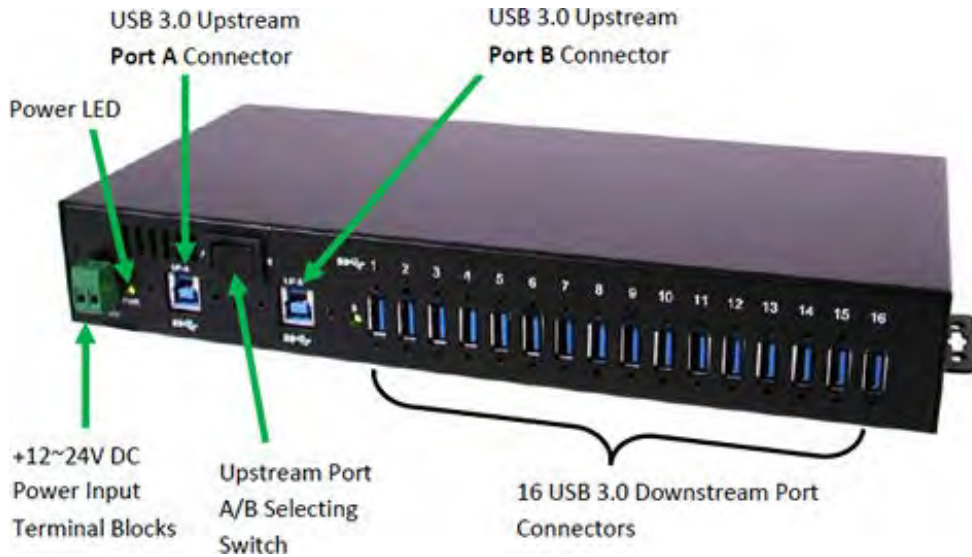


Figure 1

USB 3.0 Upstream Ports	USB 3.0 Downstream Ports	Self Power Input
<p>There are 2 Type-B upstream connectors that selectable by the rocker switch. Either port A or port B (but not simultaneously) is used to control the downstream ports. Both connectors can be connected to a host or another USB 3.0 hub. They support both normal and screw-lock type USB cables.</p>	<p>There are 16 Type-A connectors for USB 3.0, USB 2.0 or USB 1.1 devices. They support both normal and screw-lock type USB cables.</p>	<p>This 2-pin (one pin for positive voltage and the other pin is GND) terminal block connector is used to connect strong power to self-power the hub; the voltage can be in the range from +12V to 24V DC.</p>



Figure 2

1.3 Hardware Installation

1. **Use static electricity discharge precautions.** Remove possible static discharge potential from any objects that the hub may come in contact with before installation. This can be accomplished by touching a bare metal chassis rail after you have turned off the power.
2. **Apply DC power (range from +12V to 24V) to the 2-pin Terminal Block Connector.** The hub is self-powered by this connector.
3. **Connecting USB Host cables:** The host cable could be either a standard A-to-B USB3.0 cable or an optional A-to-B USB 3.0 screw-lock cable. Please connect the type-A end connector of the cable to your PC's host USB 3.0 port, then insert the type-B end connector to this hub. Since the USB hub is plug-and-play, you don't have to turn off your host computer when installing the hub. This hub provides 2 upstream type-B connectors, if you only need one, connect either of them and leave the other unconnected. However, please note the rocker switch should be set at correct position in this case.
4. **Connect the USB Devices to the downstream ports of this hub.**
5. **Mount your hub on the wall or DIN RAIL if required.**

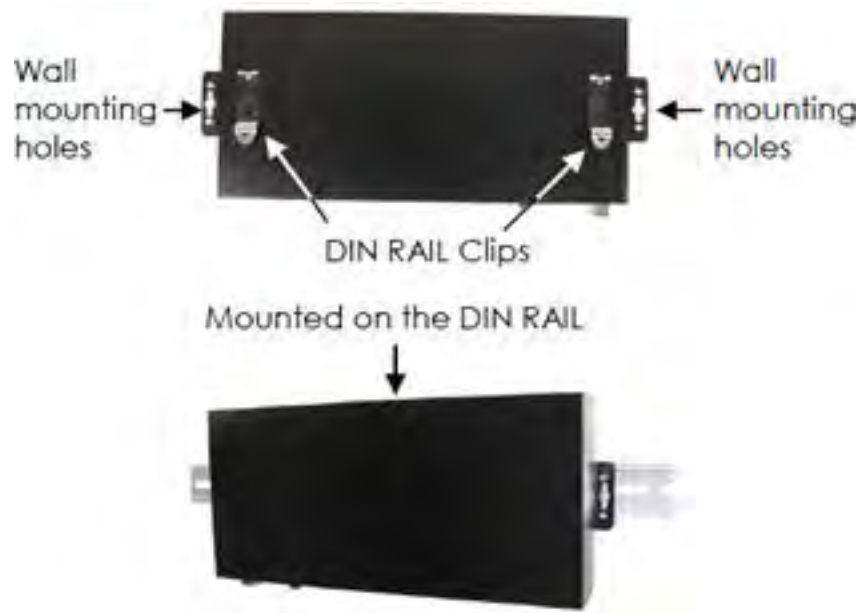


Figure 3

1.4 Checking the Hub Installation

To check the USB hub installation in Windows device manager, please follow the following steps:

1. Click **Start**
2. Click **Control Panel**
3. Click **System**
4. Click **Device Manager** button
5. Double Click **Universal Serial Bus Controller**
6. Double click **Generic USB Hub**, the message will show that this device is working properly

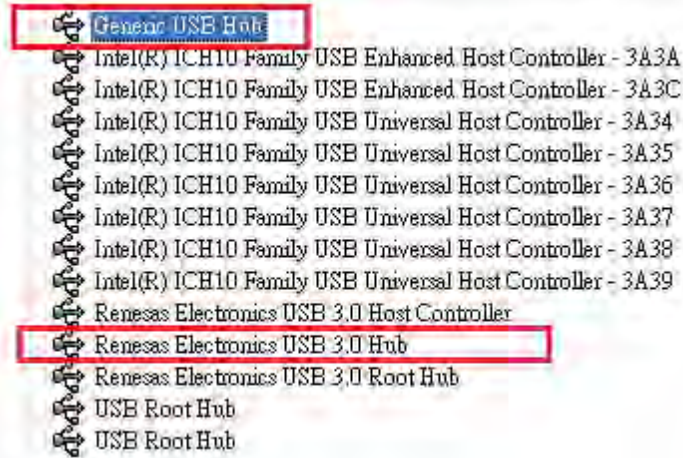


Figure 4

1.5 Environmental Specifications

Specification	Data
Operating Temperature:	0-55°C (32 to 131°F)
Operating Humidity:	5 to 95% RH

2. Notes, Tips, Warnings, and Safety

Note This USB 3.0 16-Port Hub is a Self-Power Hub Only

Tip N/A

Please make sure the polarity of the input power should be correctly matched with the terminal block pins to function properly.

Warning

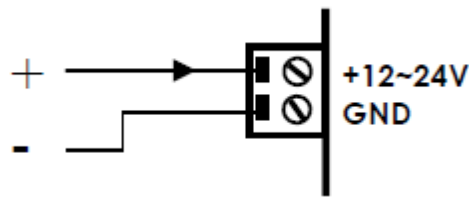


Figure 5

Safety

- Read the entire Product Manual before implementing this product for your application. This manual contains important information about electrical connections that must be followed for safe and proper operation.
- Inspect the product closely for visual defects before putting it to use.
- Keep away from areas where moisture builds, this product contains electrical components that can be damaged by moisture build up, this can adversely affect your equipment connected to it.
- Do not disassemble the product. Handling the product's internal components can expose it to ESD (Electro-Static Discharge) hazards that can affect the function of the device.
- If this product is not functioning properly, email our support team at support@coolgear.com.

3. Supporting References

Document	Link
Website Product Page	https://www.coolgear.com/product/16-port-usb-3-0-metal-hub-surge-protection-din-rail-mounting-kit

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