



# 16 Port Managed USB 3.2 Gen 1 Hub

w/15KV ESD Surge Protection

Model Number: *CG-16PU3MGD*

## Installation Guide

Coolgear, Inc.

Version: 1.0

Date: 05/06/2024



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## Revision History

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Revision	Date	Comments
1.0	05/06/2024	First Release

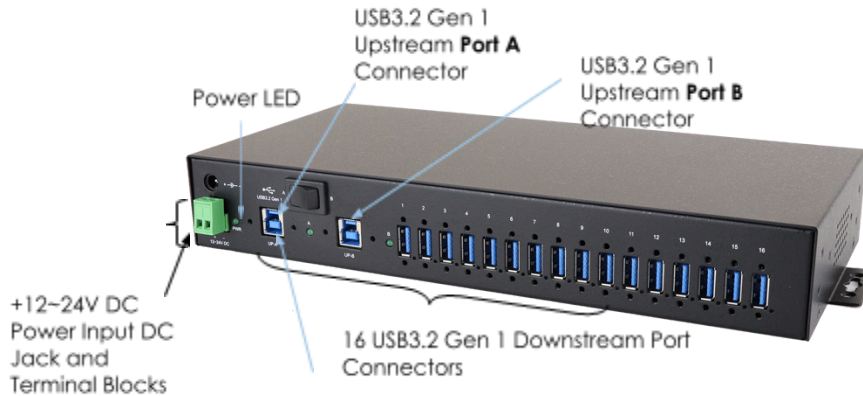
## 1. Introduction

Thank you for purchasing Coolgear's 16 Port Managed USB 3.2 Gen 1 Hub. Thank you for purchasing this Super-speed 16-port USB3.2 Gen 1 hub. It provides an ideal solution to expand 16 USB3.2 Gen 1 ports from 2 selectable USB3.2 Gen 1 host ports. It provides a wide range self power source (+12~24VDC from the 2-pin Terminal Blocks or DC Jack) to supply enough power on USB3.2 Gen 1 buses.

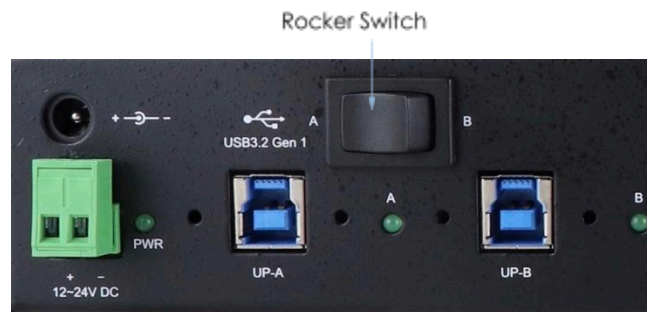
### Features:

- ✓ Compliant with USB Specification Revision 3.2 Gen 1
- ✓ Rigid and Wall-mountable Metal Case
- ✓ 2 Selectable Upstream and 16 Downstream USB3.2 Gen 1 Ports (Port 16 doesn't support USB2.0 Devices, only for USB3.x Devices)
- ✓ Supports 5Gbps (Super-speed), 480Mbps (High-speed), 12Mbps (Full-speed) and 1.5Mbps (Low-speed) Speed
- ✓ Supports 15KV ESD Surge Protection for Each Port
- ✓ Multi Transaction Translators (TT), Dedicated TT per Port
- ✓ Support USB Battery Charging: BC 1.2 CDP and DCP modes
- ✓ Supports USB Screw-Lock Cable Mechanism
- ✓ Supports DIN RAIL and 19-inch Rack Mounting Kit

## 2. Connector Layout



- USB3.2 Gen 1 Upstream Port Connectors:** There are 2 Type-B upstream connectors that are 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 USB3.2 Gen 1 hub. They support both normal and screw-lock type USB cables.



- USB3.2 Gen 1 Downstream Port Connectors:** There are 16 Type-A connectors for USB3.2 Gen 1, USB2.0 or USB1.1 devices. They support both normal and screw-lock type USB cables.

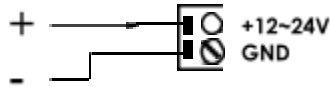
### ⚠️ NOTE:

**Port 16 (the last port) does NOT support USB2.0 devices because it was used internally by the control circuits. However, the USB3.x devices are still supported anyway.**

- Self-Power Input Connectors:** There are 2 connectors to receive the external input power, a 5.5 x 2.1mm (0.22 x 0.08 inch) DC Jack Plug and a 2-pin Terminal Blocks, the input voltage can be in the range from +12V to 24V DC. **Please note that don't connect power on both connectors simultaneously.**

**WARNING!!**

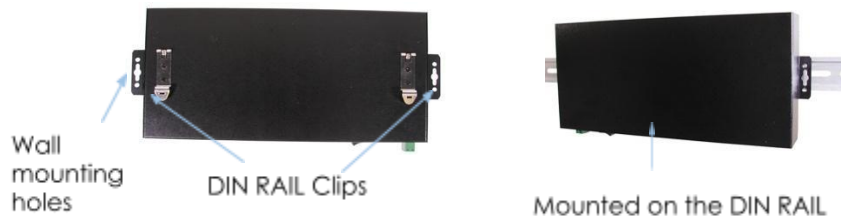
Please make sure the polarity of the input power should be correctly matched with the terminal block pins to function properly.



### 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 or the DC Jack.** The hub was self-powered by either of the 2 connectors.**3. Connecting USB Host cables:** 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 the correct position in this case.**4. Connect the USB devices to the downstream ports of this hub.****5. Mount your hub on the wall, DIN RAIL or 19-inch Rack if required.****DIN RAIL Mount:****19-inch Rack Mount:**

Front Mount

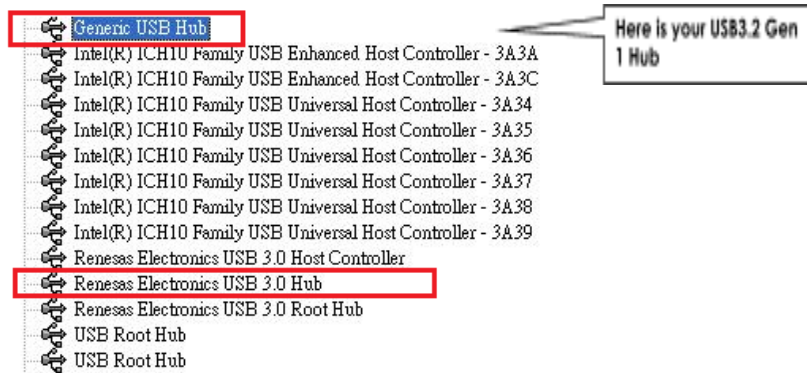


Rear Mount

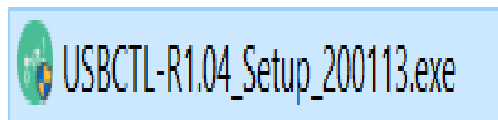
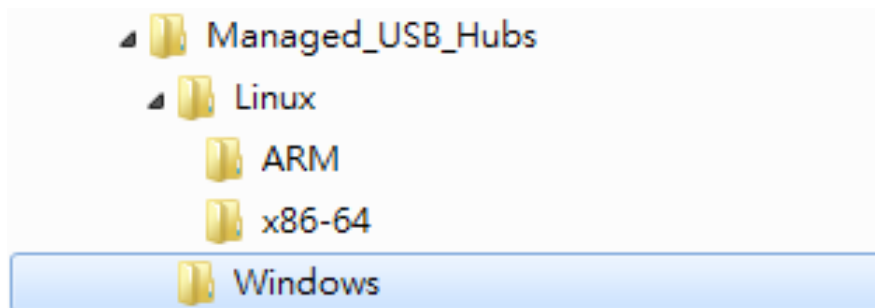
## 4. Checking the USB3.2 Gen 1 Hub Installation

To check the USB3.2 Gen 1 hub installation in Windows Device Manager, please follow the following steps:

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



The Hub supports managing utilities called **USB Hub Administrator** for major recent Windows (XP and above), Mac OS and Linux:

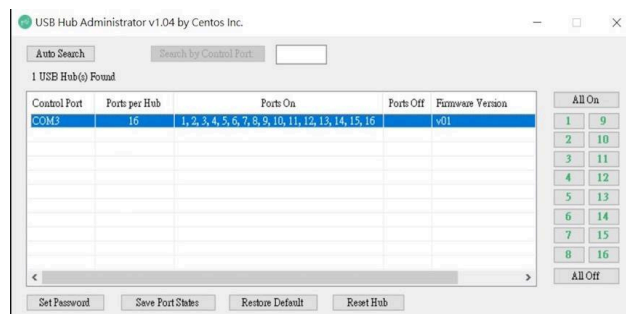


1. The above folders include the software for different platforms. If you are installing it on Windows, please find the executable setup program in Windows folder, double-click it:

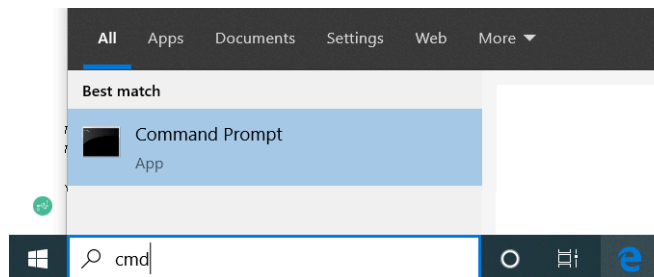


2. Please follow the on-screen instructions of the setup program to complete the installation. After installed, it will launch the utility automatically:

- Click **Auto Search** to find all Managed USB Hubs
- Click the item on the list to select the Hub to control
- Click on the numeric (indicate the Port number) button to turn On/Off the USB port
- You can save the current port states by clicking the **Save Port States** button



3. To use the console utility CUSBC to control the USB devices, please run Command Prompt as follows:



To see all CUSBC commands, type:

**CUSBC /?**

```
CUSBC v1.03
Usage: CUSBC command [password] [argument]
command:
  /Q      query (no password is required)
Usage:  CUSBC /Q [option]
```

To query all Hubs connected:

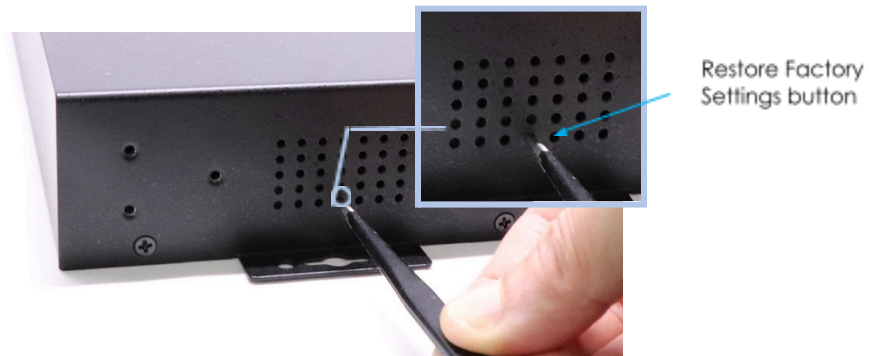
**CUSBC /Q**

```
C:\>CUSBC /Q
1 USB Managed Hub(s) Found.
COM3, 16 ports, On=1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16, Off=None, FW=v01
```

## 6. Restore to Factory Settings

To perform a factory reset:

1. Verify that your hub's Power LED is off.
2. On the side of your hub, locate the hole of the Restore Factory Settings button:



3. Use a paper clip or similar object to press and hold the Restore Factory Settings button, while still holding the button power on the hub.
4. Release the Restore Factory Settings button.
5. Your hub resets to its factory default settings:
  - All ports are On
  - The password: **pass**

## 5. Environmental Specifications

**Operating temp.:** 0 to 55°C (32 to 131°F)

**Operating humidity:** 5 to 95% RH

**Dimensions (LxWxH):** 12.15”(L)x5.12”(W)x1.74”(H)  
(30.85x13.02x4.42 cm)

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### Safety

- Read the entire Installation Guide before implementing this product for your application. This guide 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](mailto:support@coolgear.com).

## USB CHARGING & CONNECTIVITY EXPERTS

### Within Every Great Machine

For over 20 years our rugged, off-the-shelf USB hubs, chargers, and serial products are ready to go for your next project. Based in the US, Coolgear has successfully engineered and deployed millions of connectivity solutions into industrial, medical, automotive, commercial, and aerospace industries.

We understand the importance of reliability, build quality, & consider all our customers' applications as critical, wanting to ensure long-lasting event-free integrations.



**Compliance Statement**

View compliance within the product's respective Technical Data Sheet, found on the product's online listing.

**Technical Support**

When you reach out to Coolgear support, you'll find yourself in the hands of a solution-oriented and knowledgeable expert ready to answer whatever question you throw at them. If you ever need help with your product, visit [coolgear.com/support](https://coolgear.com/support) for support tickets, downloads, and other support resources. For the latest drivers, please visit [coolgear.com/download](https://coolgear.com/download).

**Product Standard Warranty**

One (1) Year Warranty from Date of Purchase Invoice. Coolgear will repair or replace any Product determined to be defective and which has been returned, at your risk and expense, to Coolgear. Where Coolgear determines in its sole judgment that repair or replacement of such Product is not reasonable, Coolgear will keep the non-conforming Product and refund to you the amount you paid for such Product. Returned Products shall be subject to the balance of the Warranty Period otherwise applicable. Any reconditioned parts used by Coolgear shall be subject to all the same provisions as otherwise applicable to new parts. THE FOREGOING DESCRIBES COOLGEAR'S SOLE LIABILITY, AND YOUR SOLE REMEDY, FOR ANY BREACH OF WARRANTY. IF YOU DO NOT AGREE WITH THE TERMS OF THIS LIMITED WARRANTY, YOU MUST RETURN THE PRODUCTS UNUSED AND IN THEIR ORIGINAL CONTAINERS TO YOUR ORIGIN OF PURCHASE.

**Limitation of Liability**

This Limited Warranty does not cover: (i) defects or damages resulting from natural causes, casualty, accident, misuse or abuse, neglect, alterations, service or repair by other than Coolgear, including without limitation by you; (ii) improper installation or de-installation, operation or maintenance, improper connections with peripherals or other causes not arising out of defects in the materials or workmanship of Products; (iii) any Product for which the warranty sticker has been removed, modified or defaced; (iv) normal wear and tear; (v) damage to or loss of repaired or replaced Products during shipping by Coolgear except when such damage or loss is caused by poor or inadequate packaging by Coolgear; or (vi) Products purchased outside the United States. UNDER NO CIRCUMSTANCES WILL COOLGEAR BE LIABLE FOR ANY LOSS OF USE, INTERRUPTION OF BUSINESS OR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING LOST PROFITS) REGARDLESS OF THE FORM OF ACTION WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT PRODUCT LIABILITY OR OTHERWISE, EVEN IF COOLGEAR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL THE TOTAL LIABILITY OF COOLGEAR HEREUNDER EXCEED THE GREATER OF \$50.00 OR THE AMOUNT YOU ACTUALLY PAID FOR THE PRODUCT GIVING RISE TO SUCH LIABILITY, REGARDLESS OF THE CAUSE OF ACTION, IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE. NOT ALL JURISDICTIONS ALLOW SUCH LIMITATIONS OF DAMAGES SO THE FOREGOING LIMITATIONS MAY NOT APPLY TO YOU.

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