



4-Port Managed USB3.2 Gen 1 Metal Hub w/15KV ESD Surge Protection and Rack/DIN-RAIL Mounting Kit

Model Number: *CG-4Pu3MGDv2*

Installation Guide

Coolgear, Inc.

Version: 1.0

Date: 04/03/2024



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Revision History

Revision	Date	Comments
1.0	04/03/2024	First Release

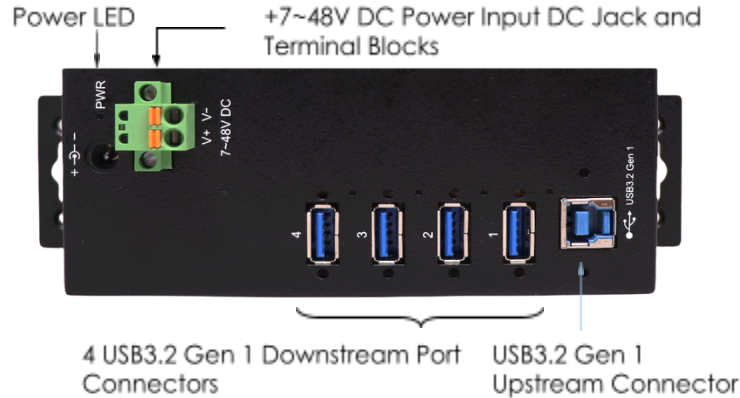
1. Introduction

Thank you for purchasing Coolgear's 4-Port Managed USB3.2 Gen 1 Metal Hub. The Super-speed Hub is supplied with managing software utilities which can turn on/off the bus power of each downstream device or even reset the entire hub by user or application programs. It enables the success of your critical USB applications instantly and improve your investment returns.

Features:

- ✓ Compliant with USB Specification 3.2 Gen 1
- ✓ DIN Rail and Wall-mountable Metal Case
- ✓ Software Manageable Bus power for each Port
- ✓ Supports software utility for Windows, Linux and Mac OS
- ✓ Provides 4 Downstream USB3.2 Gen 1 Facing Ports
- ✓ All 4 Ports support up to 5V/3A simultaneously
- ✓ Provides 4 LEDs Indicating each bus power states
- ✓ Supports USB Screw-Lock Cables
- ✓ Supports 5Gbps (Super-speed), 480Mbps (High speed), 12Mbps (Full-speed) and 1.5Mbps (Low-speed) Speed
- ✓ Supports 15KV ESD Level 4 Protection for Each Port
- ✓ Supports +7~48V DC Wide Range Input Power
- ✓ Supports USB Battery Charging v1.2: CDP, DCP modes
- ✓ Multiple Transaction Translator (TT) architecture

2. Connector layout



- **USB3.2 Gen 1 Upstream Downstream Facing Port Connectors:** There are 4 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 4 (The last USB port) does NOT support USB2.0/1.1 devices because it **was used internally by the control circuits**. However, it still supports USB3.2 Gen 1 devices.

- **USB3.2 Gen 1 Upstream Facing Port Connector:** Type-B connector from upstream USB3.2 Gen 1 port. It is connected from the host or another USB3.2 Gen 1 hub. Supports both normal and screw-lock type USB cables.
- **Power LED:** Turns on indicates the hub was powered.
- **Downstream Activity LED Indicators (Green):** Each downstream port has a LED indicator next to it.

LED States	Description
Off	USB device is disabled (disconnected)
Steady On	USB device is enabled (connected)

- **Self-Power Input Connector:** This 2-pin (one pin is for the positive voltage and the other pin is negative) screw-lock terminal block connector and DC Jack are used to connect wide range power source to self-power the hub, the voltage can be in the range from +7V to 48V 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.



V+ V-
7~48V DC

3. Hardware Installation

1. Use static electricity discharge precautions.

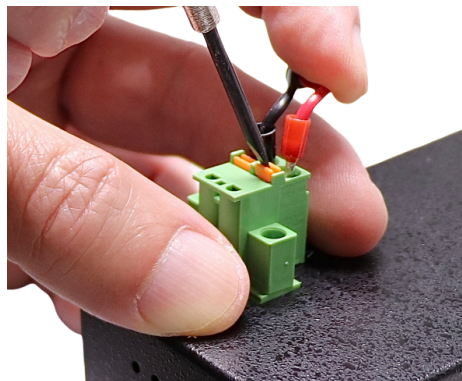
Remove possible static discharge potential from any objects that the hub may come in contact with before installation. This can be accomplished by touching a bare metal chassis rail after you have turned off the power.

Apply DC power (range from +7V to 48V) to the 2-pin Screw-Lock Terminal Block Connector or DC Jack. The hub was self-powered by one of both connectors.



WARNING!! Please make sure the polarity of the input power should correctly match with the marking next to the terminal block pins.

- The terminal blocks' Push-In mechanism allows you to push the wire directly into the contact hole and latched by its internal latch spring automatically.
- To remove the wire, you need a tool (such as a small flathead screwdriver) to release the internal latch spring, then remove the wire as shown in the following picture. If the wire is too soft to be inserted into the contact hole, you need to release the latch string with the above tool, insert the wire then release the latch spring to latch the wire.

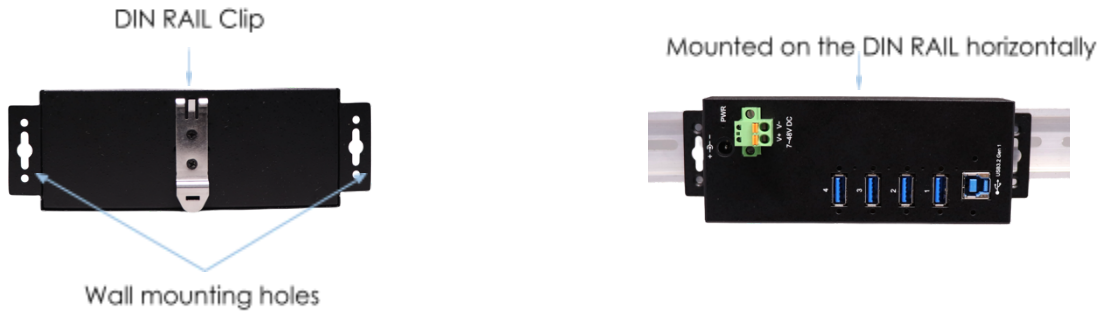


3. Connecting USB Host cable: The host cable can be either a standard B-to-A or B-to-C USB3.2 Gen 1 cable (depends on the host port's connector type). Please connect the type-A (or Type C) end connector of the cable to your upstream host USB port, then connect the type-B end connector to this hub. Since the USB hub is plug-and-play, you don't have to turn off your host computer when installing the hub.

4. Connect the USB devices to the downstream ports of this hub.

5. Mount your hub on the wall or DIN RAIL (with optional mounting kit) if required.

DIN RAIL Mount (horizontal):



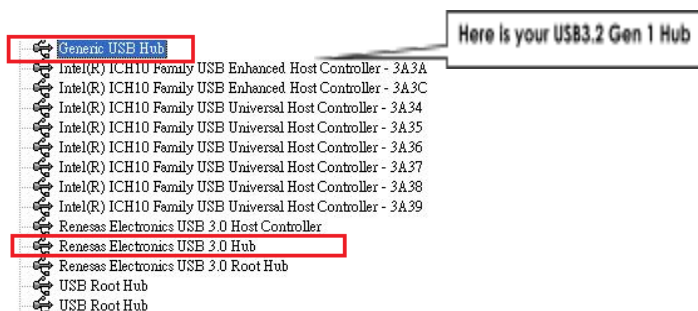
DIN RAIL Mount (vertical):



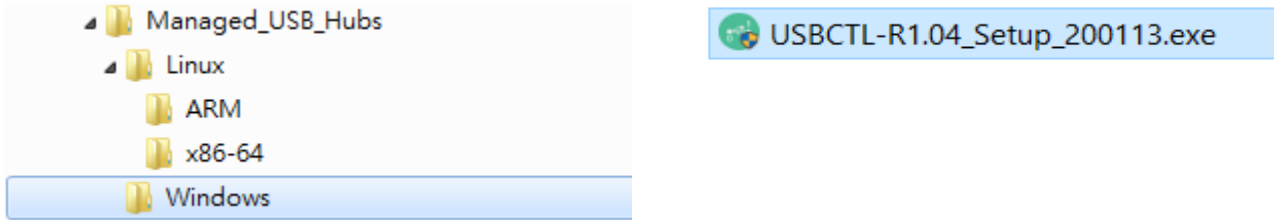
4. USB Hub Administrator Utilities Installation

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) and Linux:

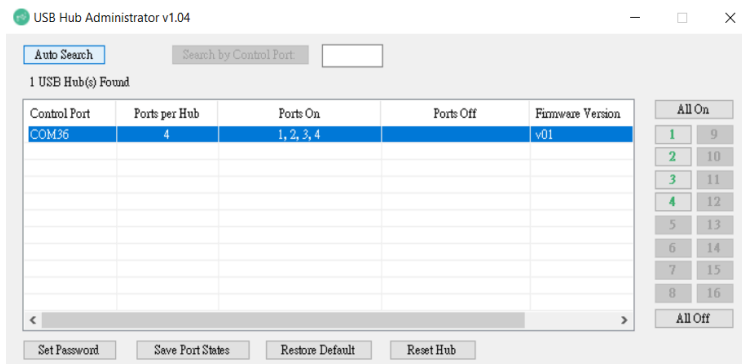


1. The above folders include the software for different platforms. If you are installing it on Windows, please find the executable setup program in Windows folder, double-click it:

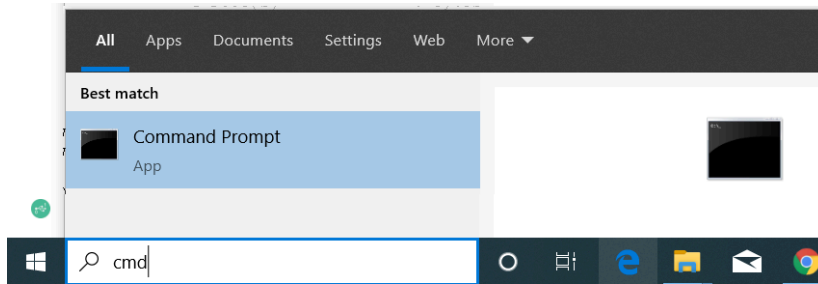


2. Please follow the on-screen instructions of the setup program to complete the installation. After installed, it will launch the utility automatically:

- 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.
COM36, 4 ports, On=1,2,3,4, Off=None, FW=v01
```

5. 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**

6. Environmental Specifications

Operating temp.: 0 to 60°C (32 to 140°F)

Operating humidity: 5 to 95% RH (non-condensing)

Dimensions (LxWxH): 6.41(L) x 2.16(W) x 1.22(H) in
(163.0 x 55.0 x 31.2mm)

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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.

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 for support tickets, downloads, and other support resources. For the latest drivers, please visit 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.

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