



# 4-Port USB3.1 Gen 2 Type-C Hub

w/ Mounting Kit

Model Number: *CG-4P31CHUB*

## Installation Guide

Coolgear, Inc.

Version: 1.0

Date: 04/02/2024



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## Revision History

Revision	Date	Comments
1.0	04/02/2024	First Release

## 1. Introduction

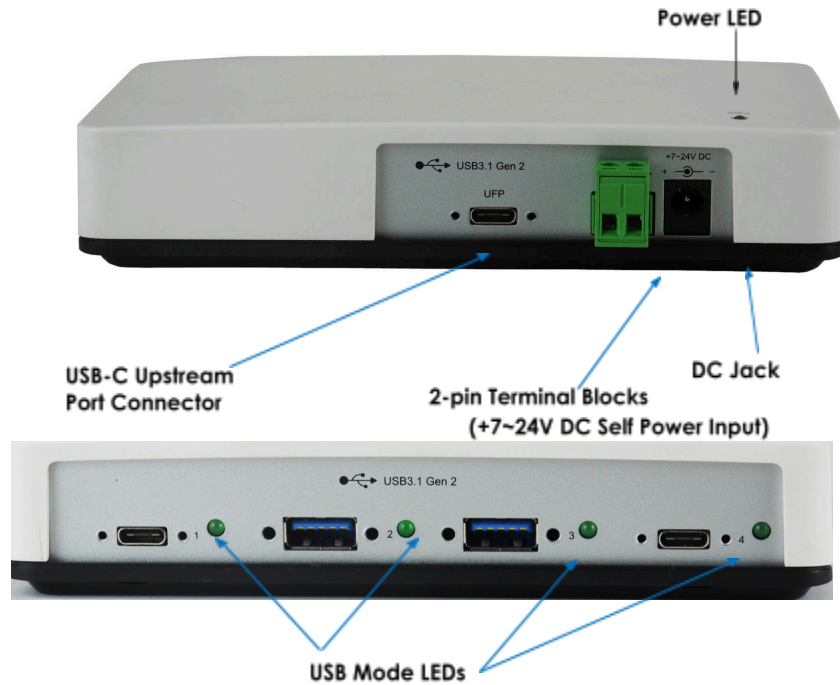
Thank you for purchasing Coolgear's 4-Port USB3.1 Gen 2 Type-C Hub. It provides an ideal solution to expand 4 USB3.1 ports (2 USB-C and 2 USB-A connectors) from one single USB3.1 host port. It provides a self power input (+7~24V DC from 2-pin Terminal Blocks) to provide enough power on USB3.1 downstream facing ports.

### Features:

- ✓ Compliant with USB3.1 Gen 2 Specifications
- ✓ Rigid Wall and DIN RAIL Mountable Case
- ✓ Provides 4 (2 USB-C and 2 USB-A) Downstream USB3.1 Facing Ports
- ✓ Supports USB Type-A and Type-C Screw-Lock Cables
- ✓ Supports 10Gbps (Super-speed+), 5Gbps (Super-speed), 480Mbps (High-speed), 12Mbps Full-speed) and 1.5Mbps (Low-speed) Data Rates
- ✓ Multi Transaction Translators (TT) per Hub
- ✓ Support USB Battery Charging: SDP, CDP and DCP modes
- ✓

## 2. Connector Layout





- **Power LED:** Turns on indicates the hub was powered by either the Bus-Power or the Self-Power.
- **USB Mode LEDs:** There are 4 green LEDs next to each downstream port to indicate which mode they are working in. There are 4 states, off, slow blinking, quick blinking and steady on. The following table lists which modes they stand for:

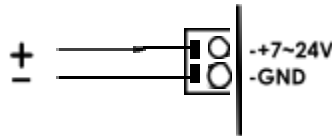
LED States	Mode Description
Off	No USB device detected
Slow Blinking	USB2.0 mode
Quick Blinking	USB3.1 Gen 1 mode
Steady On	USB3.1 Gen 2 mode

- **USB-C Upstream Facing Port Connector:** The Type-C connector from upstream USB3.1 port. It is connected from the host or another USB3.1 hub’s downstream facing port.
- **USB-C Downstream Facing Port Connectors:** The 2 small 24-pin USB-C connectors are fully reversible-plug connectors for USB3.1 Gen 2 devices.
- **USB-A Downstream Facing Port Connectors:** There are 2 USB-A connectors for standard USB3.1 Gen 2, Gen 1 and Legacy USB2.0/1.1 devices.
- **DC Jack Self Power Input Connector:** This connector is to connect to an external power supply. To self-power the hub, the voltage can be in the range from +7V to

- 24V DC. Only connect the power supply to either the DC Jack or the 2-pin terminal blocks, but not both simultaneously.
- **Self Power Input Connector:** This 2-pin (one pin for positive voltage and the other pin is GND for negative voltage) terminal blocks is used to connect a wide range power source to self-power the hub, the voltage can be in the range from +7V to 24V DC.

**Warning!!**

Please make sure the polarity of the input power should be correctly match the terminal block pins



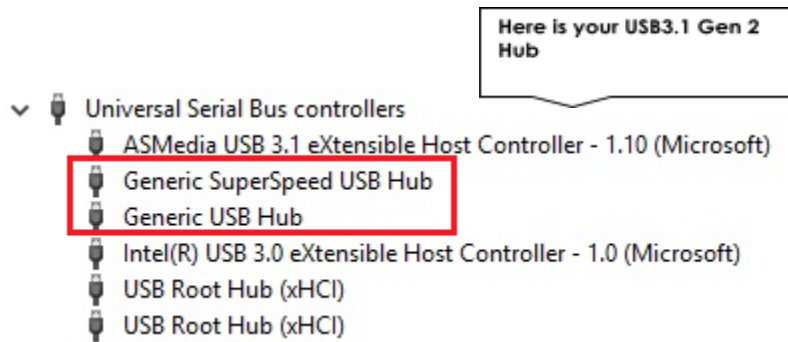
### 3. Hardware Installation

1. **Use static electricity discharge precautions.**  
Remove possible static discharge potential from any objects that the hub may come in contact with before installation.
2. **Apply DC power (range from +7V to 24V) to DC Jack or the 2-pin Terminal Block Connector.** The hub was bus-powered by the upstream USB port (USB-C connector), the DC Jack and terminal block connector is to add power to ensure enough power for the 4 downstream ports. Connect the power to either the DC Jack or the Terminal blocks, but not to both connectors simultaneously.
3. **Connecting USB Host cable:** The host cable can be a standard C-to-C or C-to-A USB3.1 Gen 2 cable (depends on the host port's connector type). Please connect the type-C (or Type-A) end connector of the cable to your USB host port, then connect the type-C 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.** The hub supports Type-A and Type-C standard and screw lock cables.
5. **Mount your hub on the wall or DIN RAIL if required.**

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

To check the USB3.1 Gen 2 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.



## 5. Environmental Specifications

<b>Operating temp.:</b>	0 to 70°C (32 to 158°F)
<b>Operating humidity:</b>	5 to 95% RH
<b>Dimensions (LxWxH):</b>	5.95"(L)x2.44"(W)x1.33"(H) (151.1 x 62.0 x 34.0 mm)

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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](http://coolgear.com/support) for support tickets, downloads, and other support resources. For the latest drivers, please visit [coolgear.com/download](http://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

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