coolgear

10 Port USB 2.0 Hub

w/ ESD Surge Protection Screw Locking Ports

Model Number: *CG-10U2AML*

Installation Guide

Coolgear, Inc.

Version: 1.0

Date: 05/07/2024

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Revision History

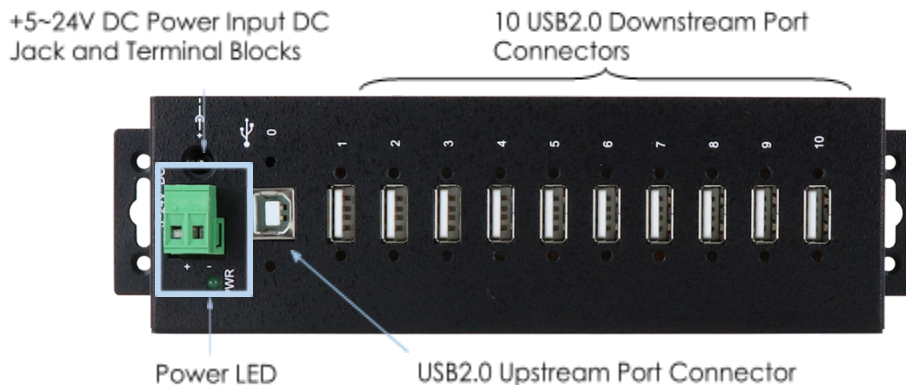| Revision	Date	Comments
1.0	05/07/2024	First Release

1. Introduction

Thank you for purchasing Coolgear's 10 Port USB 2.0 Hub. Thank you for purchasing this high-speed 10-port USB2.0 hub. It provides an ideal solution to expand 10 USB2.0 ports from one single USB2.0 host port. It provides a wide range self power source (+5~24VDC from the 2-pin Terminal Blocks or DC Jack) to supply enough power on USB2.0 buses.

Features:
✔ Compliant with USB Specification 2.0
✔ Metal Case, DIN Rail and wall mountable
✔ Provides 10 Downstream USB2.0 Facing Ports
✔ Supports USB Screw-Lock Mechanism for Both Type-B and Type-A Cables
✔ Supports 480Mbps (High speed), 12Mbps (Full-speed) and 1.5Mbps (Low-speed) Speed
✔ Supports 15KV ESD Level 4 Protection for Each Port
✔ Supports +5~24V DC Wide Range Input Power
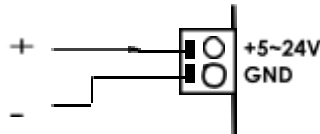✔ Power Inputs: DC-Jack or Terminal Blocks

2. Connector Layout

- **USB2.0 Upstream Port Connector:** Type-B connector from upstream USB2.0 port. It is connected from the host or another USB2.0 hub. Supports both normal and screw-lock type USB cables.

- **USB2.0 Downstream Port Connectors:** There are 10 Type-A connectors for USB2.0 or USB1.1 devices. They support both normal and screw-lock type USB cables.

- **Self Power Input Connectors:** This 2-pin (one pin plus voltage and the other pin is GND) terminal block connector and DC Jack are used to connect external power to self-power the hub, the voltage can be in the range from +5V to 24V DC.

☞ **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 +5V to 24V) to the 2-pin Terminal Block Connector or DC Jack.** The hub was bus-powered by the upstream USB port, and was self-powered by either of the 2 connectors to add power to ensure enough power for the 10 downstream ports.

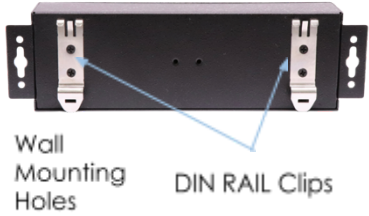3. **Connecting USB Host cable:** The host cable is either a standard A-to-B USB2.0 cable or a screw-lock type A-to-B cable. Please connect the type-A end connector of the cable to your upstream USB port, then connect the type-B end connector to this hub. Since the USB hub is plug-and-play, you don't have to turn off your host computer when installing the hub.

   ☞**Note:** In some cases, you will see an error message saying the USB bus power exceeds the current limit, please ignore this message since the hub is a hot plug and its power capacitor will cause a very short period of current. It will NOT affect your USB function.

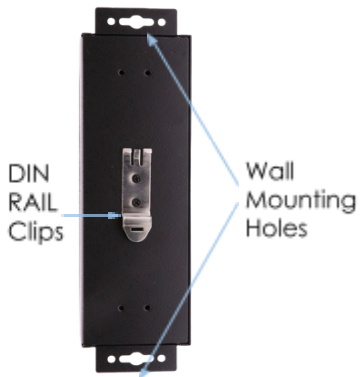4. **Connect the USB devices to the downstream ports of this hub.**

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

DIN RAIL Mount (horizontal):

Wall Mounting Holes   DIN RAIL Clips

Mounted on the DIN RAIL horizontally

DIN RAIL Mount (vertical):
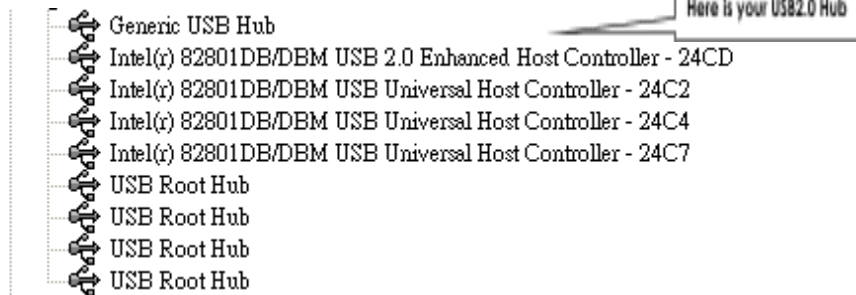

DIN RAIL Clips   Wall Mounting Holes

Mounted on the DIN RAIL vertically

4. Checking the Hub Installation

To check the USB2.0 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.

Here Is your USB2.0 Hub

Generic USB Hub
Intel(r) 82801DB/DBM USB 2.0 Enhanced Host Controller - 24CD
Intel(r) 82801DB/DBM USB Universal Host Controller - 24C2
Intel(r) 82801DB/DBM USB Universal Host Controller - 24C4
Intel(r) 82801DB/DBM USB Universal Host Controller - 24C7
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub

5. Environmental Specifications

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

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

Dimensions (LxWxH):   7.78"(L)x2.18"(W)x1.22"(H) (19.77x5.55x3.1cm)

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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.

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.