



USB Type-C 7 Port Hub with 3 Type-C & 5 Type-A Ports w/DIN Rail – Surge Protection

Product Manual



Coolgear, Inc.

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Revision History

Revision	Date	Author	Comments
1.0	3/20/2017	Coolgear	Original format
1.1	10/9/2017	Coolgear	New Manual Format

About this document

This product manual outlines installation and features of the CG-7PU313C USB Type-C 7 Port Hub with 3 Type-C & 5 Type-A Ports w/DIN Rail – Surge Protection.

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, and others.

Product Support

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Table of Contents

1. Introduction	4
1.1 Features	4
1.2 Connector Layout.....	5
1.3 Hardware Installation	5
1.4 Checking the Hub Installation.....	6
1.5 Environmental Specifications	6
2. Notes, Tips, Warnings, and Safety	7
3. Supporting References	8

Table of Figures

Figure 1 – Connector Layout.....	5
Figure 2 – Device Manager.....	6
Figure 3 – 2-Pin Power Connector Diagram.....	8

1. Introduction

USB 3.1 USB-C hub incorporates 5 USB Type-A and 2 USB-C reversible ports downstream and 1 USB-C Upstream port. This is a great hub choice for applications that need USB 3.1 5Gbps data speeds and multiple mounting options. It is backward compatible with USB 2.0/1.1 compliant host using its RISC-like USB controller.

WEIGHT	.7 lbs
DIMENSIONS	5.23”(L) x 2.42”(W) x 1.43”(H) (13.30 x 6.15 x 3.63 cm)
UPC	045079158771
WARRANTY	1 year from date of purchase
COLOR	Black
DOWNSTREAM PORTS	7 USB 3.1 (2 Type-C and 5 Type-A)
UPSTREAM PORTS	1 USB 3.1 Type-C Port

1.1 Features

<ul style="list-style-type: none"> • Compliant with USB 3.1 Gen 1 Specifications • Provides 1 USB3.1 Gen 1 Upstream Port with USB-C connector • Provides 7 USB3.1 Gen 1 Downstream Facing Ports (with 2 USB-C and 5 USB-A Connectors) which manage up to 5Gbps • Full-Featured USB-C Port Enables Reversible Plug Orientation and Cable Direction • Supports 5Gbps, 480Mbps, 12Mbps and 1.5Mbps Speed 	<ul style="list-style-type: none"> • Includes a Mounting bracket for flat surface mounting i.e. under desk, on walls or tech bench • Supports Multi Transaction Translators per Hub • Supports Wide Range Input (+7~48V DC) Self-power Mode from the Terminal Blocks (power adapter sold separately) • Supports 15KV ESD Surge Protection for Each Port. • Supports a 2-pin Terminal Block Connector for external power input from AC adapter
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1.2 Connector Layout



Figure 1

USB C Upstream Port	USB C Downstream Port	Self Power Input
Type-C connector from upstream USB 3.1 port. It is connected from host or another USB 3.1 hub's downstream facing ports.	The two small 24-pin USB-C connectors are fully reversible-plug connectors for USB devices and USB cabling.	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 +7V to 24VDC.

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 +7V to 48V) to the 2-pin Terminal Block Connector.** The hub is bus powered by the upstream USB port (USB-C connector), This terminal block connector is to add power to ensure enough power for the 7 downstream ports..
3. **Connecting USB Host cables:** The host cable could be either a standard A-to-B USB 3.0 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.

4. **Connect the USB Devices to the downstream ports of this hub.**
5. **Mount your hub on the wall or DIN RAIL if required.** Mounting options are pictured in figure 2 above.

1.4 Checking the Hub Installation

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

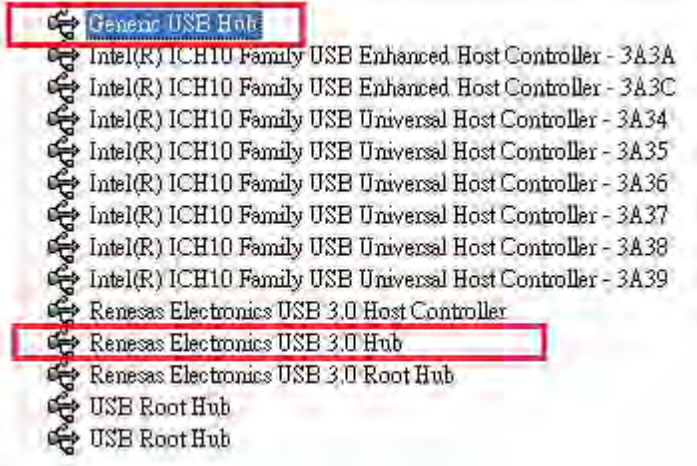
<ol style="list-style-type: none"> 1. Click Start 2. Click Control Panel 3. Click System 4. Click Device Manager button 5. Double Click Universal Serial Bus Controller 6. Double click Generic USB Hub, the message will show that this device is working properly 	
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Figure 2

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

In some cases, during hardware installation, you will see an error message said that the USB Hub caused the USB bus power over the current limit, please ignore this message since the hub is hot plug and its power capacitor will cause a very short period of current. It will NOT affect your USB function. Reference Section 1.2 Hardware Installation.

Tip

N/A

Warning

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

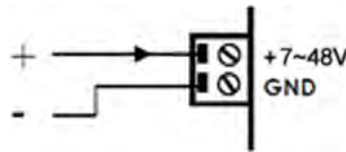


Figure 4

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/usb-c-7-port-hub-3x-type-c-5x-type-a-din-rail-surge-protection

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