



# 12 Port USB 2.0 Type-C Charging Hub

w/ 3 Amps per Port

Model Number: *USB-12XU1CH*

## Product Manual

Coolgear, Inc.

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Date: 2023-12-18



## Table of Contents

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1. Introduction	2
2. Connector Layout	3
3. How to Mount	4
4. Power Connection	5
5. Charging & Syncing	6
6. Daisy Chain	8
7. Additional Info	10

## Revision History

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Revision	Date	Comments
1.0	2023-12-18	First Release

### 1. Introduction

Thank you for purchasing this 12 Port USB 2.0 Type C Charging Hub with 3 Amps Per Port. It provides an ideal solution for quick charging and syncing up to 12 USB Type C devices. Charge Chromebooks, laptops, tablets, and cell phones. This is a perfect tool to effectively save energy and keep your items from overheating. Ideal for medium to large in-house Charge and Sync stations. Ideal places to be used such as business offices, classrooms, conference rooms, lobbies, etc.

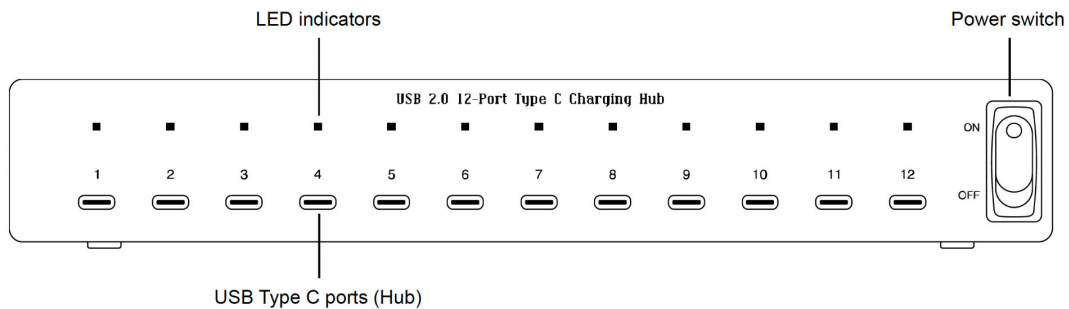
#### Features:

- ✓ Supports Downstream Facing Port (DFP).
- ✓ Compliant with USB Spec. 2.0 / USB Type C Spec 1.2 & USB Battery Charging Spec 1.2
- ✓ Enables to provide up to 5V 3A output current on each port; Supports iOS, Android devices.
- ✓ Extends up to optimum 48 USB Type C devices by connecting cascade port with another 3 units.
- ✓ Enables Sync/Charge mode switching upon manually connecting or disconnecting host port.
- ✓ Enables Green Energy function automatically shutdown the hub when all devices are fully charged at Charge mode.
- ✓ Supports Over-Current Protection & Short Circuit Protection on each port.
- ✓ For the Over Temperature Protection, if the unit's high temperature is over the setting, it would cut off all the output current

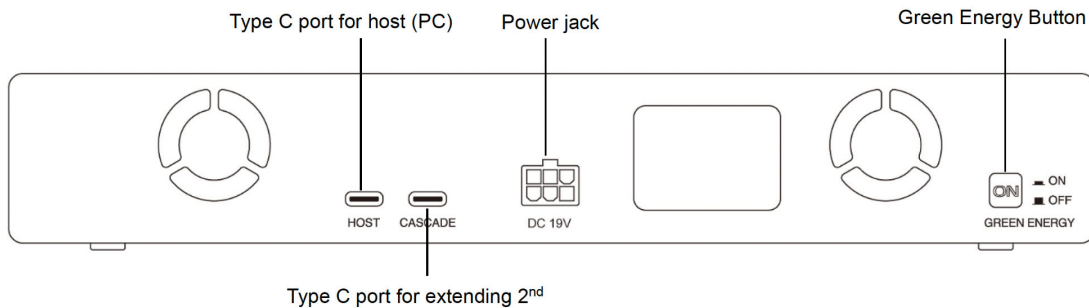
- ✓ immediately. At the meantime, the whole 12 ports LED would be green blinking.
- ✓ Supports  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact) ESD protection on each port.
- ✓ Supports 40A (5/50ns) & Peak Pulse Power 45W (8/20 us) Surge and Transient spikes protection on each port.
- ✓ The rear fans spec: SUNON Vapo DC Fan; Life Expectancy: 60,000 hours
- ✓ Enables to start/cut off the fans automatically according to the temperature's setup. If the board's temperature is higher
- ✓ than the setting, it would start the fans automatically. On the contrary, if the board's temperature is lower from the setting, it
- ✓ would turn off the fans automatically as well.

## 2. Connector Layout

Front View:



Rear View:



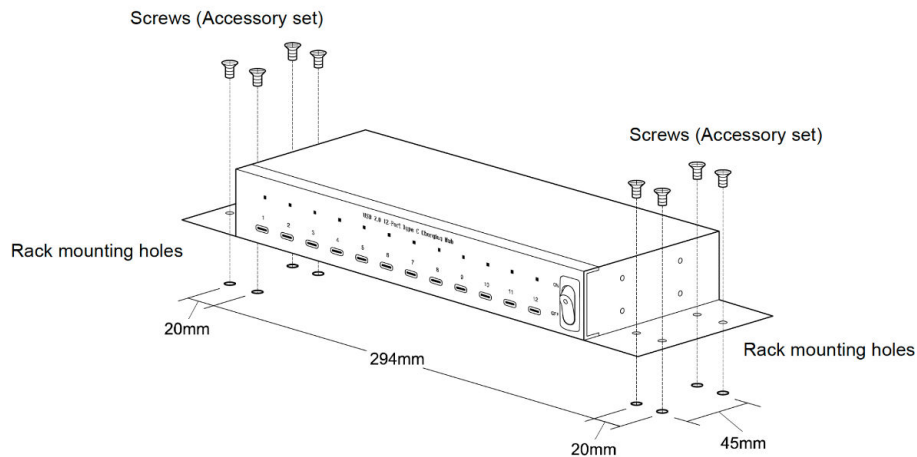
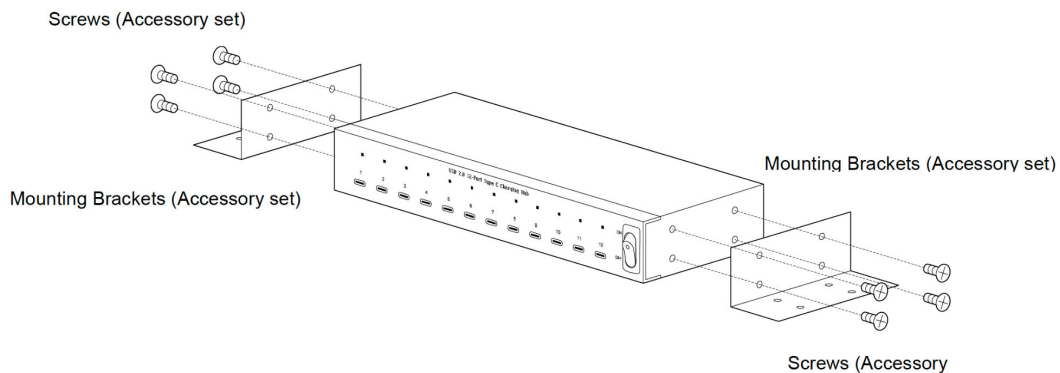
1. **USB Type C Ports (Hub)** - Allows connecting iPad, tablet or USB Type C mobile devices
  - Beware that this unit does not require a host computer connected to the hub for it to charge compatible devices.
  - This unit does not contain an accessory set of cables for iPad, tablet. Please check with your distributor regarding using appropriate cable.
2. **LED Indicators**
  - LED illuminates Green: Fully charged or devices disconnected
  - LED illuminates Red: The port of Charging in progress

- LED illuminates Orange: The port of Syncing
  - LED displays Red blinking: the unit is functioning Over Current Protection
  - LED displays Red/Green Alternate blinking: the unit is functioning Short Circuit Protection
  - LED displays Green blinking: the unit is functioning Over temperature Protection
3. Power switch
    - User may switch power to on / off.
  4. Power jack
    - To use with power adapter provided.
  5. USB Type C port for extending 2<sup>nd</sup> unit
    - It is available to connect with another unit for extending purpose.
  6. USB Type C port for host (PC)
    - It is available to connect with the host computer by USB Type C cable.
  7. Green Energy button
    - It is available to automatically shutdown upon fully charged.

### 3. How to Mount

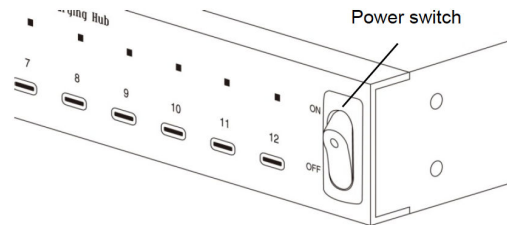
#### Rack Mounting

1. To install, attach the surface/mounting brackets to the unit's side panels (one on each side) and secure them with the screws provided.
2. Use the mounting brackets and screws on the rack or surface of choice.

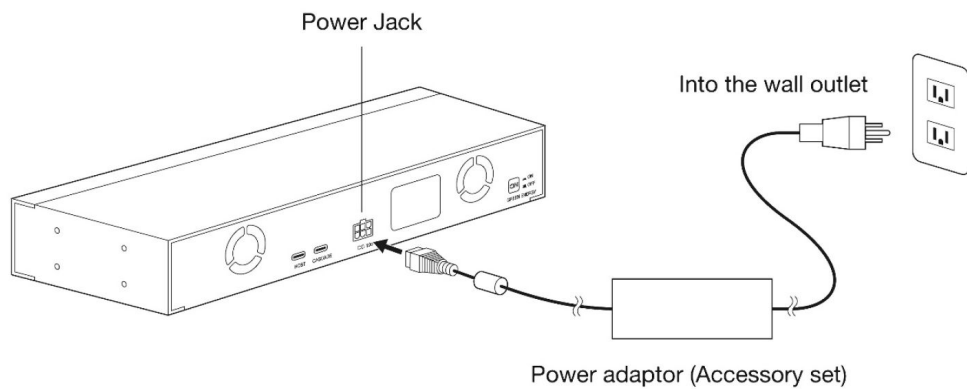


## 4. Power Connection

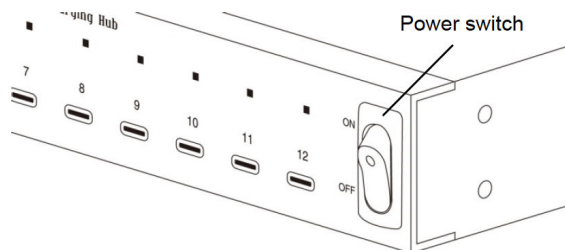
1. Turn off the power switch.



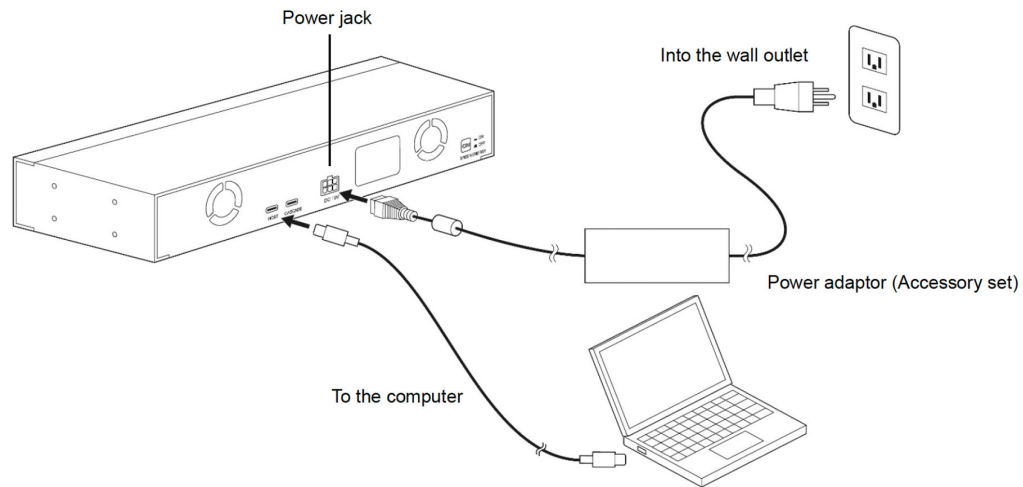
2. Plug the power adaptor to the unit's power jack.
3. Plug the power adaptor into the wall outlet.



4. Turn on the power switch.



5. Using the USB Type C cable provided and connects one end to the unit.
6. Using the other end, connect to your host computer.



## 5. Charging & Syncing

Please follow below ways for charging or syncing USB Type C devices.

1. Follows the step of connection with host computer, and connects host computer with the unit.
  - This unit does not contain an accessory set of cables for iPad, tablet. Please check with your distributor regarding of using appropriate cable.
2. Connect your USB Type C devices to the USB Type C ports on the hub.
  - Sync mode - As soon as the Type C Charging hub connects to a computer, turn the power on; the Type C charging hub may charge and sync at a time either at single unit or cascade connecting.
  - Charge/Sync mode switching –
    - a. While the Type C Charging hub disconnects the computer, it will switch function to Charge mode. Re-connect the computer and it will switch function to Sync mode again either at single unit or cascade connecting.
    - b. The hub will shutdown in 60 seconds at Green Energy function (the Green Energy button is pressed ON) if it idles without devices connected. You may manually turn on the power switch either at single unit or cascade connecting and start charging again.
    - c. Or you may re-connect to the computer to restart the charging hub and it will switch function to Sync (CDP mode) again either at single unit or cascade connecting. (Make sure their power switches of the 2~4 hubs are turned at 'ON')
      - If all devices are fully charged at Charge mode, the Type C charging hub will shutdown automatically. You may manually turn on the power switch or re-connect to the computer and start charging again.
      - Re-start the hub on cascade connections – If the 2~4 hubs are cascade connecting, you must turn their power switches on for the 2~4 hubs. Once the 1st hub is disconnected to the computer, the 2~4 hubs will switch to Charge mode and work on same function. On the contrary; once the 1st

hub is connected to the computer again, the 2~4 hubs will re-start and switch to Sync mode, and work on same function. (Make sure all their power switches of the 2~4 hubs are turned at 'ON')

### 3. The Green Energy function

- When charging is at Charge mode; the Type C charging hub designed with the Green Energy function (push button at the rear panel) may cut off the power when all the charging is finished.
- Green energy ON: Button's green LED illuminating. When all devices are fully charged, the Type C charging hub will shutdown automatically. You may manually turn on the power switch or re-connect to the computer and start charging again either at single unit or cascade connecting.
- Green energy OFF: Button's green LED lights off. When all devices are fully charged, the hub still keeps operating;and the port LEDs keep green illuminating. Once it senses the device's battery consumed, the hub starts recharging.

#### Note 1.:

- When the unit is working at sync mode, all the 12 ports LED illuminate orange all the time, no matter with Over current protection or Short circuit protection.
- When it detects there are 4 ports or more deliver current over 3.6A each port, the unit would enable Over Current Protection immediately. All the 12 ports LED activate Red blinking and shutdown the unit power.

#### Note 2.:

- The Charging hub can be used with iTunes & Apple Configurator for synchronization and management of iPads and other iOS devices. For this and any other application (on Windows, Linux, etc.) the charging hub acts as a USB hub. While these instructions are specific to iPads, virtually the same steps can be used for iPhones and iPod Touch devices.

**Please note that the charging hub only serves as a pathway for communication between your devices and the computer.**

Actual management and synchronization is handled by software or apps independent of this charging hub.

#### [ For host computer configuring iTunes ]

- Please create a library folder on host computer for synchronizing and transfers data to iPad.
- Recommends automatic updates in your iTunes preferences (to avoid interference with automatic syncing). Please check for updates manually to keep your software up to date.

#### [ For iPad, tablet configuring ]

- Ensure each iPad, tablet has been charged completely at first if the objective iPad, tablet is new goods.

- Please use the unit to synchronize iPad, tablet one after another, and configure at same way. (Login name, ID, the data you want to synchronize etc.)
- The user may adjust the brightness of screen when you are using the unit to synchronize iPad.
- When the user may be requested by iTunes to configure manually, you will have to copy the configuration manually for each iPad.

#### [ For host computer connection & sync ]

- Connect iPad, tablet to the USB Type C ports of front panel if each iPad, tablet is configured completely.
- This unit does not contain accessory set of cables for iPad, tablet. It is especially important to use appropriate cables (USB Type C to device-specific connector) provided by the device manufacturer.
- Get started synchronizing automatically once you connect the unit.
- It may take a little while for this unit to recognize and sync. Please do not stop by the way once the unit starts synchronizing.

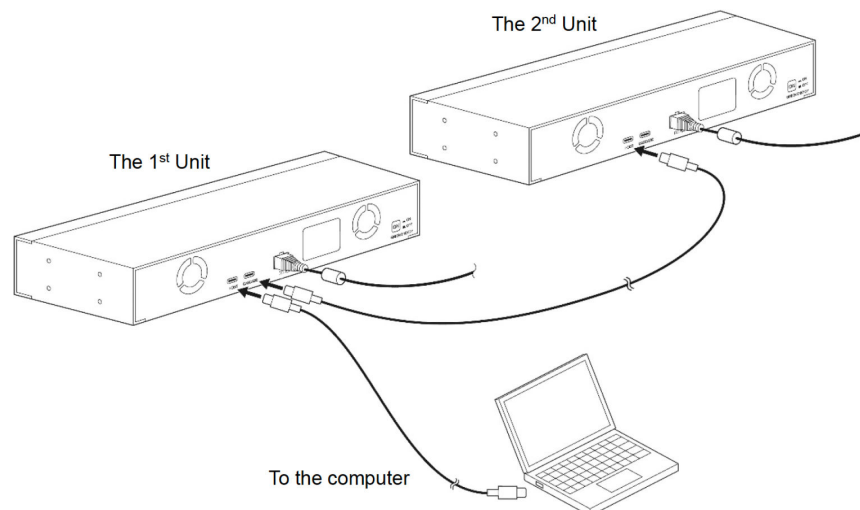
#### [ For iOS update ]

- User may not perform the iPad update when iPad is connected. You must update iOS on iPad one after another.

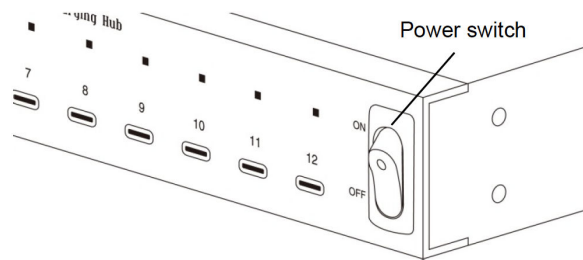
## 6. Daisy Chain Connection

The 12-Port Type C charging hub can extend another unit for Daisy-chain (Cascade) connection, the 2nd unit can sync simultaneously as well.

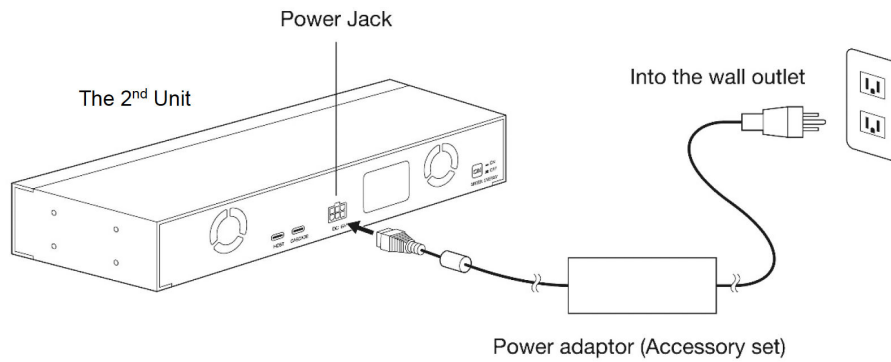
- Maximum 4 units can be connected. (It allows connecting or charging maximum up to 48 USB Type C devices simultaneously.)
  - If user connects with two units, the 2nd unit may not be detected by some computers which have built in USB 3.0 hub.
1. Follows the step of connection with host computer, and connects host computer with the 1st unit.



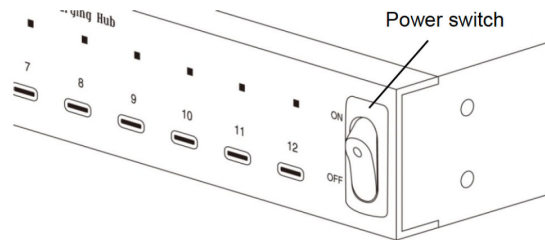
- Turn off the power switch of the 2nd unit.



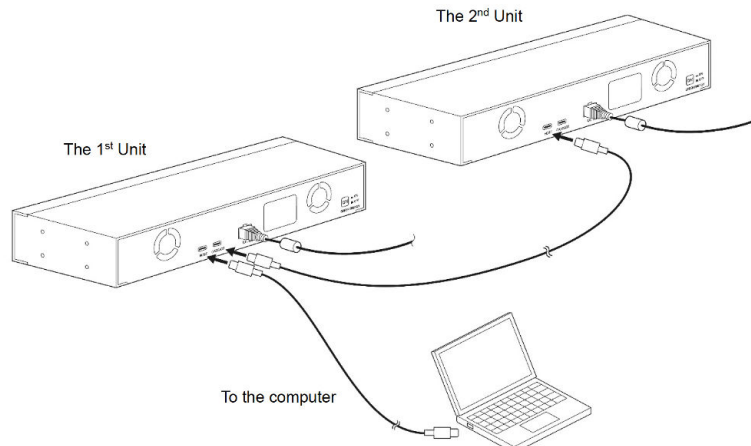
- Plug the power adaptor to the power jack of the 2nd unit.
- Put the plug of power adaptor into the wall outlet.



- Turn on the power switch of the 2nd unit.



- Use the USB Type C cable provided and connects both USB Type C ports of the 1st and 2nd units.



## 7. Additional Info

The 12-Port Type C Charging Hub may start/cut off the fans automatically when the unit temperature goes higher/lower limits. (Not recommend putting the unit at places of high temperature such as computer facilities, boiler/steam room, glass workshop, casting work, kiln plants etc.)

For the High-temp protection, if the unit's heat is over the setting, it would cut off all of the output current immediately. At the meantime, the whole LEDs of the 12 ports would be green blinking.

If you still cannot diagnose the problem, please call your distributor for technical support.

### 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

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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