



Product Models	ToughTech Duo C
Interface Types & Speeds	USB 3.1 Gen 2 (up to 10 Gbps)
Supported Drive Types	2.5-inch SATA Drives up to 9.5mm in height
Data Connectors	One (1) USB Type-C connector
Supported Operating Systems	Windows 10, 8, 7, and Vista Windows Server 2016, 2012 and 2008 product families OS X/macOS 10.9 "Mavericks" or newer Linux distributions that support the connection type used
Torque	2.5-inch hard drives, M3 screws: 4 inch-pounds max.
Compliance	EMI Standard: FCC Part 15 Class B, CE EMC Standard: EN55022, EN55024 RCM
Product Weight	1.2 pounds (0.54 kg)
Product Dimensions	6.22" x 1.34" x 3.50" (158mm x 34mm x 89mm)
Technical Support	Your investment in CRU products is backed up by our free technical support for the lifetime of the product. Contact us through our website, cru-inc.com/support or call us at 1-800-260-9800 or +1-360-816-1800.

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Product Warranty

CRU warrants this product to be free of significant defects in material and workmanship for a period of two years from the original date of purchase. CRU's warranty is nontransferable and is limited to the original purchaser.

Limitation of Liability

The warranties set forth in this agreement replace all other warranties. CRU expressly disclaims all other warranties, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose and non-infringement of third-party rights with respect to the documentation and hardware. No CRU dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty. In no event will CRU or its suppliers be liable for any costs of procurement of substitute products or services, lost profits, loss of information or data, computer malfunction, or any other special, indirect, consequential, or incidental damages arising in any way out of the sale of, use of, or inability to use any CRU product or service, even if CRU has been advised of the possibility of such damages. In no case shall CRU's liability exceed the actual money paid for the products at issue. CRU reserves the right to make modifications and additions to this product without notice or taking on additional liability.

FCC Compliance Statement:

"This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a home or commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

In the event that you experience Radio Frequency Interference, you should take the following steps to resolve the problem:

- 1) Ensure that the case of your attached drive is grounded.
- 2) Use a data cable with RFI reducing ferrites on each end.
- 3) Use a power supply with an RFI reducing ferrite approximately 5 inches from the DC plug.
- 4) Reorient or relocate the receiving antenna.



Protecting Your Digital Assets™



CRU® ToughTech® Duo C Enclosure Quick Start Guide

Features

- For use with computers that support USB Type-C or Thunderbolt 3 connectivity
- Power delivery from your computer or via AC adapter
- USB 3.1 Gen 2 supports file transfers at 10 Gbps
- Attach the ToughTech Duo C to your computer on the first try with the USB Type-C universal connector
- Multiple modes: Combine two 2.5" notebook drives into one large drive, have two exact copies of your data at once, or keep both drives separate
- Use SSDs or hard drives of any capacity
- Includes adapter cable for use with USB 3.0 and USB 2.0 ports





1 GENERAL INFORMATION

1.1 IDENTIFYING PARTS



1.2 LED BEHAVIOR

Front

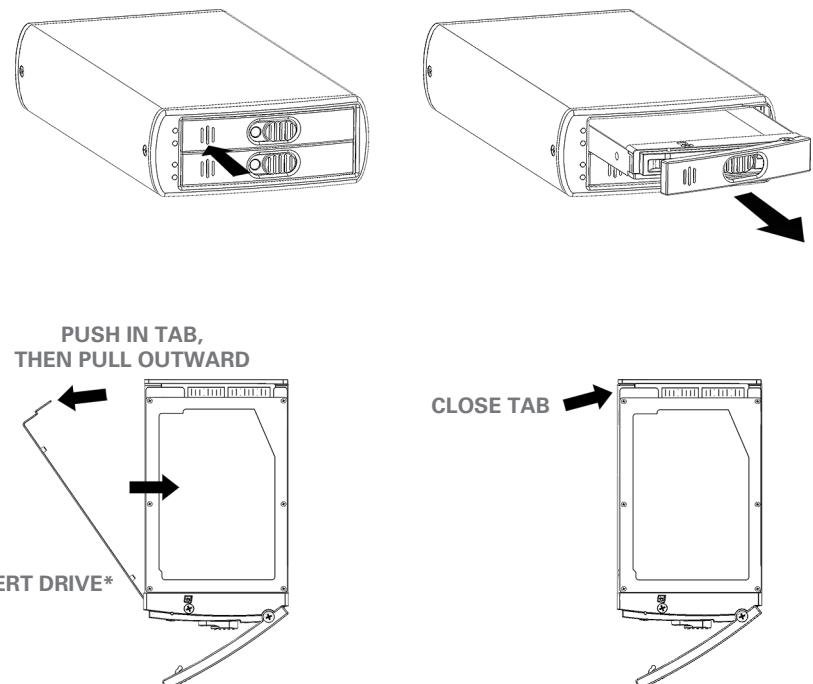
LED	COLOR	STATE	DESCRIPTION
Drive Power	Green	Solid	The drive inside the bay is powered on.
	Red	Blinking	The drive inside the bay cannot be detected.
	Red	Solid	The drive inside the bay is rebuilding in RAID 1 mode from the other drive in the ToughTech Duo C.
Drive Activity	Amber	Blinking	The drive inside the bay is being accessed by your computer.
		Pulsing	Both activity lights will pulse when a RAID 1 rebuilding operation is underway.

LED BEHAVIOR, CONTINUED

Rear

LED	COLOR	STATE	DESCRIPTION
USB-C Power	Green	Solid	Indicates that your computer is powering the ToughTech Duo C and an external power connector should not be needed.
	Red	Solid	Your computer is unable to power the ToughTech Duo C. Please use the included AC adapter.
	N/A	Off	Indicates that the AC adapter is powering the ToughTech Duo C.
SPAN, RAID0, RAID1, JBOD	Green	Solid	Shows which RAID mode your ToughTech Duo C currently uses. See Section 3.2 for instructions on how to change it.
		Blinking	Shows which RAID mode you are about to select when using the "Rotate to Set" function. See Section 3.2.

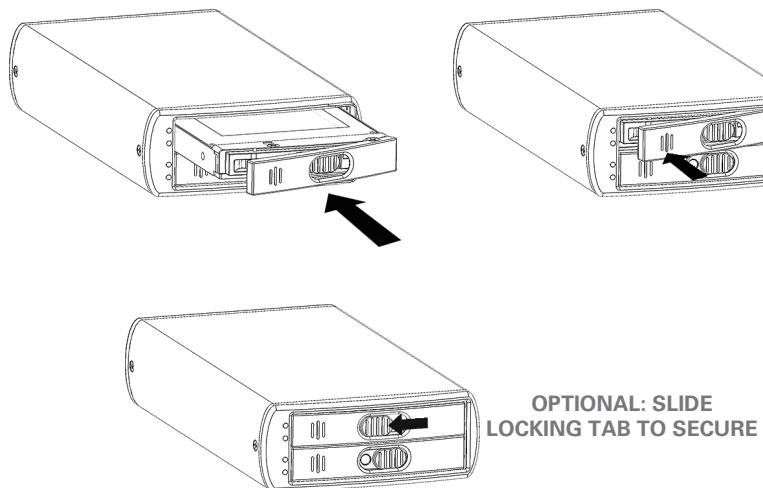
2 DRIVE INSTALLATION



*No screwdriver required

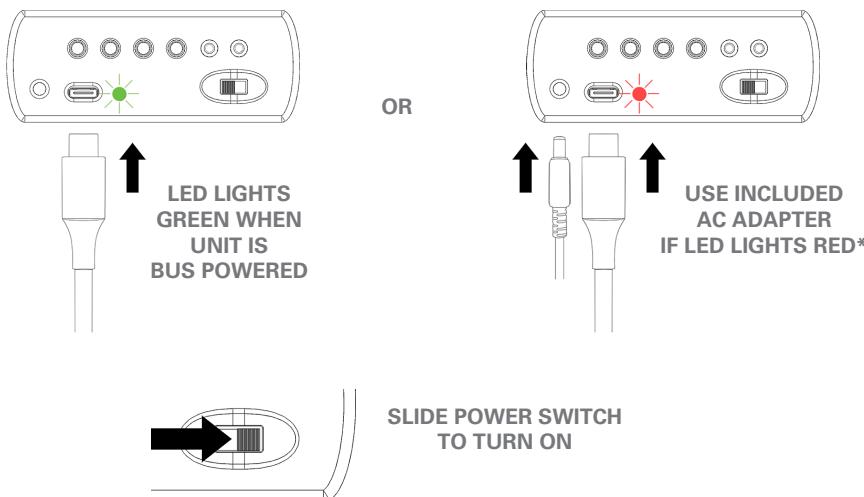


DRIVE INSTALLATION, CONTINUED



3 CONNECTING AND POWERING THE TOUGHTECH DUO C

The ToughTech Duo C is portable and can be used with a USB 3.1 Gen 2 or Thunderbolt-equipped computer even when there is no power outlet nearby. Follow the diagram below that works best for you.



*LED will turn off when AC Adapter is plugged in

3 CONFIGURE YOUR TOUGHTECH DUO C

3.1 WHICH RAID SETTING DO I USE?

RAID is a form of data management that spreads your data across multiple drives. With a RAID, you can use multiple disks, but your computer will recognize the RAID as one disk. There are four different modes available on the ToughTech Duo C. You should choose the one that closest fits your usage scenario:

- **Backup:** You should choose **RAID1**. This copies your data to both drives so that you can remove one for safekeeping. Your computer will see a single drive with the capacity of the lowest-capacity drive. For information on setting up a proper backup workflow, see Section 5.



For the following usage scenarios, CRU recommends that you have a separate backup system in place. Keep in mind that with RAID0 and SPAN, if one of the drives fails you will not be able to recover your data from either hard drive.

- **Speed:** For faster transfer speeds, choose **RAID0**. The data added to the ToughTech Duo C will be split into parts and spread across both drives at the same time, which increases the speed of your data transfers. Your computer will see a single volume with twice the capacity of the smallest drive inside the ToughTech Duo C.
- **Separate Disks:** If you want both drives to be seen as separate disks, choose **JBO**. This enables both drives to show up as separate volumes on your computer so you can put different data on each of them.
- **Using Drives With Different Sizes:** When it's important for you to maximize the amount of space you have and you're using two drives with different capacities, you can optionally select **SPAN**. When all the space on one drive is used up, data will then be placed on the second drive. Your computer will see a single volume with the capacity of both drives added together.



It's not required to select SPAN if your drives are different capacities. This option is only necessary if you prioritize using the maximum amount of space on two differently-sized drives.



3.2 SELECTING THE RAID MODE

STOP!

Adjusting the RAID mode will make any data on the drives inaccessible. Make a backup copy of any data you wish to keep before changing the RAID mode.

- a. With the ToughTech Duo powered, insert the provided screwdriver into the **Rotate to Set hole** on the rear of the ToughTech Duo C.
- b. As you rotate the screwdriver, each of the four RAID mode LEDs on the rear will light up in succession and begin blinking. Rotate the screwdriver until the desired RAID mode's LED lights up.
- c. Press the screwdriver into the **Hold to Set hole** on the rear of the ToughTech Duo C until the selected RAID mode LED turns solid.

Your RAID mode is now set.

3.3 FORMATTING

STOP!

Formatting a drive will erase all the data on the drive, so be sure to back up your data before beginning this operation.

When you first mount a drive to a macOS or Windows operating system, a pop-up window will ask you if you would like to format/initialize it. Follow the dialog box instructions. When formatting the ToughTech Duo C for use on macOS, select HFS+ as the file system, or select NTFS to use it with Windows.

Your ToughTech Duo C is now ready to use!

5 HOW TO BACK UP

Because your ToughTech Duo C features RAID 1, which mirrors your data and protects it from a single hard drive failure, it is an excellent part of any backup strategy. To create a basic backup workflow, you should have at least three drives on hand and your ToughTech Duo C should be configured to use RAID 1 (see Section 3.2).

- a. With the ToughTech Duo C turned off, remove the bottom drive from the unit and store it some place safe, preferably off-site.
- b. Replace the bottom drive with a third hard drive.
- c. Ensure that the ToughTech Duo C is connected to your computer and turn it on. The Drive Power light for the bottom drive bay will turn red, indicating that the ToughTech Duo C

is copying your data from the top drive to the new bottom drive in a process known as rebuilding.

Repeat this process during regular periods to ensure that you will always have a current copy of your important data. To learn more about creating a disaster-resistant asset management system that will grow with your needs, download our free booklet here: <http://info.cru-inc.com/free-photo-backup-booklet>