Intro to Removable Drives: Data Security and Transport
What is a removable drive?

Removable drives provide a cost-effective and safe way to manage data for security, transport, growth, backup, and archiving.

Removable drives work like this: install a hard drive or SSD into a rugged carrier, which protects the drive and enables it to be inserted and removed thousands of times. The carrier is then inserted into a frame that has been installed in a computer or other host device. Remove the drive/carrier as needed for security, transport, drive rotation, when full, or when your workflow calls for it.
Benefits of removable drives

In this booklet we’ll discuss the many benefits of removable drives for organizations that want to reliably protect and access their valuable data.

- Data security
- Fastest way to transport data
- Military-grade encryption
- Switch OS environments
- Offsite backup
- Restore to known environment
- Hot swappable

CRU® has a long history of being trusted to provide removable drives throughout the world to government and military agencies, businesses of all sizes, the digital cinema industry, educational institutions – and other types of organizations.
Make sure there’s someone in charge of your regular backups (is it you?), and that someone can fill in during vacations. Verify that the person in charge understands the tasks involved and their importance to the organization. It doesn’t have to be an IT person either, depending on how complex your environment is.

It’s easy to secure data stored on a removable drive. Remove it! No other storage system offers such elegantly simple security. With removable drives, there’s no need to worry about where your data is being stored by cloud services or who might have access to it. Removability means that all of your work can be pulled from your workstation at your convenience.

CRU removable drives have been trusted by government agencies, the military, and businesses for decades. The reason is simple: data connected to a network or an unsecured device is exposed to risk, but with removable drives users have a fast and reliable method to protect their data. Plus, removables allow data to be secured without locking up an entire computer.
Encryption

For further security, many of our customers are required to also encrypt their data, due to government regulations, risk assessment, or potential liabilities. Others want to simply keep their personal or business data safe from prying eyes.

Our DataPort Secure removable drives have 256-bit AES encryption – military-grade – built into the hardware. The DataPort Secure drives automatically encrypt everything written to the drive when one of our physical security keys is inserted into the drive enclosure. Each key is unique to each enclosure, meaning that the drive is impenetrable as long as the key and drive remain separate.

Finally, data is encrypted in real time by the enclosure hardware, removing the burden and risk from the host computer’s operating system.

Terabyte transfers made easy

Let’s say you have a 5 TB project. Very large projects such as this could be generated from 4K (or 8K) video, a large RAW photo collection, or the regular backups your organization makes. If you need to get that 5 TB of data to your colleague across the country, good luck using the cloud or internet. Transferring that data using cloud storage on a speedy 50 Mbps connection would take 4.5 days! Or you could simply pop out your removable drive and overnight it.

Removable drives offer a reliable, affordable, and efficient way of storing terabytes of data.

Your work, projects, and sensitive data can be accessed – or secured – with the press of a button. With SAS/SATA speeds up to 6 Gbps – blasting past any USB external drive – managing vast amounts of data suddenly becomes simple.
Switch your entire OS environment

Because removables offer plug-and-play access to your computer’s storage, you can easily swap entire OS environments. For example, unplug your removable drive that runs Windows and slide in a Linux environment. Virtual environments might be fine for some use cases but there’s nothing like knowing your environment or test suite is what you expected, especially if your work involves testing, debugging, or developing. Need your colleague to have full access to your data, apps, and entire workflow? With a click, your hard drive can be out and on its way.

Our removable drives are rated for an industry-leading 25,000 to 50,000 insertions. This means that each of our removables can be taken in and out for years and not only will they work, they’ll work just as quickly and reliably on their 50,000th use as on their first.
Today, most people understand that regularly backing up their data is essential to maintaining their security, their business continuity, and in some cases, controlling their liability. Yet even though the backup practice is commonly understood as necessary, there remains widespread confusion about backup best practices.

**Backup isn’t just about keeping extra copies of files, it’s about being able to restore them in a timely manner, too.**

This is something to consider when evaluating whether a cloud backup service makes sense. The bottom line when considering backup options is that transferring data over the internet is considerably slower than accessing data directly from a drive. Should your business computers fail, downtime equals lost business. Restoring data with removable drives is not only faster and more cost-effective than cloud storage, it’s potentially much safer than trusting a third party with confidential data.

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### 3-2-1 Backup Solution

Protecting and securing data is as simple as following the 3-2-1 backup rule:
- Make 3 copies of important data
- on 2 different types of media
- with 1 of those backups stored at a different location
Swap drives when needed

Our most popular removable drives are designed to be hot swappable (when the OS permits hot swapping), making it simple and easy to remove and replace the drive without powering down the compatible host computer.

Our removable drives offer your data on your terms, and hot swapping a drive is just another example of how CRU removables enable powerful data security and transport. And unlike generic models, CRU removables are rated for tens of thousands of insertion cycles, so you can swap the drives once a day the next 100 years and still have a few decades before our removables wear out.
CRU removable drives are used by the military, government, businesses large and small – anyone with a lot of data looking for a convenient and affordable way to store and secure it. We've collected a few stories from our valued customers.

Transporting classified data

Federal intelligence agencies with global operations utilize CRU's Secure encrypted removable drives to transport sensitive or classified data by simply ensuring that the physical encryption key never travels with the drive. If the drive is lost, stolen, or falls into the wrong hands, the data can't be accessed. Instead, to unauthorized users, the drive appears to be unformatted. CRU hot-swappability also makes it easy for someone to quickly remove a drive in case of an emergency.
Flight simulation
Boeing provides multiple DoD agencies with state of the art, advanced flight simulation workstations that simulate a variety aerial and combat scenarios that can quickly and easily be changed simply by swapping out a removable drive. Other DoD customers rely on CRU removables to easily change training scenarios, too.

Hollywood relies on CRU
Because CRU removable drives are an easy and reliable method of transporting large volumes of data, movie studios worldwide have adopted them for sending their movies to theaters. The next time you go to see a blockbuster, remember that there’s a CRU removable in the nearby theater.

Securing the Postal Service
The USPS has a facility where the workload is project driven, and the workspace is shared among workers with different shifts. Each worker’s cases and workloads are saved to a CRU removable drive carrier that can be removed to a secure locker that only they have access to. No data is ever stored on the workstation. This ensures the facility is secure and work is easily maintained.
CPA counts on CRU removables

Many of our customers are professionals that handle large amounts of client data – often personal information – on a regular basis. Affordably protecting that data from more than just a computer failure is a concern. Fred Erickson, a CPA, switched to CRU removable drives. “If that data somehow got misplaced or into the wrong hands, the threat of being sued was very real. If someone could prove negligence on our part, we would take a severe financial hit. I can buy insurance for that, but it’s expensive,” said Erickson. “Over the long haul, this is a much more cost effective way of doing it. Plus, I’m encrypted, have much better ease of use, and most of all, unfailing peace of mind.”

Digital forensics

In addition to making removable drives, CRU’s WiebeTech line of digital forensics tools are immensely popular with law enforcement and government. After investigators in the field have captured suspect data, they turn to CRU removable drives to store and back up the recently acquired evidence. With encrypted storage options, and the ability to quickly remove a drive and literally lock it up, our removables are a perfect fit.
We hope you’ve found this booklet useful, and we look forward to hearing from you.