



BlueSmoke - Review : ThumbDrive Secure



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Over the last few years, removable storage devices have grown immensely popular. Among the widely known are solutions such as Iomega's Zip, Jaz, and PocketZip, the Castlewood Orb, and CDR/RW drives. This just goes to show one simple thing : we increasingly want our data to be available on the go. However, the products mentioned are of a more "conventional" design, ie. they use *physical media* which means that they are less rugged, being susceptible to shocks, magnetic fields, dust, dirt, scratches, spilt coffee, all threats in the real world. Moreover, these devices typically need a power source, data cable and the storage media itself to function. Beginning to change your mind about just how "portable" they are, eh?

Previously, we took a look at Trek Technology's non-secure ThumbDrive. Today, we examine the secure model, available in 8, 16, 32, 64 and 128MB capacities, with a 256MB model slated for release in Q1, 2002. The evaluation unit, a 8MB secure model, was kindly provided by Mr. Adam Tan of Trek Technology.

The ThumbDrive Secure comes in a cherry-red cardboard box, with a well written user manual, a certificate of warranty, and a driver disk.

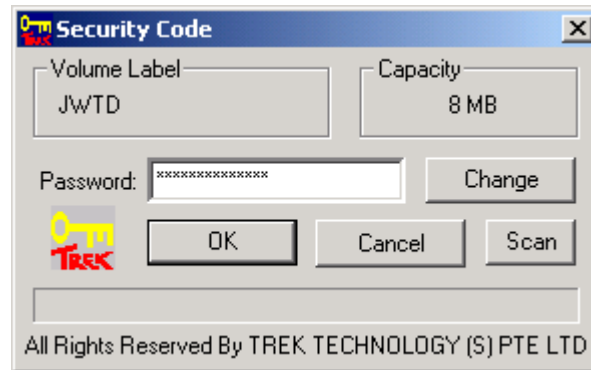


The ThumbDrive Secure certainly turned more than a few heads, creating an instant "must have" feeling among many of the people whom we showed it to. More than a few mistook this compact 60x17x7mm (LxWxH) package to be some form of keychain. Fortunately, no one made away with it.



How is it different from other removable storage devices? The ThumbDrive Secure integrates the storage device, the power brick, the data cable and the storage media all in one neat little package. And as its name suggests, the ThumbDrive Secure is about the size of an average person's thumb. It is a solid state storage device, meaning that it uses memory chips, rather than other physical media, to store your data. By virtue of this, it is hardier, which translates into a lower risk of data loss / corruption, something that all end-users want. Additionally, a solid state storage device also has an advantage in terms of latency. Taking a HDD for example, even in a modern HDD, such as the Seagate Barracuda ATA II, there is a 13.3ms delay for the actuator and platter to get in place when reading data. Assuming that the ThumbDrive Secure uses 13.3ns memory (to simplify calculations), the ThumbDrive Secure would be 1,000,000 faster than the Barracuda! While transfer rate is also heavily influenced by other factors such as drivers, firmware and interface, this at least ensures that latency will not be a performance bottleneck.

As implied earlier, the ThumbDrive Secure uses a self-contained USB interface. It currently sports USB 1.1 technology, with a faster USB 2.0 version in the pipelines. Since USB is a hotplug interface by design (ie. a USB device can be plugged/unplugged while the PC is still active), installation is greatly simplified.



True enough, plugging in the ThumbDrive Secure pops up the standard "New Hardware Found" window. Simply insert the driver disk and hit it. Once the drivers are installed, a small utility prompts you for your security code to access the contents of the ThumbDrive. This is the main highlight of the Secure line; without the correct access code, the ThumbDrive will not be assigned a drive letter, making its contents inaccessible. You are required to enter your access code everytime you plug in the ThumbDrive, adding some much needed security to your data. Subsequently, you only need to plug in the ThumbDrive, enter said access code, and it is automatically assigned a new drive letter, all ready to be used like any other drive.

To cap off the features list (pun intended) is a protective cover for the USB connector, a write protection switch at one end and a LED. The cover shields the USB interface from accidental damage. When the write protection switch is in the "open" position, data can be read and written to the ThumbDrive Secure. When the switch is "closed", data can only be read. The LED serves as an activity indicator, lighting up when the computer has detected the ThumbDrive Secure, and flickering during I/O operations. Trek Technology claims data can be safely stored on the ThumbDrive for approximately 10 years, something that that is not readily verifiable. If anyone has managed to develop a time acceleration device, please do inform us. 😊

Now matter how useful or technically advanced a product, the price factor also comes into an end-user's purchasing decision. The prices of the ThumbDrives have dropped significantly since our last article. The 8MB ThumbDrive Secure weighs in at US\$25. The 16MB secure model will set you back by US\$35, 32MB - US\$55, 64MB - US\$99, 128MB - US\$175, and 256MB - US\$330. How does this compare to other removable storage solutions?

Device Type (USB)	Price (US\$)			
	Media	Reader/Writer	Battery	Total
ThumbDrive Secure (32MB)	55	N/A	N/A	55
SmartMedia (32MB)	25	25	N/A	50
Compact Flash (32MB)	22	20	N/A	42
Iomega Zip (100MB)	10	92	22	102

Compared to the 32MB SmartMedia and Compact Flash solutions (assuming that the reader/writer does not require an external power source), you pay an average 25% premium for the ThumbDrive Secure. Keep three things in mind : the ThumbDrive Secure is smaller and lighter; your data is effectively secured from prying eyes; you don't need a reader/writer, cable and power supply; which makes it more ergonomic and convenient to use. Ignoring capacity, Iomega's Zip drive is the least elegant removable storage solution, being that it is larger and heavier. Comparing cost per MB, the price premium is around 70%. Although it is ultimately up to you, the reader,

to decide whether the price premium is justified, it is the opinion of this reviewer that it is worth it.



Alright, so we have a secure, ultra-portable (albeit slightly expensive) storage solution. So what? It didn't take long for us to figure out some neat uses of the ThumbDrive Secure. For example, transferring files that are greater than 1.44MB in size between non-networked PCs, or sneaker-netting files between the home and office (though a moot point if one works in a home office). A whole multimedia presentation can be carried in your shirt pocket - simply plug it into a PC upon your arrival. With the added security feature, it becomes more appealing to the corporate user, for whom data privacy is a pivotal issue. Furthermore, many modern notebooks adopt an "either or" design : either you use the floppy drive or the CD/DVD drive. In this scenario, the ThumbDrive serves as a perfect substitute, with the bonus of increased speed, reliability and security over the venerable floppy.

What do we think of this new ThumbDrive? A convenient, secure and ultra-portable removable storage device literally the size of the average thumb with adequate performance and ease of use. It improves upon the original ThumbDrive by the addition of the security feature and decreased physical dimensions. A one-year warranty backs the ThumbDrive Secure. The only things that detract from an otherwise excellent package are the ThumbDrive Secure's higher price and non-driverless installation (admittedly a near universal problem). Trek Technology is launching a new driverless model soon which addresses this issue.

The ThumbDrive Secure is a nice piece of hardware, and comes **Highly Recommended!**

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