

False "SSD" devices on sale on Aliexpress platform. Hundred of customers will be obviously fooled.

Several low priced external disk devices are presented by many sellers on Aliexpress platform as kinds of "USB3 SSD" external hard disks. At first glance, you may trust the announce, assuming a low data transfer rate for those low price devices (the SSD price market is really related to device data transfer rates), and those little boxes can nevertheless be attractive for users that only needs some cheap huge disks for archive needs only. When I bought those things, I was guessing that the real data transfer rate of those devices wouldn't be those announced, like it happens on other devices like USB Sticks where data transfer rates can vary from 1 to 30 depending of the brand ... and the price, but it was ok for me.

I bought in such way 4 devices from 2 different sellers: A couple of 2Tb devices (USB3 is written on the aluminium case),

https://fr.aliexpress.com/item/1005003847422820.html?gatewayAdapt=glo2fra&spm=a2g0o.order_list.0.0.21ef5e5bv4pWAZ (Aliexpress command ref. 3015451314607160)

and I bought an other couple of 4x2Tb devices (4 x 2Tb partitions in one very small box)

https://fr.aliexpress.com/item/1005003793272085.html?gatewayAdapt=glo2fra&spm=a2g0o.order_list.0.0.21ef5e5bv4pWAZ , (Aliexpress command ref. 3015343869917160)

I started first to try to backup data on the 4x2Tb disks. The first disk was finally bricked after one hour, the second one was quickly showing errors while copying data, I will explain below how and why. The 2 others 2Tb devices are still on test, but one is already cooked after 48 hours of (false) copying process and all the written data never showed up, just a few files are left on it.

Involving several computers at my place, I did some tests and kept trace on different platforms (Windows 7 and Windows 10) of what was happening. The purpose of this document is to demonstrate and to explain why **those devices are totally unusable and unreliable**.

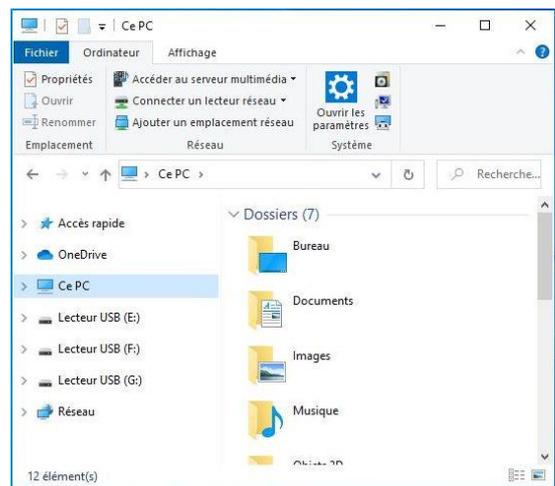
Using a Lenovo X230 with 2 USB3 ports, 8Gb/540SSD, Windows 10 for this document but the problem is platform independent, you finally get the same disks behaviour whatever your platform is.

1) Testing the first "4x2Tb" disk:

Starting a copy process from a 500Go folder from a Maxtor USB3/SATA external drive to this "SSD" disk, I could only copy 15 Go on the first partition of the device. It was a very slow copy process from the beginning, nothing to see with an SSD and USB3 compliant device. I did this operation with the very stable Fastcopy tool <https://fastcopy.jp/> in order to be able to keep some trace the copy processes sizes, speeds and times. I also did later some other tests with the basic Windows copy function having even worse performances than the Fastcopy tool, no surprise here.

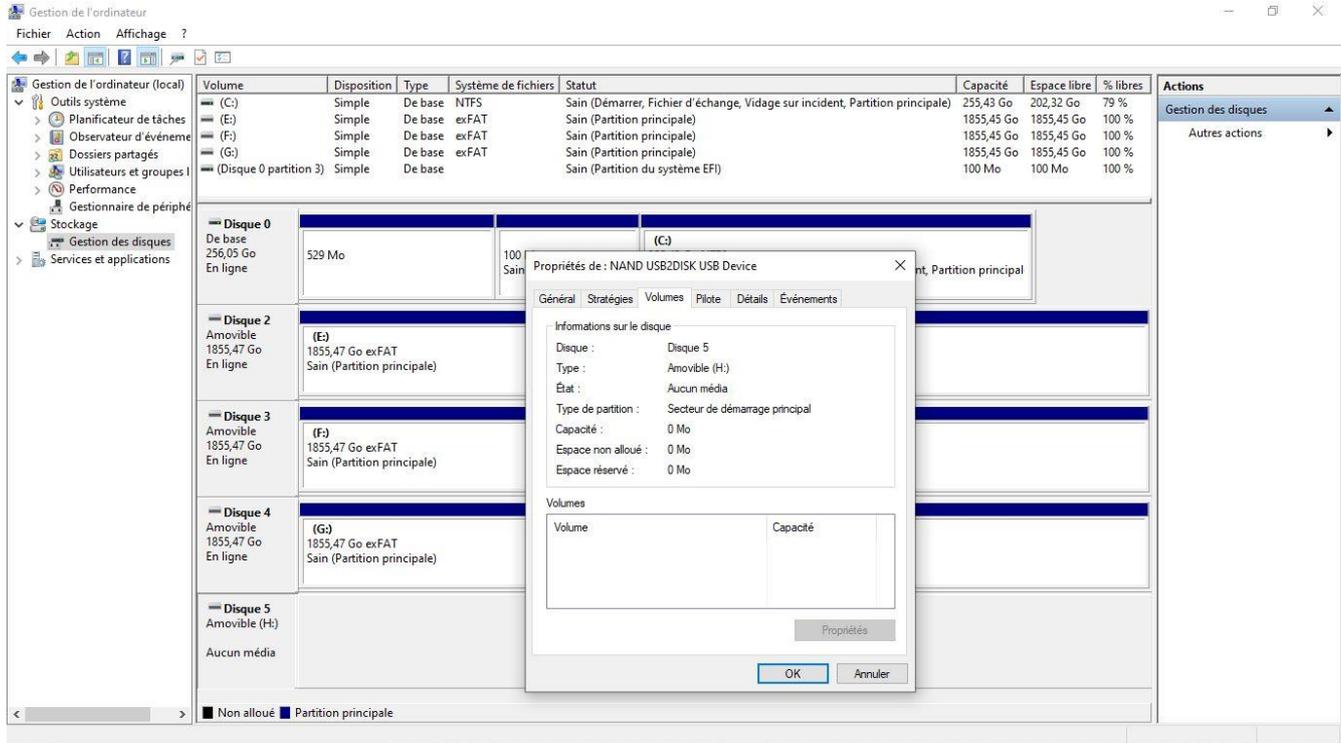
At the very beginning, the copy was running at about 12mb/s, (far from a real USB3 external harddisk), and the copy process was slowing down to 7mb/s after a few minutes. Then, suddenly, the copy crashed with a huge flow of errors messages informing that the target disk was not detected anymore.

When plugging forth and back the device, 'Disk' H was absent.

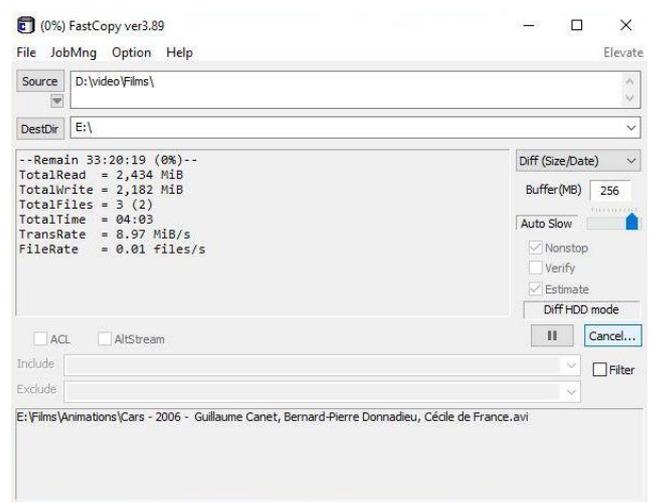
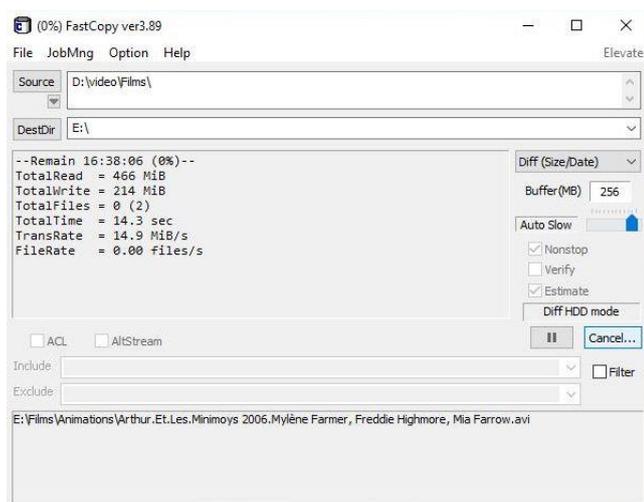


Here a screenshot of the Windows disk manager showing the disk fault: One partition is bricked (H in this picture), and you have no way to re-activate this strange 'removable' partition that says that there is no media in it (capacity = 0 Mb)

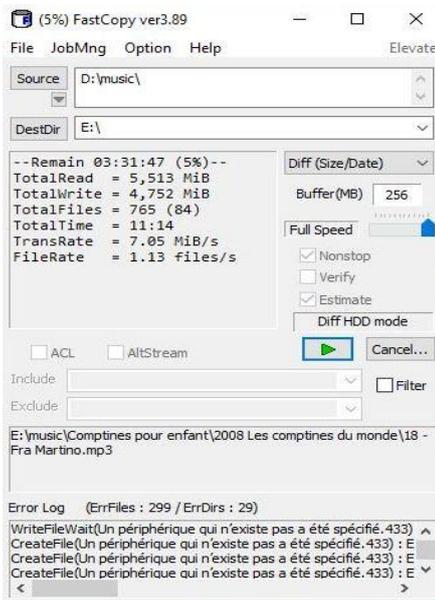
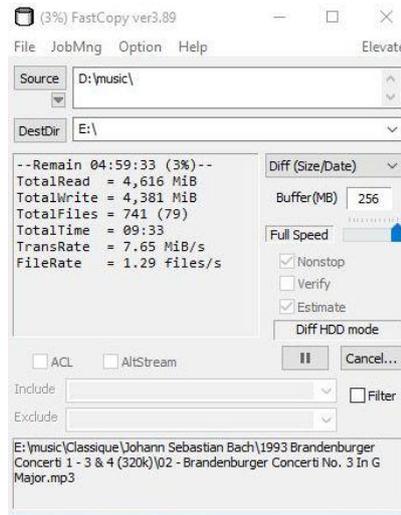
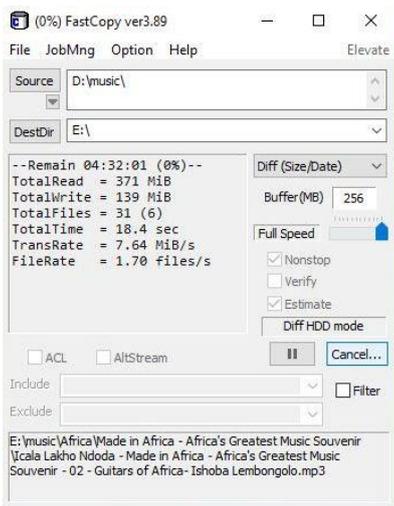
So, we can say that 15 Gb was the maximum this partition could receive before disappearing from the partition list.



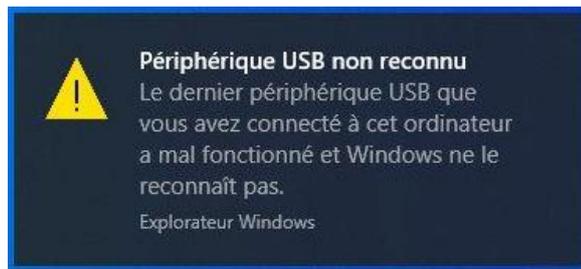
Then I did other tests on another partition of this disk: I started a movies files copy job, it means a job copying only huge files. Here are the screen captures, speed going slower and slower after a few minutes:



After a while, I stopped it and started a new job doing a massive copy of thousands of mp3 files, that is supposed to overstress FAT disk writings. Here are the screen captures:

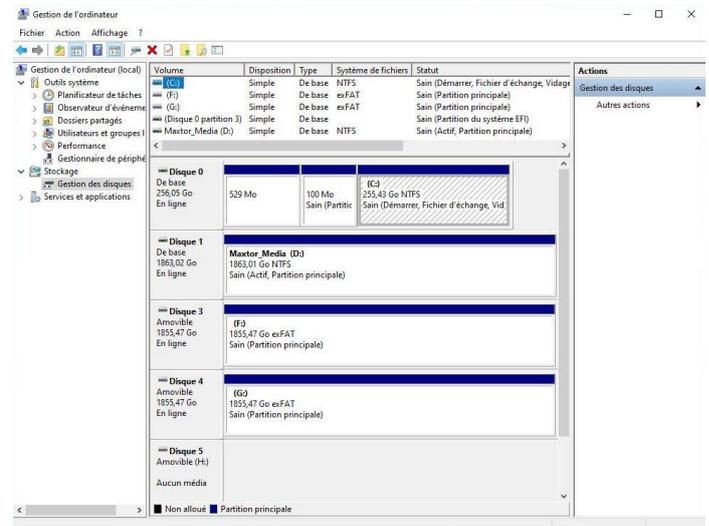
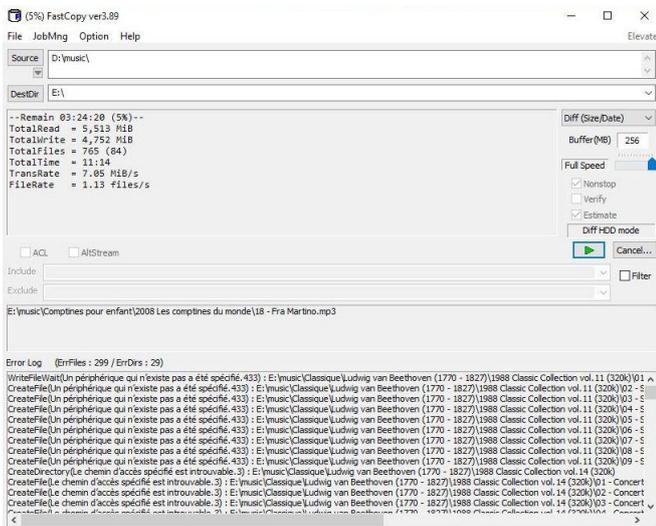


After a while, the copy process crashed, displaying many writing errors. The E disk disappeared from the system. Here the Fastcopy capture with errors messages and the Windows error message:



Windows 10 message: USB device not recognized.

Here a Fastcopy scen full of error messages, and a Windows disk manager screen capture. There is no E: drive anymore:



After having unplugged and plugged the disk again, it shows 7,63 Go on the disk that can actually be read, but you cannot write one single files anymore on this partition. If you try to do so, you instantaneously get copy errors in the first second.

2) Testing the second "4x2Tb" disk:

I did only windows copy commands, the speed was never up to 10Mb/s, and felt down very quickly to hang after a 3.32 Go copy of several ISO files (7 files were only copied here).

I then decided to stop all those copy tests and to open the devices cases to have a look at the electronic inside:



In those "4x2Tb" devices, you find 4 chips referenced as FC2279-BA3 (controllers chips) and 4 x PFF68 (48 pin TSOP Nand Flash Memory) at the back. Searching for those references on the internet drives you soon to many complains from fooled customers saying the same things as I do in this document, and all those articles let you easily understand what happens over there: **The memory chips of those devices can't handle Tb of data, but Gb of data only, so 1000 times less!**

Let's go for example to a German customers review on this page,
<https://www.amazon.de/-/en/External-Portable-Storage-Compatible-Laptop/dp/B09NP5RBJT>

Here the English translation:

Top reviews from Germany

Translated by Amazon
[See original](#)


Alina

1.0 out of 5 stars Didn't work, no feedback from seller!
Reviewed in Germany on 17 February 2022
Verified Purchase

I ordered the hard drive and tried it right away. Everything worked great for about 5 minutes. Then the message that files can no longer be moved to the hard drive.

I was also unable to open the files that were already on it. Luckily for me, I had saved it on my laptop!
I then contacted the seller, hoping they could help me out. When there was still no response after a week, I returned the package.

Helpful

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Translated from German by Amazon
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Birgit Huber

[1.0 out of 5 stars](#) Unfortunately, the device did not work
Reviewed in Germany on 11 February 2022

Verified Purchase

I connected the device and the computer didn't recognize it. Other computers don't either. I just had work to pack it back up and take it away. I should have looked at the reviews beforehand. I guess others had my problem too. She looked nice.

Helpful

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Daniel Sabo

[5.0 out of 5 stars](#) gut

Reviewed in Germany on 7 February 2022

Verified Purchase

gut

Helpful

[Report abuse](#)



Sam Sim

[1.0 out of 5 stars](#) This doesnt work at all in my Mac

Reviewed in Germany on 29 January 2022

Verified Purchase

the product says just plug in and off you go and instead... plug in and nothing happens. so annoying!

Helpful

[Report abuse](#)



R.B.

[1.0 out of 5 stars](#) Defective after 20GB, 3-6MB/s, ATTENTION fake!

Reviewed in Germany on 27 January 2022

Actually, I expected something to be wrong here, but I still wanted to know how to put a 2TB "hard drive" into this little thing.

Speed test with CrystalDiskMark showed very poor read/write performance (between 3-6 MB/s).

A test copy of a 1 GB file took forever.

Then I wanted to copy up a total of 50GB of data, which failed after about 20GB because the drive was no longer recognized.

Since then, it has always been said "Please insert a data carrier" after plugging in.

Curious how I am, I opened the thing once (see photo).

I would have expected a micro SD card with fake size information...

This is a Type-C to micro-USB 2.0 adapter with a separate memory board that also has a USB-A port.

The flash chip is blank.

The controller chip on the back has the inscription FC2279 BA3 JCPC29G.

STAY AWAY!

[Read less](#)



When you look at this kind of memory chip datasheet, like on this one:

https://www.spectek.com/pdfs/SPECTEK_8GB_NAND_L41A_R1.PDF

You understand that this circuit can handle a few Gb only (4, 8, 16, 32Gb depending on its reference).

3) Opening one of the "4x2Tb" disk:

Coming back to our "4x2Tb" devices, and having a closer look at our "4x2Tb" memory chips,



One of the 4 memory chips shows us a '16GB" signature on it's corner. Here the fraud is clear: this "SSD" device that is in fact a very bad 4 NAND Flash memory assembly can't handle more than 16Gb per chip, assuming that the FC2279 controller circuits would only drive the correct real size of its chip, that is not sure when you know the those controllers are tricking your PC by making it believe that there is a 2Tb memory behind it and when you see how fast de device will hang as soon as you use it!

4) Opening one of the "1x2Tb" disk:

I also let you appreciate the " 2Tb SSD " device when opened, the dream goes away...



5) Conclusions:

Those false "SSD USB3 hard disk" will never handle 4x2Tb or 1x2Tb as announced, this advertising is a fake and you are not even able to run such poor device without frying it like a fish in the first hours, because the memory is not there. The controller circuit addresses obviously the memory in a fancy way like if it was a 2Tb memory, and bricks it as soon as data is going over the physical limits of the memory chip behind it. This kind of false "SSD USB3" disk is intended to die as soon as a few Gb of data is written, and the user will even loose the written data! This fake device looks like a "Russian Roulette" tool that was obviously designed to mislead and abuse 100% of customers, it CANNOT run, and the designers / sellers of those stupid things are necessarily aware of this tremendous fraud and should immediately be stopped because hundred of customers will be fooled every day.

PhD