

Tech Tip-001

Flash Drives

A flash drive is a flash drive, right? You might think that the only major differences between one flash drive and the next is the amount of storage space and exterior design. You would be wrong. There is a lot more to a flash drive.

There are some crucial differences when it comes to the format or file system of the flash memory itself. These factors determine which operating systems a flash drive is compatible with and how big a file can be stored on the drive.

A flash drive's memory has to be formatted and partitioned before anyone can transfer files to it. Several formats are available for use, and not every format is compatible with every operating system. Apple and Microsoft, for example, each have their own formatting systems.

When you purchase a USB Flash Drive or SD Memory Card it will come pre-formatted. So you must check the format first and re-format the device for a specific need.

Format Types

Fat-32 - the most versatile of all flash memory formats, and it's the format that you'll find in most off-the-shelf flash drives today. The major advantage of this format is that it's compatible with Windows, Mac, Linux and Android.

However, FAT32 does have some limitations. The most important is that it can't accept any file that's over 4 GB in size individually.

exfat - is a newer iteration of FAT with substantially higher file size limits. It keeps the same cross-compatibility as FAT32, but its file size limit is many times larger. It's an increasingly popular format for flash drives that need to easily migrate files between platforms while dealing with bulky media files.

NTFS - the standard flash drive format for PCs running Windows. No limit to file size. Android doesn't support NTFS file system.

HFS & APFS - Apple/Mac default formats. APFS is the newer one. No limit to file size.

Using a drive with an incompatible format might mean you can only access files in read-only mode. Sometimes, you might not be able to access them at all.