



# Photo Professional's Guide to Picking the Right Hard Drive

Storage probably isn't the most exciting piece of gear you have, but it is an integral one. Whether you're constantly on the go and need portable solutions to offload and back up your library, or just need to manage your work, the right setup can save you time, money, and heartache. We're going to help you find the right solutions for your needs and break down some best practices that can help keep your shoots moving and your images more secure.

## G-DRIVE™ SSD

PERFECT FOR:

High-Speed/Portable/Outdoor Offload, Library, & Backup; Tethered capture



IP67 Water/Dust Resistance



The G-DRIVE™ SSD is a great all-around option for most photo professionals. It is bus-powered (no separate power supply) so you can take it anywhere, and with up to 4TB<sup>2</sup> capacity, you'll be able to offload any size card, or several, even if they're full. The IP67 rating - up to 3-meter drop<sup>3</sup>, and 2,000lbs crushproof - mean this drive can handle most environments in stride. With its up-to-1050MB/s<sup>1</sup> read speed and built-in heat sink you can offload, work, and handle video when you need it on the same drive without losing performance to thermal throttling. Ultimately, whatever project you're taking on, this portable SSD will have you covered.

**Highlights:** Up to 1050MB/s<sup>1</sup> Read Speeds; 256-bit AES-XTS HW Encryption ; Up to 7x Faster than Most Portable HDD's<sup>4</sup>; Up to 4tTB<sup>2</sup>; Super-Durable Design; 5-year Limited Warranty

## G-DRIVE™ ARMORATD™

PERFECT FOR:

Low-Speed/Budget/Travel Offload, Library, & Backup; Client Drive



IP54 Water/Dust Resistance



This drive is your basic and budget-friendly option. It's good for letting you stay mobile and keeping up to 5TB<sup>2</sup> on a single drive. Whether you produce a lot before you can access your master library, need to take a chunk of it with you, or if 5TB<sup>2</sup> is enough to keep a backup of everything, it's a lot of capacity you can throw in a bag. It's built to survive if you're always on the go, or if you just always want to keep a backup on you. As with any typical 2.5" bus-powered drive, it may not be up to handling heavy processing or video, though. If you need more oomph there, you can opt for the G-DRIVE™ SSD for your primary with the ArmorATD™ as your slower and cheaper backup.

**Highlights:** Up to 5TB<sup>2</sup>; Rugged Durability; 3-year Limited Warranty

## G-DRIVE™ G-DRIVE™ PRO

PERFECT FOR:

Both: Mid-Speed Library; Studio/Budget Backup; G-DRIVE PRO: Daisy chain additional drives/devices w/ Thunderbolt 3



ULTRASTAR® NVMe™ SSD



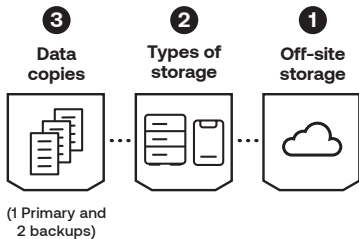
Thunderbolt 3 Ports

These are the standard 'go-to' desktop drives that give a lot of capacity and functionality for the cost with up to 20TB<sup>2</sup> for either. Both the G-DRIVE and G-DRIVE PRO offer the same 5 year warranty enterprise class drives, the difference with the Pro is, it adds Thunderbolt™ 3 giving you the ability to daisy chain multiple drives and/or devices together. This can make getting those backups made or incorporating into the rest of gear in your setup easier and takes only one system port. If you don't need that functionality you can save a little with the G-DRIVE model which will offer you the same speeds and capacity over USB.

**Highlights:** Both: Up to 20TB<sup>2</sup>; 5yr Warranty G-DRIVE™ Pro: Daisy chain over Thunderbolt 3



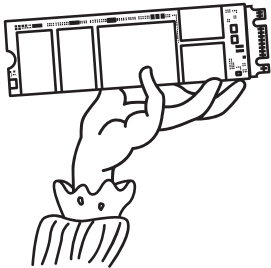
## 3-2-1: The Gold Standard



The ‘Gold Standard’ for protecting your work is the 3-2-1 Rule: **THREE** copies, one that you work off of, and two backup<sup>4</sup> copies; saved on **TWO** different types of storage (HDD/SSD, Cloud, etc.); **ONE** copy stored in a different location in case of fires, accidents, etc. The key is to keep your backups current; otherwise, they’re not very good backups. Set up a system that works for you and your team if you have one. When you travel, don’t pack copies together, even if it’s just between home and the studio. This way, if a bag is lost or stolen, then all your work isn’t gone as well. If you’re looking at the cloud for one copy, there are lots of options. Whatever you choose, just be mindful of accessibility and duration of downtime to recover, then make sure they’re acceptable.

**Tip: If the cloud doesn’t work for you, and a second location is hard, try a fire-proof safe, safety deposit box, or even the glove compartment of your car.**

## To SSD, or Not To SSD...That is The Question



SSD’s are great, but there are differences to know between them and HDD’s. First, like any drive, SSD’s are NOT failproof and don’t last forever, so no matter what you’ve heard, you still need a backup. HDD’s are best for cost-to-capacity, but are usually slower than SSD’s. You can get HDD RAID’s to increase speeds and/or add redundancy, but you may not need all that space and added cost. There are SSD RAID’s, but they are overkill for most. Keep in mind that editing photos is different from editing video, and most RAW files will write in less than a second to any HDD. In the end, SSD’s are fast but more limited in capacity. Ultimately, both may have a place in your workflow; just pick what fits your needs and your budget, not the hype.

**Tip: Unless downtime hurts you, back up an SSD with a less expensive and slower HDD. This gives you a setup that can meet your needs without breaking the bank.**

## Those Bothersome Backups



What we described in 3-2-1 about managing backups may sound like a lot of work, but how many hours’ worth of work do you have sitting on that hard drive? How many setups? How much post processing? If the idea of losing your work makes you anxious, but you’ve been lax on backups in the past, you need to set up a system. Get your drives lined up, make a workflow, and automate as much as you can. It might take some time to dial it in, but once you do, you’ll breathe easier knowing that everything you do is that much safer. Remember, just because you’ve never had a problem before, doesn’t mean it can’t happen to you. Don’t lose your work.

**Tip: Simplify your workflow with software that will automatically run your backups on a schedule. Checkout Chronosync and Carbon Copy Cloner for local copies, or Carbonite for offsite storage.**

[1] Based on read speed, unless otherwise specified. As used for transfer rate, megabyte per second (1 MB/s) = 1 million bytes per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, raid configuration, and other factors. [2] As used for storage capacity, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. For G-RAID Shuttle 4 & Shuttle 8: Speeds vary by RAID configuration. Stated speeds are based on RAID 0 mode; default is RAID 5, which has lower speeds. [3] Based on read speed. Based on internal testing. [4] Always follow backup best practices and do not rely solely on any RAID’s redundancy as your ‘backup’, because a backup is only a copy that exists on a physically separate device.

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