



Buffalo Branded Hard Drives

Buffalo Customers Receive Confidence, Not Just Capacity

Customer data security is the highest priority at Buffalo. That is why Buffalo sources hard drives from leading manufacturers and subjects specific models to extensive Buffalo-level qualification, validation, and system testing before they are approved for use in Buffalo NAS systems. These drives are not treated as interchangeable retail components — they are certified building blocks of a fully engineered storage solution.

While retail hard drives may include a standard manufacturer warranty, Buffalo goes further. Through rigorous testing and integrating drives as part of the complete system, Buffalo is able to stand behind the entire NAS solution — hardware, drives, and data — under a single Buffalo warranty and support model. This is what delivers higher confidence, lower risk, and true peace of mind for customers.

Every Buffalo drive is purpose-procured, manufacturer-binned, factory-tested, and validated within real RAID configurations and complete Buffalo systems before it is delivered for installation. The result is a storage foundation designed to work predictably, recover quickly, and remain supportable over the full life of the system.

Bottom line: Buffalo branded hard drives are not standalone components. They are pre-validated building blocks of a complete, proven storage platform.



Technical & Operational Information

1. Single-Vendor Storage Solution Philosophy

Buffalo TeraStation NAS systems are designed and sold as single-vendor storage solutions, where Buffalo owns responsibility for:

- Hardware platform
- Drives
- Firmware / OS
- Compatibility
- Performance validation
- Warranty and support

Because of this model:

- Individual drive manufacturers or models are not advertised or guaranteed.
- Buffalo ensures there is not a meaningful performance difference or performance issues will exist if mix and match drives are used in a common NAS system.

Instead, Buffalo focuses on ensuring that all Buffalo-branded drives of the same class behave identically inside a Buffalo NAS system.

Additionally, Buffalo does not restrict the use of 3rd Party drives and will continue to offer Technical Support up to the point of identifying probable drive fault.

2. Buffalo-Branded Drives (What That Means)

Buffalo-branded drives:

- Carry a Buffalo internal SKU and small Buffalo label to distinguish from retail drives
- May originate from different major manufacturers
- Are not proprietary-locked. Buffalo does not block the use of third-party drives

Buffalo maintains agreements with all major drive manufacturers, giving access to:

- Premium quality
- Priority supply
- Purpose-built production runs
- Manufacturer-binned models that meet Buffalo's requirements

Only drive models that pass Buffalo's extensive testing and performance validation are approved for use or sale.

3. Manufacturer Binning & Pre-Qualification

Before drives reach Buffalo factories:

- Manufacturers bin and qualify specific drive models to Buffalo standards
- Tighter tolerances and consistency requirements are applied
- This step alone goes far beyond what occurs with retail drives.



4. Factory-Level Zero-Write Sector Testing

At Buffalo factories, every drive undergoes:

- Full zero-write sector testing

This process:

- Writes to every sector on the drive
- Identifies early-life failures
- Eliminates weak drives before systems ship

Retail drives do not receive this level of screening.

5. RAID-Level Validation

Drives are not only tested individually:

- They are tested together as RAID sets
- Compatibility, synchronization, and rebuild behavior are validated
- Mixed-model drives of the same class are verified to behave consistently

Internal testing comparing to evaluate any performance differences:

- Identical drive models
- vs. mixed drive models (same class)

This ensures customers can replace failed drives with any Buffalo-branded drive of the same capacity and class without risk. This is why Buffalo drives are sold under a Buffalo model number vs. the drive manufacturers retail model number.

6. Full System Performance Certification

Before release, Buffalo performs:

- End-to-end performance testing of the entire NAS
- Throughput validation
- Stability and thermal behavior checks

Drives are certified inside the actual platform they will run in—not in isolation.

7. Why Drive Cache Size Is Not a Differentiator

While retail marketing often emphasizes drive cache size:

- In RAID environments, parity, mirroring, metadata, and data quickly exceed 256MB or 512MB cache thresholds
 - Once cache is exceeded, performance is governed by platter read/write speeds and system architecture
- Buffalo testing confirmed that cache differences do not justify separating or advertising drives by specific model.

Real performance gains come from:

- SSD cache options
- Additional system RAM
- Faster network interfaces (e.g., 10GbE, Fibre Channel)

These upgrades directly impact overall system performance far more than incremental drive cache differences.



8. Common Bill of Materials (BOM)

Buffalo drives are part of **the same BOM used** in each storage solution:

- Ensures no degradation when drives are mixed and matched
- Maintains consistent rebuild times, throughput, and behavior
- Eliminates surprises when expanding or replacing drives

Retail drives offer no such guarantee.

9. No Overstock or Gray-Market Sourcing

Buffalo does not source:

- Overstock
- Excess inventory
- Liquidation drives

Common in eTail channels.

Buffalo drives are:

- Purpose-procured
 - Traceable
 - Quality-controlled
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10. Single-Vendor Accountability

Buffalo-branded drives are covered under Buffalo warranty:

- No finger-pointing between NAS vendor and drive manufacturer
- One call
- One RMA process
- One accountable partner

Even when third-party drives are used, Buffalo still provides support up to identifying probable drive fault.

11. Why Buffalo Drives Cost More

Buffalo's cost is higher because of:

- Manufacturer binning and qualification
- Factory zero-write testing
- RAID-level validation
- Full system certification
- Priority access to drive supply

Additionally, global drive pricing and availability impacts final selling prices.

Buffalo plans for these costs so customers receive a predictable, reliable storage experience.

Summary

Buffalo branded hard drives are pre-validated components that form an integral part of a fully tested Buffalo storage solution—not retail hard drives resold by Buffalo.

Customers receive:

- Maximum confidence in hard drive quality



- Higher reliability
- Lower failure rates
- Faster deployment
- Predictable performance
- Simplified support
- Lower total cost of ownership
- One accountable partner

Buffalo customers are buying confidence, not just capacity.