



VOLSAFE

SECURE MEDIA TECHNOLOGY

Key benefits

Permanently write-protect valuable corporate data

Address regulatory requirements and business continuity with VolSafe secure media technology. It was designed to permanently write and protect data.

Reduce cost of ownership

Since all T9840 and T9940B tape drives are VolSafe technology capable, you simply purchase VolSafe tape cartridges, just like you would any other media. You do not have to invest in other hardware, simply purchase VolSafe tape cartridges.

Simplify media management

For current StorageTek tape library customers, VolSafe requires no additional hardware, staff or special operating procedures.

Improve user access

Automated VolSafe solutions provide customers stymied by manual archive policies with easy and fast data access.

Improve asset utilization

VolSafe media can be managed in a library concurrently with non-VolSafe media and even non-9840 or non-9940 media.



The VolSafe cartridge labels.

The bright yellow or green StorageTek logos, the media identifier label background, and the write protect switch allow the operator to easily distinguish VolSafe media from other media.



VolSafe secure media technology

VolSafe® secure media technology from StorageTek® is the industry's premier non-erasable, non-rewritable, tape-based write once read many (WORM) storage solution. Once your information is written to tape, additional information can then be added or read as often as needed, but never changed, modified or deleted. Additionally, VolSafe technology supports the most demanding electronic storage regulatory requirements, including those of the Securities and Exchange Commission.

VolSafe technology combines visual, physical and electronic redundancy to protect data security.

- Visibly — VolSafe write-protect switches and cartridge labels are different colors to facilitate identification
- Physically — drive sensors detect a unique depression on the bottom of the VolSafe cartridge and identify it as VolSafe enabled.
- Electronically — the Media Information Region (MIR) contains a VolSafe identifier that is written on the tape at the factory.

T9840 tape drive with WORM technology

StorageTek's T9840 tape technology was designed to deliver access times that rival those of optical disk, offering almost immediate access to your WORM data without additional equipment to purchase and at a lower operating cost than optical disk solutions. VolSafe technology, coupled with StorageTek tape libraries, provides a highly-scalable, reliable and fast WORM storage answer. It is the superior option and the ideal solution.

Get WORM for your growing data needs with the T9940B tape drive

The T9940B technology offers massive capacity coupled with requisite performance. Tried and proven with the T9840 tape technology, VolSafe capability is extended to the T9940B tape drive and 9940 media. In order to utilize the VolSafe functionality, the customer purchases 9940 VolSafe data cartridges.

VolSafe technology is an integral part of future tape technologies from StorageTek. It is designed to help customers dramatically reduce the total cost of storage, provide enterprise-wide storage access, deliver unequalled performance, reduce the storage management burden and deliver 24 x 7 x forever secure data storage and access.

VolSafe media compatibility with T9x40 tape drives

- 9840 VolSafe cartridges are compatible with StorageTek's T9840A and B tape drives.
- 9840C VolSafe cartridges are compatible with StorageTek's T9840C tape drive.
- 9940B VolSafe cartridges are compatible with StorageTek's T9940B VolSafe-enabled tape drives.



Tape Drives	9840 VolSafe cartridge	9840C VolSafe cartridge	9940B VolSafe cartridge
T9840A/B drive	Read/write		
	20-GB capacity		
	10-MB/sec transfer rate		
	12 sec access time		
T9840C drive	Read only	Read/write	
		40-GB capacity	
		30-MB/sec transfer rate	
		12 sec access time	
T9940B drive			Read/write
			200-GB capacity
			30-MB/sec transfer rate
			Up to 70-MB/sec compressed

Note: T9940A drive not VolSafe-enabled

VolSafe secure media technology specifications

Capacity

Capacity, native (uncompressed)	20 GB (T9840B), 40 GB (T9840C), 200 GB (T9940B)
Performance tape speed	
Read and write	2.0 m/sec (79 ips) — T9840A
	4.0 m/sec (160 ips) — T9840B, T9840C
	3.4 m/sec (136 ips) — T9940B
Search and rewind	11 m/sec (440 ips)
Formulation	Advanced metal particle (AMP)
Coercivity	1625+/-75 Oersteds (130 +/-16.0 KA/m)
Substrate	Polyethylene naphthalate (PEN)
Track-following servo	Factory pre-recorded (Caution: Do not bulk-erase cartridges)

Mechanical

Width	4.29 in (109 cm)
Length	4.92 in (125 cm)
Height	1.00 in (25.4 cm)
Weight	9.17 oz (262 g)
Drop strength	38.4 in (1 m)

Compatibility

Tape drive compatibility	3490, 3590, T9840A, T9840B, T9840C, T9940B
Number of tracks	288 (T9840A, T9840B, T9840C, 576, T9940B)
Form factor	Half inch, 3480/3490E

Availability

Archival life	30 years
Short-length durability	80,000 write/read passes minimum
Long-length durability	6,500 write/read passes minimum
Uncorrected bit error rate	1x10 ⁻¹⁸
Permanent errors	Zero
Load/Unloads	10,000 minimum

Environmental

Temperature (non-condensing)	
Operating	+60° F to +90° F (+15° C to +32° C)
Storage (up to 4 weeks)	+40° F to +90° F (+5° C to +32° C)
Storage (archive)	+59° F to +77° F (+15° C to +25° C)
Shipping	-10° F to +120° F (-23° C to +49° C)
Humidity	
Operating	20% to 80%
Storage (up to 4 weeks)	5% to 80%
Storage (archive)	30% to 40%
Shipping	5% to 80%
Wet bulb maximum	
Operating	+78° F (+26° C)
Storage (up to 4 weeks)	+78° F (+26° C)
Storage (archive)	+78° F (+26° C)
Shipping	+78° F (+26° C)

ABOUT STORAGE TEK®

Storage Technology Corporation (NYSE: STK) is a \$2 billion global company that enables businesses, through its information lifecycle management strategy, to align the cost of storage with the value of information. The company's innovative storage solutions manage the complexity and growth of information, lower costs, improve efficiency and protect investments. For more information, visit www.storageitek.com, or call 1.800.275.4785 or 01.303.673.2800.

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