STORAGETEK VOLSAFE

KEY FEATURES

SECURE MEDIA TECHNOLOGY

- **Distinguish media.** The media identifier label background and the write-protect switch enable the operator to easily distinguish VolSafe technology media from other media.
- **Permanently write-protect valuable corporate data.** Address regulatory requirements and business continuity with VolSafe secure media technology, designed to permanently write and protect data.
- **Reduce cost of ownership.** Because StorageTek T10000 and T9840 tape drives are VolSafe-technology-capable, you simply purchase VolSafe tape cartridges, just as you would any other media, and don't have to invest in other hardware.
- **Simplify media management.** For current StorageTek tape library customers, VolSafe technology requires no additional hardware, staff, or special operating procedures.
- **Improve user access.** Automated VolSafe technology 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, even with non-9840 .

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

StorageTek VolSafe provides secure media technology.

VolSafe Secure Media Technology

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

- **Visibly.** VolSafe technology's 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 technology-enabled.
- **Electronically.** The media information region (MIR) contains a VolSafe technology identifier that is written on the tape at the factory.

StorageTek T9840 Tape Drive with WORM Technology

The StorageTek T9840 tape drive technology was designed to deliver access times that rival those of optical disc, offering almost immediate access to your WORM data without additional equipment to purchase and at a lower operating cost than optical disc 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 StorageTek T10000 Tape Drive

The StorageTek T10000 tape drive technology offers massive capacity coupled with superior performance. Tried and proven with the StorageTek T9840 tape drive, VolSafe technology is extended to the StorageTek T10000 tape drive and StorageTek T10000 tape media. To use the VolSafe technology functionality, the customer purchases StorageTek T10000 VolSafe data cartridges.

VolSafe technology is designed to help customers dramatically reduce the total cost of storage, provide enterprisewide storage access, deliver unequaled performance, reduce the storage management burden, and deliver 24/7/forever secure data storage and access.

Engage the Storage Experts

Oracle's StorageTek service professionals can help you address storage challenges, by delivering integrated services and solutions that optimize and manage storage performance over the life of your data. Oracle's recognized, world-class service and customer care give you confidence that your technology investment is protected and that your business will be responsive to change. Oracle can help you pinpoint opportunities to reduce costs, mitigate business risk, and better leverage information assets. Oracle's consulting and managed services offer clear and simple choices in solutions that address your regulatory concerns, complex storage growth, resource management, and scalability challenges. Oracle's dedicated storage service professionals can help you gain and sustain measurable results with the reliability and flexibility you require.

VolSafe Compatibility with StorageTek T10000 and StorageTek T9x40 Tape Drives				
Tape Drives	T9840 VolSafe Cartridge	T9840C VolSafe Cartridge	T9840D VolSafe Cartirdge	T10000 Cartridge
T9840A/B drive	Read/write	N/A	N/A	
T9840C drive	Read only	Read/write	N/A	
T9840D drive	Read only	Read Only	Read/Write	
T10000A drive				Read/write T10000A format
T10000B drive				Read/write T10000B format Read T10000A format

Cartridge Specifications

Capacity		
	T9840 VolSafe Technology Cartridge	T10000 Cartridge
Capacity, native (uncompressed)	• T9840D: 75GB • T9840C: 40 GB • T9840B: 20 GB	• T10000 standard: 500 GB, 1 TB (T10000B) • T10000 Sport: 120 GB, 240 GB (T10000B)

MEDIA RESOURCES
SUPPLY - SUPPORT - RETIRE

Performance		
	9840 VolSafe Technology Cartridge	T10000 Cartridge
Formulation	Metal particle (MP1)	Advanced metal particle (AMP)
Coercivity	1625 +/– 75 oersteds (130 +/– 6.0 KA/m)	2500 +/– 100 oersteds (200 +/– 8.0 KA/m)
Substrate	Polyethylene naphthalate (PEN)	Polyethylene naphthalate (PEN)
Track-following servo	Factory prerecorded (Caution: Do not bulk-erase cartridges)	Factory prerecorded (Caution: Do not bulk-erase cartridges)
Mechanical		
Width	4.29 in. (10.9 cm)	4.29 in. (10.9 cm)
Length	4.92 in. (12.5 cm)	4.92 in. (12.5 cm)
Height	1.00 in. (2.54 cm)	1.00 in. (2.54 cm)
Weight	9.17 oz. (262 g)	9.31 oz (263.9 g)
Drop strength	39.4 in. (1 m)	39.4 in. (1 m)
Compatibility		
Tape drive compatibility	T9840A, T9840B, T9840C, T9840D,	T10000, T10000B
Number of tracks	T9840A, T9840B, T9840C: 288 T9840D: 576	T10000: 768 T10000B; 1152
Form factor	0.5 in.	0.5 in.
Availability		
Archival life	30 years	30 years
Short-length durability	80,000 write/read passes minimum	N/A
Long-length durability	6,500 write/read passes minimum	N/A
Uncorrected bit error rate	1×10^{-18}	1×10^{-19}
Permanent errors	Zero	Zero
Load/unloads	10,000 minimum	15,000 minimum

Environmental		
Temperature (noncondensing)	9x40 VolSafe Technology Cartridge	T10000 Cartridge
Operating	+59°F to +104°F (+15°C to +40°C)	+59°F to +104°F (+15°C to +40°C)
Storage (up to 4 weeks)	+40°F to +90°F (+5°C to +32°C)	+50°F to +90°F (+10°C to +32°C)
Storage (archive)	+59°F to +77°F (+15°C to +25°C)	+59°F to +79°F (+15°C to +26°C)
Shipping	–9°F to +120°F (–23°C to +49°C)	–9°F to +120°F (–23°C to +49°C)
Humidity		
Operating	20% – 80%	20% – 80%
Storage (up to 4 weeks)	15% – 50%	15% – 50%
Storage (archive)	30% – 40%	30% – 40%
Shipping	5% – 80%	5% – 80%
Wet Bulb Maximum		
Operating	+78°F (+26°C)	+78°F (+26°C)
Storage (up to 4 weeks)	+78°F (+26°C)	+78°F (+26°C)
Storage (archive)	+78°F (+26°C)	+78°F (+26°C)
Shipping	+78°F (+26°C)	+78°F (+26°C)

Warranty

Visit oracle.com/sun/warranty for Oracle's global warranty support information on StorageTek products.

Services

Visit oracle.com/sun/services for information on Oracle's service program offerings for StorageTek products.

Contact Us

For more information about Oracle's StorageTek VolSafe, please visit oracle.com/storage or call +1.800.786.0404 to speak to an Oracle representative.

Oracle is committed to developing practices and products that help protect the environment

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