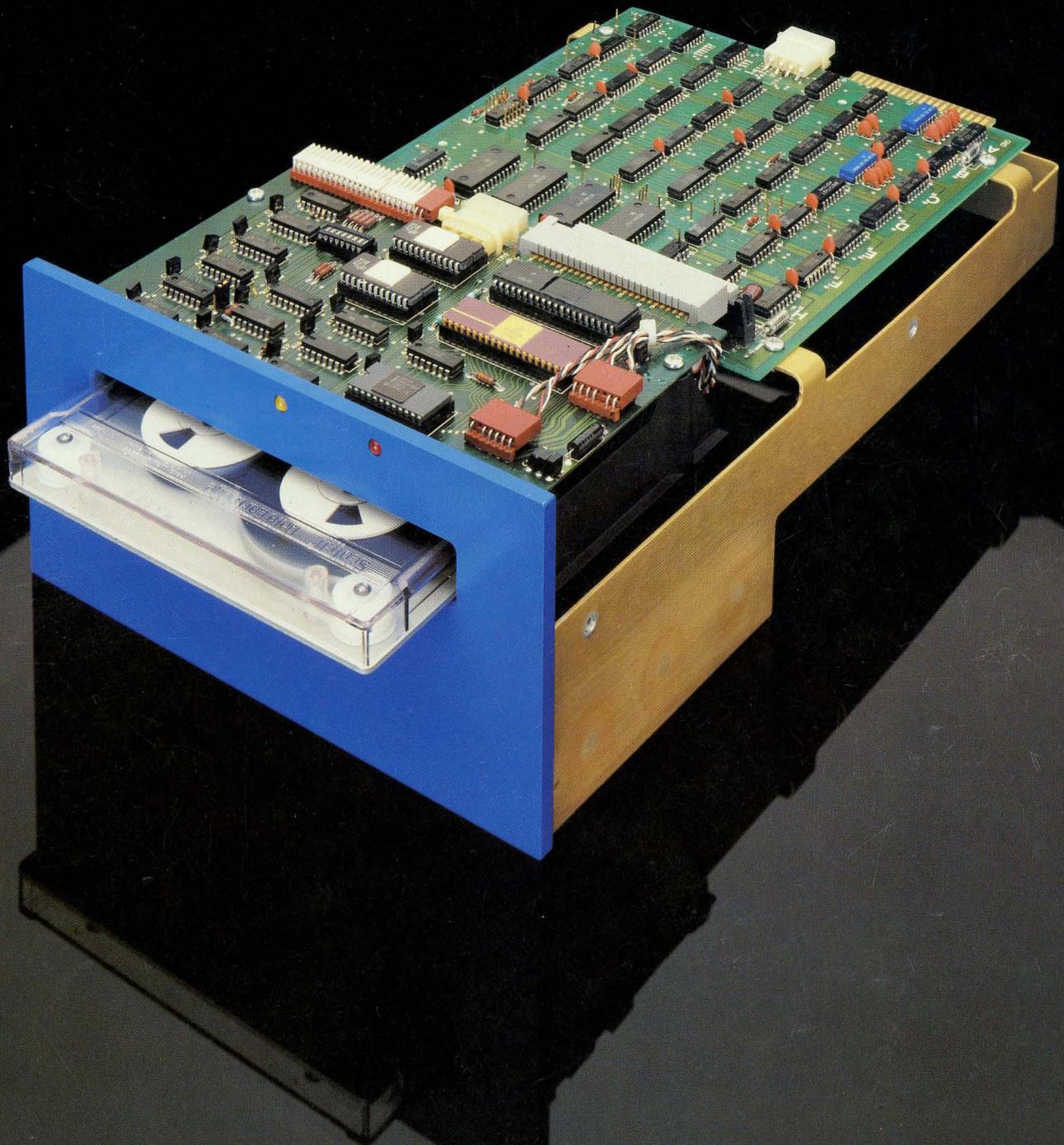
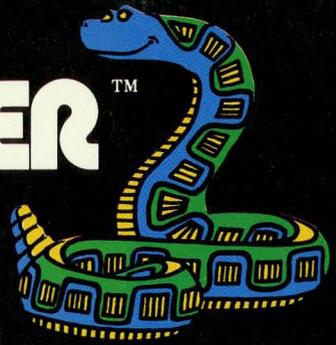


Archive Corporation's
SIDEWINDER™

**Streaming Cartridge Tape Drives
for Winchester Back-Up**



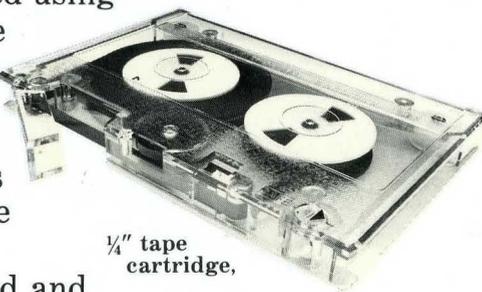
High capacity. High performance. Lower cost.

In considering Archive's Sidewinder as your back-up system pay particular attention to its ability to reduce the time it takes to load and unload large amounts of data. You'll be impressed. Because Archive's Sidewinder streaming tape drive, using a standard 1/4 inch cartridge, delivers more formatted capacity — up to 20 megabytes — and faster transfer rates (up to 90K bytes per second) at a lower cost than other back-up alternatives.

Archive engineers scored a breakthrough with the combination of high tape utilization and low cost per megabyte that produced one of the most efficient back-up alternatives in the industry. And Sidewinder's physical size allows mounting in existing computer systems.

Big Selection

The Sidewinder family consists of 8 different models. Choose from 10 or 20 megabytes formatted capacity, 30 or 90 inches per second tape speed and either Basic or Intelligent versions. Recording is accomplished using a serpentine tape motion technique. This allows 2 or 4 tracks of data to be recorded in both forward and reverse directions, eliminating rewinds at the end of each track.



1/4" tape cartridge,

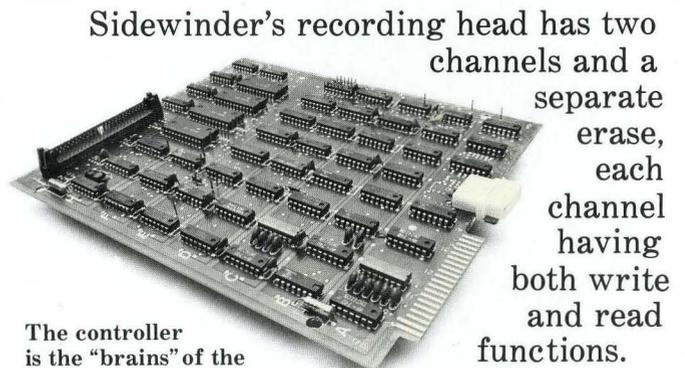
low cost industry standard.

Total Performance

Total performance concerns itself with product quality. The solid kind of quality you'll see in every Sidewinder tape

drive. Quality cannot be improvised, it must be carefully designed in from the very beginning.

The rugged mechanics, including the capstan motor, head stepping mechanism, sensor assembly and sensing switches of the Sidewinder drive are mounted on a solid, durable glass-reinforced polycarbonate plastic frame. Drive electronics are packaged on two printed circuit boards.



The controller is the "brains" of the intelligent Sidewinder.

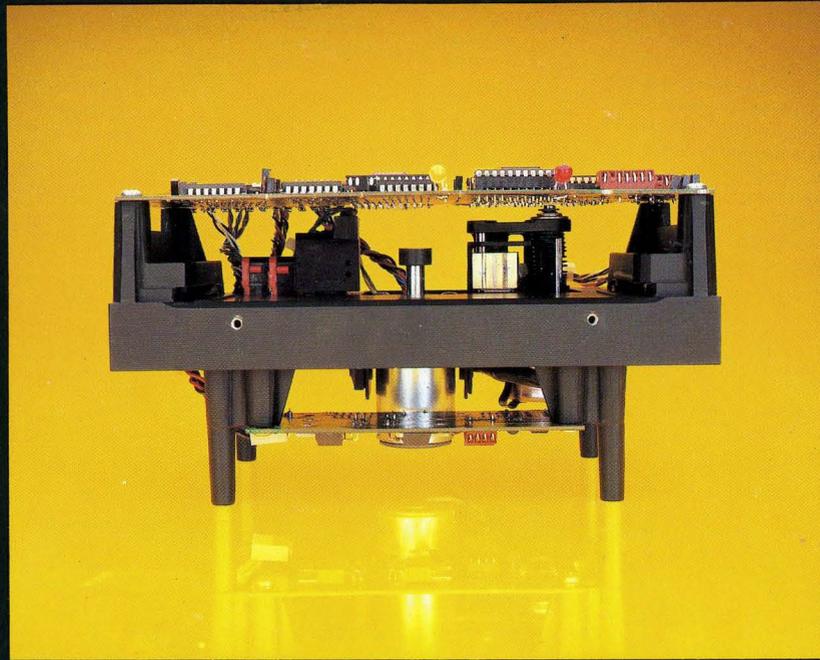
Sidewinder's recording head has two channels and a separate erase, each channel having both write and read functions. The single erase gap extends over the entire tape width (see drawing). In the 4 track (20 megabyte) version, the head is positioned by means of a precision ground lead screw and stepper motor.

Tape motion is precisely controlled by the DC motor and servo. The capstan exerts the exact amount of pressure on the cartridge by means of a simple spring and pivot mechanism.

Highly reliable micro switches provide "cartridge present" and "write protect" sensing functions. Long life LED and photosensing devices mounted in the sensor housing are used to indicate end-of-tape and beginning-of-tape. An activity (drive selected) LED indicator is provided for operator convenience.

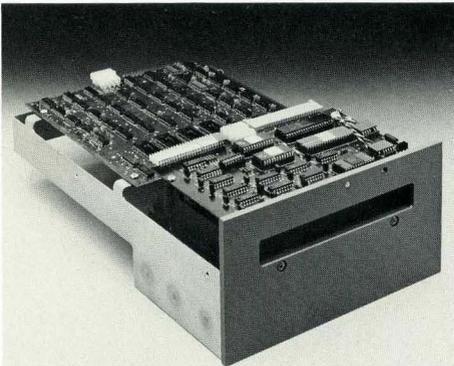
LSI Controlled

The LSI controlled Sidewinder provides the tape system with extremely accurate and efficient internal controls. The LSI chip controls the positioning of the head, monitors capstan speed and servos the tape speed.

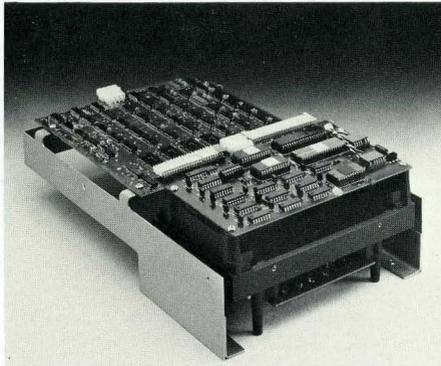


**Sidewinder Streaming
1/4 inch Cartridge Tape Drives
from Archive.**

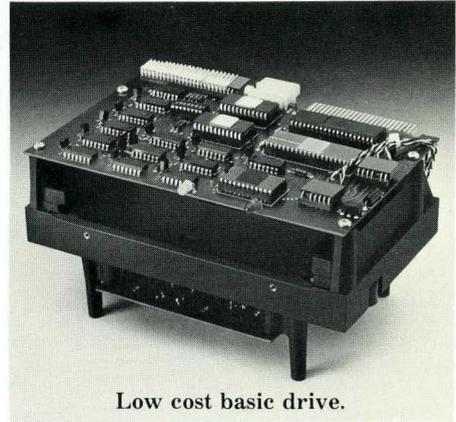
**Back-up Systems
for the 80's.**



8" intelligent drive floppy mount.
Available with optional front panel.



Intelligent drive 8" floppy mount.



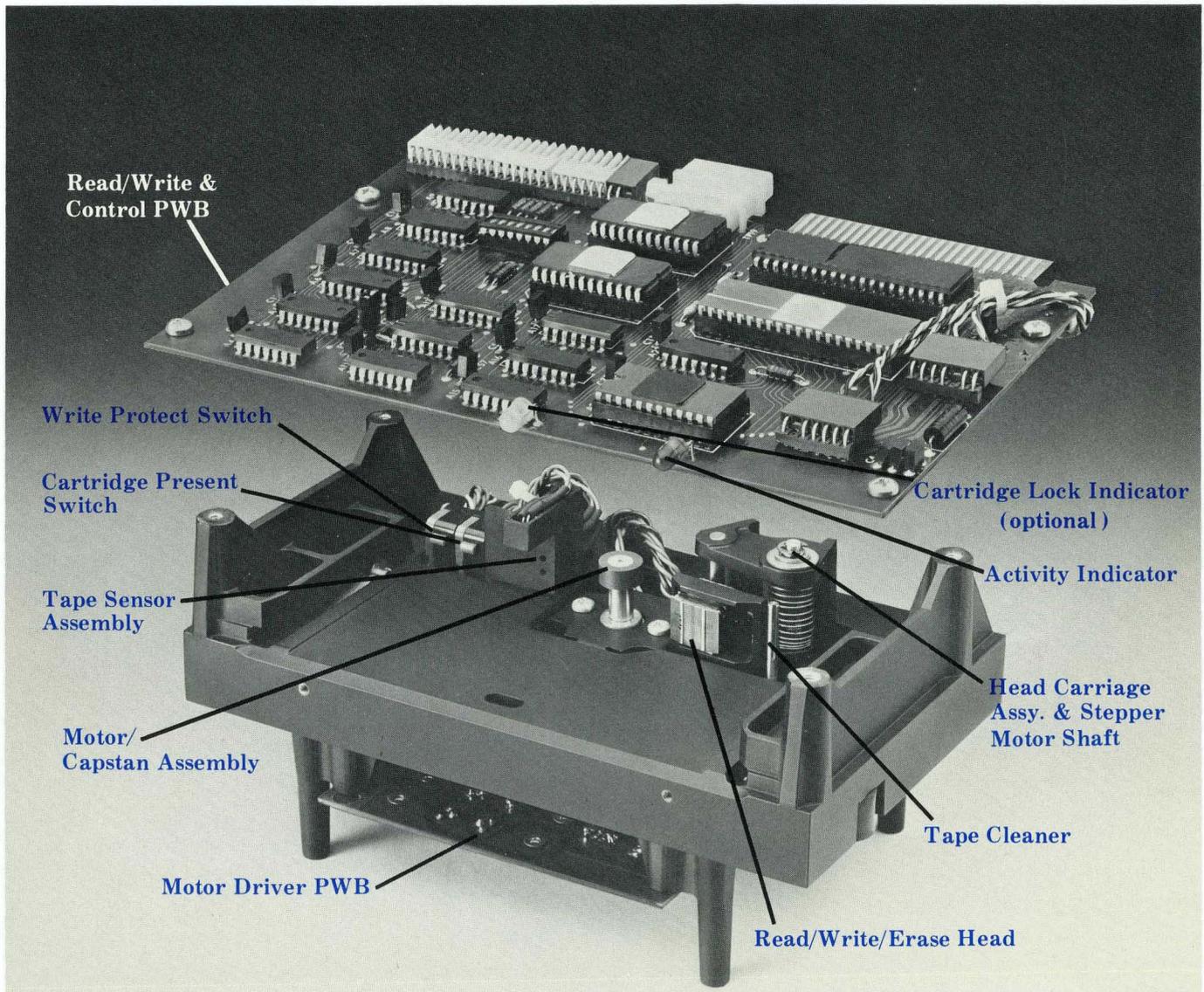
Low cost basic drive.

An intelligent LSI controller mated with a Basic Sidewinder fits into the same package size as an 8 inch floppy disk drive. The controller relieves the host of overhead functions such as: tape formatting, error and file mark processing and tape positioning.

In fact, the intelligent controller also

provides automatic read-after-write error correction, block buffering and read retries without host intervention.

The controller's high degree of intelligence minimizes hardware and software efforts needed to interface any micro or minicomputer.



Maximize Your Utility

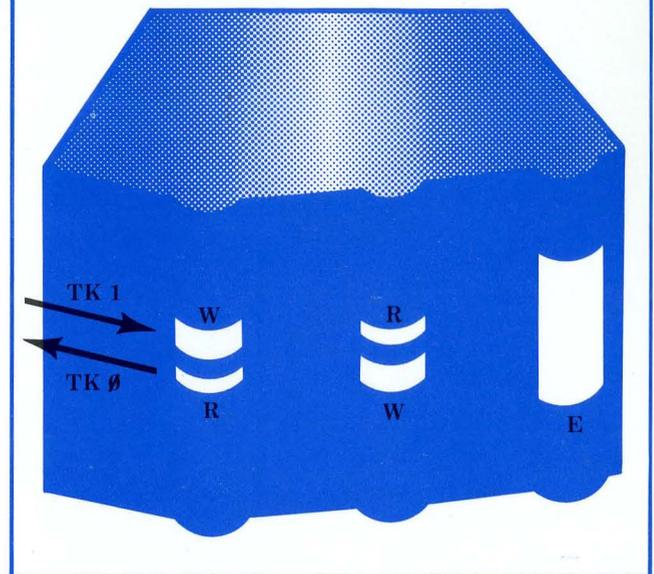
Streaming back-up techniques are applicable where requirements for storage exceed the demand for the updating of individual records.

Whether you're backing up 14, 8 or 5¼ inch Winchester disk drives, your Sidewinder streaming tape system provides maximum tape utilization and high throughput rate.

The high throughput rate is accomplished by eliminating the large inter-record gaps associated with start/stop tapes. That means Sidewinder systems can transfer 20 megabytes of formatted data in a little over 4 minutes. Should the host be unable to meet the streaming rate, the Intelligent Sidewinder will stop, reposition, wait, and then start again.

Constant tape motion (streaming) at 90 or 30 ips significantly reduces the unit cost while at the same time greatly increases the efficiency of the product. By utilizing a highly efficient formatting technique, the Sidewinder achieves a tape utilization of 97% on conventional tape cartridges.

Sidewinder read/write tape head features advanced design.



What's more, up to four basic Sidewinders may be daisy-chained with the intelligent controller, using a standard single 50-conductor flat ribbon cable.

As you can see, the low cost per bit for offline storage, the high data throughput rate and the minimum unit cost make Sidewinder tape drives an attractive back-up for Winchester disks.

10M Byte Winchester Backup Alternatives

Device	Formatted Capacity (MB)	Unit Cost (Qty 500)	Number of Media Changes Required	Media Interchange Time (Min)*	Recording Time (Min)	Total Dump Time (Min)	Total Media Cost (\$)
¼" Archive Cartridge Streamer	10.0	\$ 469	1	.5	2.0	2.5	20.00
8" Floppy Disk DS/DD	1.3	520	8	4.0	8.8	12.8	40.00
5.25" Floppy Disk DS/DD	0.409	325	25	12.5	25	37.5	100.00
¼" Cartridge Start/Stop	4.3	1172	3	1.5	30	31.5	60.00

* Assumes .5 minutes for Media Interchange

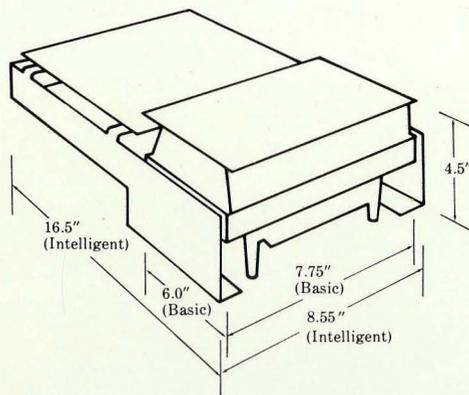
Specification Summary

Data Handling

Transfer Rate	90KBytes/Sec. @ 90 IPS 30KBytes/Sec. @ 30 IPS
Capacity, Unformatted	10.8MBytes - 2 Tracks 21.6MBytes - 4 Tracks
Capacity, Formatted	10MBytes - 2 Tracks 20MBytes - 4 Tracks
Recording Form	2 or 4 Track Serpentine
Recording Code	Customer Selectable
Head Format	Read While Write With Separate Erase
Number of Recorded Tracks	Two or Four
Recording Density	8,000 Bits/In.

Data Reliability

Recoverable Error Rate	No more than one in 10 ⁸ Bits
Non-Recoverable Error Rate	No more than one in 10 ¹⁰ Bits



Tape Motion

Speed, Read/Write	90 or 30 In/Sec. (Not Selectable)
Speed, Rewind	90 or 30 In/Sec. (Not Selectable)
Speed Variation	• Short Term with Cartridge Loaded $\pm 7\%$ • Long Term with Cartridge Loaded $\pm 3\%$
Start/Stop Time	<300ms @ 90 IPS: <100ms @ 30 IPS

Power

DC Requirement	+24V $\pm 10\%$ @ 0.8A +5V $\pm 5\%$ @ 1A (Basic Unit) 3A (Intelligent Unit)
Dissipation - Typical	30 Watts (Basic Unit) 50 Watts (Intelligent Unit)
Maximum	40 Watts (Basic Unit) 60 Watts (Intelligent Unit)

Physical Dimensions	(Basic Unit)	(Intelligent Unit)
• Depth (Inches/mm)	6.0/152.4	16.5/419.2
• Width (Inches/mm)	7.75/196.9	8.55/215.9
• Height (Inches/mm)	4.5/114.3	4.5/114.3
• Weight (Pounds/kg)	2/.9	3/1.35

Environmental

Operating Temp	+5 to +45°C
Storage Temp	-30 to +60°C
Relative Humidity	20% to 80% non-condensing
Altitude	-200 to 15,000 Feet

Media	ANSI STANDARD X 3.55 - 1977 Cartridge Tape 450 Ft. Length
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MTBF	3500 hours
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MTTR	30 minutes
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Archive Corporation

Archive Corporation was formed in March 1980 to develop, manufacture and market high-performance "streaming" cartridge tape drives to OEM computer manufacturers.

The founders of Archive have wide practical knowledge in developing, manufacturing and marketing computer products, especially low cost, high volume, electromagnetic peripherals. And they

have many years of hands-on experience with major manufacturers of tape and disk drive equipment.

Archive Corporation will concentrate its engineering, manufacturing and marketing facilities at a new 12,000 square foot building located in Costa Mesa, California.



ARCHIVE

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