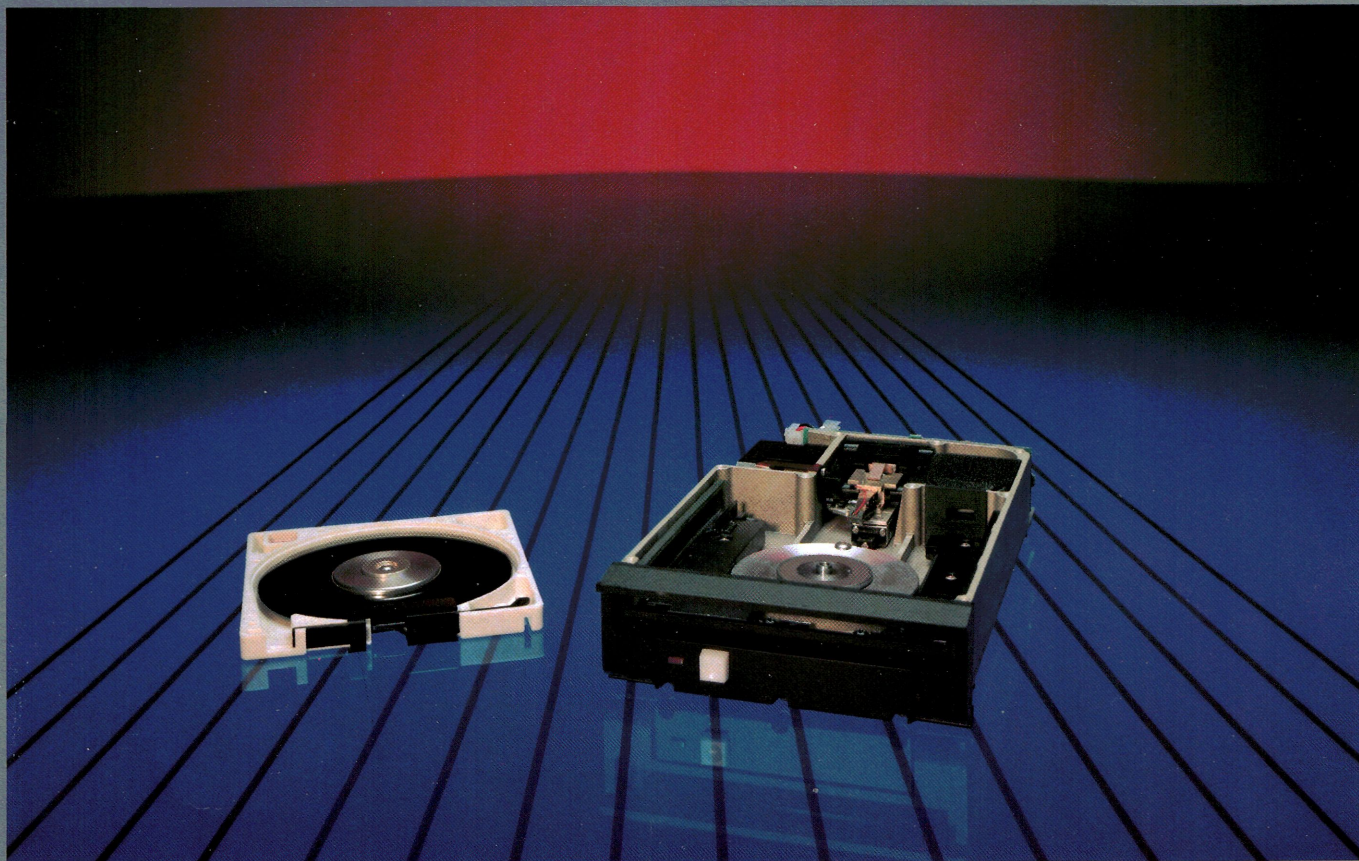




SyQuest
TECHNOLOGY

SQ306RD



Half-height Winchester removable cartridge drives.

Capacity of 6.38 megabytes, plated media, embedded servo, and power dissipation of 13 watts.

SyQuest drives give you a better fit. Mount SyQuest half-height drives almost anywhere. Under a keyboard. In your terminal. Fit two in one minifloppy space. SyQuest drives are only 1.625 inches high, 4.8 inches wide, and 8 inches deep.

The big difference is a little cartridge. Although most Winchester discs can't be removed, SyQuest seals their discs in small pocket-sized cartridges. These cartridges can be replaced when full. Like floppy discs, they can be transported from one computer or terminal to another. But they are far better than a floppy. Not only do they carry much more data, but they carry it more safely, sealed in their own protective cartridges.

A better size. The Q-Pak cartridge is a more convenient size than floppies or larger cartridges. Measuring less than five inches in length and width and less than half an inch in depth, the Q-Pak fits in a coat pocket, purse or

briefcase. Its "unbendable" case is easy to handle and mail.

Easy integration. The SyQuest drive has the same pin-outs, timing, data transfer rates, and track/sector formatting as industry-standard 5.25" Winchester drives. Use standard Winchester controllers and interfacing procedures, standard minifloppy DC power supplies.

Better price/performance. SyQuest delivers low cost/high capacity with proven Winchester heads, precision positioning, brushless motors and air filtration. Buffered seek reduces average seek time to 90 msec. But the cost is less than comparable 5¼" Winchesters.

Better reliability. Advanced Winchester technology seals media away from dust, smoke and other contamination. Chromaflex™ graphite coated thin film metallic alloy discs add even more protection against contamination. This thin film plating with lubricated coating shields against dirt, allows denser packing of data, and protects recording media and heads from "head crashes."

Better performance. The digital servo is controlled by an on-board microcomputer for control and microstepping positioner. This speeds access and improves accuracy. The microstepping positioner steps in increments of 0.9 degree rather than the conventional 1.8 degrees. The drive's microcomputer reads servo infor-

mation, corrects for track alignment, and adjusts the stepper within 75 microinches... all at sixty times a second.

Compatible fixed disc drives. SyQuest fixed disc drives (SQ306F, SQ312F, and SQ325F) offer compatible fixed disc storage in capacities of 6.38, 12.75, and 25.5 megabytes (unformatted). Form factor and operating specifications in common with removable cartridge drives simplify integration. One fixed disc drive and one cartridge drive can share one minifloppy space.

Features and Benefits

- Removable cartridge
- 6.38 megabytes (unformatted)
- Standard transfer rate (5 Mbits per second)
- Access time (average of 90 msec)
- Variable sector format
- Half-height form factor
- Buffered seek mode
- Closed-loop embedded digital servo
- Industry-standard ferrite heads
- Industry-standard 5¼" HDD interface
- Same DC power as minifloppy
- Heat dissipation only 13 watts (45 BTU per hour)

Disc Drive Specifications

Drive Configuration	Model SQ-306 RD	6.38 MBytes removable cartridge
Capacity Unformatted	Per drive Per surface Per track	6.38 MBytes 3.19 MBytes 10416 Bytes
Formatted	Per drive Per surface Per track Per sector Sectors per track	5.0 MBytes 2.5 MBytes 8192 Bytes 256 Bytes 32
Data Transfer Rate		5.0 MBits/sec.
Average Latency		8.33 msec.
Access Time (Includes Settling Time)	Track to Track Average Maximum	25 msec. 90 msec. 205 msec.
Functional Specification	Rotational Speed Recording Density Flux Density Track Density Cylinders R/W Tracks R/W Heads Discs Index	3547rpm \pm 1% 12000 bpi 12000 fci 435 tpi 306 612 2 1 1
Interface		Industry Standards for 5.25" Fixed Disc Drive both for control and read/write
Reliability Specifications	MTBF (typical usage) Preventive Maintenance Component Life MTTR Error Rates Soft Read Errors Hard Read Errors Seek Errors	11000 poh None 5 years 30 min. 1 in 10 ⁹ bits read 1 in 10 ¹² bits read 1 in 10 ⁶ seeks
Power Requirements	DC Voltage AC Voltage (not required) Power Dissipation	+ 12 volts \pm 5% @ .7 Amps* + 5 volts \pm 5% @ .9 Amps 13Watts (45 BTU/Hr)
Environmental Limits (Operating)	Ambient Temperature Relative Humidity Wet Bulb, Maximum Maximum Altitude	40° to 122°F (5° to 50°C) 8 to 80% 78°F, Non-Condensing 10,000 ft.
Mechanical Dimensions	Height = 1.625 inch (41.3mm) Width = 4.80 inch (122mm) Length (including PCB) = 8.0 inch (203mm) Weight = 2.4 lbs (1.09 kg)	

Q-PAK Cartridge Specifications

Cartridge Mechanical Dimensions	Height = .43 inch (11.0mm) Width = 4.33 inch (110.0mm) Length = 4.41 inch (112.0mm) Weight = 0.3 lbs	
Functional	Disc Index Number of Insertions Color	1 1 10,000 (min.) Bone White
Capacity	Unformatted Formatted	6.38 MBytes 5.0 MBytes
		*1.5 AMP at Power On



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