TRIDENT T-80 DISK DRIVE

CalComp's T-80 member of the TRIDENT family of disk drive units is a high speed, random access mass storage unit with a capacity of 82.1 million 8-bit bytes of data, rotating at 3600 rpm. Data is stored on a five-high removable disk pack.

The T-80 incorporates 370 tracks-per-inch technology and has an average rotational latency of 8.3 milli-

seconds. It is up to speed in 20 seconds and is dynamically braked in 20 seconds.

Data is transferred at a rate of 1209 kilobytes per second.

Using existing technology in an optimal manner, the TRIDENT family offers the OEM designer many economical and advanced features.

T-80 FEATURES

SINGLE COMPACT SELF-CONTAINED UNIT allows flexibility for low-boy, table top or 19" RETMA-rack drawer mounting with front and rear access.

FIVE-HIGH STANDARD 3336-TYPE DISKS AND A 3330-TYPE SPINDLE INTERFACE which are available from multiple sources.

VFO in the TRIDENT T-80 eliminates need for including complex analog circuitry in the controller.

HIGH VOLUME INTEGRAL AIR FLOW SYSTEM provides clean room quality and thermally stable air, giving added assurance of data reliability.

STATE-OF-THE-ART ACCESS TIME OF 6 msec. max. track-to-track and an average head positioning time of 30 msec provide optimum system throughput.

FAST START TIME AND DYNAMIC BRAKING permit rapid pack change.

PROGRAMMABLE HEAD OFFSET AND VARIABLE STROBE TIMING features maximize recovery of marginal data and ensure high data integrity.

ELECTROMAGNETIC ACTUATOR AND PRE-RECORDED SERVO SURFACE provide proven, superior head positioning accuracy, track densities and reliability. The TRIDENT family offers the OEM designer a new dimension in improved data integrity for his system.

SECTOR LENGTH SELECTION through jumpers on sector board.

FUNCTIONALLY ORGANIZED PRINTED CIRCUIT BOARDS facilitate maintenance and reduce MTTR.
# T-80 Specifications and Characteristics

<table>
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<tr>
<th>CAPACITY</th>
<th>82.1 million 8-bit bytes</th>
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<tr>
<td>TRANSFER RATE</td>
<td>1209 Kilobytes per second</td>
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| ACCESS TIME       | Track to Track: 6 msec. max.  
|                   | Average Positioning: 30 msec.  
|                   | Full Stroke: 55 msec. max.  
|                   | Average Latency: 8.3 msec.   |
| ROTATIONAL SPEED  | 3600 rpm                 |
| PACK START/STOP TIME | Start Time: 20 seconds (nominal)  
|                    | Dynamic Braking: 20 seconds (nominal)  |
| DENSITIES         | Track Density: 370 tracks per inch  
|                   | Recording Density: 6060 bits per inch  
|                   | 20,160 bytes per track  
|                   | 100,800 bytes per cylinder |
| DISK PACK CHARACTERISTICS | Disk Pack: IBM 3336-type components  
|                    | Recording Surfaces: 5 plus 1 servo surface  
|                    | Tracks per surface: 815 |
| OPERATING METHODS | Recording Method: Modified Frequency Modulation  
|                   | Positioning Method: Linear Motor; Track-Following Servo |
| ERROR RATE        | Recoverable: 1 error in 10^10 bits  
|                   | Non-recoverable: 1 error in 10^15 bits  
|                   | Positioning: 1 error in 10^6 seeks |
| RELIABILITY       | MTBF: Designed to exceed 2500 hours  
|                   | MTTR: Designed to be less than 1.5 hours  
|                   | Service Life: 5 years or 45,000 hours |
| CONTROLS & INDICATORS | Ready Indicator  
|                    | Fault Indicator  
|                    | Start/Stop Switch  
|                    | Read Only Switch  
|                    | Degate Switch |
| EXTERNAL DIMENSIONS | 17.8" wide x 10.5" high x 32" deep  
|                    | (452 mm x 267 mm x 813 mm) |
| POWER REQUIREMENTS | Input Voltage: 117, 190, 200, 208, 220, 230, 240 vac  
|                    | (+10%, -15%)  
|                    | Line Frequency: 60 Hz ± 1% (50 Hz ±1%, optional)  
|                    | Starting Current: 117 vac Models = 24 amperes.  
|                    | Other Models = 13 amperes.  
|                    | Operating Current: 117 vac Models = 7.5 amperes.  
|                    | Other Models = 4.5 amperes. |
| OPERATING ENVIRONMENT | Temperature: 60°F (16°C) to 100°F (38°C)  
|                    | Temperature Gradient: 20°F (11°C)  
|                    | Humidity: 10% to 80% (no condensation) |
| HEAT DISSIPATION  | 2500 BTU/hour |
| AIR FLOW          | 350 CFM minimum at 60 Hz  
|                   | 290 CFM minimum at 50 Hz |
| OPTIONS           | Off-line Exerciser  
|                   | Dual Access |

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