

# 142 FLOPPY DISK DRIVE

The CalComp 142 Floppy Disk Drive is a low cost, random access, removable memory device with a capacity of 6.4 million bits of information storage. Featuring 6400 bits-per-inch and 48 tracks-per-inch technologies, the 142 has a 6 msec track-to-track access time and a transfer rate of 500,000 bps. Using a flexible, oxide-coated Mylar disk as the recording medium, the floppy disk drive lowers costs and provides higher transfer rates, increased capacities and, most significantly, greater reliability than previously available medium capacity storage media.

MFM recording, which is an industry standard on larger drives, is used. In addition the Model 142 can

be used as a plug-to-plug compatible replacement for existing Model 140 applications in double frequency recording mode as well.

CalComp's Floppy Disk Drives are backed by an organization with an excellent track record in product support services whose program is tailored to meet the needs of the OEM.

Whatever your applications are, the CalComp 142 offers the ideal solution to your low cost, removable medium storage requirements.

# **FEATURES**

**PROVEN TECHNOLOGY** in recording is used to ensure highest data integrity.

**INDIVIDUALLY SELECTABLE DRIVES** permit daisy-chaining and keep interface connectors and circuits to a minimum.

A READY INTERRUPT to the controller when the disk attains operating speed eliminates the need for delay circuitry or polling and notifies the controller of disk changes.

**UNIVERSAL READ/WRITE CIRCUITS** provide for advanced coding schemes, allowing the OEM to use more efficient or proprietary coding.

**POSITIVE PRESSURIZATION** within the self-contained air system filters and controls air flow, providing greater reliability with cleaner head, media and moving parts.

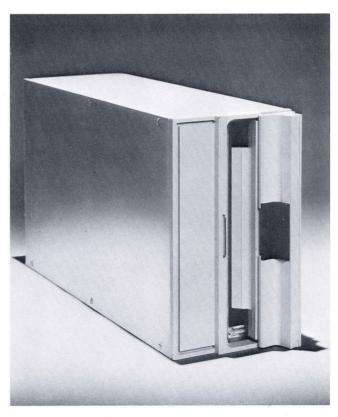
**ELECTRONIC SWITCHING LOGIC** rather than mechanical switches and relays extends MTBF.

**THREE PLANE MOUNTING** does not degrade performance or reliability.

**ONLY TWO DC INPUT VOLTAGES** are required, resulting in a simpler and lower cost controller and power supply.

**USING A LIGHTWEIGHT, RUGGED AND COM- PACT CASTING,** the entire unit measures only 4.9 x 8.4 x 15 inches (125 x 213 x 381 mm), allowing two units horizontally or three units vertically in a standard 19 inch RETMA rack.

**USABLE IN A WIDE RANGE OF ENVIRON- MENTAL CONDITIONS**, the CalComp 142 brings the economy and speed of disk performance to an increasing number of office and industrial applications.



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# **MODEL 142 FLOPPY DISK DRIVE SPECIFICATIONS**

# UNFORMATTED CAPACITY

Per Flexible Disk - 6.4M bits/802K bytes Per Track - 83K bits/10K bytes

# HARD SECTOR FORMAT CAPACITY

Per Flexible Disk — 5.2M bits/650K bytes Per Track — 67.6K bits/8.4K bytes Per Sector — 2112 bits (32 sectors)/264 bytes

#### TRANSFER RATE

500,000 bits per sec. nominal

#### TRACK DENSITY

48 Tracks per inch (0.012"/0.0305 mm data track width)

# POSITIONING TIMES

Access — 6 msec track-to-track
Head Stabilization — 10 msec
Head Load — 16 msec
Motor Start to Ready — 2 seconds max.

# **ROTATIONAL SPEED**

360 rpm + 2.4% (167 msec/rev.)

#### POSITIONING MECHANISM

Stepping Motor; Electrical Detent

#### **MEDIA**

IBM 3740 Diskette or CalComp approved equivalent.

# PHYSICAL DIMENSIONS

4.9" x 8.4" x 15" (add 3" for cable clearance)
125 mm high x 213 mm wide x 381 mm deep (add 76 mm for cable clearance)
Weight — 16 lbs. (18 lbs. shipping weight)
7.2 kg (8.2 kg shipping weight)

# RELIABILITY

Read Error (Hard) — Less than 1 in 10<sup>12</sup> bits
Positioning Errors — Less than 1 in 10<sup>6</sup> accesses
MTBF — exceeds 5,000 hours for heavy duty
applications
MTTR — Less than 30 minutes
Component Life — Over 10,000 hours on all
components

Read Error (Soft) - Less than 1 in 109 bits

# POWER REQUIREMENTS

60 Hz: 100, 115, 208, 230 vac 50 Hz: 100, 208, 220 240 vac DC: +24v at 1.5 amps; +5v at 1.0 amp

#### **ENVIRONMENTAL REQUIREMENTS**

Operating Temperature:  $60^{\circ}F - 100^{\circ}F$  (15.6°C - 37.7°C)

Maximum Gradient: 20°F (11.1°C) per hour Humidity: 20% to 80% (no condensation)

#### **HEAT DISSIPATION**

275 BTU/hour