Introducing the 5 in 1 Amlyn Alternative

Flexible, eight megabyte capacity. Amlyn's unique cartridge mini floppy disk drives provide up to 8MB of data storage for both on-line floppy disk drive applications and dynamic Winchester backup.

The Amlyn MiniPac cartridge allows OEMs and system houses to effectively package five drives in one with all the attendant flexibility and improved reliability advantages. Each single-sided diskette has the same storage capacity as both sides of double density 8 in. floppy disks and 60% more than conventional double-sided, double-density 5 1/4 in. floppy disks.

The five diskette cartridge is designed for convenient hand loading and also permits changing of diskettes independently of one another within the cartridge.

Dynamic Backup. Now, backup for Winchester's can be both insurance and assurance. Insurance that your data is safely backed up— and assurance that if your sealed media disk drive fails, your system can still operate, unlike when using streaming tape devices for backup. For instance, the Amlyn Model A506 diskette surfaces match each of the four ST506 surfaces with 153 data tracks, plus one alternate track. The fifth diskette provides an additional 25% more storage capacity, which may be used for operating system load, or other requirements.

Should the Winchester drive fail, the Amlyn backup is designed to duplicate its operation, though at a slower data transfer rate due to disk rotational speed differences.

Physical and interface compatibility. The Amlyn mini floppy drives conform to the same form factor as standard mini floppy disk drives. Amlyn's Model 5850 is designed as a functional alternative to the Maxi-Drive, appearing to your controller and software as five SASSO drives.

Format Compatibility. All Amlyn mini floppy drives can read existing mini floppy diskettes to enable data base conversions to be conveniently made from a standard to an Amlyn diskette.

Globally Adapted. Ship an Amlyn drive anywhere in the world and be confident that it will function without requiring touchy field alignment, irrespective of temperature or humidity. Amlyn's innovative microprocessor control provides automatic compensation for diskette expansion and contraction, so that every seek is exactly on track, the first time, every time.

Five-to-one Reliability and Versatility. Compacting the performance of five drives into one inherently increases your system's MTBF proportionately through component reduction. A big plus for OEMs.

The drives are also energy efficient, since only one motor operates at any one time, which means less heat. All are low power, requiring only standard +5 and +12 volts DC at standard mini floppy current levels.

Moreover, the Amlyn five-in-one alternative affords OEMs the ability to configure a single drive system which may be expanded with add-on Winchester drives. The single drive system will perform edit, swap, store and other multiple drive functions without the cost, space or potential service problems of multiple drive systems.

The Amlyn drives offer self-contained diagnostics which indicate whether the machine is operating properly.

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### Physical Specifications

**Environment Limits (Operational)**
- Ambient Temperature = 40° to 104 °F (4° to 40°C)
- Relative Humidity = 20% to 80%
  - Noncondensing
- Maximum Wet Bulb = 78°F (25°C)

**DC Power Requirements**
- +12 VDC ± 5% @ 1.2 A typical
- +5 VDC ± 5% @ 0.9 A typical

**Weight** = 2.5 lbs. (1.2 kg)

**Mounting Envelope Dimensions**
- Height = 3.25 inches (82.6 mm)
- Width = 5.75 inches (146.0 mm)
- Depth of 5850 = 7.88 inches (200.2 mm)
- Depth of A506 = 8.11 inches (206.0 mm)

**Heat Dissipation** = 86 BTU/hr. typical (25 watts)

**Media Requirements**
- 5 each UHRI or equiv. Mini-Diskettes
- Diskette Cartridge Requirements
  - 1 each MiniPac cartridge

### Functional Specifications

**Rotational Speed** = 360 rpm
**Recording Density** = 9500 bpi (inside track double density)
**Flux Density** = 9500 fci
**Track Density** = 170 tpi
**Track Width** = 3.5 mils
**Cylinders** = 154
**Tracks** = 770
**Heads** = 1

**Encoding Method** = FM, MFM, M^2FM

### Performance Specifications

**Transfer Rate** = 500 kbits/sec
**Average Rotational Latency** = 83 ms

**Access Time:**
- Adjacent Track to Track = 3 msec
- Track 00 to Track 153 = 230 msec
- Average Access Time = 85 msec

**Settling Time** = 15 msec

**Diskette to Diskette** = 1.9 sec average, 2.9 sec max.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Unformatted Double Density</th>
<th>IBM Format 256 Byte Sectors</th>
<th>Seagate ST506 Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per MiniPac cartridge</td>
<td>8 mbytes</td>
<td>5.1 mbytes</td>
<td>6.3 mbytes</td>
</tr>
<tr>
<td>Per Diskette</td>
<td>1600 kbytes</td>
<td>1025 kbytes</td>
<td>1253.4 kbytes</td>
</tr>
<tr>
<td>Per Track</td>
<td>10.4 kbytes</td>
<td>6656 bytes</td>
<td>8192 bytes</td>
</tr>
</tbody>
</table>

### Reliability Specifications

**MTBF:** 8000 POH under typical usage
**MTR:** 30 minutes
**Component Life:** 15,000 POH

**Error Rates:**
- Soft Read Errors = 1 per 10^9 bits read
- Hard Read Errors = 1 per 10^12 bits read
- Seek Errors = 1 per 10^6 seeks

**Media Life:**
- Passes per Track = 3.5 x 10^6
- Insertions = 30,000 +

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