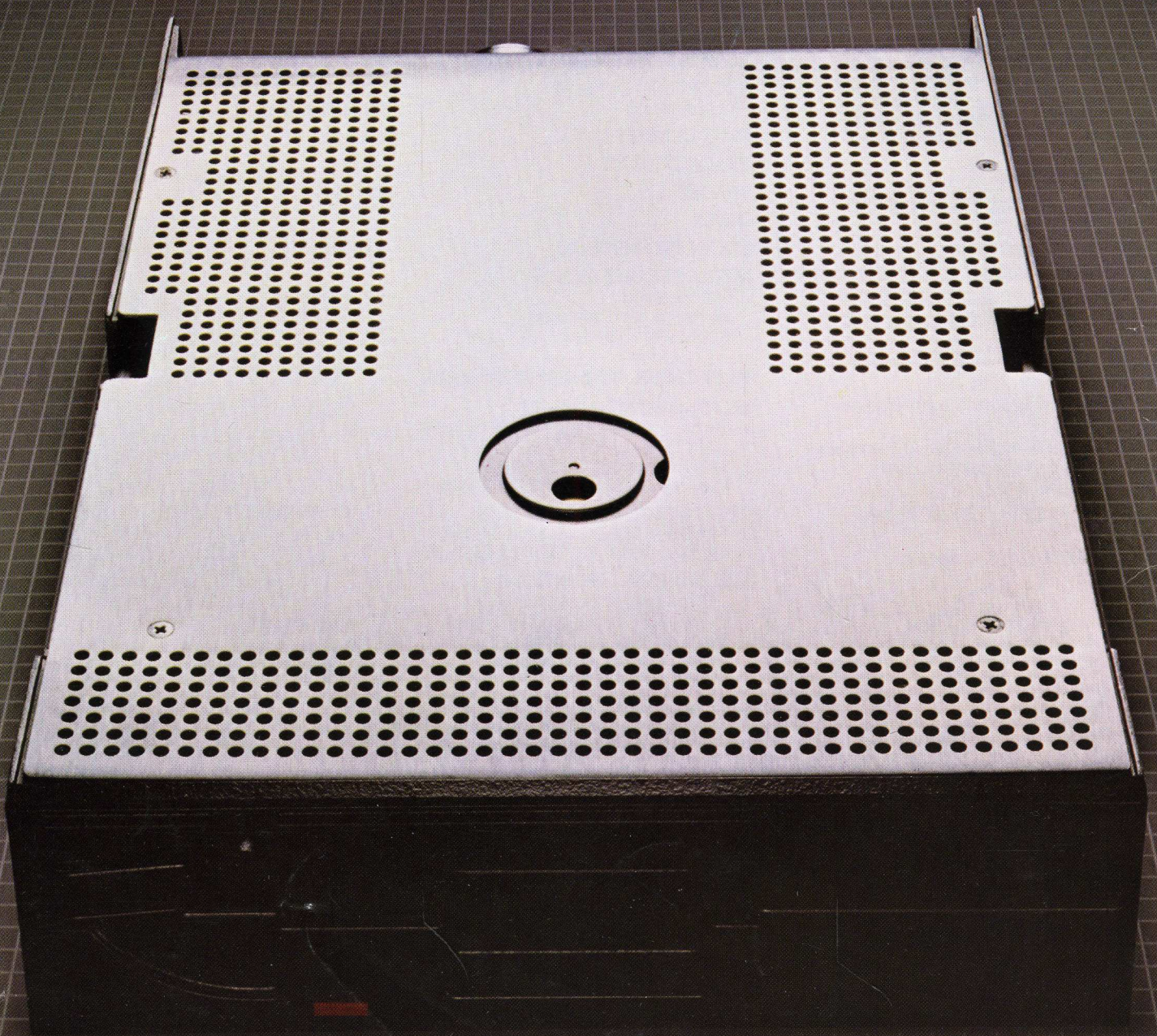


# SHUGART SA810/860

Half-Height 8-inch Floppy Disk Drives



# SA810/860

## DESCRIPTION

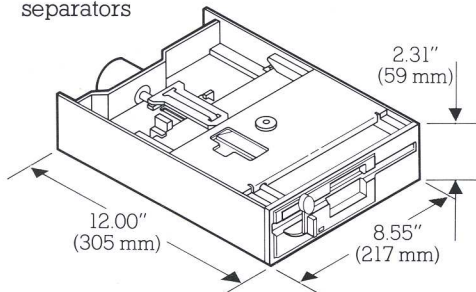
Shugart's SA810/860 single- and double-sided floppy disk drives offer a reliable, low-cost solution for data storage applications which require the same high performance of standard 8-inch floppy drives within a greatly reduced space. These half-height drives are ideal in systems designed for the office environment where compact size, quiet operation and high performance are required. Typical applications include small business systems, intelligent terminals, personal computers and program storage equipment.

The SA810/860 drives are half the height of Shugart's industry standard SA801/851 floppy drives, fitting easily within the space confines of a CRT terminal. They require no AC voltage and offer up to 1.6 megabytes of unformatted storage capacity.

The SA810/860 incorporate more than 9 years of disk drive manufacturing experience and are backed by the largest and most experienced engineering, sales and service organizations dedicated to the OEM disk drive industry.

## KEY FEATURES

- Compact size—half-height and CRT depth
- SA801/851 compatibility
- Low heat dissipation
- Fast access time—3 ms track to track
- Low media wear due to low mass Bi-Compliant™ head
- Rapid start DC drive motor—less than one revolution
- Write protect and programmable door lock
- TRUE READY—signals when the drive is ready to send or receive data
- Buffered seek
- Single or multiple drive DC motor on control
- Onboard FM data and sector separators



## PERFORMANCE SPECIFICATIONS

	SA810 SINGLE/DOUBLE DENSITY	SA860 SINGLE/DOUBLE DENSITY
<b>CAPACITY</b>		
Unformatted		
Per Disk	400/800 kbytes	0.8/1.6 Mbytes
Per Surface	400/800 kbytes	400/800 kbytes
Per Track	5.2/10.4 kbytes	5.2/10.4 kbytes
IBM Format (128 byte sectors)		
Per Disk	250/500 kbytes	500/1000 kbytes
Per Surface	250/500 kbytes	250/500 kbytes
Per Track	3.3/6.66 kbytes	3.3/6.66 kbytes
<b>TRANSFER RATE</b>	250/500 kbits/sec	250/500 kbits/sec
<b>LATENCY (avg)</b>	83 msec	83 msec
<b>ACCESS TIME</b>		
Track to Track	3 msec	3 msec
Settle Time	13 msec	13 msec
Average (incl. settling)	89 msec	89 msec
Motor Start Time	165 msec	165 msec

## FUNCTIONAL SPECIFICATIONS

<b>ROTATIONAL SPEED</b>	360 rpm	360 rpm
<b>RECORDING DENSITY</b> (inside track)	3268/6536 bpi	3408/6816 bpi
<b>FLUX DENSITY</b>	6536 fci	6816 fci
<b>TRACK DENSITY</b>	48 tpi	48 tpi
<b>TRACKS</b>	77	154
<b>INDEX</b>	1	1
<b>ENCODING METHOD</b>	FM/MFM	FM/MFM
<b>MEDIA REQUIREMENTS</b>		
Soft sectored	SA100/102	SA150
32 Sector hard sectored	SA101/103	SA151
Alignment Diskette	SA120	SA122

## PHYSICAL SPECIFICATIONS

<b>ENVIRONMENTAL LIMITS</b>
Ambient Temperature: 50°F to 115°F (10°C to 46.1°C)
Relative Humidity: 20% to 80%
Maximum Wet Bulb: 85°F (29.4°C)
<b>DC VOLTAGE REQUIREMENTS:</b>
+24.0 ± 1.2 V DC @ 1.3 A typical
+5.00 ± 0.25 V DC @ 0.8 A typical
<b>MECHANICAL DIMENSIONS</b> (exclusive of faceplate)
Height: 2.31 in. (59 mm)
Width: 8.55 in. (217 mm)
Depth: 12.00 in. (305 mm)
Weight: 7 lbs (3 kg)
<b>HEAT DISSIPATION</b>
120 BTU/hr typical (35 watts)
51 BTU/hr standby (15 watts)

## RELIABILITY SPECIFICATIONS

<b>MTBF:</b> 10,000 POH under typical usage
<b>PM:</b> SA860—Not required SA810—Load Pad Replacement
<b>MTTR:</b> 30 minutes
<b>COMPONENT LIFE:</b> 5 years
<b>ERROR RATES:</b>
Soft Read Errors: 1 per 10 <sup>9</sup> bits read
Hard Read Errors: 1 per 10 <sup>12</sup> bits read
Seek Errors: 1 per 10 <sup>6</sup> seeks
<b>MEDIA LIFE:</b>
Passes per Track: 3.5 × 10 <sup>6</sup>
Insertions: 30,000 +

## SALES/SERVICE:

**West:**  
Milpitas, CA  
(408) 263-2600  
Costa Mesa, CA  
(714) 979-1935  
Thousand Oaks, CA  
(805) 496-5388

**Central:**  
Richardson, TX  
(214) 234-3568  
Minneapolis, MN  
(612) 574-9750

**East:**  
Framingham, MA  
(617) 879-1700  
Saddle Brook, NJ  
(201) 368-8445  
Atlanta, GA  
(404) 955-8968

**Eastern Canada:**  
Markham, Ontario  
(416) 495-2655

**Europe:**  
Paris:  
Phone (1) 686-00-85  
Munich:  
Phone (089) 80-60-55

**Headquarters:**  
475 Oakmead Parkway  
Sunnyvale, CA 94086  
Phone (408) 733-0100  
TWX: 910-339-9355  
SHUGART SUVL

# Shugart

Right from the start.