

**WHAT'S THE ONE  
SPECIFICATION  
TANDON HASN'T  
CHANGED IN  
10 YEARS?**

# STAYING POWER.



We've been in the disk drive industry for 10 years. And year after year we keep getting better. Our performance as an industry leader has helped pace the dynamic growth of the microcomputer industry. Tandon's 5¼" double-sided floppy drive revolutionized the industry. And we quickly followed with the industry's first half-height 8" floppy drive. Our 3½" and 5¼" Winchesters have consistently been

the industry's price leaders. We pioneered the utilization of hard coated plated media in low capacity Winchesters long before our competition. Our new half-height 51MB closed-loop Winchester is yet another industry first. And there is more to follow.

It all adds up to staying power. And it's the one spec that won't ever change at Tandon.

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## PRICE/PERFORMANCE:

Tandon not only sets the highest standards for performance, we do it while keeping our prices low. It's just one of many factors that set us apart from

other OEM suppliers. And it's why our drives have become an integral part of more microcomputers than any other in the industry.

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## VERTICAL INTEGRATION:

Because we manufacture most of the components in our drives, we get exactly what we want. When we want it. Direct from our own factories. That means the tightest control on quality as well as cost. A sterling example is our proprietary plated media that is used across our entire Winchester product line. It's a total dedication to durable design that is uniquely

Tandon. As a result of this emphasis on vertical manufacturing, we've been able to continually drive prices down while raising quality and performance. All of which proves why Tandon is so highly regarded by our customers. And so often imitated by our competitors.

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## BROAD PRODUCT LINE:

There isn't a more comprehensive mix of products from any other manufacturer in the industry. That includes our 3½" and 5¼" Winchesters in open-loop, and closed-loop, high performance models. 5¼" and 8" ThinLine™ floppy drives and a full range of private label subsystem products.

Each is designed and manufactured by separate teams of specialists within their field. However, each team is driven by a common concern. To design, produce and deliver high quality products at the lowest possible price.

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## RELIABILITY:

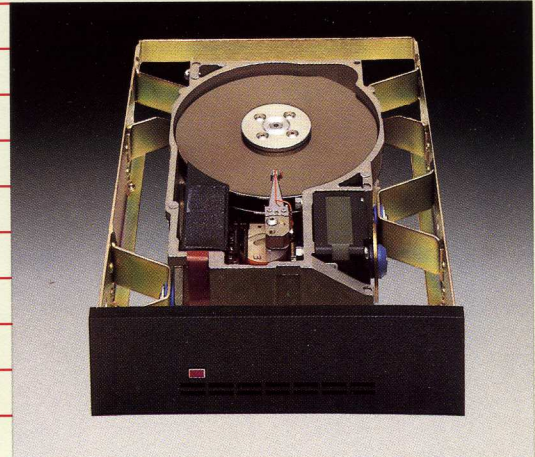
By now you know why more and more companies rely on Tandon. It's a reputation that came with hard work. And it's one we're working harder than ever to improve. With substantial investments in R&D. With innovative engineering from every team. With

independence from outside suppliers. And with an unshakable commitment to your future disk drive needs. It's a ten year record of unfailing reliability and one you can always rely on.

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ThinLine™ is a trademark of Tandon Corporation.

## 5 1/4" THINLINE™ RIGID DISK DRIVES



**TM260**

Tandon's low cost TM260 5 1/4" package Winchester drives feature a pseudo-closed-loop head positioning system yielding an average access time of 80 milliseconds. The drives also feature a half-height profile, low power consumption and improved performance for shock and vibration conditions. Ideal for portable computers and small desk top system integration.

TM260 features:

- Up to 25.58 Megabyte storage capacity.
- Low cost.
- Hard coated plated media.
- Half-height package design.
- LSI circuitry.
- Industry standard interface.

### SPECIFICATIONS

#### CAPACITY

	TM261	TM262
Unformatted Storage Capacity:	12.79 Megabytes	25.58 Megabytes
Number Data Surfaces:	2	4
Bytes Per Track:	10,416	10,416
Track Density:	804 TPI	804 TPI
Cylinders:	615	615

#### ACCESS TIME

Seek Track-to-Track Access Time:	3 milliseconds
Head Settling Time:	15 milliseconds
Average Seek Time, Using Buffered Seek:	80 milliseconds
Maximum Seek Time, Using Buffered Seek:	195 milliseconds
Average Latency:	8.41 milliseconds
Disk Rotational Speed:	3568 RPM
Data Rate:	5 megabits per second

#### RELIABILITY

MTBF:	15,000 power-on hours
Preventative Maintenance:	none required
MTTR:	30 minutes
Average Component Life:	5 years
Error Rates:	
Soft Read:	1 in 10 <sup>10</sup> bits
Hard Read:	1 in 10 <sup>12</sup> bits
Seek Errors:	1 in 10 <sup>6</sup> seeks

#### ELECTRICAL REQUIREMENTS

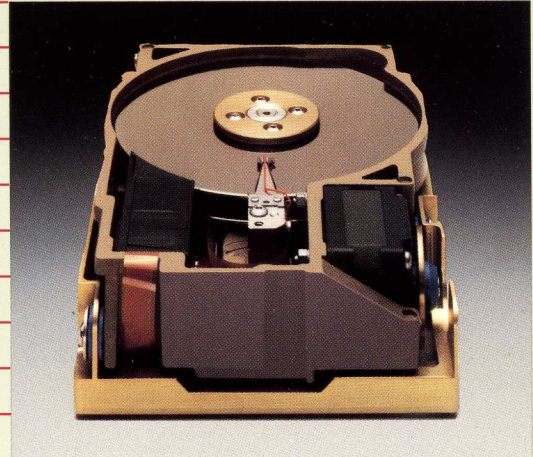
+ 5 Volts D. C. Power	+ 5 volts ±5% at 0.6 amperes typical at 100 millivolts PARD maximum
+ 12 Volts D. C. Power	+ 12 volts ±5% at 0.8 amperes typical at 100 millivolts PARD maximum
Power Consumption	10 watts typical

#### DIMENSIONS (EXCLUDING FRONT PANEL)

Height:	1.625"/41.275mm
Width:	5.75"/146.0mm
Length:	8.0"/203.2mm

Specifications subject to change without notice (11/85)

## 3 1/2" RIGID DISK DRIVES



### TM360

Tandon's low cost TM360 3 1/2" Winchester drives feature a pseudo-closed-loop head positioning system yielding an average access time of 80 milliseconds. The drives also feature a compact half-height design, low power consumption and improved performance for shock and vibration conditions. Ideal for portable computers and small desk top system integration.

TM360 features:

- Up to 25.58 Megabyte storage capacity.
- Low cost.
- Hard coated plated media.
- Compact package size.
- LSI circuitry.
- Industry standard interface.

### SPECIFICATIONS

#### CAPACITY

	TM361	TM362
Unformatted Storage Capacity:	12.79 Megabytes	25.58 Megabytes
Number Data Surfaces:	2	4
Bytes Per Track:	10,416	10,416
Track Density:	804 TPI	804 TPI
Cylinders:	615	615

#### ACCESS TIME

Seek Track-to-Track Access Time:	3 milliseconds
Head Settling Time:	15 milliseconds
Average Seek Time, Using Buffered Seek:	80 milliseconds
Maximum Seek Time, Using Buffered Seek:	195 milliseconds
Average Latency:	8.41 milliseconds
Disk Rotational Speed:	3568 RPM
Data Rate:	5 megabits per second

#### RELIABILITY

MTBF:	15,000 power-on hours
Preventative Maintenance:	none required
MTTR:	30 minutes
Average Component Life:	5 years
Error Rates:	
Soft Read:	1 in 10 <sup>10</sup> bits
Hard Read:	1 in 10 <sup>12</sup> bits
Seek Errors:	1 in 10 <sup>6</sup> seeks

#### ELECTRICAL REQUIREMENTS

+ 5 Volts D.C. Power	+ 5 volts ±5% at 0.6 amperes typical at 100 millivolts PARD maximum
+ 12 Volts D.C. Power	+ 12 volts ±5% at 0.8 amperes typical at 100 millivolts PARD maximum
Power Consumption	10 watts typical

#### DIMENSIONS (EXCLUDING FRONT PANEL)

Height:	1.625"/41.275mm
Width:	4.00"/101.6mm
Length:	5.75"/146.0mm

Specifications subject to change without notice (11/85)

## 5 1/4" CLOSED-LOOP RIGID DISK DRIVES



### TM700

The TM700 5 1/4" Winchester disk drives are high performance drives featuring closed-loop positioning. An on-board microprocessor calculates the optimum positioning algorithm yielding fast average access times. The TM702AT and TM703AT, featuring 20 and 30 Megabytes of formatted storage capacity, are designed for use in AT compatible systems.

TM700 features:

- Up to 36.2 Megabyte storage capacity.
- Hard coated plated media.
- Rotary voice coil positioning.
- Dedicated servo surface.
- Industry standard packaging and interface.
- Quality intensive, conservative design.

### SPECIFICATIONS

CAPACITY	TM702AT (FORMATTED)	TM703AT (FORMATTED)	TM703 (UNFORMATTED)
Storage Capacity:	20 Megabytes	30 Megabytes	36.2 Megabytes
Number Data Surfaces:	4	5	5
Bytes Per Track:	8,704	8,704	10,416
Track Density:	700 TPI	700 TPI	700 TPI
Cylinders:	615	733	695
<b>ACCESS TIME</b>			
Seek Track-to-Track Access Time, Including Head Setting Time:	5 milliseconds	5 milliseconds	5 milliseconds
Average Seek Time, Including Head Settling Time:	40 milliseconds	40 milliseconds	45 milliseconds
Maximum Seek Time:		80 milliseconds	
Average Latency:		8.33 milliseconds	
Disk Rotational Speed:		3600 RPM	
Data Rate:		5 megabits per second	
<b>RELIABILITY</b>			
MTBF:		11,000 power-on hours	
Preventative Maintenance:		none required	
MTTR:		30 minutes	
Average Component Life:		5 years	
Error Rates:			
Soft Read:		1 in 10 <sup>10</sup> bits	
Hard Read:		1 in 10 <sup>12</sup> bits	
Seek Errors:		1 in 10 <sup>6</sup> seeks	
<b>ELECTRICAL REQUIREMENTS</b>			
+ 5 Volts D.C. Power	+ 5 volts ±5% at 0.8 amperes typical at 50 millivolts PARD maximum		
+ 12 Volts D.C. Power	+ 12 volts ±5% at 1.7 amperes typical at 50 millivolts PARD maximum		
<b>DIMENSIONS (EXCLUDING FRONT PANEL)</b>			
Height:	3.25"/82.55mm		
Width:	5.75"/146.0mm		
Length:	8.0"/203.2mm		

Specifications subject to change without notice (11/85)

## 5 1/4" THINLINE™ RIGID DISK DRIVE



### TM755

The TM755 5 1/4" ThinLine™ Winchester disk drive features linear voice coil positioning. The on-board microprocessor calculates the optimum positioning algorithm, yielding an average access time of 35 milliseconds. Its half-height profile and high capacity make it ideal for multi-user systems.

TM755 features:

- 51.09 Megabyte storage capacity.
- Hard coated plated media.
- Half-height package design.
- Linear voice coil positioning.
- Dedicated servo surface.
- Industry standard packaging and interface.

### SPECIFICATIONS

#### CAPACITY

	TM755
Unformatted Storage Capacity:	51.09 Megabytes
Number Data Surfaces:	5
Bytes Per Track:	10,416
Track Density:	960 TPI
Cylinders:	981

#### ACCESS TIME

Seek Track-to-Track Access Time, Including Head Settling Time:	5 milliseconds
Average Seek Time, Including Head Settling Time:	35 milliseconds
Maximum Seek Time:	65 milliseconds
Average Latency:	8.33 milliseconds
Disk Rotational Speed:	3600 RPM
Data Rate:	5 megabits per second

#### RELIABILITY

MTBF:	11,000 power-on hours
Preventative Maintenance:	none required
MTTR:	30 minutes
Average Component Life:	5 years
Error Rates:	
Soft Read:	1 in 10 <sup>10</sup> bits
Hard Read:	1 in 10 <sup>12</sup> bits
Seek Errors:	1 in 10 <sup>6</sup> seeks

#### ELECTRICAL REQUIREMENTS

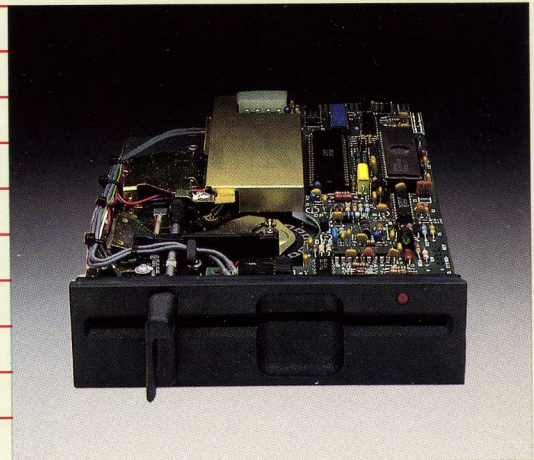
+ 5 Volts D.C. Power	+ 5 volts ±5% at 0.8 amperes typical at 50 millivolts PARD maximum
+ 12 Volts D.C. Power	+ 12 volts ±5% at 1.5 amperes typical at 50 millivolts PARD maximum

#### DIMENSIONS (EXCLUDING FRONT PANEL)

Height:	1.62"/41.15mm
Width:	5.75"/146.0mm
Length:	8.0"/203.2mm

Specifications subject to change without notice (11/85)

## 5 1/4" THINLINE™ FLOPPY DISK DRIVES



**TM65**

Tandon's low cost TM65 5 1/4" ThinLine™ flexible disk drives are full-featured drives delivering up to 1.6 Megabytes of storage capacity. Each drive incorporates unique design features for reliability and performance requirements. They are half the height of traditional 5 1/4" drives. By installing two TM65 drives in the space of a full-height drive, memory capacity of word processors and small business systems can easily be doubled.

TM65 features:

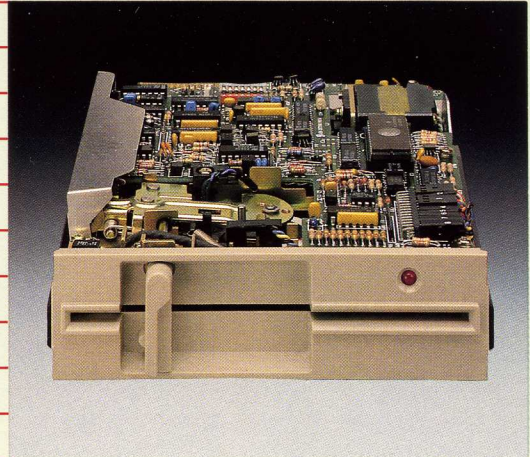
- Up to 1.6 Megabyte storage capacity.
- Half-height design package.
- Fast track-to-track access times.
- LSI circuitry on 500K Byte drive.
- Microprocessor control on 1.0 and 1.6MB drives.
- Selectable speed yields 1.0/1.6MB storage capability.
- Brushless direct drive motor operation.
- Industry standard 5 1/4" interface.

### SPECIFICATIONS

CAPACITY	TM65-2L	TM65-4	TM65-8
Unformatted Recording Capacity:	(Double-sided Recording) 500K Bytes, double-density	(Double-sided Recording) 1.0 Megabytes, double-density	(Double-sided Recording) 1.0/1.6 Megabytes, double-density
Tracks Per Diskette:	80	160	160
Tracks Per Inch:	48 TPI	96 TPI	96 TPI
Disk Rotational Speed:	300 RPM ±1.5 percent	300 RPM ±1.5 percent	300/360 RPM ±1.5 percent
<b>ACCESS TIME</b>			
Track-to-Track Access Time:	6 milliseconds	3 milliseconds	3 milliseconds
Head Settling Time:	_____	15 milliseconds	_____
Head Load Time:	_____	none	_____
Average Access Time, Including Head Settling Time:	_____	90 milliseconds	_____
Motor Start Time:	_____	250 milliseconds, maximum	_____
Data Transfer Rate (Bits Per Second, Double-Density):	250,000	250,000	250,000/300,000/500,000
Average Rotational Latency:	100 milliseconds	100 milliseconds	83/100 milliseconds
<b>RELIABILITY</b>			
MTBF:	_____	11,000 power-on hours, typical usage, 100% duty cycle	_____
Preventative Maintenance:	_____	none required	_____
MTTR:	_____	30 minutes	_____
Media Life (Reference Only):	_____	4 x 10 <sup>6</sup> passes per track	_____
Error Rates:	_____	_____	_____
Soft Read:	_____	1 in 10 <sup>9</sup> bits	_____
Hard Read:	_____	1 in 10 <sup>12</sup> bits	_____
Seek Errors:	_____	1 in 10 <sup>6</sup> seeks	_____
<b>FUNCTIONAL</b>			
Encoding Format:	_____	FM/MFM	_____
Interface Requirement:	_____	5 1/4" industry standard	_____
<b>MEDIA REQUIREMENT</b>			
Diskette:	_____	5 1/4" industry standard diskette	_____
<b>ELECTRICAL REQUIREMENTS</b>			
+ 5 Volts D.C. Power	_____	+ 5 volts ±5% at 0.5 amperes typical at 50 millivolts PARD maximum	_____
+ 12 Volts D.C. Power	_____	+ 12 volts ±5% at 0.7 amperes typical at 100 millivolts PARD maximum	_____
<b>DIMENSIONS (INCLUDING FRONT PANEL)</b>			
Height:	_____	1.68"/42.67mm	_____
Width:	_____	5.87"/149.1mm	_____
Length:	_____	8.07"/205.0mm	_____

Specifications subject to change without notice (11/85)

## 5 1/4" THINLINE™ FLOPPY DISK DRIVES



### TM75

The TM75 5 1/4" ThinLine™ flexible disk drives deliver up to 1.6 Megabytes of unformatted storage capacity. Both drives are half-height packages incorporating unique design features for reliability and performance requirements. They are ideal for integration in AT compatible computers, other small business systems, word processors and intelligent terminals.

TM75 features:

- Up to 1.6 Megabyte storage capacity.
- Half-height design package.
- LSI circuitry on 500K Byte drive.
- Microprocessor control on 1.0/1.6MB drives.
- Brushless direct drive motor operation.
- Industry standard 5 1/4" interface.

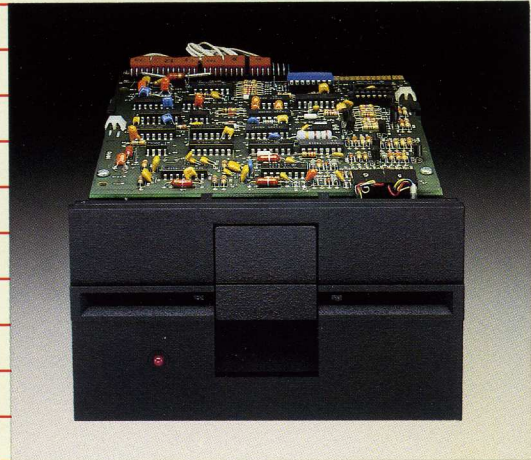
### SPECIFICATIONS

CAPACITY	TM75-2	TM75-8
Unformatted Recording Capacity:	(Double-sided Recording) 500K Bytes, double-density	(Double-sided Recording) 1.0/1.6 Megabytes, double-density
Tracks Per Diskette:	80	160
Tracks Per Inch:	48 TPI	96 TPI
Disk Rotational Speed:	300 RPM ±1.5 percent	300 RPM ±1.5 percent
<b>ACCESS TIME</b>		
Track-to-Track Access Time:	6 milliseconds	3 milliseconds
Head Settling Time:	15 milliseconds	15 milliseconds
Head Load Time:	none	50 milliseconds
Average Access Time, Including Head Settling Time:	90 milliseconds	90 milliseconds
Motor Start Time:	250 milliseconds, maximum	
Data Transfer Rate (Bits Per Second, Double-Density):	250,000	300,000/500,000
Average Rotational Latency:	100 milliseconds	83 milliseconds
<b>RELIABILITY</b>		
MTBF:	11,000 power-on hours, typical usage, 100% duty cycle	
Preventative Maintenance:	none required	
MTTR:	30 minutes	
Media Life (Reference Only):	4 x 10 <sup>6</sup> passes per track	
Error Rates:		
Soft Read:	1 in 10 <sup>9</sup> bits	
Hard Read:	1 in 10 <sup>12</sup> bits	
Seek Errors:	1 in 10 <sup>6</sup> seeks	
<b>FUNCTIONAL</b>		
Encoding Format:	FM/MFM	
Interface Requirement:	5 1/4" industry standard	
<b>MEDIA REQUIREMENT</b>		
Diskette:	5 1/4" industry standard diskette	
<b>ELECTRICAL REQUIREMENTS</b>		
+ 5 Volts D.C. Power	+ 5 volts ±5% at 0.5 amperes typical at 50 millivolts PARD maximum	
+ 12 Volts D.C. Power	+ 12 volts ±5% at 0.7 amperes typical at 100 millivolts PARD maximum	
<b>DIMENSIONS (INCLUDING FRONT PANEL)</b>		
Height:	1.68"/42.67mm	
Width:	5.87"/149.1mm	
Length:	8.07"/205.0mm	

Specifications subject to change without notice (11/85)



## 5¼" FLOPPY DISK DRIVE



### TM100

The TM100 5¼" flexible disk drive is available with a storage capacity of 500K bytes. The TM100 drive is the most viable, operative dual-headed 5¼" in the industry. They are designed for high volume Original Equipment Manufacturers (OEMs), and their low cost makes them ideal for small business systems, personal computers and word processing systems.

TM100 features:

- 500K Bytes storage capacity.
- Low cost.
- High technology read/write heads.
- Fast track-to-track access time, 5 milliseconds.
- Industry standard 5¼" interface.

### SPECIFICATIONS

#### CAPACITY

	TM100-2
Unformatted Recording Capacity:	(Double-sided Recording) 500K Bytes, double-density
Tracks Per Diskette:	80
Tracks Per Inch:	48 TPI
Disk Rotational Speed:	300 RPM ±1.5 percent

#### ACCESS TIME

Track-to-Track Access Time:	5 milliseconds
Head Settling Time:	15 milliseconds
Head Load Time:	none
Average Access Time, Including Head Settling Time:	75 milliseconds
Motor Start Time:	250 milliseconds, maximum
Data Stop Time:	150 milliseconds, maximum
Data Transfer Rate:	250,000 bits per second, double-density
Average Rotational Latency:	100 milliseconds

#### RELIABILITY

MTBF:	8,000 power-on hours, typical usage, 25% duty cycle
Preventative Maintenance:	none required
MTTR:	30 minutes
Media Life (Reference Only):	4 x 10 <sup>6</sup> passes per track
Error Rates:	
Soft Read:	1 in 10 <sup>9</sup> bits
Hard Read:	1 in 10 <sup>12</sup> bits
Seek Errors:	1 in 10 <sup>6</sup> seeks

#### FUNCTIONAL

Encoding Format:	FM/MFM
Interface Requirement:	5¼" industry standard

#### MEDIA REQUIREMENT

Diskette:	5¼" industry standard diskette
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#### ELECTRICAL REQUIREMENTS

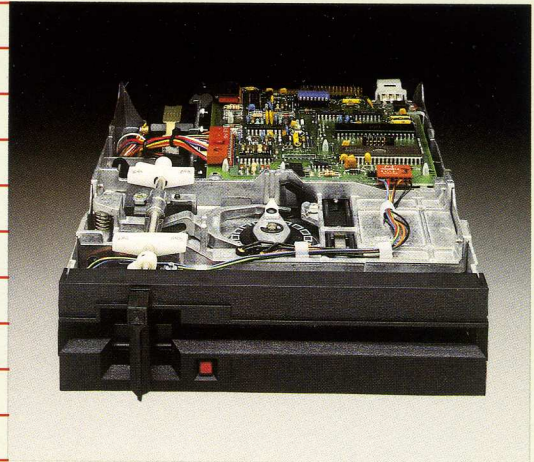
+ 5 Volts D.C. Power	+ 5 volts ±5% at 0.6 amperes typical at 50 millivolts PARD maximum
+ 12 Volts D.C. Power	+ 12 volts ±5% at 0.9 amperes typical at 50 millivolts PARD maximum

#### DIMENSIONS (INCLUDING FRONT PANEL)

Height:	3.38"/85.85mm
Width:	5.87"/149.10mm
Length:	8.29"/210.56mm

Specifications subject to change without notice (11/85)

## 8" THINLINE™ FLOPPY DISK DRIVES



### TM848E

The full-featured/full-performance second generation TM848E-1 and TM848E-2 ThinLine™ flexible disk drives are half the height of traditional 8" drives. By installing two TM800 drives in the existing cabinet space currently housing one drive, memory capacity of word processors, small business systems and intelligent terminals can be easily doubled.

TM848E-1 and TM848E-2 features:

- Up to 1.6 Megabyte storage capacity.
- Half-height design package.
- LSI circuitry, microprocessor-controlled.
- Buffered seek.
- 3 millisecond track-to-track access time.
- Brushless direct drive motor operation.
- Industry standard 8" interface.

### SPECIFICATIONS

#### CAPACITY

	TM848E-1	TM848E-2
Unformatted Recording Capacity:	(Single-sided Recording) 800K Bytes, double-density	(Double-sided Recording) 1.6 Megabytes, double-density
Tracks Per Diskette:	77	154 (77/surface)
Tracks Per Inch:	48 TPI	48 TPI
Disk Rotational Speed:	360 RPM ±1.5 percent	

#### ACCESS TIME

Track-to-Track Access Time:	3 milliseconds
Head Settling Time:	15 milliseconds
Head Load Time:	none
Average Access Time, Including Head Settling Time:	91 milliseconds
Motor Start Time:	150 milliseconds, maximum
Data Transfer Rate:	500,000 bits per second, double-density
Average Rotational Latency:	83 milliseconds

#### RELIABILITY

MTBF:	10,000 power-on hours, typical usage, 25% duty cycle
Preventative Maintenance:	none required
MTTR:	30 minutes
Media Life (Reference Only):	3 x 10 <sup>6</sup> passes per track
Error Rates:	
Soft Read:	1 in 10 <sup>9</sup> bits
Hard Read:	1 in 10 <sup>12</sup> bits
Seek Errors:	1 in 10 <sup>6</sup> seeks

#### FUNCTIONAL

Encoding Format:	FM/MFM
Interface Requirement:	8" industry standard

#### MEDIA REQUIREMENT

Diskette:	8" industry standard diskette
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#### ELECTRICAL REQUIREMENTS

+ 5 Volts D.C. Power	+ 5 volts ±5% at 0.55 amperes typical at 100 millivolts PARD maximum
+ 24 Volts D.C. Power	+ 24 volts ±10% at 0.7 amperes typical at 100 millivolts PARD maximum

#### DIMENSIONS (INCLUDING FRONT PANEL)

Height:	2.30"/58.22mm
Width:	8.55"/217.17mm
Length:	12.2"/309.88mm

Specifications subject to change without notice (11/85)

# Tandon

**THE DRIVING FORCE BEHIND THE SMALL COMPUTER INDUSTRY.**

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