

M244X

M2443

M2444

M2441 (standalone)

M2442 (rack mount)

Low cost GCR streaming tape drives that provide up to 180 MBS of storage capacity



M2442



The back-up solution

Fujitsu used their many years of experience producing tape drives to develop the all new M244X Series of streaming tape drives, the back-up solution. These drives are dual speed, dual density devices designed for high speed, cost effective back-up. Utilizing group code recording, (GCR), the M244X Series provides up to 180MB of data storage, four times more capacity than older formats, while maintaining IBM and ANSI compatibility.

The M244X Series offers tape speeds to 100 ips and achieves the fastest data transfer rates in the industry, up to 625KB/s. The M244X answers the need for cost effective back-up for a variety of superminis and cluster computers.

The M244X Series also allows operation in the start/stop mode minimizing software modification for users of start/stop drives.

M244X Series drives are available in standalone (M2441/M2443) and rack mount (M2442/M2444) versions.

No maintenance philosophy

The M244X Series features some of Fujitsu's most advanced semiconductors. Designed to a no maintenance philosophy, there are no periodic adjustments required. Drive parameters are internally monitored and adjusted automatically eliminating costly service calls or system downtime. This concept ensures a low cost of ownership over the entire life of the product.

Vacuum assisted easy load

The M244X Series has been designed for convenience and maximum operator efficiency. The easy load feature allows quick and reliable tape loading without the added cost or mechanics of auto load drives. The M244X can be loaded simply by placing the end of the tape in the vicinity of the take-up reel spindle, the tape is drawn to the spindle and automatically loaded.

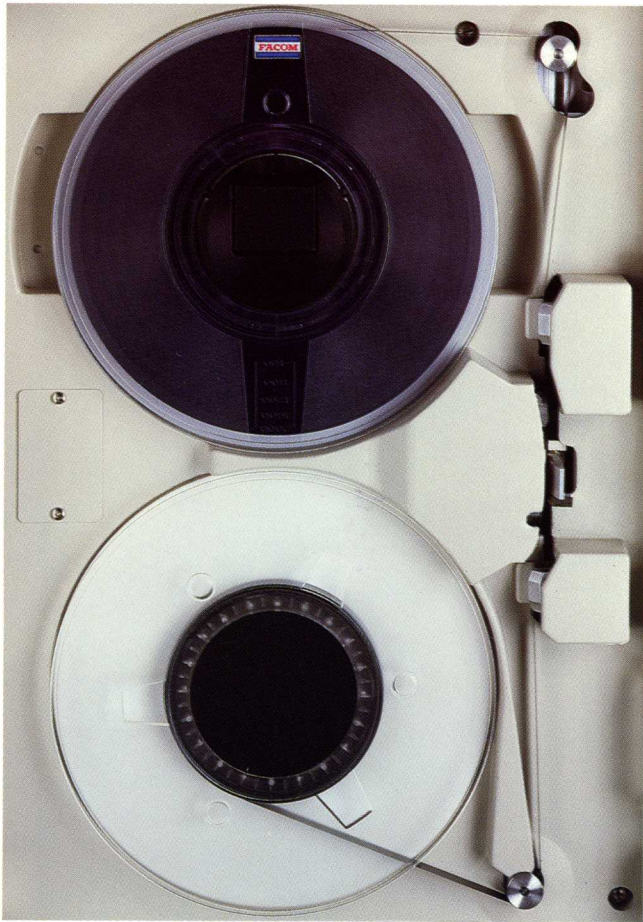
Software and manual density selection

The M244X Series allows density selection to be made under software control by the host computer or the user may select the density from the operator panel by pressing a single button. As a protection feature, density selections may only be made at load point eliminating the possibility of accidentally destroying valuable data.

Integrated LSI formatter

The M244X Series reads and writes data in either 1,600 bpi (PE) or 6,250 bpi (GCR) recording format on any of ANSI, ECMA, or IBM compatible 9-track tapes. Previous GCR formatters, which had complicated formatting and deformatting circuits, were expensive and limited to use in tape drives for large-scale computers. The M244X Series' GCR formatters, which feature Fujitsu's most advanced semiconductors—including 3,000 gate CMOS LSIs, 500-gate bipolar LSIs, analog master slice ICs, and hybrid ICs. This advanced technology has made it possible to keep cost low and performance high, providing reliable GCR tape drives in a compact design ideal for smaller computers.





Dual speed

In addition to the streaming mode, the M244X Series provides a start/stop mode to allow easy migration and minimize software modifications. The configurations available are 25 ips start/stop 75 ips streaming or 12.5 ips start/stop with 100 ips streaming allowing the M244X Series to accommodate a wide variety of applications.

Direct reel-to-reel servo system

A direct reel-to-reel servo system and advanced LSI formatter eliminates the need for costly high failure items found in traditional tension arm and vacuum column drives. Eliminating the vacuum system has also reduced noise levels substantially making the M244X ideal for office environments.

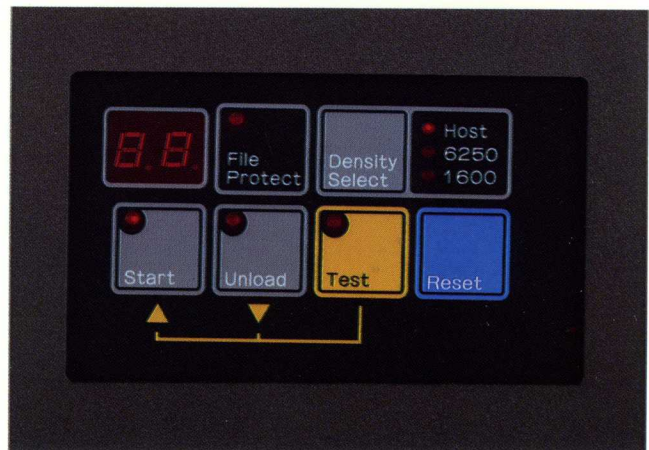
Self-diagnosis, troubleshooting, self-adjustment

The M244X Series' device control program incorporates powerful maintenance-aid program modules—self-diagnostic, troubleshooting, and self-adjustment modules.

The self-diagnostic module, which is activated automatically at power on, can also be activated manually by entering a diagnostic command. The module scans LSIs, checks output levels of sensors, and examines cable connections.

The troubleshooting module is automatically executed when a machine fault occurs. The Fault Symptom Code (FSC) is displayed on a two-digit indicator on the operator panel. Fault Locate Codes (FLCs) are displayed in succession on the same indicator by pressing buttons on the operator panel. By referring to the fault look-up table (a sticker on the back panel) for the meanings of FSCs and FLCs, operators can easily find out what's wrong with the machines.

The self-adjustment module issues commands for monitoring outputs of the read and photo amplifiers, and automatically adjusts their gains to maintain normal output levels. The adjusted gains are written into a nonvolatile memory so they will be effective when the drive is used again, eliminating the need to adjust the gain each time the drive is used.



FUNCTIONAL SPECIFICATIONS

	M244X Series			
	M2441A, M2442A		M2443A, M2444A	
Operating mode	Streaming	Start/Stop	Emulated Start/Stop	Streaming
Motion control	Microprocessor controlled direct reel-to-reel servo			
Tape speed	100ips	12.5ips	25ips	75ips
Data transfer rate	625KB/s(GCR) 160KB/s(PE)	78KB/s(GCR) 20KB/s(PE)	156KB/s(GCR) 40KB/s(PE)	468KB/s(GCR) 120KB/s(PE)
Recording density	6,250bpi (GCR), 1,600bpi (PE)			
IBG (read/write)	0.3in (GCR), 0.6in (PE)			
Access time (write)	166ms(GCR) 168ms(PE)	18ms(GCR) 19ms(PE)	54ms(GCR) 66ms(PE)	129(GCR) 133ms(PE)
Repositioning time	743ms(GCR)	—	193MS(GCR) 217ms(PE)	515ms(GCR) 523ms(PE)
Reinstruction time (write)	1.3ms(GCR) 4.3ms(PE)	—	5.8ms(GCR) 17.8ms(PE)	1.8ms(GCR) 5.8ms(PE)
Rewind time	2.0 min (2,400ft reel)			
Loading time	10s (manual threading, auto loading)			
Reel size (open)	6.25in, 7.01in, 8.0in, 10.5in			
Host interface	Cipher, Pertec, CDC		Cipher, Pertec, CDC	
Formatter	Embedded			

PHYSICAL SPECIFICATIONS

		Operating	Not operating
Power		100 VAC to 120 VAC, 200 VAC to 240 VAC, 50 Hz or 60 Hz, single phase	
Power consumption		0.7 kVA	0.4 kVA
Environment	Temperature	5°C to 40°C (41°F to 104°F)	0°C to 50°C (32°F to 122°F)
	Relative humidity	8% to 80%	8% to 90%
	Altitude	Up to 3,000 m (10,000 ft)	
Dimensions and weight	M2441A/M2443A (standalone)	1,000 mm high x 500 mm wide x 700 mm deep (39.4 in x 19.7 in x 27.6 in) 150 kg (331 lb)	
	M2442A/M2444A (19-in standard rack mount)	617 mm high x 483 mm wide x 559 mm deep (24.3 in x 19.0 in x 22.0 in) 70 kg (154 lb)	
Safety standard		UL, CSA certified FCC part 15 subpart J class A (under application)	



M2441A/M2443A

Specifications are subject to change without notice.
For the latest information, contact your local Fujitsu representative.

European contact:
FUJITSU EUROPE LTD. Royal Trust House, 54 Jermyn St., London, S.W. 1, England Phone: (44-1)408-0043 Telex: 51-263871
FUJITSU ELEKTRONIK GmbH. Sonnenstrabe 29, D-8000, Munich 2, F.R. Germany Phone: (49-89)592891 Telex: 41-5213994
FUJITSU NORDIC AB Kungsgatan 44, 111 35, Stockholm, Sweden Phone: (46)08-231125 Telex: 54-13411

Australasian contact:
FACOM AUSTRALIA LTD. 41 McLaren St., North Sydney, N.S.W. 2060, Australia Phone: (61-2)922-1822 Telex: 71-25233

FUJITSU AMERICA, INC.

3055 Orchard Drive
 San Jose, CA 95134 PHONE (408) 946-8777
 Telex: 176207 TWX: 910-338-2193