

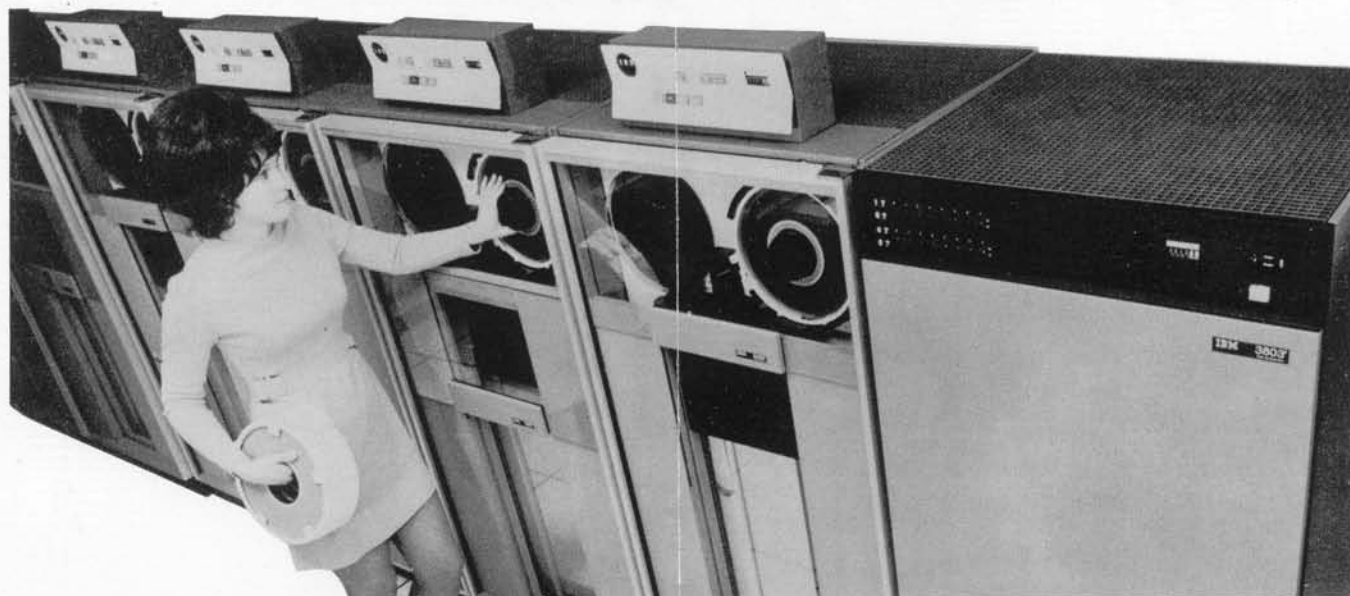
IMM

3420

Modell 4
Modell 6
Modell 8

3803

Modell 2



Product Description

The IBM 3803 Model 2 tape control unit and the IBM 3420 Models 4, 6, and 8 magnetic tape units increase the amount of data which can be placed on a single reel by approximately threefold over current IBM subsystems operating at 1600 BPI. Data compaction reduces the number of volumes in multi-reel data set, requiring less operator handling time and less space in the tape library.

The new models of the 3420 tape unit read and write data on half-inch magnetic tape at a new data density of 6250 BPI in 9 track format with an Interblock Gap (IBG) of 0.3 inch.

The basic new model of the 3803 control unit operates at either 6250 or 1600 bpi.

The new models offer price/performance improvements to the user, including increased data transfer rates and reduced access times.

Installed units of existing subsystems (3420 Models 3, 5, and 7 and 3803 Model 1) can be converted in the field to accommodate the features of the new models.

Existing models of the 3420 (3, 5, 7), when attached to the new 3803 Model 2, will operate at present densities and track configurations, but will not operate at the new 6250 density.

The new units of the 3420/3803 subsystem will attach to System 370 Models 135 - 195 and to System 360 Models 50 - 195.

Functional Characteristics

	Model 4	Model 6	Model 8
Tape Speed (ips)	75	125	200
Data Rate (Kb/sec)			
1600 bpi	120	200	320
6250 bpi	470	780	1250
Interblock Gap, IBG (in.)			
1600 bpi	0.6	0.6	0.6
6250 bpi	0.3	0.3	0.3
Read Access Time (ms)			
1600 bpi	4.0	2.6	1.7
6250 bpi	2.3	1.6	1.1
Write Access Time (ms)			
1600 bpi	3.0	2.0	1.3
6250 bpi	2.1	1.5	0.95

The time required to read or write the first byte of data in a block from a stopped position (R/W head positioned in the IBG).

Career Path

The new models of the 3420/3803 are Field Engineering Career Path "General Systems" products.

Design Features

New models of the 3420/3803 while incorporating all the design features of the existing 3420/3803 tape sub-system, have the following additional features to enhance operation at 6250 bpi:

On-the-fly error correction during read operations in any single track or combinations of two tracks simultaneously.

Periodic resync bursts in data blocks to restore tracks from correction mode to normal operation.

Automatic read amplification: Tape unit read amplifiers adjusted for individual characteristics of each reel of tape.

Additional design features introduced on the 3420 Models 4, 6, and 8 include:

New Cleaning Mechanism: Operational during auto-head, rewind, and unload to reduce tape surface contamination and protect the read/write head.

Improved capstan motion control: Added performance for smaller IBG, shorter access times, and increased data transfer rates.

Optional Features

3803 Model 2

9-track NRZI: Offers compatibility with 9-track tapes at 800 bpi.

7 and 9-track NRZI: Offers compatibility with 9-track tapes at 800 bpi and 7-track tapes at 800, 556, and 200 bpi. Includes data conversion and translation functions for 7-track format.

Tape switch: Up to four 3803 control units can address a pool of up to 16 tape units.

Two-channel switch: For attaching the 3803 to two channels of the same system or single channels of each of two systems.

3420 Models 4, 6, and 8

6250/1600 bpi densities.

Service Features

Fault locating diagnostics,
24 sense bytes.

Tape control CE Panel for testing subsystem functions.

Failing tape unit can be serviced off-line without disturbing remainder of subsystem.

Tape unit field tester for off-line diagnosis and repair.

OLT EC level compatibility, serial number and feature identification through sense bytes.

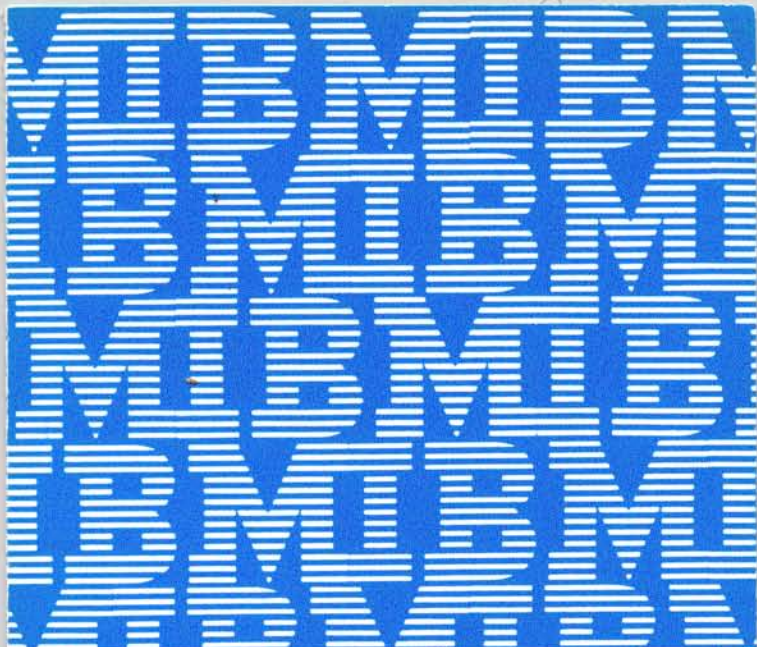
Maintenance Library Manual contains the following topics in an integrated format:

- Maintenance Analysis Procedures (MAP)

- Maintenance

- Theory

- Installation.



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Printed in Western Germany