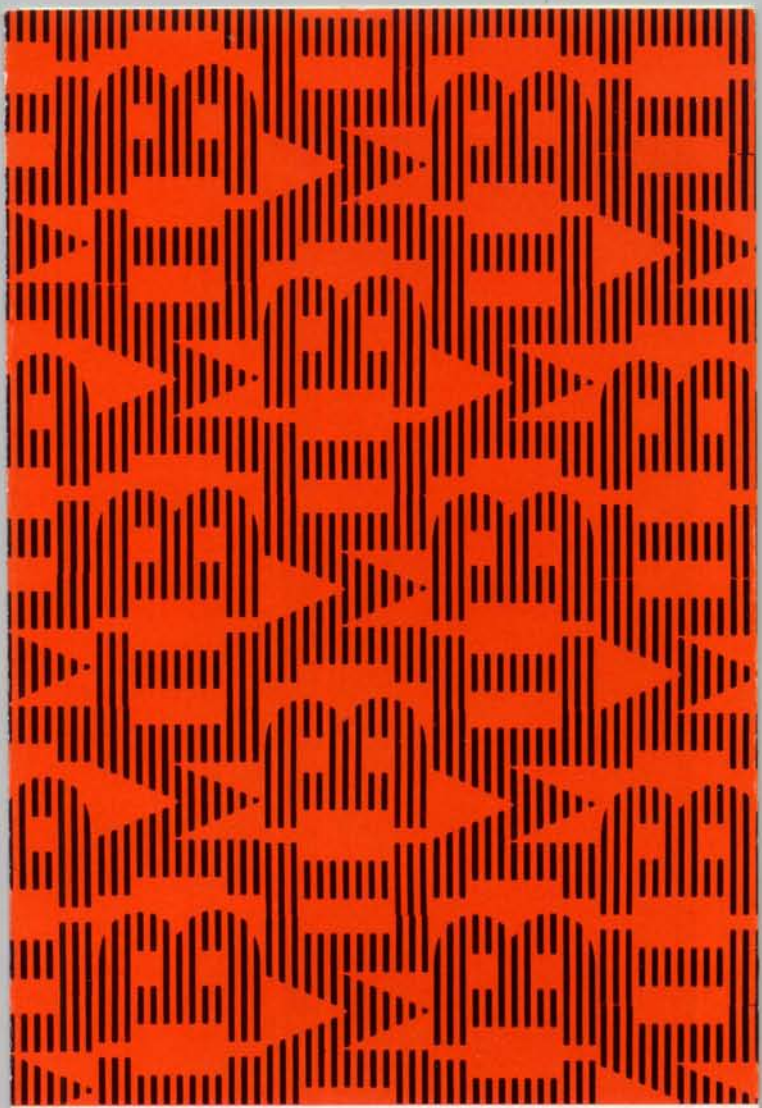


3410
/3411

**Magnetic Tape
Subsystem**

1111



Design Features

Single drive capstan controlled by a reversible dc motor.

Simplified tape threading path and vacuum control system.

Functional packaging of logic boards and mechanical assemblies.

Quick-release reel latch.

Microprogrammed control unit, using read-only storage.

Digital interface between the tape unit and the control unit. Electrical noise sensitivity is reduced and the need for preamplifier adjustment is eliminated.

No electrical adjustments required on phase-encoded models.

Low-profile design with removable covers. Most servicing can be performed at the front of the unit.



Service Features

The 3410/3411 utilizes functional packaging of logic and hardware to the fullest extent, lending itself readily to the use of diagnostic maintenance analysis procedures (MAP). These will indicate to the CE where to start and what to do to correct the problem.

By using extended sense information and microdiagnostic programs, a failure mode can be isolated in most cases to the smallest field replaceable unit (FRU).

The control unit, using microdiagnostics, attempts recovery from most errors.

An error recovery program (ERP) detects data-related errors and attempts recovery.

Error statistics are accumulated in counters. An outboard recorder (OBR) and a statistical data recorder (SDR) are provided for each device. A Log Analysis program for analyzing the statistics enables the failures to be isolated to the tape unit, control unit, or media.

Periodic review of accumulated error statistics will enable the user and the CE to predict hardware or media degradation.

Installation and adjustment procedures are printed on decals inside the unit's covers.

Power supply failure indicators provide a visual reference for the CE.

Product Description

The IBM 3410/3411 magnetic tape subsystem consists of the 3410 tape unit and the 3411 tape and control unit. The subsystem is available in three models.

Model	Speed
1	12,5 ips
2	25,0 ips
3	50,0 ips

The 3411 consists of a control unit, single drive and main power supply for the entire subsystem. All other tape units are add-ons and consist of drive hardware.

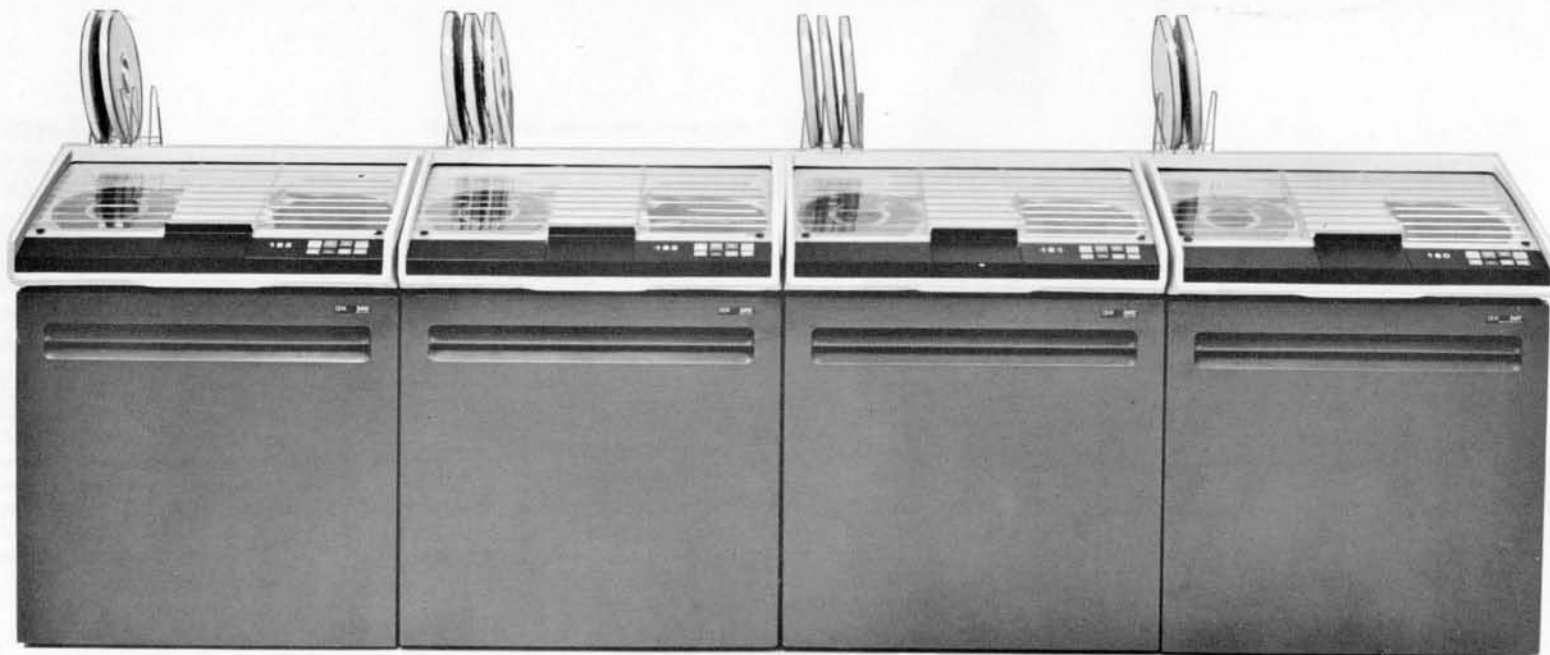
The 3410/3411 attaches to System/3, and System/370. The maximum number of drives per subsystem is six (four on Model 1). All tape units must be of the same model number; the subsystem will not accommodate an intermix.

The 3410, using half-inch magnetic tape, reads and writes data at 1600 bpi in 9-track, phase-encoded format. It is compatible with any other IBM tape unit using this format. Dual density is available as an option on Models 2 and 3 for the 9-track, 800 bpi NRZI format.

Functional Characteristics

	Model 1	Model 2	Model 3
Tape Speed (ips)	12.5	25.0 [*]	50.0
Density (bpi)	1600	1600 800 [*]	1600 800 [*]
Nominal Data Rate (Kb/sec)	20	40	80
Interblock Gap, IBG (in.)	0.6	0.6	0.6
Rewind Time (min.) $\pm 10\%$, 2400 ft.	3.0	3.0	2.0
Reel Sizes	All	All	All
Loading/Threading	Manual	Manual	Manual

* 9-track phase-encoding, 1600 bpi, is standard on all models. Dual density to accommodate 9-track NRZI at 800 bpi is available as an option on Models 2 and 3.



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Printed in Western Germany

11414

