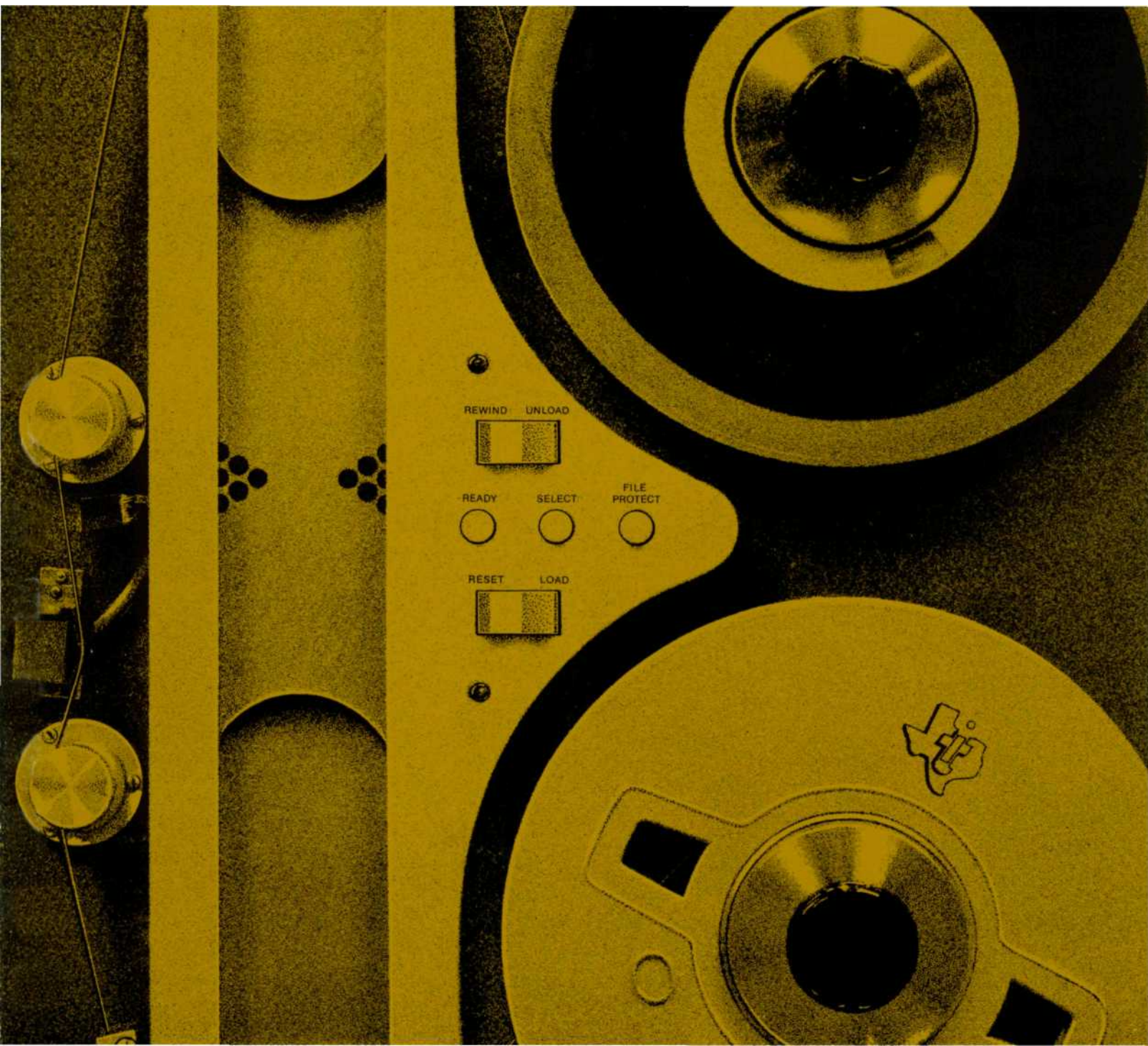
Texas Instruments
model 979 magnetic tape transport



New low-cost unit offers
"computer-room quality"
for OEM applications

The Texas Instruments Model 979 is a small computer-room-quality transport loaded with performance features and designed specifically for the OEM market.

Vacuum column buffering and permanent tape-path alignment provide superior data reliability and extra long tape life, yet the price is competitive with tension-arm transports.

Features

- Vacuum column buffering
- Any single speed 15 — 45 IPS*
- Read-after-write dual gap head with edge relief slots
- Fits standard 19" rack
- 9-track NRZI 800 BPI*
- 9-track PE 1600 BPI*
- 7-track NRZI 200/556/800 **BPI***
- Automatic complete unload
- $10^1/_2$-inch reel
- Quick release hubs*
- TTL compatible interface
- High speed rewind in the vacuum columns

• Choice or optional features.

979 MAGNETIC TAPE TRANSPORT

Rugged performance

Whatever your application, you **can** operate the Model 979 24hours a day under intensive tape activity. The Model 979 is designed and built to take it. Rugged mechanical design and exceptionally low component stress provide MTBF greater than 2000 hours.

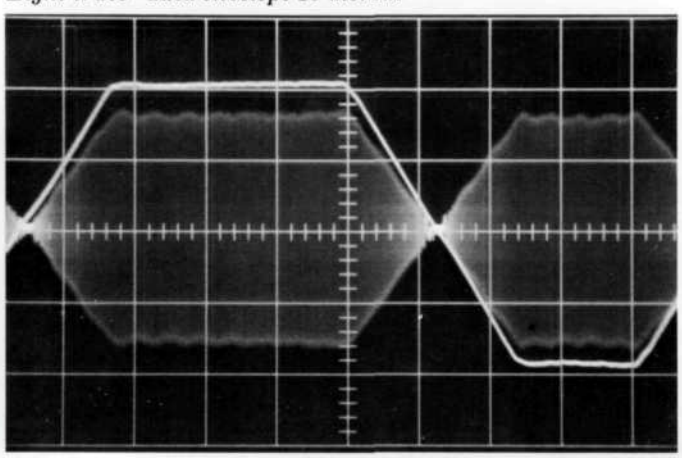
The TI Model 979 incorporates the latest technologies developed by TI for its line of high-performance and plug-compatible transport products.

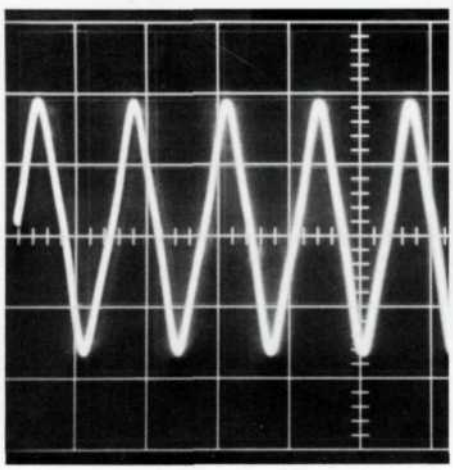
Operation and maintenance ease

Vacuum column buffering and single capstan drive provide gentle handling of your most valuable tapes. The TI Model 979 is built on solid precision tooling plate to insure long-term tape path stability. The tape path is arranged so that the tape oxide contacts only the head, thus reducing wear and contamination of the data surface. IBM compatible head/guide geometry means low dynamic skew and provides an extra margin of data reliability when reading or writing IBM-compatible tapes. The 979 uses no belts, gears, clutches, brakes or pinch rollers.

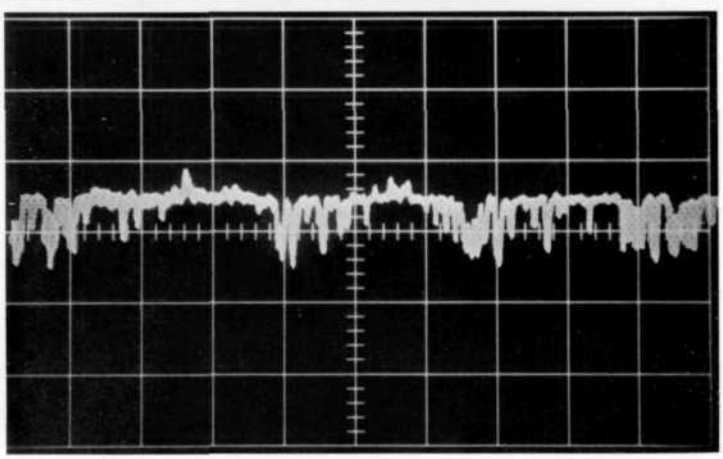
Wave forms shown are typical and unretouched, 37.5 IPS.

Forward/reverse program
Heavy trace—tach output
Light trace—data envelope 10 ms/cm





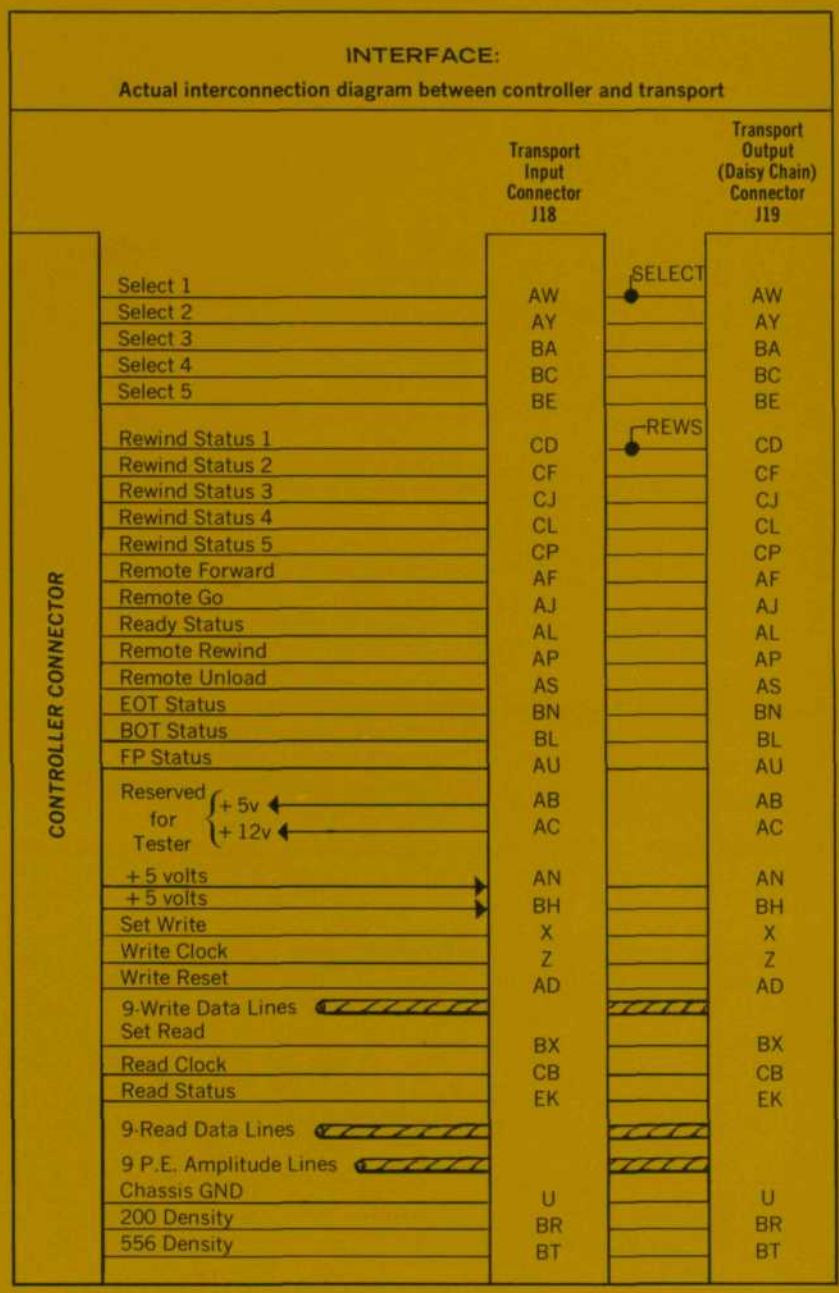
Amplified head output (before peak detection and digitizing 2v/cm; 50 μs/cm)

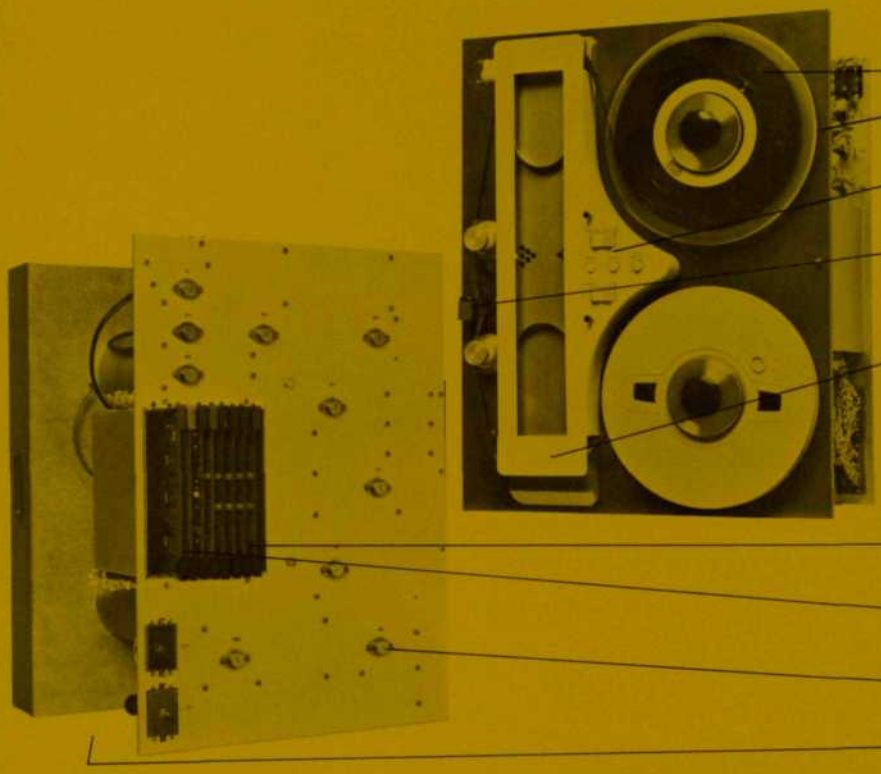


Dynamic skew read after rewind. Outside channels 62.5 microinches/cm.

Interfacing simplicity

TTL logic levels and simple control and timing requirements make the 979 easy to interface with your present controller. The operation manual provides complete interface information.



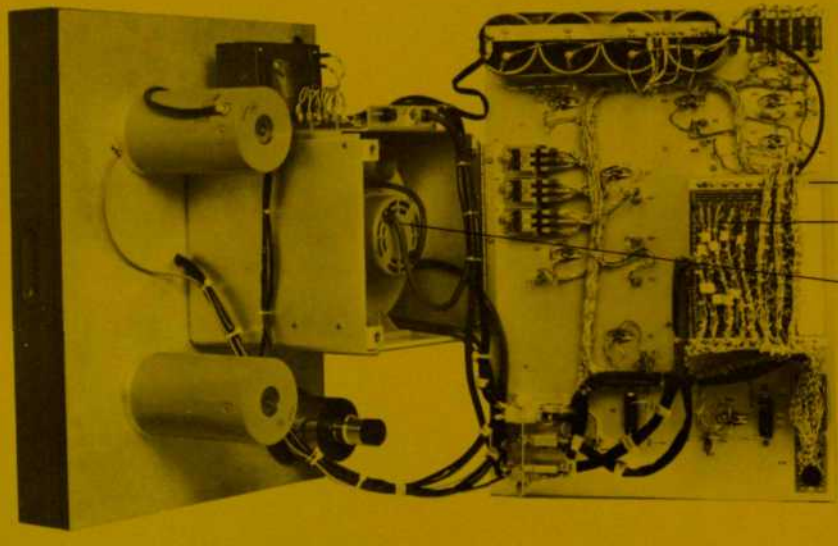


FRONT

- 10½-inch reels
- Solid tooling plate foundation
- Operator controls and indicators
- IBM compatible head/guide geometry
- Vacuum column with easy-off cover

REAR

- 5 data boards for 9 channel systems
- 3 motion control and P/S regulator boards
- All power transistors identical and socket mounted
- Only 12 inches behind rear of front panel



EASY ACCESS

- Swing-out rear panel
- Ready access to all wiring and components
- Long life induction vacuum motor (no brushes)

Specifications

Tape:	Width .498 ± .002, thickness 1.5 mil nominal
Speed:	Any single speed 15-45 ips*
Speed Variation:	Long term ± 2% Short term ± 3%
Reel Size:	10½ inch
Rewind Time:	200 seconds max. for 2400 ft.
Start/Stop Characteristics:	Shown for 45 ips speed:
Start time:	10 milliseconds
Start distance:	.225 inches
Stop time:	10 milliseconds
Stop distance:	.225 inches
Program Restrictions:	None
Head:	Read-after-write dual gap with edge relief slots, 7 or 9 track*. Edge relief slots are provided to greatly extend head life and to prevent tape edge damage.
Data Electronics:	9 channel 1600 bpi phase encoded* (but does not include data converter). 9 channel 800 bpi NRZI*. 7 channel 200, 556 and 800 bpi NRZI* (all 3 densities programmable).
Static Skew:	Less than ± 75 microinches relative to the outside tracks of the read head.
Static Skew Adjustment:	
Read:	Azimuth adjusting head plate.
Write:	Electrical adjustment for each individual channel.
Dynamic Skew:	Less than 125 microinches peak-to-peak typical. Less than 200 microinches peak-to-peak max.
Reel Jogging:	Zero for all combinations of tape footage in absence of a tape drive command.
Interface Logic Levels:	True: 0.0 v min, 0.4 v max False: 2.4 v min, 5.0 max
Power Supplies:	All regulated power supplies have a current foldback characteristic to prevent component stress in event of a failure.
Tape Tension:	8 oz. nominal
Unload:	Automatic complete unload
MTBF:	Greater than 2000 hours
Mounting Dimensions:	19-inch rack mount, 24.5 inches high (includes ½ inch mounting bar), 12 inches deep
Power:	115 VAC, 47-63 Hz 10A service (typical running current 3A)
Weight:	135 lb.
Environment:	
Air Temperature:	50° F–90° F
Relative Humidity:	20%–80% Limits are for an operating system and are determined primarily by restrictions on the tape. The air temperature behind the front panel should not exceed 122°F.
Altitude:	9000 ft. for 60 Hz power
Shock Acceleration:	10G
Multiple Installation:	Standard transport is equipped for daisy chain operation. Up to 5 units can be accommodated.
File Protect:	File protect ring sensor
BOT, EOT Detection:	Photosensing. Built-in command sequence to assure accurate positioning of BOT regardless of approach direction.

*Indicates choices or options. Features shown without asterisk are standard.

Texas Instruments reserves the right to make changes at any time in order to improve design and supply the best product possible.

Sales and Service Offices of Texas Instruments are located throughout the United States and in major countries overseas as well. Contact the Digital Systems Division, Texas Instruments Incorporated, P.O. Box 66027, Houston, Texas 77006, or call 713-526-1411, for the location of the nearest office to you.

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