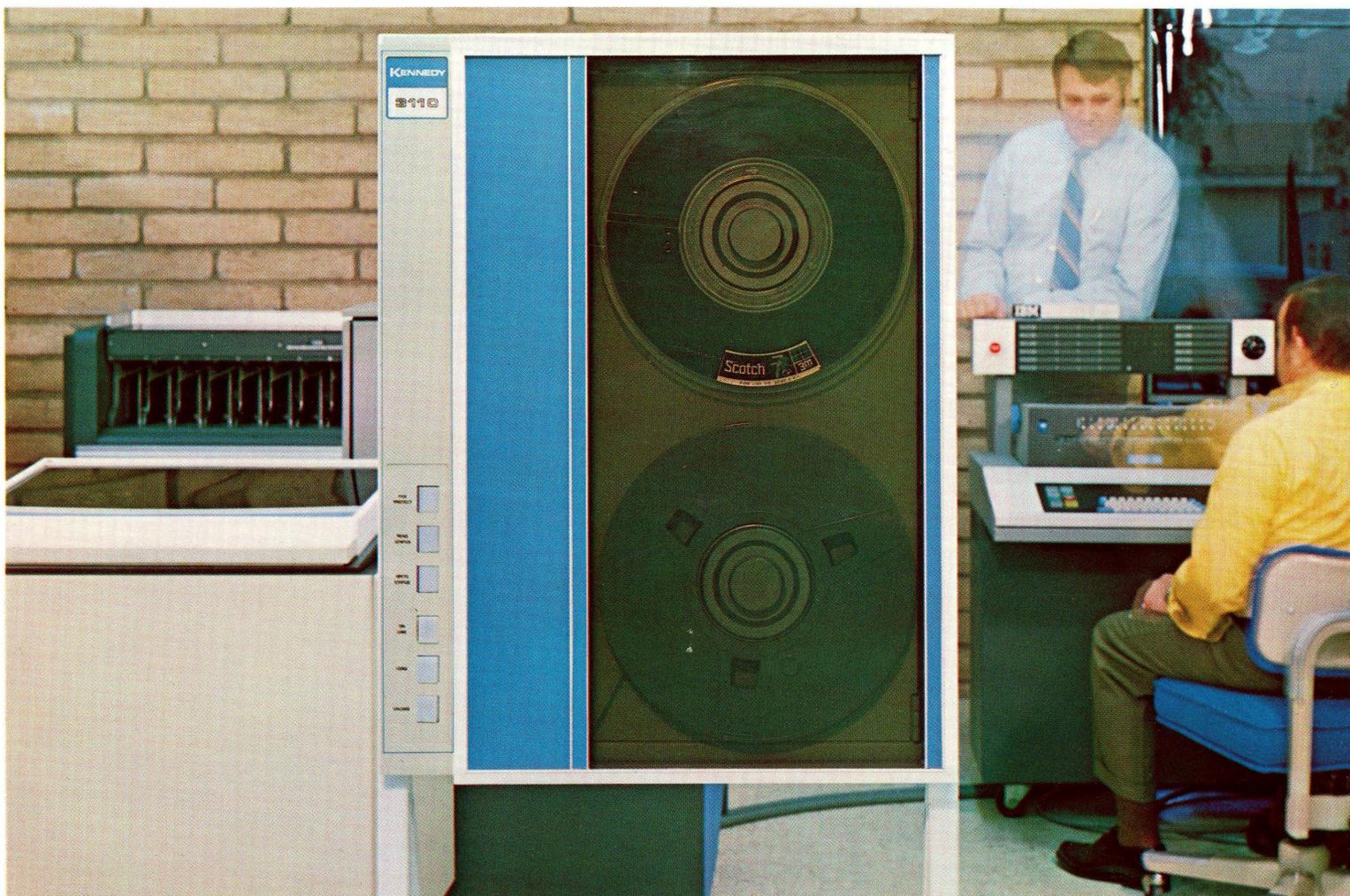


KENNEDY CO.

WORLD'S LEADER IN LOW-COST DIGITAL RECORDERS

Models 3110/3112 synchronous recorder selection guide



NOW: MODEL 3112

\$2500

in quantities of 100

Kennedy Company, the world's leader in incremental and synchronous magnetic tape recorders, has literally grown up with the computer industry. Established over eleven years ago to provide digital tape control devices for the machine tool industry, Kennedy Company was among the first to foresee the need for reliable, low-cost data storage for the first generations of computers. Today, thousands of Kennedy recorders are in use throughout the world in such diverse applications as monitoring telephone traffic in Sweden and South America, retail sales in department stores in Boston, smog research in California, ice pressures on the first tanker to Alaska's North Slope, in addition to the day-to-day data storage requirements of hundreds of business and industrial computer installations.

The Kennedy experience with digital magnetic recording has resulted in a line of dependable, easy to maintain, and competitively priced recorders. They are simple to interface, simple to adjust, and simple to operate. All major mechanical and electrical assemblies are manufactured at the Company's Altadena facility, assuring the highest quality control factors.

Kennedy incremental and synchronous recorders are the standards of the computer peripheral industry. For any application requiring the finest in digital tape technology, check with Kennedy Company first.



Models 3110/3112 Synchronous Digital Magnetic Tape Recorders

Designed for use with small computers and peripherals, the Kennedy Models 3110/3112 are the finest synchronous recorders available. Solidly built, with a regard for construction details rarely found, the Models 3110/3112 are both simple to maintain and simple to interface.

Capable of operating at synchronous speeds of 25 ips (37.5 & 45 ips available as an option) with its high performance single capstan drive, Models 3110/3112 have read/write rates up to 30 KHz at 800 BPI. The single capstan drive allows tape to be under capstan control at all times. Tape drive is bidirectional without program restrictions. In addition to the 25 ips speed, high speed forward and reverse are provided at 150 ips. Unloading proceeds at 150 ips or four minutes for a 2400' reel.

Model 3110 is beautifully simple to interface. The tape deck provides gap generation, vertical and horizontal parity generation, all the IBM compatible check characters plus providing a write clock pulse for strobing data into the tape deck.

The Model 3112 is as beautifully simple to interface as the Model 3110 and interface requirements conform to most existing designs with mini computers, data terminals and data acquisition systems. Designed for the OEM user, the Model 3112 is the least expensive synchronous recorder available, \$2500 in quantities, and comes complete with tape motion controls and 7 or 9 channels of Read/Write, Read-After-Write electronics.

Other features of the Models 3110/3112 include:

10½" 2400' reels of ½" computer tape. Reels are driven by high performance servos responding to signals from mechanical buffer arms.

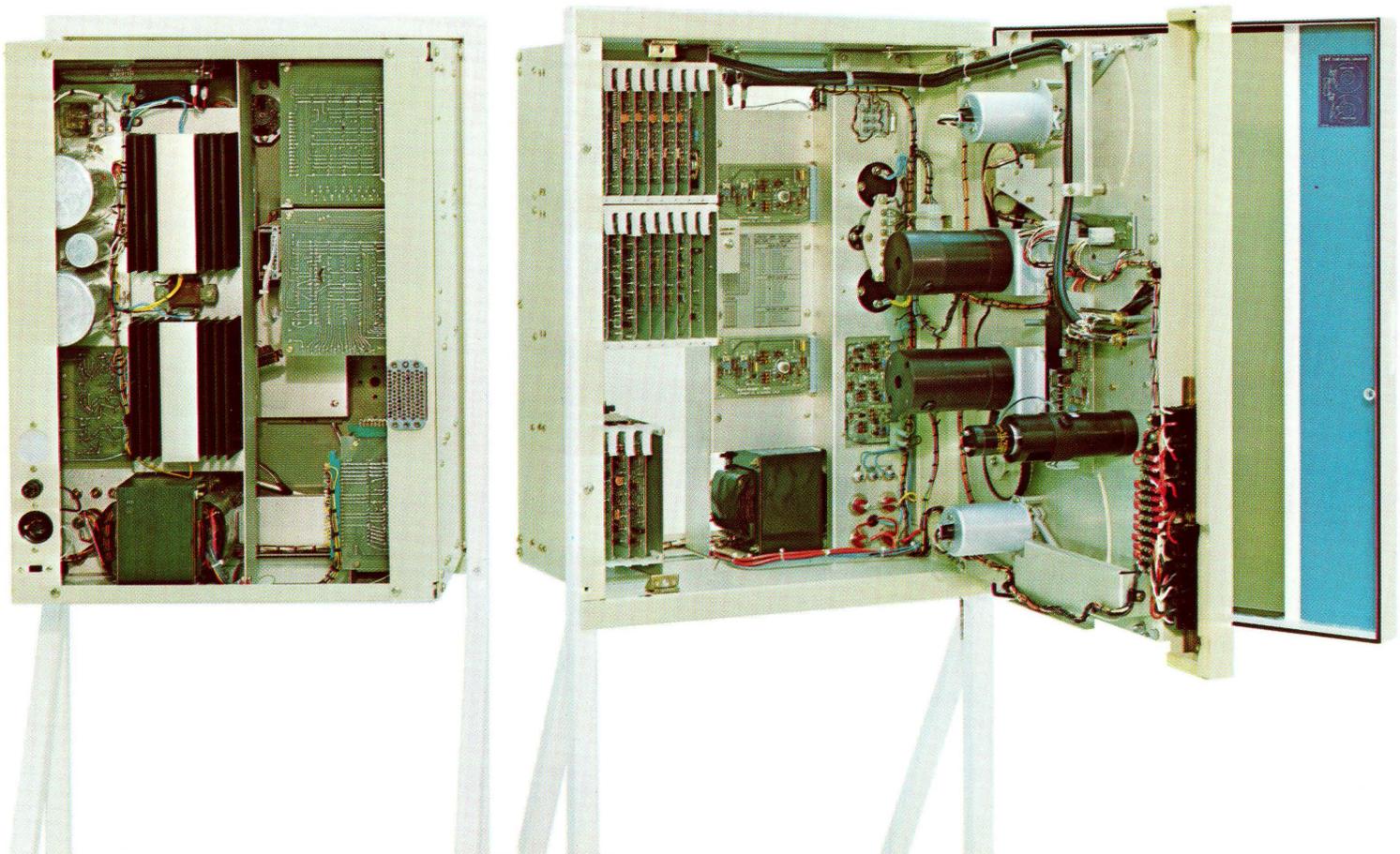
Highly precise tape guiding with guide spacing duplicating that of IBM transports.

Fully interlocked transport controls prevent inadvertent dangerous control sequences. Only two manual controls are required—Load and Unload.

Read/Write electronics are available for all standard combinations—read; write; read/write; and read-after-write, seven or nine track. Write electronics feature automatic gap insertion for IRG, BOT and EOF gaps. Internal electronics generate parity and CRCC.

FEATURES

- Small functional printed circuit cards simplify troubleshooting and reduce spare card stocking cost.
- Electrical test points and adjustments accessible from the front.
- High performance single capstan 180° wrap drive system.
- Indirect drive, high torque dc drive servo system responding to signals from mechanical buffer arms.
- Photoelectric tension positioning sensors eliminate potentiometer wear.
- Exclusive mother board construction eliminates the possibilities of human error.
- Solid steel case for extra protection during transportation and installation.
- Silicon solid state and DTL logic.
- TTL/DTL compatible interface-high or low true.
- Power Select switch 115/230V ac, 48-500 Hz.
- High precision read-after-write dual gap head.
- Simplified tape loading path allows oxide to touch friction points only two times, providing longer tape life.
- Hinged door for easy access to plug-in modules, requires no additional rack space.



Model	3110-04 7-track Read/Write formatted	3110-07 9-track Read/Write formatted	3112 Read/Write, Read-after-Write, non-formatting	3110-02 7-track W
Data Density	200, 556, 800 BPI Specify one	800 BPI	9-track 800 BPI 7-track 200, 556, 800 BPI	200, 556, 800 BPI
Number of Tracks	7-track	9-track	7 or 9 track	7-track
Record/Read mode	NRZI IBM compatible	NRZI IBM compatible	NRZI IBM compatible	NRZI IBM compatible
Tape Velocity	10 to 25 ips	10 to 25 ips	10 to 25 ips	10 to 25 ips
Instantaneous Speed Variation	±3%	±3%	±3%	±3%
Long Term Speed Variation	±1%	±1%	±1%	±1%
Interchannel Displacement Error	150 microinches (max) at 800 BPI 200 microinches (max) at 556 BPI	150 microinches (max) at 800 BPI	150 microinches (max) at 800 BPI 200 microinches (max) at 556 BPI	150 microinches (max) at 800 BPI 200 microinches (max) at 556 BPI
Read Data	7 data output levels automatically de-skewed and provided with a read strobe pulse	9 data output levels automatically de-skewed and provided with read strobe pulse	7 or 9 data output levels automatically de-skewed and provided with read strobe pulse	7 or 9 data output levels automatically de-skewed and provided with read strobe pulse
Start/Stop Time	Start/Stop delays for IRG generation provided for internally	Start/Stop delays for IRG generation provided for internally	15 ms ±1 ms at 25 ips inversely proportional to tape speed	Start/Stop delays for IRG generation provided for internally
Start/Stop Displacement			0.1875 inches ±0.0125 inches	
Gaps	IBM compatible IRG, BOT, and EOF automatically generated	IBM compatible IRG, BOT, and EOF automatically generated	Externally timed	IBM compatible IRG, BOT, and EOF automatically generated
Parity	VRC, LRCC internally generated	VRC, CRCC, and LRCC internally generated	Externally generated	VRC, LRCC internally generated
Tape Tension	8.0 (±0.5) oz.	8.0 (±0.5) oz.	8.0 (±0.5) oz.	8.0 (±0.5) oz.
Reel Size	10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape	10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape	10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape	10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape
Drive System	High performance single capstan drive 180° wrap	High performance single capstan drive 180° wrap	High performance single capstan drive 180° wrap	High performance single capstan drive 180° wrap
Rewind Speed	150 ips	150 ips	150 ips	150 ips
Electronics	Silicon solid state and DTL logic	Silicon solid state and DTL logic	Silicon solid state and DTL logic	Silicon solid state and DTL logic
Tape Unit Interface	DTL/TTL High or low true	DTL/TTL High or low true	DTL/TTL Low true	DTL/TTL High or low true
Physical Dimensions	Panel height: 24.47" Depth behind panel: 10.62"	Panel height: 24.47" Depth behind panel: 10.62"	Panel height: 24.47" Depth behind panel: 10.62"	Panel height: 24.47" Depth behind panel: 10.62"
Mounting	Standard 19" RETMA rack mount	Standard 19" RETMA rack mount	Standard 19" RETMA rack mount	Standard 19" RETMA rack mount
Weight	91 lbs.	91 lbs.	91 lbs.	91 lbs.
Power	115/230V ac (±10%) 48 to 500 Hz	115/230V ac (±10%) 48 to 500 Hz	115/230V ac (±10%) 48 to 500 Hz	115/230V ac (±10%) 48 to 500 Hz
Operating Temperature	+2° to +50°C (+35° to +122°F)	+2° to +50°C (+35° to +122°F)	+2° to +50°C (+35° to +122°F)	+2° to +50°C (+35° to +122°F)
Humidity	15 to 95% non-condensing	15 to 95% non-condensing	15 to 95% non-condensing	15 to 95% non-condensing
Altitude (operating)	0 to 30,000 feet	0 to 30,000 feet	0 to 30,000 feet	0 to 30,000 feet
Options Available	Read-After-Write 37.5 ips/45 ips Dual Density Read Parity Check Special paint Vacuum Tape Cleaner	Read-After-Write 37.5 ips/45 ips Read Parity Check Special paint Vacuum Tape Cleaner	Special paint 37.5 ips/45 ips Vacuum Tape Cleaner	Read-After-Write 37.5 ips/45 ips Dual Density Special paint Vacuum Tape Cleaner

3110-02 5-track Write only formatted	3110-03 7-track Read only	3110-05 9-track Write only formatted	3110-06 9-track Read only
556, 800 BPI Specify one	200, 556, 800 BPI Specify one	800 BPI	800 BPI
5-track	7-track	9-track	9-track
IBM compatible	NRZI IBM compatible	NRZI IBM compatible	NRZI IBM compatible
10 to 25 ips	10 to 25 ips	10 to 25 ips	10 to 25 ips
	±3%	±3%	±3%
	±1%	±1%	±1%
150 microinches (max) at 800 BPI 200 microinches (max) at 556 BPI	150 microinches (max) at 800 BPI 200 microinches (max) at 556 BPI	150 microinches (max) at 800 BPI	150 microinches (max) at 800 BPI
	7 data output levels automatically de-skewed and provided with a read strobe pulse		9 data output levels automatically de-skewed and provided with read strobe pulse
Start/Stop delays for IRG generation provided for internally	12 ms ±1 ms at 25 ips inversely proportional to tape speed	Start/Stop delays for IRG generation provided for internally	12 ms ±1 ms at 25 ips inversely proportional to tape speed
	0.15 inches ±.02"		0.15 inches ±.02"
IBM compatible IRG, BOT, EOF automatically generated		IBM compatible IRG, BOT, and EOF automatically generated	
CRCC internally generated		VRC, CRCC, and LRCC internally generated	
±0.5 oz.	8.0 (±0.5) oz.	8.0 (±0.5) oz.	8.0 (±0.5) oz.
10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape	10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape	10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape	10.5 inches, 2400 feet of 1.5 mil, 0.5 inch wide computer grade tape
High performance single capstan drive 180° wrap	High performance single capstan drive 180° wrap	High performance single capstan drive 180° wrap	High performance single capstan drive 180° wrap
150 ips	150 ips	150 ips	150 ips
Silicon solid state and DTL logic	Silicon solid state and DTL logic	Silicon solid state and DTL logic	Silicon solid state and DTL logic
DTL/TTL High or low true	DTL/TTL High or low true	DTL/TTL High or low true	DTL/TTL High or low true
Panel height: 24.47" Depth behind panel: 10.62"	Panel height: 24.47" Depth behind panel: 10.62"	Panel height: 24.47" Depth behind panel: 10.62"	Panel height: 24.47" Depth behind panel: 10.62"
Standard 19" RETMA rack mount	Standard 19" RETMA rack mount	Standard 19" RETMA rack mount	Standard 19" RETMA rack mount
	91 lbs.	91 lbs.	91 lbs.
115/230V ac (±10%) 48 to 500 Hz	115/230V ac (±10%) 48 to 500 Hz	115/230V ac (±10%) 48 to 500 Hz	115/230V ac (±10%) 48 to 500 Hz
+2° to +50°C (+35° to +122°F)	+2° to +50°C (+35° to +122°F)	+2° to +50°C (+35° to +122°F)	+2° to +50°C (+35° to +122°F)
15 to 95% non-condensing	15 to 95% non-condensing	15 to 95% non-condensing	15 to 95% non-condensing
0 to 30,000 feet	0 to 30,000 feet	0 to 30,000 feet	0 to 30,000 feet
Read Parity Check 37.5 ips/45 ips Dual Density Read Special paint Vacuum Tape Cleaner	Read Parity Check 37.5 ips/45 ips Dual Density Read Special paint Vacuum Tape Cleaner	Read-After-Write 37.5 ips/45 ips Special paint Vacuum Tape Cleaner	Read Parity Check 37.5 ips/45 ips Special Paint Vacuum Tape Cleaner

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	(213) 787-9050	
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	(714) 273-3773	