Nakamichi
BX-150/BX-100
2-Head Cassette Decks

Nakamichi Sound–Pure and Simple

If you're looking to impress your friends with bells and whistles, the BX-150 and BX-100 are not for you. If you want superior sound at an affordable price, look no further. The BX-150 and BX-100 are simple in concept and operation but unmatched in their class for sheer sound quality. The secret of their remarkable reproduction clarity is quite simple—concentration on the four essentials: transport, magnetic heads, electronics, and quality control.

The Nakamichi Microprocessor-Controlled Silent Mechanism

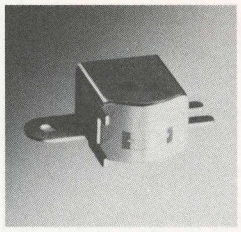
It's easy to overlook the importance of the tape transport. Two specifications describe its operation—speed accuracy and wow and flutter—but the transport affects sound clarity in ways *not* revealed by specifications. Vibration causes "modulation noise" and high-frequency flutter that muddle sound and make it impossible to hear subtle detail. Yet there is no specification for modulation noise, and high-frequency flutter is ignored by "weighted" measurements.

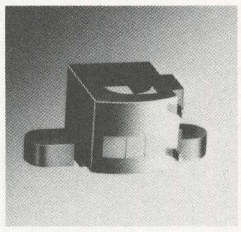
We've gone to extraordinary lengths to eliminate vibration in the BX-150/BX-100 transport. A smooth microprocessor-controlled motor-driven cam replaces conventional solenoids and engages the head base, pinch roller and brakes with incredible precision. Since the motor turns only while changing functions, there's no vibration during actual operation. The microprocessor supervises function changes and inserts the intermediate steps needed to protect the tape so you can switch between modes in complete safety.

Since single-capstan transports are very sensitive to reel-torque variation, the BX-150/BX-100 have independent high-performance reel-drive motors and use precision metal pulleys (rather than plastic wheels) to transmit torque to the system. These are features you don't see, but features that impact *performance* and guarantee that unique quality called "Nakamichi Sound."

3-Head Performance In A 2-Head Deck

With over 30 years' experience developing magnetic heads of all types, Nakamichi is uniquely qualified to create a combination record/play head that outperforms most "sandwich" 3-head designs in frequency response and freedom from distortion. In fact, few 3-head decks match the BX-150/BX-100's smooth response from 20 Hz to 20 kHz—a smoothness that guarantees complete freedom from sonic coloration.





The RP-2D's laminated-sendust core makes full use of metal tape's recording potential while its 1.2-micron gap resolves 20-kHz wavelengths in playback. A hyperbolic geometry minimizes "contour effect" for smooth bass response.

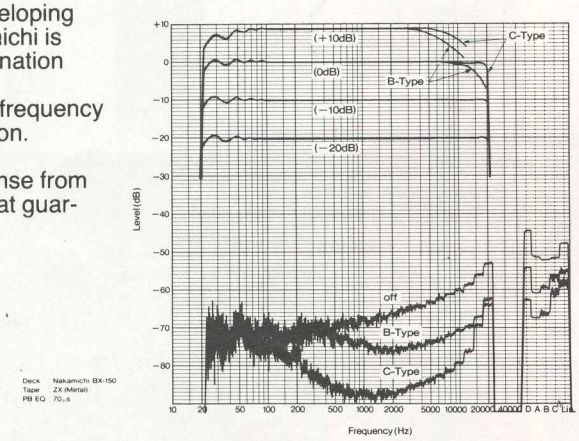
The E-2D's dual-gap design and low-loss ferrite core ensure complete erasure of metal tape.

Low-Noise Low-Distortion Electronics

BX-150/BX-100 electronics are remarkably sophisticated compared to ordinary tape-deck circuitry. The recording amplifier utilizes high-output low-noise ICs and Nakamichi Double-NF equalization to eliminate distortion caused by electrolytic capacitors in the signal path.

The playback amplifier also uses Double-NF topology, but the amplifier is discretely configured of low-noise transistors to match the playback head more perfectly and ensure minimum noise. Even though the BX-150 and BX-100 are "basic" recorders, playback gap loss is compensated in the playback equalizer and recording loss in the recording equalizer to ensure complete adherence with international standards.

The BX-150/BX-100 bias supply operates at an unusually high frequency (105 kHz) to avoid intermodulation distortion. Operation at this frequency requires superior recording and erase heads but is essential for maximum clarity. A balanced topology ensures exceptional stability and freedom from bias distortion to guarantee you quiet reliable recordings of remarkable bandwidth. The results speak for themselves!



Frequency Response/Noise Analysis

Nakamichi Quality Starts With The Design

Nakamichi goes far beyond conventional standards to ensure the performance of *every* BX-150 and BX-100. Product quality begins with the design. Unless numerous internal controls are provided, it is impossible to calibrate the deck properly. These are expensive yet invisible. It's not surprising that the average cassette deck has only a single control to set bias and a single control to set recording level—an approach that precludes optimum performance on *both* tracks and *all* tape types.

The BX-150/BX-100's full complement of internal controls allows us to hand test and calibrate each deck in the factory. Bias and recording level are set independently for *each* track and *each* major tape type—Normal, Chrome, and Metal. The 30-step adjustment procedure each BX-150 and BX-100 undergoes during assembly is costly, but it guarantees *you* Nakamichi performance.

BX-150/BX-100 Features

• Dual-Speed Master Fader • Dolby-B Noise Reduction • Dolby-C NR (BX-150 only) • Defeatable MPX Filter • 3-Position Tape Selector • 2-Position EQ Selector • Wide-Range LED Peak-Level Meters • 4-Digit LED Tape Counter (BX-150) • 3-Digit Mechanical Tape Counter (BX-100) • Auto Repeat • Memory Stop • Timer-Actuated Record/Play • Headphone Output • Output Level Control (BX-150 only)

BX-150/BX-100 Specifications

Track Configuration		4 tracks/2-channel stereo
Heads		2 (erase head x 1, r/p head x 1)
Motors	**Transport:**	DC servo motor (capstan drive) x 1
		DC motor (reel drive) x 1
	Mechanism:	DC motor (cam operation) x 1
Power Source		100, 120, 120/220-240, 220 or 240 V AC; 50/60 Hz (according to country of sale)
Power Consumption		23 W max.
Tape Speed		1⅞ ips (4.8 cm/sec) ±0.5%
Wow and Flutter		Less than ±0.11% WTD Peak
		Less than 0.06% WTD RMS
Frequency Response		20 Hz-20,000 Hz (-20 dB recording level)
Signal-to-Noise Ratio		**Dolby-C NR** (BX-150 only)
(A-WTD re 3% THD)		Better than 68 dB
(70 μs, ZX tape)		**Dolby-B NR** (BX-150 and BX-100)
		Better than 62 dB
Total Harmonic Distortion (400 Hz, 0 dB)		Less than 1.0% (ZX, EXII tape)
		Less than 1.2% (SX tape)
Erasure		Better than 60 dB (100 Hz, 0 dB)
Separation		Better than 36 dB (1kHz, 0 dB)
Crosstalk		Better than 60 dB (1 kHz, 0 dB)
Bias Frequency		105 kHz
Input (Line)		50 mV, 30 kilohms
Output (Line)		0.5 V (400 Hz, 0 dB) 2.2 kilohms
(Headphone)	**BX-150:**	2.2 mW (400 Hz, 0 dB, output control max.) 8-ohm load
	BX-100:	1.2 mW (400 Hz, 0 dB) 8-ohm load
Dimensions		430(W) x 110(H) x 250(D) millimeters
		16 15/16(W) x 4 5/16(H) x 9 7/8(D) inches
Approximate Weight		5.5 kg; 12 lb 2 oz

- Specifications and appearance subject to change for further improvement without notice.
- Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.
- The word "DOLBY" and the Double-D Symbol are trademarks of Dolby Laboratories Licensing Corporation.

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