

Nakamichi

Essential Features and Stunning Sound. Reference-quality Nakamichi 3-head Performance Is Now Within Easy Reach.

The CassetteDeck1, released in Autumn last year, is Nakamichi's new reference standard. It maintains the exceptionally high reproduction standard established by the legendary CR-7, DRAGON, and offers full Nakamichi 3-head deck performance at an affordable price. Now, taking the trend toward affordability even further, we are pleased to introduce the CassetteDeck1.5. This fine cassette deck delivers the superlative sound and overall performance of the top-line model with a more streamlined complement of features.

The CassetteDeck1.5 features a full implementation of the renowned Nakamichi 3-Head Discrete System, including a top-quality Crystalloy playback head with an ultra-narrow 0.8-micron gap. This, in concert with other fundamental sound-enhancing features such as the Asymmetrical Dual-Capstan Diffused Resonance Transport, achieves precise reproduction from 20 Hz to 21,000 Hz, ± 3 dB. Other noteworthy innovations include an integrated play head/amplifier assembly that significantly shortens the signal path from the play head to the amplifier, ensuring maximum signal purity with minimum loss and noise. Even the most subtle musical nuances come through with all their expressive beauty intact.

The CassetteDeck1.5 makes the unequalled Nakamichi 3-head sound more accessible than ever.



Cassette Deck 1.5

■ MAIN FEATURES

● Discrete 3-head System

Independent heads are provided for the record, playback, and erase functions, each featuring optimized head contour, materials, and gap width. Both the record and playback heads feature Crystalloy cores. Original Nakamichi manufacturing technology ensures that all heads are formed to precision tolerances for unmatched performance — the playback head, for example, features an ultra-narrow 0.8 micron gap.

● Asymmetrical Dual-Capstan Diffused-Resonance Transport

Modulation noise caused by periodic flutter components is eliminated by an Asymmetrical Dual-Capstan Diffused-Resonance Transport system in which the supply and take-up capstans have slightly different diameters and rotate at correspondingly different speeds.

● DC Servo Capstan Motor

This high-performance DC servo motor maintains precise speed stability even under varying load, and reduces flutter to a bare minimum.

● Microprocessor-Controlled Silent Mechanism

A microcomputer-controlled motor-driven mechanism affords smooth, swift, silent operation for sure response and a sophisticated control “feel.” The gentle operation of this system also eliminates misalignment of the precision head and mechanism assemblies.

● Automatic Tape Slack Take-up

When a cassette is first loaded, the tape slack is automatically taken up to minimize the likelihood of twisted or tangled tape.

● Multi-regulated Power Supply

Independent power regulators are provided for the input amplifiers, Dolby encoders/decoders, record equalizers, record amplifiers, bias oscillator, playback amps, and logic mechanism. This achieves extraordinary overall stability while eliminating inter-stage interference.

●Dual-mono Record and Playback Amp Configuration

The left- and right-channel record and playback amplifiers are completely independent monaural designs constructed using only selected top-quality parts that have passed stringent distortion tests. Furthermore, the record amps are pure class-A designs for ultra low noise and distortion. Another unique feature is 70-micron printed circuit traces — twice the normal thickness. Thicker traces have been employed not only in the amplifiers, but for the power supply and control circuit boards as well, achieving an exceptionally high degree of signal purity throughout.

●Integrated Play Head/Amplifier Assembly

Since the playback amplifiers must handle extremely low-level signals, they have been moved from the main circuit board and installed right in the transport mechanism, as close as possible to the playback head itself. This would be impossible with a conventional transport mechanism because of mechanical vibration and noise generated by the motors. The CassetteDeck1.5 transport, however, does not suffer from these problems, so the head and amplifiers can be placed in close proximity for unprecedented performance. While wiring runs of 50 or 60 centimeters must normally be used between the playback head and amplifiers, this distance has been abbreviated to a mere 10 centimeters in the CassetteDeck1.5 for significantly reduced stray noise pickup. Although the record amplifiers are located on the main circuit board, careful layout has brought them as close as possible to the record head for corresponding improvements in the record chain.

Many of these refinements may seem insignificant, but the accumulation of innovative ideas results in an obvious improvement in sonic clarity and detail.

●Bi-directional Auto Search

This function makes it possible to search directly to counter “0000” from any point on the tape — even during playback or pause. Once the “0000” point has been located the previous mode is re-engaged.

■OTHER FEATURES

4-digit electronic tape counter / Bias fine tune control / Dolby B and C noise reduction / Defeatable MPX filter / Auto repeat function / Timer record/play / Record mute button / Comprehensive FL display / Nakamichi System Remote Control compatible / Headphone output


■ FEATURE COMPARISON CHART

	CassetteDeck1	CassetteDeck1.5	CassetteDeck2
Playback azimuth fine-tune control	●		
Discrete 3-Head System	●	●	
Asymmetrical Dual-Capstan Diffused-Resonance Transport	●	●	
DC servo capstan motor	●	●	●
Microprocessor-controlled silent mechanism	●	●	●
Pressure pad lifter	●	●	
Automatic tape slack take-up	●	●	●
Integrated play head/amplifier assembly	●	●	
Multi-regulated power supply	●	●	●
Bi-directional auto-search	●	●	●
Bias fine-tune control	●	●	●
Dolby B/C noise reduction	●	●	●
Defeatable MPX filter	●	●	●
Auto repeat	●	●	●
Timer record/play	●	●	●
Record mute	●	●	●
Output level control	●		
Tape selector with automatic EQ selection	●	●	●
Large FL display	●	●	●
Nakamichi System Remote Control compatible	●	●	●
Headphone output	●	●	●
Gold-plated input/output jacks	●		
4-digit electronic tape counter	●	●	●

■CassetteDeck1.5 Specifications

Track Configuration	4 tracks/2-channel stereo
Heads.....	3 (erase head × 1, record head × 1, playback head × 1)
Motors	
<Tape Transport>.....	DC servo motor (capstan drive) × 1
	DC motor (reel drive) × 1
<Mechanism>	DC motor (cam drive) × 1
Wow-and-Flutter	Less than ±0.06% WTD Peak
	Less than 0.035% WTD RMS
Tape Speed.....	1-7/8 ips. (4.8 cm/sec.) ±0.5%
Fast-Wind Time	Approx. 95 seconds (with C-60 cassette)
Frequency Response.....	20–21,000 Hz ±3 dB (recording level –20 dB, Type I/II/IV)
Signal-to-Noise Ratio	
Dolby C-Type NR On	Better than 72 dB (400 Hz, 3% THD, IHF A-WTD RMS)
<70 μs, Type IV>	
Dolby B-Type NR On	Better than 66 dB (400 Hz, 3% THD, IHF A-WTD RMS)
<70 μs, Type IV>	
Total Harmonic Distortion	Less than 0.8% (400 Hz, 0 dB, Type IV)
	Less than 1.0% (400 Hz, 0 dB, Type I/II)
Channel Separation	Better than 37 dB (1 kHz, 0 dB)
Crosstalk	Better than 60 dB (1 kHz, 0 dB)
Erasure	Better than 60 dB (100 Hz, +10 dB)
Bias Frequency.....	105 kHz
Input (Line).....	50 mV/40 kΩ
Output	
Line	0.5 V/2.2 kΩ (400 Hz, 0 dB)
Headphones.....	2.2 mW/8 Ω (400 Hz, 0 dB)
Power Source	120, 230, 240 V or 110–127/220–240 V AC, 50/60 Hz
Power Consumption	25 W max.
Dimensions*.....	430(W) × 100(H) × 320(D) mm
	16-15/16(W) × 3-15/16(H) × 12-5/8(D) inches
Approximate Weight	5.4 kg/11 lb. 14 oz.

*: Dimensions do not include protruding parts. Height is the panel height.

- Specifications and Design are subject to change for further improvement without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

