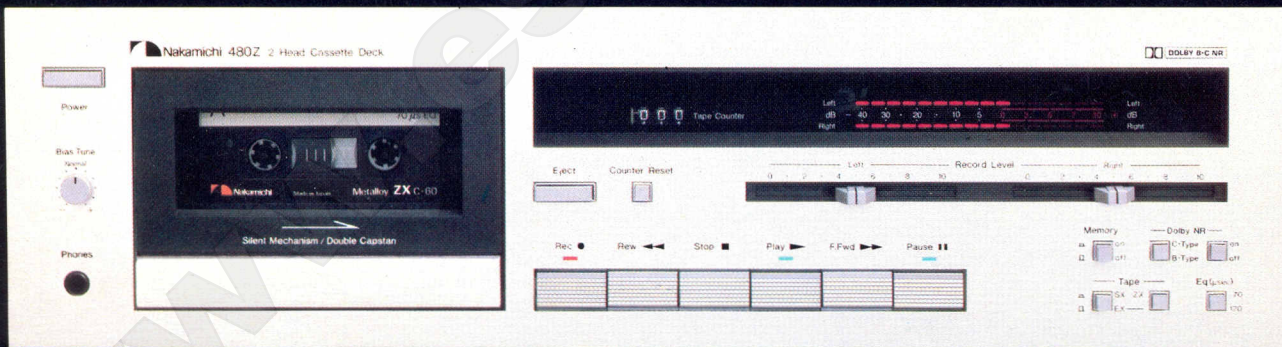


Nakamichi 480Z

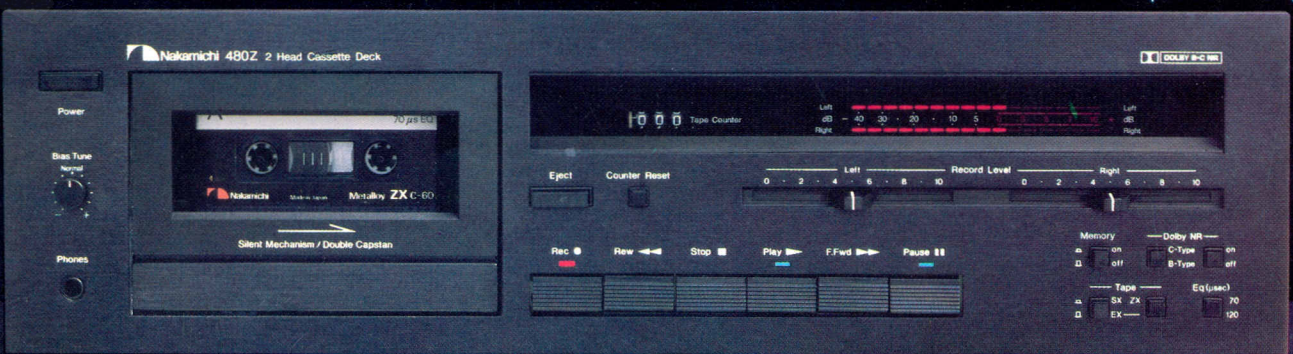
2 Head Cassette Deck



480Z/Silver
Complement your system with a Nakamichi 480Z—in black or silver to coordinate with any componentry. Experience the excellence of Nakamichi sound—the unique purity and detail that has never been equalled. Experience the utter silence of Dolby C in a unique 2-head recorder truly capable of utilizing it.

480Z/Black

Our special narrow-gap Sendust R/P head, Dual-Gap Erase head, and "Bias-Tune" feature make the 480Z compatible with the most advanced tape formulations. And, our unique 3-motor, Asymmetrical, Diffused-Resonance Transport with Motor-Driven Cam virtually eliminates vibration, flutter and modulation noise.



Gateway to Excellence

Since it was introduced, the 480 has proved to be our most popular recorder. Small wonder! Though simple to operate, it outperforms any 2-head deck on the market. After extensive testing, STEREO magazine reported: "The 480 provided a recording bandwidth seldom found on three-head decks and, to our recollection, one we've never seen on a combination-head deck." (STEREO, Summer 1980)

Now we've created the 480Z, a new and improved successor to the 480. Why tamper with a winner? Because technology is ever evolving; research is on-going, and, when breakthroughs are made, we strive to bring the fruit of our efforts to the audiophile immediately.

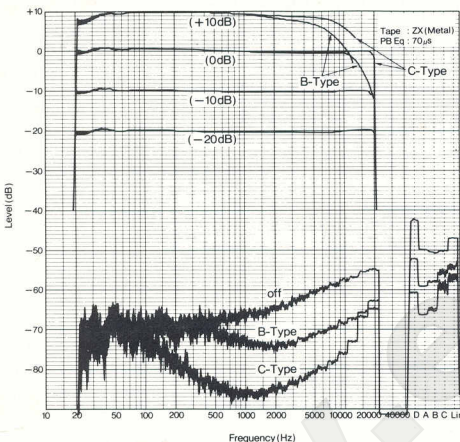
Two Noise-Reduction Systems

The 480Z offers *both* Dolby B-type and C-type noise reduction—Dolby B to maintain compatibility with your present library of cassette tapes and Dolby C to create new recordings in which tape hiss is virtually inaudible. Compared with Dolby B, C processing provides 10-dB greater quieting in the 2 to 8 kHz region where hiss is most annoying. And, it operates over a *two-octave wider bandwidth* so noise-reduction benefits are extended to lower frequencies. Most important, Dolby C does not "pump" or "breathe" as linear companders do. But Dolby C makes great demands on the recorder. Frequency response not only must be extended but must be very smooth. Response irregularities are exaggerated more by Dolby C than by Dolby B, and this can lead to audible coloration.

Extraordinary Response

One audition of the Nakamichi 480Z and you know this is no ordinary cassette deck. The development of a special narrow-gap Sendust R/P head makes record breaking response (20-20,000 Hz) possible in a 2-head configuration—a response so wide and smooth that the full benefits of Dolby C are realized without audible side effects.

The response and noise-analysis curves tell the story—flat response not only at low recording levels but at 0 dB too thanks to Dolby C's spectral-skew-



Frequency Response/Noise Analysis

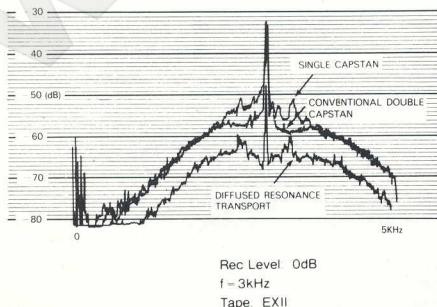
ing and anti-saturation circuits!

With separate EQ and TAPE selector switches plus a new "Bias Tune" control, flat response can be realized with a wide variety of tapes.

Asymmetrical, Dual-Capstan, Diffused-Resonance Transport

Don't underestimate the importance of the transport! Conventional flutter measurements tell only part of the story. Scrape flutter and modulation noise—not included in standard specifications—can be even more important—especially when hiss is virtually eliminated by Dolby C.

If the tape scrapes or vibrates as it passes the gap, noiselike "sidebands" are produced; these muddle reproduction. Such "noise" is quite different from



Modulation-Noise Analysis

Nakamichi Corporation
Tokyo Office
Nakamichi U.S.A. Corporation

"hiss," and, inasmuch as modulation noise increases with signal level, noise-reduction systems do not suppress it completely.

In principle, the 480Z transport is very similar to that used in our most expensive recorders. Dual capstans wrest control of the tape from the cassette, and a tape-pad lifter removes the major cause of scrape flutter. Capstans and flywheels have different diameters and inertias to avoid resonance reinforcement, and special materials are used to damp motor vibration. A motor-driven cam smoothly and silently positions heads, pressure rollers, and brakes. Advanced logic provides direct access between modes as well as timer and remote operation.

Electronic Metering/Two-Level Headphone

Nakamichi recorders have been known for superior metering. With its new peak-responding electronic LED displays, the 480Z is no exception. Meter range extends from 40 dB below Dolby level to 10 dB above "0"—sufficiently wide to give accurate indications on all musical signals.

Headphone output is selectable too via a rear-panel switch. Choose the high setting for less efficient headsets, the low setting for more sensitive headphones or when you wish to listen at relatively low levels.

Features

- Dolby B and Dolby C Noise Reduction With Defeatable MPX Filter
- Metal-Tape Recording for Superior High-Frequency Headroom
- Sendust R/P Head With Narrow Gap And 20,000-Hz Response
- Dual-Gap Erase Head For Low-Noise Erasure Of Metal Tape
- Separate Tape And Equalization Switches For ZX, SX, And EX Tapes
- Bias-Tune Control To Optimize Response With Any Tape
- Asymmetrical, Dual-Capstan, Diffused-Resonance Transport With Motor-Driven Cam, Dual Slot Guides, And Tape-Pad Lifter
- IC Logic With High-Speed Auto Shut Off Protects Your Tapes
- Auto Takeup Of Slack Tape Whenever A New Cassette Is Loaded
- 50-dB Peak-Responding Electronic LED Metering
- Slider-Type Record-Level Controls
- Two-Level Headphone Output
- Tape-Start Memory With 3-Digit Counter
- Timer Operation In Record Or Playback Via Accessory Timer
- RM-100 Remote Unit (Optional) With Full Transport Control
- Available In Matte Black Or Silver To Coordinate With Any System

480Z Specifications:

- Frequency Response 20–20,000 Hz (–20 dB Rec. Level)
- S/N with *Dolby-C NR* Better than 68 dB (400 Hz, 3% THD, A-wtd rms, 70 µs, ZX tape)
- S/N with *Dolby-B NR* Better than 62 dB (400 Hz, 3% THD, A-wtd rms, 70 µs, ZX tape)
- Total Harmonic Distortion (400 Hz, 0 dB) Less than 1.0% (ZX tape)
- Less than 1.2% (SX, EX11 tape)
- Tape Speed 1 7/8 ips (4.8 cm/s) ±0.5%
- Wow-and-Flutter Less than 0.11% WTD peak
Less than 0.06% WTD rms
- Erase Better than 60 dB below saturation level at 1 kHz
- Separation Better than 36 dB at 1 kHz, 0 dB
- Crosstalk Better than 60 dB at 1 kHz, 0 dB
- Bias Frequency 105 kHz
- Input 50 mV, 30k ohms
- Output Level 600 mV (400 Hz, 0 dB) 2.2k ohms
- Headphone (High) 10 mW (400 Hz, 0 dB) 8 ohms
- Power Source 100, 120, 120/220-240, 220 or 240V; 50/60 Hz (according to country of sale)
- Power Consumption 30 W Max.
- Dimensions 450(W) x 135(H) x 289(D) millimeters
17²³/₃₂(W) x 5⁵/₁₆(H) x 11³/₈(D) inches
- Approximate Weight 6.4 kg, 14 lb 2 oz

*Specifications and appearance subject to change without notice.

*Dolby NR under license from Dolby Laboratories.

*The word "DOLBY" and the Double-D symbol are trademarks of Dolby Laboratories.

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