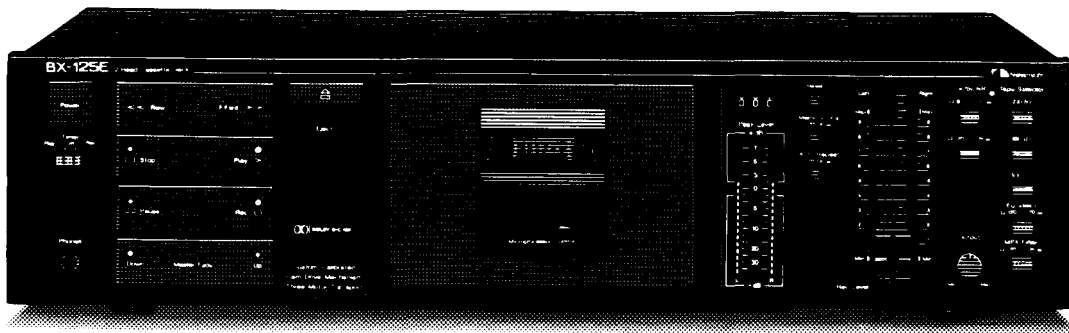


Nakamichi BX-125E 2 Head Cassette Deck



YOU can pay well over £1,000 for the top models in the Nakamichi range, but this pioneer company in high-quality cassette recording has also taken into account those of us who have to budget more carefully, and produced a BX series of less expensive models.

This new BX-125E deck (£299) slots between the earlier BX-100 (£269) and BX-150 (£339) machines and has all the characteristic features of the Nakamichi line. External design emphasizes the solid engineering to be found within. The controls all feel good and respond instantly and predictably. Lettering on the control panel is restrained and tiny LEDs provide all the information needed as to the machine's present mode of operation.

The transport mechanism has always been Nakamichi's strongest feature and the area in which they have been credited with first raising cassette decks to high fidelity standards many years ago. The motor system, metal pulley and single capstan are precision made for minimum flutter. A separate microprocessor-controlled motor drives the head block and brake components giving extremely smooth transition between the play, fast wind and pause modes—with the motion slowing down, for example, just before making tape contact.

This is a two-head machine, so that the record/replay head has to be a compromise in terms of gap width. However, the Nakamichi sendust laminated-core head is so built as to ensure a frequency coverage flat out to 20kHz. The erase head too is a Nakamichi design with a double-gap ferrite core well able to erase the latest high remanence metal tapes. The electronics too are precision

made and subjected to alignment of 30 parameters after assembly.

The cassette compartment is centrally placed and glides open smoothly with easy access for cleaning. To the left are grouped the operating keys for play, fast wind and rewind, pause and record. In fact, the record key puts the machine in the "record-standby" mode so that the signal levels can be adjusted prior to setting the tape in motion. Then the recording is started by the play key. A master fade key introduces a fixed rate of fade-out or fade-in if required—taking either 2 or 4 seconds for the fade depending on whether the key is held down or touched briefly. The eject button, headphone socket, timer switch (for use with an external timer) and power on/off switch are also on the left hand side of the panel.

On the right is a 3-digit tape counter with its reset button and a memory button which causes the tape to stop at "000" during rewind. The twin level meters are calibrated from -30 to +7dB and arranged vertically, as are the twin recording level slide controls. There is a small rotary knob for output and headphones level adjustment, and an auto-repeat button which will cause the machine to rewind on reaching the end (during play or fast forward operation) and play through the cassette again. It will also repeat play if the beginning of the tape is reached in fast rewind. If the memory button is also pressed, the repeat-play will begin at "000".

Switches are provided for Dolby B, C or off and MPX filter on/off to be used when recording from a VHF/FM radio with possibly incomplete pilot tone suppression. As always with Nakamichi cassette machines, it

is necessary to operate separate switches to select the tape type (ferric, chrome or metal) and the equalization time constant (120 or 70 microseconds). This is a slight nuisance, since most other cassette decks combine the tape category and EQ in a single switch. The rear panel carries simple pairs of phono sockets for line input and output. There is no microphone input, but Nakamichi market a suitable MX-100 microphone mixer.

To familiarise myself with the controls, I made a few brief recordings from radio and listened to some of my favourite cassettes. The results sounded remarkably wide-ranging, with sharp transients, and free from tape hiss or distortion. The bass/treble balance from commercial pre-recorded cassettes was about ideal, encouraging me to think that the machine had been carefully aligned to IEC standards. Mechanical noise with the motor running consisted of a low hum which was loud enough to be distracting during quiet music if one sat very near the deck.

How it performed

The controls were a joy to use and even a beginner would soon find himself cueing to different parts of the tape or using the repeat function with ease. The microprocessor gives very polished transition from rewind to play, etc. I found very little use for the master fade feature, since I prefer to make what I think are 'artistic fades' timed to suit the music.

As for measurements, the machine met its respectable specification on all counts. Figure 1 shows the replay results with IEC and I and II (ferric and chrome) calibration cassettes, and excellent agreement is achieved.

This goes some way to explaining the satisfying musical balance I obtained with musicassettes. To check the record/replay response, I looked first at the brands listed in the instructions booklet. Only Nakamichi own-brand was mentioned plus grades of Fuji, Maxell and TDK.

I therefore chose Maxell UD I, UD II and MX cassettes to cover the three IEC categories, with the results displayed in Fig. 2. The full line in each case shows the response when recording at the standard test level of -20dB. All three tapes measure well, with the ferric and metal particularly smooth out to 20kHz. The broken lines show the response when recording at full 0dB level and here, as would be expected, metal is clearly the winner.

I used the metal tape for checking the other parameters, as shown in the Table, and the music recordings I made with metal tape and Dolby C noise reduction were so impressive as to be very hard indeed to distinguish from the original. This is obviously a well-engineered deck and one on which the extra expense of metal tapes does indeed justify itself by refinements in the handling of high-level high-frequency signals.

The relatively modest price of this machine (by Nakamichi standards) does not reflect any important degree of downgrading of its technical performance—rather the omission of such luxury features as real-time tape position indicators, three-head off-tape monitoring, auto-bias and EQ tuning, auto-reverse, mic/line mixing, etc. For anyone whose priorities lie in the direction of pure sound quality, and never mind the gimmicks, the Nakamichi BX-125E can be recommended with complete confidence.

JOHN BORWICK.

Fig. 1.
Nakamichi
BX-125E
replay response

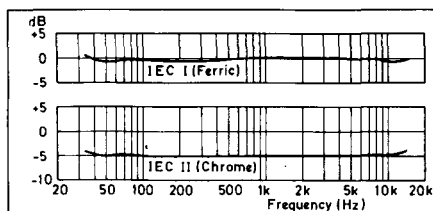
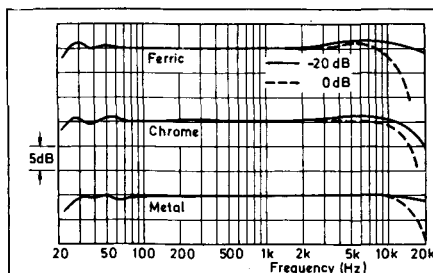


Fig. 2.
Record/replay
response at 0dB
and -20dB



SPECIFICATION (Test Results in brackets)

Frequency response: 20-20,000Hz (see Figs. 1 and 2)

Wow and flutter: 0.06% weighted rms (0.05%)

Signal-to-noise ratio: Dolby B 62dB (61.5dB)

Dolby C 68dB (69dB)

Distortion at 0dB: 1.2% (0.9%)

Input: 50mV (agreed)

Output: 500mV (680mV)

Fast wind time for C-60 cassette: 85s (85s)

Dimensions (W x H x D): 430 x 100 x 250mm

Manufacturer: Nakamichi Corporation, Japan

UK distributor: Nakamichi B&W UK Ltd., Marlborough Road, Churchill

Industrial Estate, Lancing, West Sussex BN15 8TR

UK retail price: £299.00



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