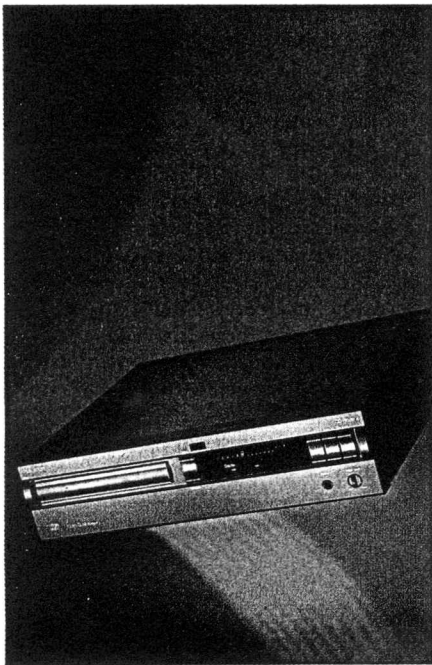


NAKAMICHI MUSICBANK CD PLAYER 2

Nakamichi's new line is intended to be user-friendly and practical, hence the MusicBank multidisc CD player

by Steve Harris



Not quite down there with double dubbing cassette decks and graphic equalizers, multi-play compact disc machines still do tend to be short on audiophile cred. This must be partly because even young enthusiasts of today carry tribal memories of the vinyl period, when autochangers were taboo; partly because most autochangers do tend to have certain failings; and mainly because, well, is a CD autochanger really necessary for home listening, unless you are an opera buff?

Nakamichi's MusicBank CD Player 2 seems to have been designed in an attempt to overcome the real and imagined defects of existing multi-players. CD Player 2 is a key component in a completely new range of separates (launched at the 1990 Summer CES), with which Nakamichi hopes to reach a new and broader market. The aim is to present Nakamichi quality but in a less 'technical' format, with products that are simple and easy to use while offering all the features that system buyers might want.

The term MusicBank now seems to be used also for the whole system, but primarily it describes a special player mechanism. This combines an outwardly conventional single-disc drawer-type transport with a six-disc 'stocker' unit, so altogether seven discs can be accommodated at any one time. Discs are loaded into this via the normal single-disc loading 'drawer'. The control key just to the right of the drawer has two functions: you press it at the top to load discs into the stacker, or at the bottom to play a single disc normally. Though this gives the same flexibility of programming during play as a six-disc cartridge-type multi-player, the way that it handles the discs is quite different. Each disc has to be loaded separately, but once in the machine, each disc remains in its own tray, which then moves back into appropriate position in the stocker. This means that the design of the player transport mechanism itself does not have to be compromised; and it also means that discs are never slid or otherwise manipulated into position.

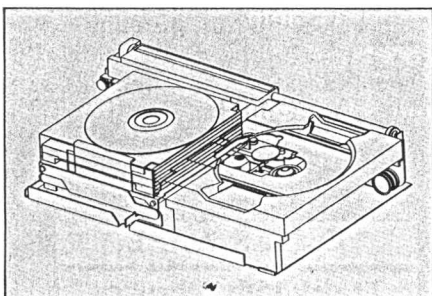
Naturally, the seven-disc capability is matched by comprehensive programming facilities, all of which are available on the

remote handset. As a preliminary, with a full load of discs, a single button push initiates 'time data memory', when the machine memorizes track and total times of all the discs that have been loaded. With this data on board, the machine will operate in a wide range of programmed modes using all seven discs: it offers random play, repeat play of all or any discs or tracks and selective play of favourite tracks. For tape copying, 'time-edit synchro' recording fits as many tracks as possible on a given tape length, while 'memory synchro recording' automatically records a previously-programmed selection of tracks. It may possibly prove easier for the machine to remember which discs have been loaded than for the user, but when a reminder is needed the 'disc scan' command will whizz through, playing the first 10 seconds of each track.

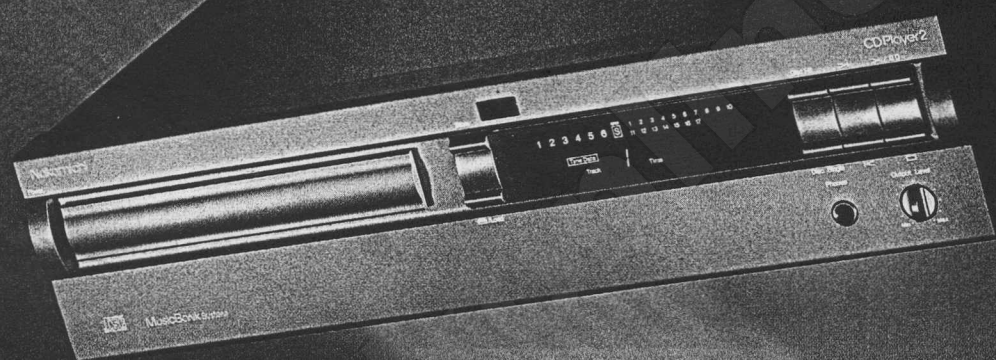
Aware that all this will be too complicated for casual use, Nakamichi has made the machine very easy to operate as a single player. In fact, you can use the single player facility quite unaware of the multi-disc facility. The only danger here is that a non-familiarized user might happen to press the 'store' end of the open/close key rather than 'load', and wonder why the disc had been eaten by the machine rather than played.

Despite the emphasis on practicality and 'user friendliness', the MusicBank line is not short of vaunted technical advances. Promoting its '20-bit' D/A converter, Nakamichi seems to be playing a conventional 'numbers game' when it comes to marketing the technical aspects. The literature earnestly and even convincingly argues the uniqueness of the Nakamichi 'Enhanced Linearity' DAC, claiming superiority over others' '20-bit' designs.

Nakamichi uses two separate 18-bit devices (in 16-bit mode) per channel. When the level of the digital signal is at an equivalent of -24dB or less, only one converter is used; at higher signal levels, both are used. According to Nakamichi, the key point is that signals are apportioned to the upper- and lower-level DACs according to level, not according to upper and lower bit groups. In the Nakamichi converter chain, the output from a 20-bit digital filter is fed to a processor which



Inside: the 7-disc MusicBank mechanism



performs a code conversion to reconstruct the data as two 16-bit sets. DAC 1 receives data representing levels above 24dB; but the low-level data for DAC 2 is raised 24dB by digital calculation before being fed to the DAC. Pointing out that this enables DAC 2 to represent a 1 LSB change with 16-times greater accuracy, Nakamichi claims that this system offers a genuinely improved linearity and elimination of zero-cross distortion. The output from DAC 2 is attenuated by 24dB in the analogue domain before being summed with the output from DAC1.

I can't pretend to judge whether or not this really is a more sensible way of doing things than other '20-bit' systems, or indeed whether this or any of them should really be called 20-bit systems at all; but this may be of little relevance to the end result.

Listening

Nearly all my listening was done using the 'fixed' audio outputs. The impressions I formed of this player seemed remarkably consistent over a wide range of material. Comparing it against both Bitstream and multi-bit competitors, it seemed to have a definite, if generally quite innocuous,

character of its own. From the first, the sound seemed polite yet accessible on small-scale recordings: on an oboe recording with piano (*The Art of Janet Craxton*, BBC Records) the portrayal of both instruments was civilized enough, yet notes in the oboe's upper register could take on the character of a rather metallic 'tweet' at times. There was very little brashness or hardness to the sound, but on loud climaxes there was a feeling of compression, of 'holding back'.

Turning to rock, and the inevitable Rickie Lee Jones test, the player produced a vocal sound that was almost veiled: the studio acoustic and reverb processing, which normally gives body and tangibility, was not in evidence as it should be, appearing to contribute only a kind of blurring to the tonal qualities and positioning of the voice. The acoustic bass on 'Easy Money' was flat and lifeless. Generally, the bass end seemed dry rather than boomy, but rather light and indistinct in overall effect.

A comparative failure to recreate the recorded acoustic was also heard on Uchida's Debussy Etudes recording (Philips) where there was a tendency to brashness, and, again a sense of limited

dynamics. On other recordings, particularly jazz and pop, the CD Player 2's character was heard as a lack of bounce. Stereo imaging was not particularly good, with little sense of depth or clarity of focus within the image.

Conclusion

The above sounds like severe criticism and it would be, if the CD Player 2 was intended to sell on sound quality alone. However, for £599 you do get a superbly-made and finished machine with multi-disc capability. There is no doubting the long-lasting quality of Nakamichi's mechanical system. Also, I am inclined to think that this player is likely to find its niche in many systems that are composed of heavyweight 'quality' products which, worthy though they may be, are not at the leading edge of hi-fi progress. In such circumstances, the polite and rather understated sound of the Nakamichi CD Player 2 will probably be of benefit rather than otherwise. \wedge

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