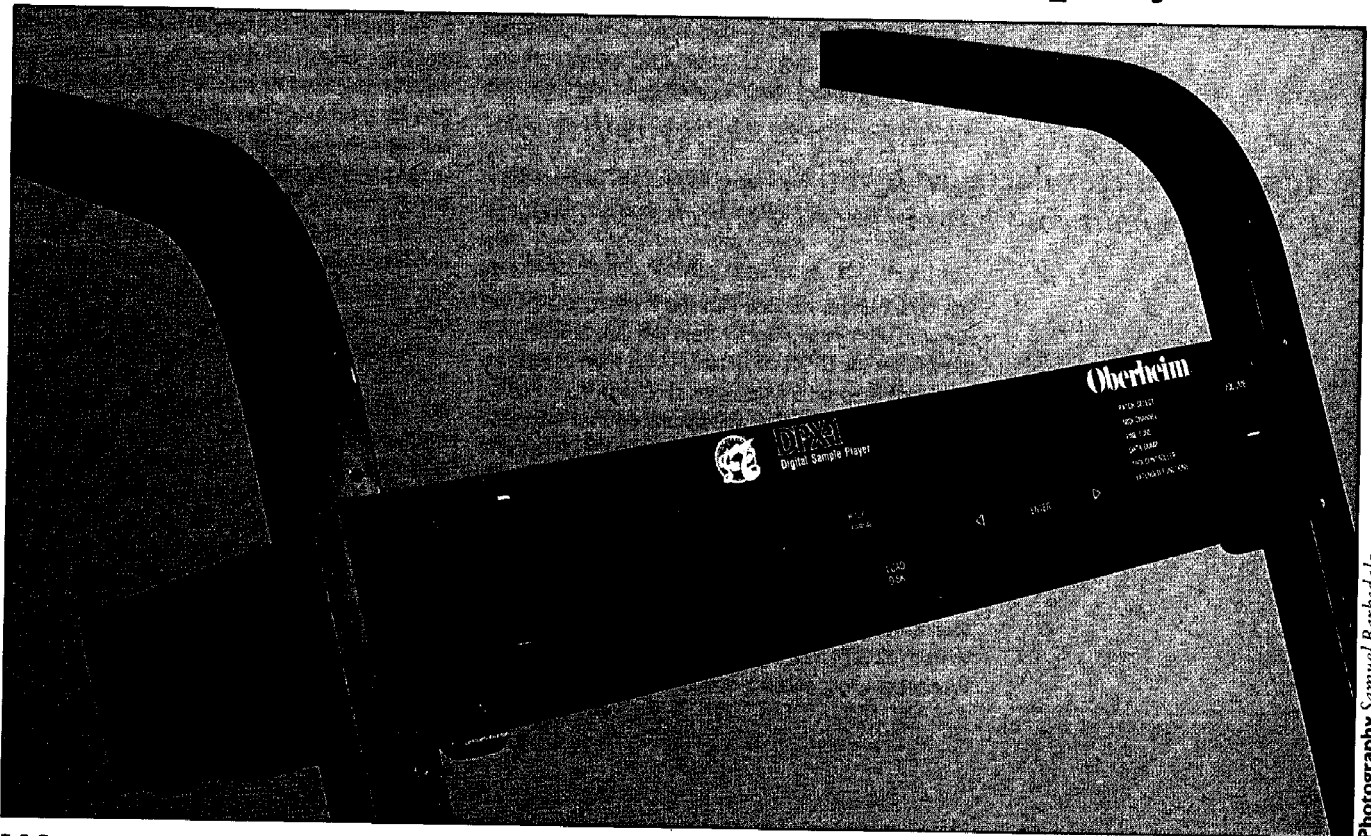


# OBERHEIM DPX1

## Sample Replay Unit



Photography Samuel Barksdale

*When so much of our music is dominated by factory sounds, does it make sense to buy a machine like the DPX1, which simply replays samples?*  
Review by  
Paul Wiffen.

IT WAS BOUND to happen sooner or later. With so many musicians these days just using their samplers to play library disks, and so much of today's music using the same old tired sounds, some manufacturer was bound to come up with a machine which would do just that. What wasn't expected, though, was a machine which was able to handle disks made on other samplers.

At the time of its release, the Oberheim DPX1 is able to load and play back Ensoniq Mirage, Prophet 2000 and Emulator II disks, and Oberheim are already planning software updates to make it compatible with other libraries. Now, you'll probably realise that the DPX1 has to be able to cope with both 3 1/2" and 5 1/4" disks and sure enough, there is one of each type of drive on the unit.

But as anyone who has tried to load a Mirage disk into a Prophet 2000 will tell you, you need more than mere physical compatibility – you need a device which is able to understand the different "languages" that the various machines employ to achieve their respective ends.

The DPX1 is able to do this by having a larger than average operating system which adapts itself to the different data formats used by Ensoniq, Sequential and E-mu. What's more, it does this automatically without you having to tell it which type of disk you're using. When you place a disk in either the 3 1/2" or the 5 1/4" drive, the DPX1 looks at it, decides which type it is and then displays either "En" (Mirage disk), "P2" (Prophet 2000) or "E2" in the dual seven-segment display.

But being able to load sample data is not the end of the story. Achieving good representations of a complete disk, including all the presets and multisamples (jargon for the way samples are edited and laid out across the keyboard), means that you need to interpret all the program data which holds all the filter, envelope and velocity settings. You also need to have the hardware filters available, and when the DPX1 was first announced, this was the one aspect which aroused suspicions in my cynic reviewer's mind.

It seemed to me that the most difficult thing would be matching analogue parameters (as the Ensoniq, Prophet and E-mu all do things differently), and especially tailoring the filtering on the samples. Because if you're all familiar with analogue synths, you'll know how much difference the filters can make to the sound of an instrument. In fact, I was almost ready to hear that the DPX1 could only play samples one at a time, with limited filtering and enveloping.

Imagine my surprise, then, when I turned up at Oberheim's factory in Los Angeles and heard EII factory disks being played back on the DPX1 with exactly the same keyboard assignment and analogue parameters as on the original instrument.

This was immediately followed by a demo of K-Muse disks for the Mirage. Instantly, the DPX1 was behaving just like an Ensoniq, even down to a flickering display (some joker must have spent a while programming that in). To ▶

- ▶ complete the effect, I saw a Sequential factory disk load in slightly less time than it would have taken on a Prophet 2000.

## Listening

AS FAR AS the sound quality and character of the DPX1 are concerned, the sounds were immediately identifiable as the original disks, and while neither a Mirage nor an EII was available for direct comparison, I've worked fairly extensively with both machines and the DPX1 sounded pretty faithful to my ears.

Later on, I was able to conduct an A/B test on the same disk played back through a Prophet 2000 and through the DPX1. They sounded identical. (And as it turned out, the

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first time I loaded the disk into the Prophet, one of the samples wasn't read properly from the disk, a problem I couldn't get the DPX1 to imitate.) Still, I wasn't prepared to be convinced just on the evidence of a few factory disks, so I checked out the results with some of my own disks, too.

First off, I tried out some disks made on the Mirage, and only one didn't sound the same as what I'd originally set up. It was pointed out to me that I'd used Oscillator Detune on the Mirage to fatten up the sound. Now, the DPX1 doesn't have two oscillators per voice; instead, there's a mode called Dual Oscillator which allows you to play Mirage sounds which use two oscillators by halving the polyphony to four voices (which, funnily enough, is how the EII and the Prophet go about doubling or detuning voices). So you can play any Mirage sound with all the originally set-up parameters, even if you only get four-note polyphony on some.

To my ears, the DPX1 may even sound better than the Mirage, as there's a perceptible smoothing out of the harshness and phase distortion that are present in the original instrument. Then again, some people like the quality the Mirage imparts, especially on sounds like guitar. Oh, well.

Another feature of the DPX1 is clearly different from the Mirage. When you put a Mirage disk into the DPX1, it loads all three banks of sounds at once - something the Mirage

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cannot do because it doesn't have enough sample memory. You can then switch between these three banks of sounds from the front panel or via MIDI program change numbers 1, 2 and 3 from your master keyboard. So while the load time for Mirage disks is approximately three times as long as on the original machine (18 seconds as opposed to six), once you've loaded your disk you can simply switch between sounds instead of having to wait for additional loading.

The future might see an option allowing you to specify which bank you want to load, even though the current thinking behind the new Oberheim is that it should be as simple as possible to use. I can confirm that it certainly is just that: you put in a suitable disk, press Load, and the DPX1 does the rest.

When I came to try out some Prophet disks, I thought I'd

found the DPX1's Achilles heel. At the top end of the range of one of the samples, the DPX1 wasn't able to manage the full octave transposition up from the original pitch (C2) and so was playing the major seventh pitch (B2) when I hit C3. But my triumph was short-lived. It seems Oberheim's engineering division has already come up with a software revision, and the problem has now been fixed.

Similarly, when I tried to load a disk made on a 512K Prophet, the DPX1 got confused and put some of the samples in the wrong place on the keyboard. It seems the software on the review model was only capable of dealing with disks from a 256K Prophet, though the latest DPX1 software should load all 512K disks perfectly.

Currently, Oberheim's engineering department is trying to get its hands on as many disks as possible from all three machines before DPX1s start to become generally available, to make sure you can load literally any disk made on a Mirage, EII or Prophet 2000/2002 (with or without expanded memory).

The only thing the DPX1 won't do on Prophet disks is turn on the Stack Mode, which is a performance parameter. However, with the newer software on the 2000 making it possible to store Stack settings as part of a preset, it wouldn't be surprising if that feature is soon included on the DPX1, too.

As a general rule, the DPX1 doesn't implement original machines' performance features, like sequencers and arpeggiators, and hardware things like individual outputs and computer interfaces.

If you've read my comments in the past about arpeggiators, you'll know just how little I shall miss them. And the sequencers in the Mirage and EII are so inflexible that you'd probably be better off with a computer software package or a dedicated sequencer anyhow.

Some users may justifiably bemoan the lack of separate audio outputs - a blessing both in the studio and on stage - regardless of the DPX1's new low price-tag. But then again, bear in mind that by the very nature of the DPX1, if you had separate outputs you'd be stuck with the assignments set up on the host samplers. Which means that as most factory disks don't come with outputs assigned, you wouldn't be able to have those expensive outputs do anything unless you had the original machine pertaining to each disk...which, in turn, would rather defeat the whole object of the exercise.

## Using

AS I'VE SAID, using the DPX1 really is incredibly easy, though when you think about it, there's no real reason why a playback machine should be anything but straightforward to use.

Apart from the Load button mentioned previously, there are very few other parameters to confuse yourself with. These are cycled through with the Parameter Select button. First is Patch Select: you can use the Up and Down buttons to step through patches 00 to 99, pressing Enter when you get the number you want (though it's quicker to select this via a MIDI program change number).

Next comes MIDI Channel, which you select from "On" (for Omni On) or Channel 1 to 16. After this is a fine-tune range of a quarter-tone up and down, represented by a range of 00-99 with 50 as A440 - always assuming your original samples are in tune, of course.

Things start to get more interesting with the Data Dump feature, which uses the MIDI Universal Sample Dump Standard (another of Chris Meyer's lunchtime brainwaves), though there is talk of implementing other formats in future software revisions.

Then comes MIDI Controllers On/Off, which globally enables or disables the recognition of MIDI pitch-bend, MUSIC TECHNOLOGY FEBRUARY 1987

modulation and pressure data, plus any other parameters sent via continuous controllers such as volume, sustain and so forth.

The final option on the cycle is Extended Functions, which currently boasts Filter Limit and Dual Oscillator modes. The former refers to a default setting on the DPXI where the filters are capped (limited) to just below half the sample rate. This prevents a lot of the problems with imaging which result from aliasing showing up in the samples. But on some machines it's possible to open up the filter above this point, and seeing as some people seem to like the sound of aliasing, Oberheim have made it possible to open up the filters to let all that horrible noise through if you really want to. Maybe this filter limiting is why some of the Mirage disks sounded cleaner on the DPXI...

We've already seen the application of the Dual Oscillator mode in enabling you to get the oscillator detune effect available on the Mirage. Now, this is currently its only application, but as the operating system is increased to allow the DPXI to read disks from other samplers, it should have more and more applications, since several of the samplers now available have two oscillators per voice.

On the subject of enlarging the operating system, it currently resides in 128K of memory. This is a little on the large side, but there is room to add another 128K, so there'll be plenty of space for implementing compatibility with other manufacturers' formats.

Sample memory is also generous, with 768K built in. This is more than enough to cover the disks of just about any sampling machine currently on the market, so it won't be in that area that the DPXI finds its limitations. By the way, this is probably as good a point as any to mention that the 30 megabytes of memory quoted in our original news feature (MT December '86) was the result of a little misunderstanding, so any of you who were thinking of using the

DPXI as a hard disk substitute are going to be disappointed. Sorry.

The back panel of the DPXI is as minimalist as its front panel, only more so. The audio out, MIDI In, Out and Thru, and that's that.

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## Verdict

ALL IN ALL, I see the DPXI having uses outside the most obvious one of a "one size fits all" sample replay machine. For example, it represents a cheaper way of upgrading a Prophet sampler to a 16-voice system (via MIDI Overflow Mode) and yet also offers the ability to play sounds from other machines. And a second (or third) "EII in a rack" might well please bands who up to now have had to take four Emulator IIs on tour with them to get live access to the sounds on the album all at the same time.

But the overwhelming demand for the DPXI is going to come from musicians who know little about sampling, and who don't want to waste music composition and performance time learning any more. For them, this machine represents an excellent way to get the sounds they want without all the hassle that goes with sampling.

It won't please the purists who think nobody should be allowed to use a sampled sound or synth patch they haven't created themselves, and it may not please the manufacturers whose libraries are compatible with it. But the DPXI may just be what the majority of musicians really want, and there's no arguing with that. ■

**Price** £1495

**More from** *Sound Technology, 6 Letchworth Business Centre, Avenue One, Letchworth, Herts SG6 2HR.*

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