

# Oberheim Prommer



*It's been around for a while, but few have examined Oberheim's EPROM burning and reading unit in any detail. As the MIDI Sample Dump Standard becomes accepted, we do just that.*  
Review by Chris Meyer.

EVERY NOW AND then, a machine appears that is designed to accomplish one specialised set of tasks very well. These may not be tasks that many people need, or at least think they need, but there may not be very much competition out there for it, either. The result is that it's difficult to know whether to call it an innovation or an unwanted child.

The Oberheim Prommer – announced some time ago but not reviewed in these pages until now – is one such beast. It is, in brief, a MIDI'd monophonic sampler using the eight-bit COMDAC format, featuring 64K of RAM and a maximum sampling rate of 32kHz. This alone would be less than exciting, except for the storage medium used – it can save samples in ROMs, which can in turn be used in Linn, Oberheim, and Sequential drum machines, or Simmons SDS1 and SDS9 electronic drum systems.

The Prommer itself comes in a package about the size of a typical drum machine, with MIDI In and Out, Line In and Out, Trigger In, and Mic In jacks on its back. The top panel includes an input level slider, an LED bar graph showing the input signal strength, a ZIF (Zero Insertion Force) socket to hold the ROMs it's loading or blowing, a keypad, a 4x5 matrix of function buttons, Play, Record, and Execute switches, and a generous 16-character fluorescent display. The function buttons are arranged in groups titled Block/Sample/Playback, Sound Mods, PROM, and MIDI – we'll cover them in that order.

Block/Sample/Playback is where you get a sound into the Prommer and decide how it will go about playing it back.

The 64K of memory can be divided into 16 "blocks". The user must define where these blocks start in memory, and how long they are. This requires more thought and planning than normal (since most samplers make the user deal with the size only), but allows such tricks as defining overlapping blocks or assigning blocks over already-sampled sounds – allowing, for instance, the creation of two different versions of the same sound without using up twice the memory.

Sample rate may be set to 12, 16, 24, or 32kHz, giving in turn bandwidths of 4.8, 6.4, 9.6, and 12.8kHz, with sample times of 5.46, 4.09, 2.73, and 2.04 seconds for the entire 64K memory. Different "blocks" may have different sample rates.

Sampling is straightforward enough, being initiated either by hitting the Record button or by setting a threshold level. The Prommer also offers you an opportunity to hear the sound through the analogue-to-digital and digital-to-analogue conversions before actually recording (just like the new Sequential Studio 440), which is a very nice touch when it comes to deciding how much equalisation and clipping you should or should not use on a sample.

After sampling, the user can set up filtering to be fixed or to track the pitch (sorry, no envelope mod). Filtering is essential with lower-frequency sounds – an artefact of the eight-bit COMDAC format is that it adds high-frequency noise, and if there is no high end in the sound to cover it, it becomes very annoying.

Fine-tuning resolution is better than 1 cent, and transposition covers greater than +/-4 octaves (I almost

lost a pair of speakers testing the lower end of this range). The Prommer gets the upper end by dropping samples at higher rates – not great for fidelity, but samples tend to lose their character up high, anyway.

This row also contains parameters for setting up external triggering (from drum pads and the like) and for looping the sounds, with a helpful zero-crossing detector to minimise clicks.

## Modifications

THE SOUND MODS section includes the typical abilities to copy, swap, reverse, erase, and mix sounds. The mix ratio representation took a little getting used to – it's a fraction in which the current block's number always equals "4", and the secondary block's mix is 0-16 (whatever happened to nice, friendly percentages?).

Unusual features include the ability to look at and modify each bit of the sound (the latter on a per-byte or global basis – powerful, tedious, and of real use only to the patient, brilliant, or lucky – but I never complain about having more features, and if you don't need it, you can always not use it); envelope the sound to silence for smoothing out abrupt ends (again presented to the user in less-than-obvious terms); the ability to ring-modulate one sound against another (clangerous, but again, there if you want it); and the very special abilities to stretch or squash a sound.

Stretching a sound is done by duplicating every sample twice. This makes a sound twice as long, and drops its pitch by an octave – similar to sampling at twice the rate, except that you don't gain any extra fidelity. If you're ultimately planning to burn ROMs for a drum machine, this is one way to get those massive slowed-down sounds (for example, any gated reverb snare dropped an octave makes a passable gated kick drum).

Squashing, as you may have guessed, does the opposite. It removes every other sample, thereby halving the length of the sound and raising its pitch by an octave – giving the sound quality you'd get had you sampled at half the sample rate. This is essential for taking sounds sampled at a higher rate than a drum machine can play them back at, and dropping them back into range (and besides, a tom raised in pitch approaches a log drum).

If you intend to transfer sounds from other samplers digitally into the Prommer (see later), these functions become simply invaluable. My only complaint is that squashing a sound leaves residue in memory where part of the sound once was – you have to go back and erase it before burning ROMs, or it might end up tacked on to the end of another sound.

The PROM section is obviously what this machine is named after. In case you didn't know, EPROM stands for Erasable Programmable Read Only Memory, which means you can program into an EPROM what somebody else may read back – typically in our case, drum sounds. The manual is very thorough on this section, which is good – programming ROMs is not an everyday task for most of us.

The Oberheim can "burn" (program) or read (for taking sound from other ROMs) a wide variety of 4K-64K EPROMs, along with reading 2K ROMs. It can burn them in eight-bit COMDAC or linear (as used by Simmons) formats, and the manual goes into great detail on how to burn multiple sounds into the same ROM (I messed up my first try, but that wasn't the manual's fault). A section in the back of the manual shows what types of ROM go where in Oberheim DX/DMX, Linn 9000 and LinnDrum, Sequential Drumtraks, and Simmons SDS1/9 drum machines and pads.

Kudos to this part of the machine – but then, this section is supposed to be its heart and soul. Also in this section is the

ability to load and run programs the user may write to operate the Prommer – but only the very advanced need apply.

## MIDI

OBERHEIM HAVE SOME of the best MIDI implementations around – and the Prommer is no exception. Considering the machine's inherent limitation of being able to play only one sound at a time, its MIDI section lets you assign each sound to different channels, zone them over the keyboard, transpose them, velocity switch them, pitch-bend them, open the filter of VCA with pressure or velocity, and select different sounds via MIDI program-selects.

The zone arrangement has a particularly clever feature of allowing sounds to have overlapping zones. If you play in the overlapped region, the sound from the last uncontested zone has control until you play a sound from the other zone. So, you can extend a lead sound down below what may be its normal split point, then play a bass sound, and continue it up the keyboard over the split point.

I still want to experiment with sampling the four different open strings of a bass guitar and mapping them this way, to simulate the way a real bass player may use the slightly different tones of the guitar's strings for different melodic lines.

The final buttons in the MIDI section deal with getting the data in the sound blocks in and out of the Prommer over MIDI. Sounds may be transferred over MIDI using Oberheim's own format or the – you guessed it – MIDI Sample Dump Standard (a boon to me, since I have about 30 percussion disks and a sampler that also supports it). The Prommer also allows the user to store MIDI data (such as program dumps) as opposed to sounds in the sound blocks, should you want to store your patch library on EPROMs.

## Verdict

IN A WORD, mixed. For the most part, the Prommer and its manual are very easy and friendly to use. However, there was the occasional non-intuitive (read strange) numbering system or undocumented need to hit Execute twice that left me scratching my head.

It's obvious that the Prommer's designers have given the user every possible feature they could squeeze out of the limited hardware inside the box.

If you're only looking for a sampler, you can get an eight-voice polyphonic one with similar sound quality, a disk

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drive, keyboard, envelopes on the filter and VCA, and so on, for not a lot more money than the Prommer costs. And if you don't have one of the drum machines supported by the Prommer, don't say I told you to buy it.

On the other hand, if you are someone who lives or dies by your LinnDrum, DMX, Drumtraks, or whatever, this box will increase your power tenfold. In short – if you need it, you'll love it. ■

Price £949 including VAT

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