

Oberheim Matrix 6R Expander

While some manufacturers make a speciality out of bringing sound synthesis to the masses, Oberheim have been busy turning out instruments which are out of this world – but also out of most musicians' financial grasp. However, the introduction of the six-voice Matrix 6 polysynth (reviewed E&MM January) saw the company moving into a more affordable price range, though it retained many of the features which make Oberheim's version of the modern synthesiser so special. Now the company has brought out a rack-mounting version of the 6 which retails for less than £1000.

For the uninitiated, the Matrix 6 and 6R are cut-down versions of the Matrix 12 and Xpander (neither of which retail for less than £3000). What's surprising is how few economies have been made where it matters most: the noise the instrument makes.

Some voice components have been lessened in number (though there were so many in the first place, this may actually be an advantage), and the VCOs of the earlier instruments have been replaced by DCOs. But you've still got 99 voice parameters, 54 matrix modulation parameters, 56 master edit parameters, and eight split edit parameters to mess around with. The Matrix 6 handily lists these on its front panel, but of necessity, they're relegated to the top of the 6R – which is fine for tall people, so long as they don't stick another unit on top of the Oberheim in a rack.

Internally, each voice has two DCOs, a VCF, two VCAs, three five-stage Envelope Generators, one FM Modulator and one Tracking Generator, two Ramp Generators and a Portamento controller.

And if that doesn't leave you breathless, there's Oberheim's software-implemented Matrix Modulation system, which allows up to 20 sources to modulate up to 32 destinations – a total of 640 possible combinations. For each patch, you can select from 18 'hard-wired' modulations and create up to 10 of your own. Modulation sources include the three envelope generators, two LFOs, vibrato, the two ramp generators and the tracking generator. Destinations include DCO pitch and waveshape, the DCO1-DCO2 mix, VCF frequency and resonance, VCA volume and the ADSR parameters, plus overall amplitude of the envelope generators.

Along with internal modulations, it's in the Matrix Modulation section that you define the effects of keyboard dynamics (including release velocity –

though few keyboards implement this) and controllers on your voices. Oberheim's approach gives you a degree of performance control over your sounds perhaps unmatched by any other synth. Such flexibility means you have to keep your aural wits about you when programming sounds – which is no bad thing.

The 6R allows you to store 100 single patches and 50 multipatches onboard. The latter are split and dual combinations of two patches which can also be partially overlapped. External storage is to cassette or over MIDI – though as always, you'll need a computer and appropriate software or something like the J L Cooper MIDIdisk to accomplish the latter.

Considering its abundant sonic resources, the Matrix 6 was given a rather uninspiring collection of factory presets when it first came out. Fortunately, the 6R's presets sound as though a lot more care has gone into constructing them. And the multipatch combinations are similarly more usable.

Oberheim have also put plenty of thought into the MIDI aspect of the Matrix 6R – not least in giving it the ability to receive in Mono Mode 4. Apart from the usefulness of this mode in sequencing, it also has an essential application in guitar synthesis – and with the increasing number of MIDI guitar systems now appearing, that's a powerful reason for its inclusion on voice expanders like the 6R.

The rack Matrix also has a 'patch mapping' facility, which allows you to assign patches to incoming patch numbers, removing the problem of aligning patches from different MIDI instruments which count their memories in different ways. You can also select another patch number to be sent by the 6R on its MIDI Out to a third instrument – a handy feature. The 6R's MIDI Out can act as a 'mix' output, combining data from your master instrument with MIDI data generated by the 6R. Along with patch changes, this can include controller information – the 6R has inputs for a footswitch and a footpedal, each of which can be set to any MIDI controller code.

The end result is a powerful and responsive instrument which sacrifices little in terms of voice quality over its more expensive predecessors. Well worth checking out. ■ *Simon Trask*

Price £949 including VAT

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