SYNTHCHECK

What's all this then? 12 voices, velocity sensitivity, polyphonic sequencer, full MIDI functions and keyboard split? All for £699? April Fool's Day's been and gone, mate.

But the DK80 isn't an April Fool joke; all the facilities mentioned above do exist and, as they say on TV (or scream on TV), The Price Is Right. So why not come on down and have a look at whatever strings may be attached?

What SIEL have in fact done is to follow the dubious 'lead' set by Korg last year on the Poly 800. We

effects - the classic PolyMoog is an example of a synth which didn't lose out on realism just because it had but one dynamic filter in its arsenal.

On the other hand, for filter-swept juicy Funk sounds, two-handed pieces with harpsichord-like sounds and fiddly brass pieces, a single filter can hold your style back very seriously. Either the filter re-triggers on any notes you're already holding when you play new notes, or it doesn't re-trigger at all, leaving you with

the same as the system on (say) Roland's Jupiter 6, on which you define individual sounds then write a Split patch which pairs them together. The DK80 is Bi-Timbric (new word!) which means that a single patch can define two independent sounds. There's only one panel display for the sound parameters, but an innocuous button marked Voice 1/2 decides which sound you're editing, and each of the two sounds has a Keyboard Range parameter (from key 0 to 61 for Voice A and from 61
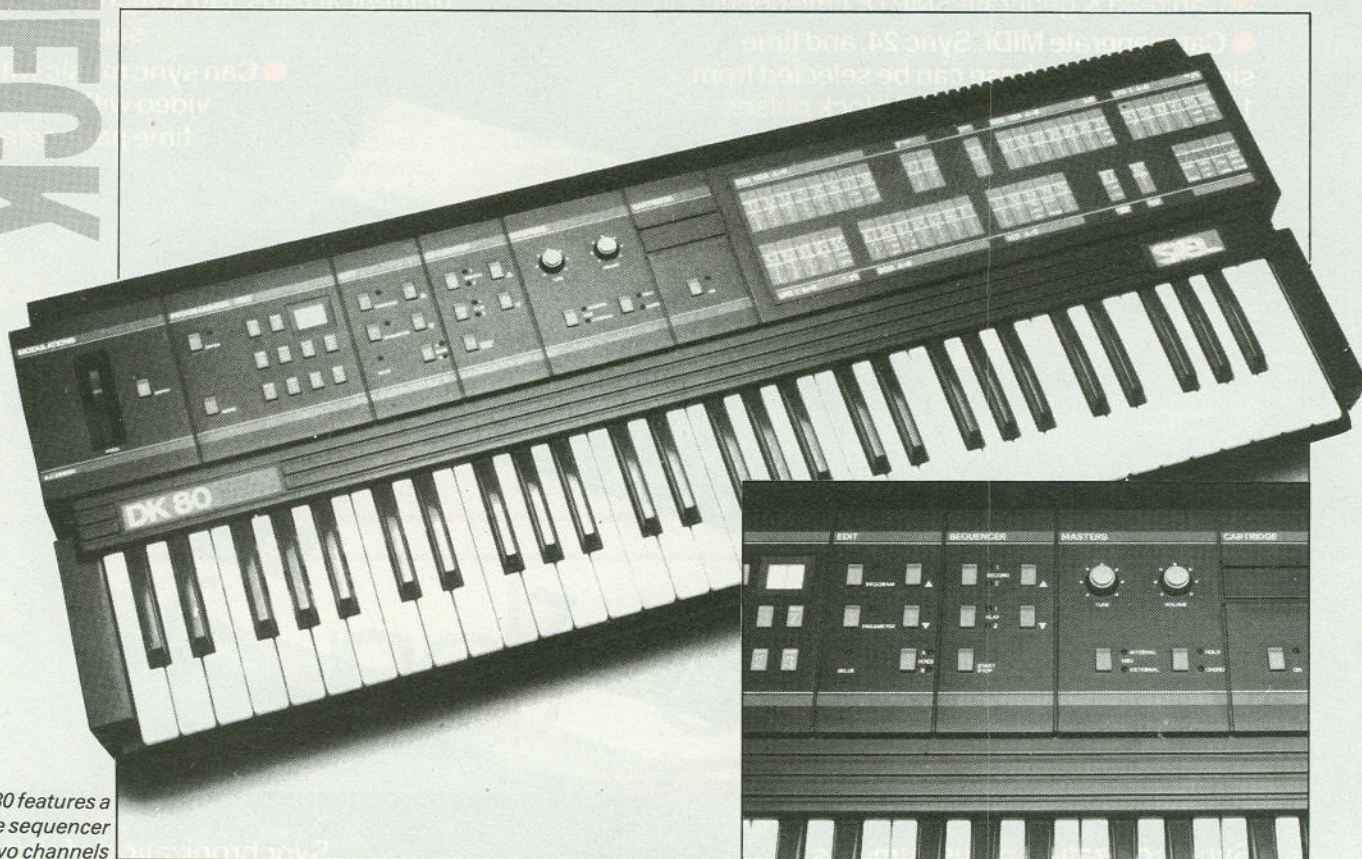
DK80 features a 256 note sequencer over two channels

couldn't believe the Poly 800 spec when we first saw it — portable, powerful, programmable and sequencable. The only hitch was in the filter department — exactly two to share between all the voices, and one of them only worked on the white noise.

SIEL were trying to go one better, and in fact they've gone two or three better than the Poly 800 for a not-much-increased price. The DK80 offers keyboard split, velocity sensitivity and powerful MIDI functions, but the £700 price barrier just couldn't be broken without the same sacrifice in the filter department — so, just two filters per sound on the DK80. Is this a disaster? Let's see.

A single filter's fine if you're playing block chords, monophonic leadlines (at which the DK80 is quite versatile) or special effects noises. Of course, there are lots of sounds that don't use moving filter

various dead-sounding strangulated notes. You could use this behaviour occasionally as a playing technique, but neither mode is really much fun to use for long. At least the choice of modes, via the DK80's Single/Multi Trigger option, is left to you.

Being more positive, the aforementioned DK80 Funk-type sound could benefit from velocity response from the keyboard to the filter, to the VCA or both, switchable on or off rather than continuously variable in depth but preset at a very usable level. You can play up to 12 voices at a time, or create a split or overlapping patch with two completely independent sets of oscillators playing on different ranges of keys.

New words

This Split/Overlap facility needs some explaining, because it's not

to 0 for Voice B) so you can split, layer or overlap the two sounds as part of one patch. This, of course, means that it's not so easy to take the nice bass sound off the bottom of a split patch and match it with something else.

All the parameters are varied by digital access from a pair of Value Up/Down buttons. This is slowish on some machines, very slow in the DK80's case. If you want a new sound, you just hit two numbers on the left-hand keypad and then hit Enter, which allows you to have a new sound available at the touch of a single button. If you want to edit a sound though, you have to switch from Program Number to Parameter Number mode, look up the parameter reference codes on the right-hand panel of the synth, punch in the appropriate two figures, hit Enter, then hold one of the Value Up/Down buttons and wait for the multi-function

two-figure LED display to start cycling through its possible values. If all you want is a spot more decay on stage this isn't very practical!

On the subject of editing sounds, it's worth going through the available parameters one at a time, because there are some unusual and imaginative touches. The DK80's voltage controlled amplifier uses a complex envelope with Attack, Decay, Break Point, Slope, Dynamic and Damper functions — the damper referring to the optional piano-style dual footpedal which can also control sustain, sequencer start-stop, program up and so on.

The Detuning section has Coarse and Fine controls for interval sounds or thickened textures, and is followed by Noise Level and the Filter, which has the same ADBSSR envelope and dynamic controls as the VCA Envelope. Working in Voice A mode gives filter effects on all the oscillators, while Voice B mode gives effects on the White Noise. This allows the DK80 to produce complex effects such as the Korg Poly 800's stunningly life-like flute, which features just a chiff of breath noise on the start of the note.

The DK80 has two LFO's, one with just a triangle wave for vibrato and one with triangle and square for filter effects. There's no modulation wheel to bring these effects in , but you have a choice of variable delay on the effects or switching them straight in with a button next to the pitch bend wheel.

The audio oscillator section has Split Point (that's the one that defines the keyboard range for the two sets of oscillators), Sawtooth and Square Waves On/Off, selectable Sawtooth Footage of 4', 8' and 16' and individual mixable volume controls for Square Wave footages of 16,8,4 and 2 feet — again reminiscent of the Poly 800. The Filter has Cutoff, Resonance, Keyboard Tracking (Off, Half or Full), Single or Multi Trigger and Envelope Level parameters)

Movement and Hiss

Valuably, the DK80 has a chorus section which is individually selectable for the two oscillator banks. It thickens the sounds up and gives them a lot of movement, but inevitably adds a little hiss as well. There's also a programmable volume function independent of the master volume control for balancing up the levels of finished sounds, and also four non-

programmable parameters marked on the front panel. These are Memory Write Enable, if you want to replace the factory sounds; Sequencer Clock, selectable from MIDI, external clock or internal; MIDI Receive Channel, selectable from 1-15 or All (Omni Mode); and lastly left-hand footpedal destination, to Programme Up, Sequence Start or MIDI Data Transmission. The last of these functions is handy for cutting the DK80's effect on another synth or expander if you're using it as a control keyboard, which is an obvious application as we'll see.

There are two non-programmable functions not marked on the panel, which leads us to speculate that they may have been last-minute additions. These are Sequencer External, which allows the sequencer to control an external synth via MIDI instead of the DK80 itself, and Metronome On/Off, to produce a click while recording realtime sequences.

The sequencer itself can be a very useful compositional tool, and features automatic looping, optional metronome, variable speed and clock source and a memory of about 256 notes divided between two channels. You can replay one pattern while you're recording another alongside it, and play back either sequencer or both together with different sounds or the same sound.

The DK80 has a conventional pitch bend wheel (which unfortunately affects sequences, so you can't bend a live solo over a sequence) which seems to have a fixed range of one tone; a Hold function for sustained droning notes; and a Chord button for locking a chord onto a single note. This function's also useful for adding together a few octaves and fifth notes for a powerful leadline sound.

There's also a socket for a ROM or RAM cartridge which can give access to an additional 50 programmable or 100 preset memories. The DK80's on board complement is a ittle limited — 40 preset memories which can be only temporarily edited and a mere 10 user-definable memories. There's a front-panel sticker with the preset names supplied, and some of the sounds are very impressive. It's not difficult to get at the cartridge sounds, but who's interested in non-programmable memories any more?

The DK80's styling is a little unusual, consisting of lightweight plastic and featuring a separate

power supply which can clip firmly to either side of the synth. The power supply's capable of simultaneously feeding an Expander 80 module, which has the same specification as the DK80 but is not Bi-Timbric, so it just produces one sound at a time.

Presets

As for the sound quality of the design — well, it's highly variable, from brassy to smooth and flutey, from harsh to very subtle with the possibility of reasonably rich detuned string synth sounds if you use the chorus. Many of the presets are very clever; 'Panning Brass' sweeps from left to right as you hold a chord, if you're using the rear panel stereo outputs, thanks to a patch which fades Voice A down on the left as it fades Voice B up on the right.

Bass and Brass (split), Bass and Piano (layered) and Ensemble/ Brass (overlapped) are all highlights, and as previously mentioned there are plenty of strong solo sounds. Your playing technique on some sounds will obviously be limited by the single filter, but this is partly compensated for by the expression added by the velocity sensitivity.

Summing up, good points include the expressive velocity sensitivity, the split/layering/ overlapping functions, the possibility of stereo and panning sounds, the sequencer, the complex envelope and the versatile MIDI functions.

The DK80 would make an excellent Mother Keyboard — it's cheap, light, expressive and has a good few sounds of its own. As for using it as an only synth, the split and velocity are obviously attractive, but I'd have gladly given up a few oscillators for more independent filters. If it's good enough for the Bit One, which has a very basic but adequate three velocity-sensitive voices on either side of a keyboard split for £799, it should be good enough for SIEL.

Still, it's all down to personal choice and the dictates of personal requirements in the end. The SIEL rates a couple of tut-tuts, but it's got about a dozen good things going for it and, at the price, should not be ignored under any circumstances.

Tony Mills