Retro: MS series

To celebrate Korg's 40th anniversary, vintage gear enthusiast and writer Gordon Reid goes back to explore the enduring popularity of Korg's classic **MS series**

Above: The classic MS20 synth

I REMEMBER THE first time I saw an MS20, sitting in a music shop in Fleet, Hampshire. I also remember thinking that it was so sleek, so knobby, so black, and it had so many intriguing patch sockets, I had to have one! I was dazzled by its dual oscillators, its ring modulator, its dual, resonant low-pass and high-pass filters, its dual contour generators, plus the frequency modulation and independent modulation of both filters. This was way, way beyond the world of my Korg 700.

However, it was the patchbay dominating the right of the MS20's control panel that held the most promise. This offered two sections.

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The first was an external signal processor. Far more than a way of passing an external signal through the MS20's filters and VCA, this was a comprehensive pitch/voltage conversion system and envelope follower that, within limits, enabled external signals to drive the whole of the MS20's architecture. In truth, it glitched like crazy, but that didn't stop me from eventually finding all manner of strange uses for it. Then there was was the modulation routing patchbay. This extended many of the MS20's facilities, and allowed me to create sounds that had previously been the domain of expensive modular and semi-modular instruments.

Of course, the MS20 wasn't perfect, and I soon noticed a couple of limitations. For example, while I could control the pulsewidth of the pulse wave on VCO1, there was no pulsewidth modulation. This made the MS20 incapable of producing the lush, 'chorused' sounds that had poured out of earlier Korgs such as the 700S and 800DV. Secondly, while the patchbay allowed me to create and manipulate a fantastic range of modulation routings, it didn't allow me to interrupt the signal path itself. Unlike a true modular synth, the MS20 was irrevocably fixed to a standard VCO/VCF/VCA architecture.

The whole series

Had I had the cash, I could have overcome both these limitations by investing in the other synths in the 'MS' range. Firstly, there was the MS10. With its single oscillator, no ESP, a single envelope generator and a shorter keyboard, this was in almost every way the MS20's little brother. Nevertheless, there was one thing it offered that the MS20 did not: pulsewidth modulation. So, with two patch cables (one for pitch CV and the other for Trigger) I could have hooked an MS10 and an MS20 together to create huge patches with three oscillators (one with PWM), multiple filters, multiple envelopes, multiple modulation sources and much more. With the addition of a few more patch leads, I could have used the modulators on one synth to affect the other. I could even have used the audio output of one to modulate the other, this overcoming the MS20's fixed VCO/VCF/VCA architecture.

Then there was the MS50, a keyboardless expander that offered numerous additional features provided by neither the MS10 nor the MS20. In addition to its VCO, it too offered dual low-pass and high-

THE MS PEDALS

Four available pedals enhanced the Korg MS series. The **MS01** was a CV pedal with +ve and –ve outputs and attenuators. The **MS02** converted the Hz/V pitch CVs of the MS10 and MS20 into the V/Oct systems used by most other manufacturers, and was therefore an important addition to the range. The **MS03** was in many ways the MS20's external signal processor in a box, thus allowing you to add ESP to an MS10 or any other suitable synth. The **MS04** was a modulation pedal that added an additional multi-waveform LFO with rate and depth controls, plus a pedal controlled CV generator, all in a neat foot pedal.

This page, clockwise from far left: MS20, MS50, MS20 Blackboard version and MS10

pass filters, dual contour generators and patchable VCAs, but added multiples, an inverter, a patchable noise generator, patchable ring modulation and more. Indeed, everything on the MS50 was patchable, as it had to be, because there were no internal connections between modules. Unlike the MS10 and MS20, (which you could program and play without a patch cable in sight) the MS50 demanded that you hook things together before it produced a sound. What's more, and again unlike the MS10 and MS20 (which used the less common Hz/V pitch CV system), the MS50 also offered the V/Oct pitch CV standard, which meant that you could patch it to the other mainstream synths of the day.

With an MS20, and MS10 and an MS50, the world of monophonic synthesis lay at your feet. However, Korg had even more tricks up their corporate sleeves. The VC10 vocoder looked much like an MS10 with a microphone growing out of its head. You could use this microphone and the VC10's internal sound generator for simple vocoding, but much more interesting was the instrument's ability to accept external signals, hugely extending the range of effects that you could obtain from it. Best of all (and alone in this series of instruments) the VC10 offered Korg's superb ensemble effect, which could turn the most boring vocal signals into lush textures.

Finally, there was the SQ10. Like everything else in its family, this offered more than was immediately apparent. In particular, although it looked like a 12-step, three-row sequencer, you could chain two of the rows to create sequences of up to 24 steps. Alternatively, you could use the three rows to control (for example) the VCOs, VCFs and VCAs of the target synthesizers. To this end, the rows even offered different voltage ranges that were suited to each job. With an external clock input for synchronising to drum machines and other sequencers, the SQ10 was an impressive package of features and significantly cheaper that any alternatives.

MS20 becomes MS2000

As a poor student in 1978, I couldn't dream of combining my MS20 with an MS10 and an MS50, let alone adding a VC10 and SQ10. What a shame. If I had done so I would have owned one of the most flexible and satisfying synthesizer set-ups ever designed.

There was just one remaining problem to be solved. In 1978, the world was still wedded to the lead sounds and basses produced by overdriven 24dB/oct filters, and was not ready for the squelchier 12dB/octave filters used in the MS range. But if the Korgs' filters couldn't change, maybe the world would. Soon after Korg discontinued the MS20 in 1981, digital instruments began to dominate synthesis. Analogue synths became almost worthless and, at one time, you could buy second-hand monosynths for as little as £20. (This was when I sold my mint, boxed, MS20 for £95. Arrggh!) But in 1988, hip hop, house and other forms of dance music hit the streets. And there, in the forefront of the new musical wave, was the MS20. Suddenly, its filters were *de rigueur*, and they soon became objects of desire for the new generation of synthesists. Nowadays, you can even buy standalone filter boxes based on the MS20 design.

Today, a full rig of MS10, MS20 and MS50 is sought-after and very valuable, and given the rarity of the MS50, you're unlikely to see one for sale at any price. Small wonder, therefore, that the Korg MS2000 has proved to be such a success. Offering much of the character of the MS20, MS10 and MS50, plus the vocoding and sequencing capabilities of the VC10 and SQ10, it's what everybody has been craving for the past decade or so. And in real terms, it costs about a tenth as much as the full rig would have set me back in 1978. Now that's what I call progress. **KM**

THE MS20 BLACKBOARD VERSION

Perhaps the rarest production synthesizer that Korg has ever produced, the much sought-after MS20 'Blackboard' (pictured above right) is identical to the standard MS20, except for being flat, and about four times the size of its more common twin.

Designed for use as an educational aid, Korg's dealer support staff used this to teach music shops (many of whom had, in 1978, never sold a synthesizer) the basic principles of synthesis. Apparently, there are no more than 100 of these Blackboard MS20 synths in existence, and I am aware of just two in the UK. One resides at the Korg UK offices in Milton Keynes. The other, thanks to a bit of sterling detective work by Korg technical whizz, Paul Bundock, is hanging on the wall of my studio behind my Triton and Karma. And that's where it's staying!

Below: the classic VC10 vocoder