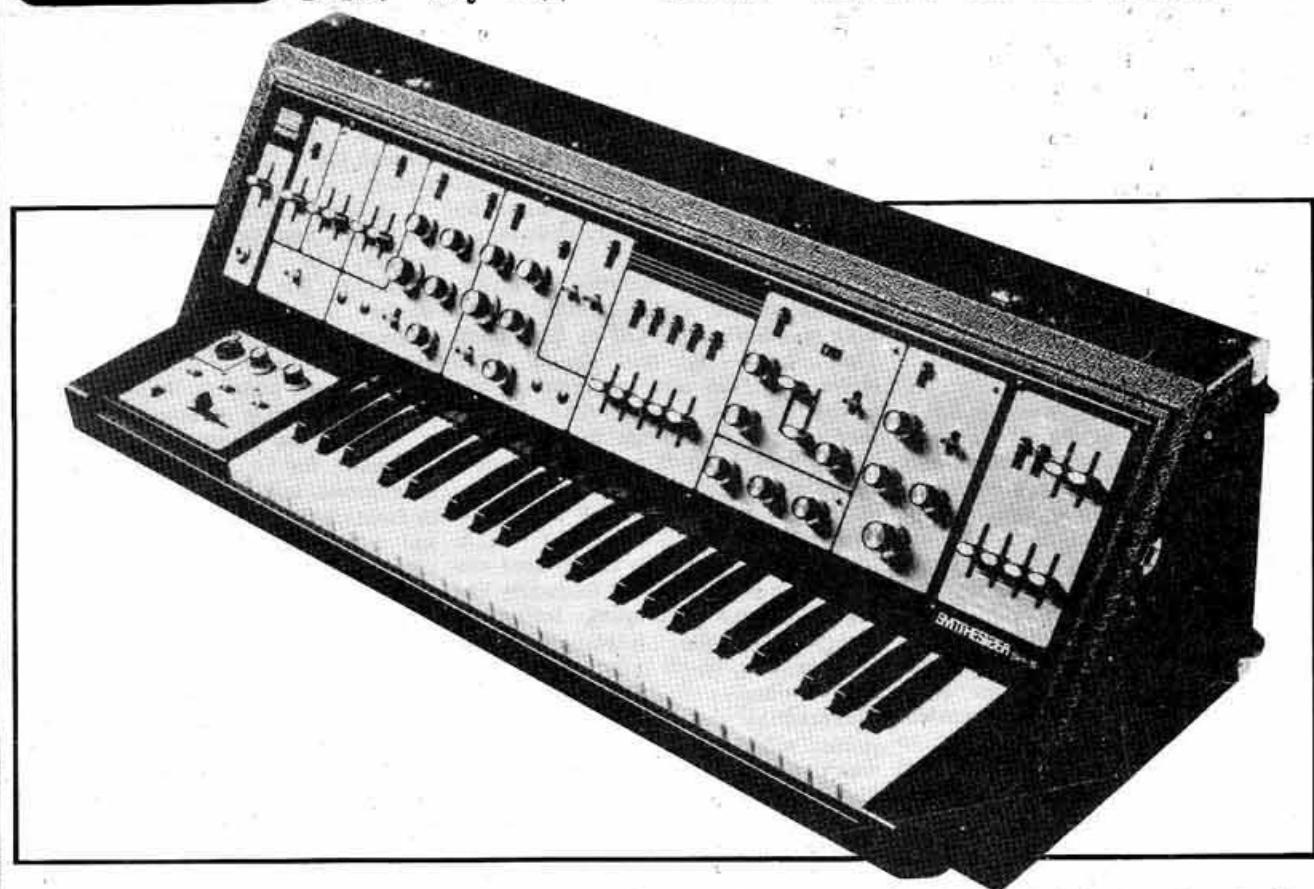




argent's KEYBOARD CHECK

TEST ON: Roland SH5 synthesizer

DATE: May 1977 PRICE: £878.70 ex. VAT (U.K.)



The first time I encountered Roland equipment was several months ago when I tested the R.S. 202, string synthesizer. My opinion then was that it was the best string synthesizer I'd come across. Nothing has happened since to make me radically change my views.

In fact, I've put my money where my mouth is so to speak, and used the equipment many times since, not only throughout the new Roger Daltrey album but also on the music I wrote for the recent 'Light Fantastic' Laser exhibition at the Royal Academy.

The fact that it records so well — (it was after hearing it on record that Robin Lumley of Brand X, Tony Banks of Genesis and Dave Courtney felt they had to have one) made me await the arrival of the S.H.5 with a lot of interest.

One thing that always amazes me about monophonic synthesizers is the way that each different model seems to have its own definite identity and character of sound. After all, the

In addition to leading Argent for seven years, Rod has a pedigree in Rock which includes stints with bands like the Zombies. A composer of several million-selling numbers, Rod has a classical keyboard training and today spends much of his time playing keyboards on sessions and at instrument clinics.

principles by which they all operate are basically the same; a pure wave form, sine, pulse, square or sawtooth is produced by one or two oscillators and then maybe modulated by low frequency oscillators and modified by a voltage-controlled filter (V.C.F.) or voltage-controlled amplifier (V.C.A.).

There are generally A.D.S.R. and A.R. envelope generators to give shape to the sound and sometimes a ring modulator to complete the picture. The combinations that may be produced by the marrying of these factors are, of course, infinite, but as similar basic functions appear on the majority of instruments, one would think the character of sound produced would depend almost entirely on the operator. And yet they do sound so distinctively different from each other!

The difference between the bass sounds available from the mini-moog and the ARP2600 for example, is very marked. Both are excellent in their own way, but, although capable of tremendous variation, always remain true to their make! The Roland S.H.5 is no exception to this rule, and has a pleasing character of its own.

Of course the extra features and sophistications which are appearing all the time make a difference, and the S.H.5 has some nice ones. Also the

purely physical layout of such things as pitch controls and modulation controls can themselves alter the way a player goes about applying expression and vibrato to his music.

Layout

The actual layout of the S.H.5 is convenient and easy to follow. Purely from a player's point of view, two of the first things I always look for when confronted with a new synthesizer are the positions of the pitch bend wheel and the knob or wheel which applies the sine wave modulation giving vibrato. These are the effects which, musically, give so much which is impossible on other keyboard instruments! On the S.H.5 these controls are comprehensive and offer several choices.

The pitch bend wheel, which is sprung to return instantly to centre, has a relative control by which the movement between centre and edge can produce a variation of a semi-tone, tone or interval of a fifth as desired. Vibrato, which is produced by the second of two low frequency oscillators, can be set to come in immediately or delayed by a chosen amount of time.

Alternatively, the pitch control of V.C.O. 1 has a centre click-stop and this may be used in conjunction with the modulator routed immediately above to apply these effects in a completely manual way. Of course, the L.F.O.'s can do other things besides applying sine-waves to produce vibrato; L.F.O. 2 generates three controlling wave-forms, triangular, sine and square. L.F.O. 1 generates two wave-forms \backslash and its reverse $/$, and provides a sample for the 'sample and hold' section. Both L.F.O.'s have rate controls and may be used to modulate the V.C.F. and V.C.A. as well as V.C.O.

Facilities

There are two V.C.O.'s on the S.H.5, so the unison and octave effects which give weight to synthesizer sound may easily be obtained. There is an extremely useful pitch synchronising switch which has three positions.

When set to 'strong', the frequency of V.C.O. 2 follows automatically and exactly the frequency of V.C.O. 1. In the 'weak' position the oscillators may be tuned apart — but intervals will lock exactly, and the 'beat' which slight out-of-tuneness provides is eliminated. Of course the control can be set to 'off' should you require the fuller and often desirable effect of two oscillators tuned just slightly apart. This locking feature is particularly useful; it means you can pre-tune to fifths or fourths, for example, and bring in the effect at a flick of a switch, returning instantly to unison whenever you wish.

Both V.C.O.'s offer the same choice of wave-forms: triangular, sawtooth, square and pulse. The pulse offers

particularly interesting possibilities. On V.C.O. 1 its width may be altered either manually or constantly by L.F.O. 2 to produce a really nice chorus or 'phasing' effect.

On V.C.O. 2 the width may be varied manually or set to follow the contour of the A.D.S.R. envelope generator. There is a 'keyboard follow' control on V.C.O. 2 which would normally be set to 'on'. When placed in the 'off' position the oscillators' pitch may be adjusted but is unaffected by what is played on the keyboard; thus a 'drone' effect is possible.

To the right of the ring modulator, and set at the centre of the control bank is a mixer operated by five faders. These bring up the signals from respectively, the noise generator (white and pink), V.C.O. 1, V.C.O. 2, ring modulator and external input. At the top of each fader is a four-way switch by which you can select the destination of the sound; V.C.F., V.C.F. and B.P.F. (Band Pass Filter), B.P.F. or V.C.A.

The V.C.F. section comes next and two faders control cut-off frequency and resonance. An interesting feature is incorporated called 'keyboard follow' whereby the cut-off point of the filter can be made to follow the pitches produced by the keyboard — giving a similar effect to acoustical instruments where tone colour is different in the high and low ranges. A three-way switch routes the signal through a Low-pass, High-pass or band pass filter.

The cut-off point of the filter can also be made to follow the output of the envelope generator. Three types of envelope are available; the A.R. and A.D.S.R., the controls of which are on the right of synthesizer control panel, or a preset \square .

The band-pass filter has three separate controls: frequency, resonance and level and may be used separately or in combination with the V.C.F. There is a modulation control on the V.C.F. whereby the L.F.O.'s can be brought to bear with their various controlling wave-forms. The V.C.A. section, apart from housing the envelope shapers, incorporates a 'hold' control which passes sound through the V.C.A. even when no key is pressed.

A sample and hold section exists on the S.H.5, and takes samples from two sources; the L.F.O.'s or the noise generator. The L.F.O. wave produces regular repeating patterns of notes, whereas the noise generator produces tones at random.

The back panel of the S.H.5 shows an extensive range of possibilities as far as effects are concerned. There are terminals for a sequencer, external instruments and foot-pedal controls for all functions of the synth., V.C.F., V.C.O. and volume. The keyboard may also be routed in stereo through two separate amps.

Conclusion

The Roland S.H.5 is a compact, effective synthesizer with most of the usual effects and a few more besides. The layout of the instrument has been intelligently planned, always, it seems, with the musician in mind. One more thing; during the course of the test a rep. from Roland brought over a string synth. and showed me the effect of interfacing it with the S.H.5. The polyphonic characteristics of the string synth, when passed through the filter and modulation sections of the S.H.5, produce what is in effect a polyphonic synthesizer. The combination sounds great.

• Terminals at Rear Panel

