



Schoeps VSR 5 U

Although this venerable microphone manufacturer has offered a portable preamplifier solution in the form of the VMS 5 U for some time, until recently it has never ventured into the realms of the 19-inch rackmount for installed applications. **JON THORNTON**



In a couple of ways the VSR 5 U isn't completely new. First, the core gain element is inspired by the ultra low noise Valley People 'Trans-Amp LZ' first developed in the 1970s. And second Schoeps has been using this design in-house as its own reference preamplifier for microphone testing and evaluation for a number of years, and has finally decided to make it available to its customers as well.

As you might expect, based on the design approach to their microphones, the VSR 5 (Euro 2510+VAT) is firmly in the school of 'straight wire' preamplification. The objective here is to provide an output that is as quiet, clean and uncoloured as technically possible. In addition, given the proliferation of RF energies knocking around modern production environments, there was the need to ensure high levels of RF filtering on inputs and outputs without compromising the bandwidth, common-mode rejection or low distortion characteristics of the device. This has been achieved through careful component choice, intelligent circuit design, and (most visually obvious) a spectacularly robust construction featuring a stainless steel housing.

For a relatively shallow 2U rack unit, the VSR 5 is tellingly heavy in no small part due to the three large toroidal transformers employed in the power supply (linear circuitry only here). The rear panel features high quality gold-plated XLR sockets for mic level inputs and line level outputs, and each channel has two separate electronically balanced outputs. To help minimise RF interference and potential earth loops, there is also a three-position toggle switch here. This allows signal earth to be completely lifted from chassis earth, connected to chassis earth directly, or 'soft-earthed' via an RC network designed to bridge any difference in potential between pieces of equipment connected to power outlets some distance apart without causing hum problems.

The front panel manages to look functional and elegant at the same time with a housing finished in the trademark dark grey Nextel common to Schoeps microphones with each of the two input channels seemingly inlaid into this sporting a matt stainless steel panel. Each of the two channels is dominated by a large rotary stepped gain control that gives 0–60dB

of gain in 3dB steps. The action of this is very firm and reassuringly difficult to accidentally knock — more importantly the published specs quote a precision of $\pm 0.3\text{dB}$ throughout their range. Output metering is courtesy of 21 individual LEDs mounted above the gain control, with level indication in 3dB steps from -48 to $+9\text{dB}$ plus a clip LED. The 0dB indicator is factory set to correspond to $+6\text{dBu}$, and the clip indicator begins to work at approximately $+20\text{dBu}$ — well before the unit itself overloads ($+28\text{dBu}$), but giving plenty of warning. The meter follows a PPM ballistic, and is refreshingly easy to read under nearly all lighting conditions and viewing angles.

Below the gain control are six illuminated momentary pushbuttons. Three of these allow the application of a high-pass filter at 40, 80 or 120Hz — a further three provide phantom power selection, polarity reverse and an output mute. My only niggle here is that all six of these buttons are dimly lit when the unit is powered up, and glow brighter when engaged. You get used to this after a while but at first I found this a little distracting.

There are some neat touches, though. For example, engaging phantom power mutes the output first, then applies power, then finally unmutes the output after two and half seconds. And the unit can sense (and report) when phantom power is actually being drawn by a microphone — engaging phantom power with a microphone connected that will not draw it results in the P48 light glowing dimly yellow as opposed to dimly green. If phantom power is actually being drawn, the light glows bright green instead. All of the settings of the front panel switches are retained when the unit is powered down, and restored again on subsequent power up.

It's clear that Schoeps sees the VSR 5's primary application as the recording studio rather than on location, so that was where it was put to use on a session, working with a variety of microphones on sources ranging from kit to vocals. The first task was a spaced pair of kit overheads — initially using a pair of C414s — which very quickly revealed two things. The first is that those filters are very useful indeed in dealing with low frequency rumble and air con artefacts, and

their action is gentle and progressive, meaning that there's no sense that the LF extension simply stops, particularly with the lowest (40Hz) setting.

The second is that the unit's overall sound is not quite what you might expect. Yes, it's clean, quiet and wonderfully uncoloured — but it achieves this in a way that never seems unremittingly stark or brutal. In comparison with some other units with similar design objectives (as a comparison I was using a Millennia HV3-C), it manages to sound flattering and neutral at the same time. This is particularly noticeable when paired with microphone sources that are similarly revealing and flat — such as the C414s.

The C414s were then swapped out for a pair of Beyerdynamic M201s. The M201 is one of my favourite dynamic microphones, but isn't endowed with a spectacularly high sensitivity, and as such generally needs a fair amount of gain. This can often expose shortcomings in otherwise very capable sounding preamps, working up the gain range while still delivering enough headroom and respectable signal-to-noise. The VSR5 takes this completely in its stride, even within 5dB of maximum gain it doesn't start to sound closed in or flustered, and there's more than enough headroom on the output.

A selection of other microphones (SM57, Royer 122, U87) and recording sources (acoustic guitar, electric guitar, vocals) served only to confirm these findings, but also suggested a third broad trait of the VSR5 — that it really allows you to hear the nuances in a microphone's own response. Again, this isn't in an unflattering way; rather than ruthlessly exposing a microphone's shortcomings it seems to just emphasise traits that you were always aware of but brings them into clearer focus. For example, I've always been aware of something slightly strange going on around the 2k mark with the Beyer 201s; the VSR5 just brings this into focus as a slight hardness to some sources (especially cymbals) when off-axis.

In this sense, it's something of a forensic tool, but in a very musical way, which is probably due in no small part to its provenance as Schoeps' own reference preamp. And that, I think, is the VSR5's real selling point. It manages to be a neutral, quiet and sonically accurate preamplifier while still achieving musicality; that is quite an achievement. ■

PROS Sonically neutral without being overly aggressive sounding; tremendously quiet, high-quality build and switchgear; two separate outputs per channel a bonus.

CONS Switch illumination can be a little distracting; no digital output option.

EXTRAS With switchable phantom powering, two low-cut filters, headphones monitoring and an M/S matrix, the VMS 5 U preamp for portable use has automatic switchover to internal batteries in the event of AC power loss.

Contact

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