

# Vertigo Sound VSC-2

The hope of discovering a new brand with a new take on an old puzzle is one of the things that keeps the gear-head in all of us going. **GEORGE SHILLING** has been lucky enough to find a fantastic new dynamics box that reminds him of a Firebird.



**THIS GERMAN UNIT** is also known as the Quad Discrete VCA Compressor, but the first thing to point out is that the Quad does not refer to multichannel audio; this is strictly a stereo unit. The terminology describes a defining feature — four VCAs designed and built in-house by Vertigo. Two are in the audio paths, and two are in the sidechains. The compressor is a Peak Detecting/Feed Forward circuit rather than RMS (which the designers believe spoils the energy balance); the VSC-2 is designed mainly as a bus compressor. So, while most designers and manufacturers are happy to use 'off the shelf' VCAs, the Vertigo masterminds decided that they wanted to launch their new company with something a little different. To this end, their bipolar VCAs use only discrete components, and named the 1979, the design is a nod towards the best VCA-based compressors of the 1970s and 80s. The groovy orange Vertigo logo no doubt helps with this impression — as does the electric blue finish — just like my 1970's toy Matchbox Pontiac Firebird!

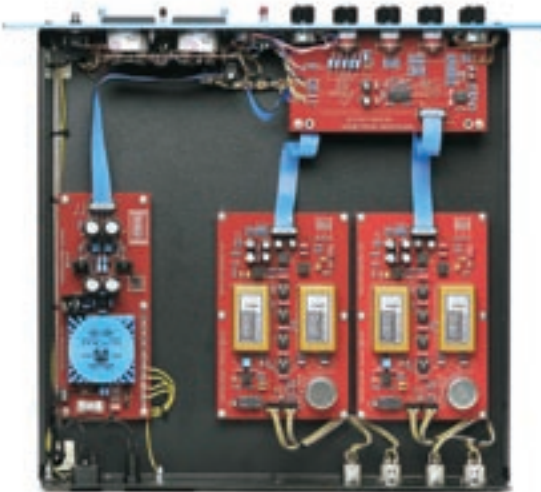
This classic sound is combined with a 'modern mastering grade signal path'. The VSC-2 includes some innovative features that the designers have developed following many years' experience in the areas of sales, repair and modification of high-end vintage audio equipment under the name of HE Studiotechnik. The HE website ([www.hestudiotechnik.de](http://www.hestudiotechnik.de)) is well worth a visit, with many examples of elegant designs, including a huge range of modern racking for vintage Telefunken and Neumann microphone preamps.

The VSC-2 is a deep and heavy 2U case, with well-spaced controls and a logical layout. The manual is yet to be completed, but there is really nothing complex to learn, although there are plenty of interesting features to note. Internally, construction is impressively neat, with high quality components throughout, including Jensen output transformers.

The rear panel is simplicity itself, with clearly legended Neutrik XLR connections for Input and Output. The review model was set for 240V, but internal jumpers can change this to 110V.

Chunky toggle switches with colour-coded ends

switch each channel In and Out, there is a Stereo Link (more of which later) and separate switchable Sidechain Filters for each channel with roll-off at 60 or 90Hz. Power On is a stubby large toggle, and as well as a red LED the custom black meters are brightly illuminated.



Front panel knobs are chunky black metal with a grippy knurled barrel. A minor criticism is that the pointers on the tops don't extend down the barrel, so with their depth it would be difficult to recall exact settings of the Threshold and Make Up knobs. The Ratio, Attack and Release knobs are switched, so no such problem there. The Threshold and Make Up knobs both have an unusual non-linear law, with a broader range of travel at the critical part of their setting. So half of the Make Up range is 0 to +5dB, while the second half goes from +5dB all the way to +22dB. Similarly, the Threshold is set up to seem more usable than most, with a broader travel than expected between -6 and +6dB, making it easier to find the sweet spot. This concept even extends to the metering, where some clever circuitry allows accurate and visible readings over the non-linear scale, with

1dB of compression as visible as 20dB.

Peak-detecting compression can be harsh for vocals, so to this end the designers included an unusual setting. The six-position Ratio knob includes 'Soft' as its lowest setting. This is a unique feature where almost the entire audio range is the knee. So from very low level the ratio gradually increases from 1:1, all the way to 8:1 at around +12dB. With the appropriate Attack and Release settings, this makes a fantastic setting for general recording or processing of individual instruments. Vocals and acoustic guitar in particular sounded wonderfully fluid — controlled in an extremely pleasant manner, with no evidence of pumping, just really natural sounding.

For even more control, the designers recommend chaining the channels, with the first set to Soft and the second to 10:1. Other ratio settings are 2:1, 4:1, 8:1, 10:1 and Brick, which boasts a 40:1 ratio. Usefully, the ratios are stacked, i.e. the threshold shifts depending on the setting, so the amount of gain reduction remains broadly similar when comparing ratios. Attack settings are switched from 0.1 to 30ms, while Release goes from 0.1 to 1.2s plus Auto, the design of which is fairly traditional, broadly similar to that used on the Fairchild 670 and many other designs, with a 'memory' of level so that short peaks are dealt with faster than sustained loud passages. With only six settings each for Attack and Release, setup is easy, but this has already led to customer modification requests for faster or in-between settings, which Vertigo seems happy to do.

In stereo mode, channel 1 becomes the master; the lower row of knobs and both toggles relating to the right-hand channel become inactive. As a stereo bus compressor, the unit excels. Stereo sidechain operation is vastly improved over conventional units — the unique design of this circuit with separate VCAs in the circuit and the sidechain ensures no loss of top-end. The sidechains are never summed, so even with out-of-phase signal peaks the image remains stable, and crosstalk is remarkably >100dB at any frequency and the response goes from 10Hz to 70kHz (-3dB). While we're talking numbers, the dynamic range is an enormous 117dB. Across the mix, the sound is punchy and dynamic, but some settings will pump and it is easily possible to overdo it. The 1979 VCA adds a certain vintage-style colouration as it is pushed, and a pleasant subtle crunchiness begins to occur. I'm always a fan of low-end sidechain filtering, and here it works really well at 90Hz; perhaps an even higher frequency setting would have been useful.

The VSC-2 is one of those units that oozes quality, right from the first time you hear signal through it. The attention to detail in the design of the audio circuitry has paid dividends, and the designers are obviously enthusiasts with excellent ears! The compression can be overly powerful, but with Auto Release and Soft Ratio mode things become more subtle. Quality comes at a price (Euro 3490), but this is a superbly designed and engineered product that I have no hesitation in heartily recommending. ■

**PROS** Fantastic sound quality; high build and component quality; excellent bus compression; unique Soft Ratio mode; ultra-low noise and crosstalk.

**CONS** No barrel pointers on Threshold and Make Up knobs; compression tends towards being heavy and can pump a bit!

## Contact

**VERTIGO SOUND, GERMANY:**  
Website: [www.vertigosound.com](http://www.vertigosound.com)