



FutureMusic



Behringer VC340 Vocoder

£489

Vocoders are back in vogue as Behringer resurrect a classic. Dan 'JD73' Goldman chimes in...

CONTACT WHO: Behringer/Music Tribe **WEB:** behringer.com **KEY FEATURES** Analogue signal path. 3-octave 37-key keyboard with velocity. MIDI in/out/thru, USB MIDI and vocoder pitch/hold via pedal. Pitchshift controls. Upper/lower splitting/layering of vocoder, human voice and string sections. BBD analogue ensemble effect. XLR Mic input. A/R envelope. External instrument input. **DIMENSIONS:** 103 x 649 x 257 mm, **WEIGHT:** 6.6kg



THE PROS & CONS



Nails the classic vocoder, string ensemble and choir tones of the '70s with clear intelligibility and a warm stereo sound

Each section is layered together or split and run through the shimmering analogue BBD ensemble effect

Compact, sturdily built



No reverb or delay (like the original!)

Some may find three octaves too few

No preset storage, and the pitchshift controls can be initially confusing (but certainly authentic)

Back in the late 1970s vocoders were all the rage, with many prominent artists using them to give a futuristic sound to their records. Some used vocoders as an effect to process instruments and enhance voices; some so that they could sing in tune and front their own records and live shows (like Herbie Hancock). At the time, the Sennheiser VSM201 Vocoder along with the Roland VP-330

(1979) reigned supreme in Vocoder-land and while the Sennheiser has long since disappeared (and now fetches crazy prices, mainly as it was regarded as *the* holy grail vocoder), Roland have continued to make solid vocoders through the years with their VP and VT ranges, (though admittedly these days their vocoders are all digital). However, most vocode-heads attribute the highest quality and smoothest vocoder sound to analogue vocoders. Enter then, Behringer, who are now filling the

analogue vocoder gap in the market with their latest keyboard vocoder, the VC340. This new board faithfully recreates the circuitry and functionality of the rare, expensive VP-330 vocoder keyboard.

Behringer have been on fire recently, with a slew of impressive synth releases and their modern, more compact (yet still analogue) renditions of legendary classics continue to cause a serious nostalgic stir for vintage synth addicts. Not only that, Behringer proved with the DeepMind 12 (and esteemed MIDAS

engineering team behind it) that they could make their own unique, great sounding and solidly-built synths, as well as recreations of classics based on classic/vintage tech but with many modern improvements. The VC340 transports you right back to 1979 via the reddish brown side panels, orange livery and pastel-shaded LED buttons.

The unit itself feels surprisingly heavy and is sturdily built into a solid metal case with sloped front panel, laid out in a similar fashion to the VP-330, with the most obvious

THE ALTERNATIVES



Roland VP-03

£275

This is Roland's own recreation of their original analogue VP-330 but using ACB (analogue circuit behaviour) digital modelling to produce the sound.

roland.com



Electro Harmonix V256

£212

Don't be fooled by its small size – this digital vocoder pedal packs a real punch with 256 bands, its own built-in synth with external MIDI control, very clear intelligibility, reflex tune (hard tune) mode and more.

ehx.com



Roland VT-4

£181

Roland's latest compact model in the VT-range adds a proper MIDI input for controlling the onboard synth/vocoder and it also has some very nice built-in delay and reverb effects. It will also run on batteries.

roland.com

difference being that the keybed is one of Behringer's own 3-octave designs (with velocity) and it feels nicely responsive for fast lines and chord playing (though I'd also love an expanded version with a 4 or 5-octave keybed and aftertouch for controlling vibrato in the future). The advantage of three octaves is obviously that it makes the vocoder more transportable for gigs and for flying/travelling with, plus it can sit on a desktop more comfortably too and the keyboard transmits MIDI which lets it slot into most rigs.

Now let's look at what's onboard! First up is the headphone volume control which has plenty of gain, followed by an input level control for any external audio coming into the vocoder. Any audio here will replace the internal vocoder synth and use the external source as the 'carrier' signal instead. Next up is direct mic level which lets you add more or less of your own dry voice into the output. This is handy if you just want to use

one mic on gigs, as you can just push up this slider between songs to talk to the audience and then pull it down once you start playing/vocoding again. Then you have the level controls for the human voice and string sections which let you blend and mix both sections together. The next section is labelled 'vibrato' and is used to impart a natural-sounding vibrato onto your voice while playing. It has rate, delay time and depth sliders which add a handy amount of expressive control – delay time is especially useful as it allows you to add delayed vibrato effects while singing without having to have any

hands on the controls. I wish more vocoders had this feature!

And now the pièce de résistance – the all-important vocoder section. Here's where the magic happens and for classic vocoder sounds this is hard to beat – a faithful recreation of the original. Sure, there's only tone (brightness) and mic input level controls but the circuitry is dialled in just right and it's hard to get a bad sound. It sounds warm, polished and the intelligibility/diction is great, particularly when playing chords. Again, in any expanded or subsequent version I'd like to see a dedicated monophonic/legato mode

The ensemble effect brings the sound to life, adding movement and interest

THE PITCHSHIFT PANEL/VOCODING TECHNIQUES

The intriguing pitchshift panel is simpler than it looks and once again nails the functionality and sound of the classic model upon which it's based. The dial labelled 'short/long' controls the 'swoop' of pitch glide function (so essentially slower or longer portamento). You can automatically glide between notes when the flick switch is set to 'auto' (or use a footswitch to engage the glide when the flick switch is set to off/ext. control). If the flick switch is set to 'manual', you use the horizontal fader to pitchbend upwards to the note/chord you're playing (great for those classic Beastie Boys *Intergalactic*-style pitchbend dives!) In terms of performing with vocoders, the humble Shure SM57 is



normally a great bet for good results (but note that there's no phantom power onboard). Make sure the red peak light next to the mic level isn't lighting and then you're good to go. All the same things apply as if you were singing normally; so you'll need to pronounce words clearly, breathe properly and also be sure to experiment with getting right on top of the mic and moving off the mic for different tones, feels and vibes.

but it's by no means essential, especially as Behringer are trying to stay faithful to the original tried and tested design. Like the human voice and string sections, the vocoder can also be assigned to different parts of the keyboard according to if the lower/upper switches are engaged and the position of the high/low switch. This means you can have vocoder on its own at the top or bottom of the keyboard, or layered with the synth sections or just strings/human voice at the lower split point and vocoder at the high end. It's a pretty flexible system and if you connect a 5-octave keyboard over MIDI you can really explore the full note range. The well-written manual explains things further: "The keyboard split has two positions marked High and Low on the top panel, and this depends upon the setting of the High/Low octave switch. Any Upper switches On will allow the keys above the split to play. Any Lower switches On will allow the keys below the split to play."

Effect-wise there's no reverb or delay present as per the original (again, I hope they make an advanced version at some point) but we do have a rather splendid stereo ensemble effect which uses bucket brigade chips for that lush multi-chorused sound, hard to replicate out of the analogue domain. This sounds super-authentic too (I'd pay for just this effect in its own pedal!) and it works great on all three sections, bringing the sounds to life and adding movement and interest. Although I don't own an original VP-330 myself, I have used one many times and I very much agree with a well-respected fellow player/engineering friend of mine (a VP-330/SVC-550 owner) that the VC340 nails the sound of the originals to the point where he is now considering selling his RS-09 string machine and his VP-330 – high praise indeed! However, even if you don't have access to the originals to compare it to, there's no doubt that this thing sounds on the money (much as Behringer's Model D and the upcoming Odyssey also faithfully recreate the sonics of the originals).

Moving on to the human voice section, this is that classic choir-like/humanoid sound that is instantly recognisable once you've heard it! There are three male settings, each at a different pitch and a female



BUILD QUALITY: ...is like a tank. Solid wood end panels with a full metal case and chassis, along with very nice feeling dials and switchgear

KEYBED: Behringer's own 3-octave velocity-sensitive keyboard uses the same keybed tech as found in the DeepMind 12 and upcoming Odyssey

ENSEMBLE EFFECT: Found on most string machines from yesteryear and uses a multi-stage BBD-based chorus design for that swirling sound

ANALOGUE SIGNAL PATH: There's no mistaking that this is an analogue machine – with that magic tone we all seek in classic analogue gear

setting too, which doubles the 4' male setting but with a more female-like tone. For warm, swirly, analogue, choir-ness then look no further! In this section and the string section you'll also find an amp attack slider for fading in the sounds and there's a shared release slider which also affects the tail of the vocoder's release envelope. Even though it's basic, it's very easy indeed to dial in a great sound.

Finally in the string section, you'll find a tone (brightness) slider plus upper/lower switches like the vocoder section. This classic simplicity is very endearing – because the basic sound is so warm and the panel nicely intuitive, you can just get lost in that '70s psychedelic vibe!

Essentially you are getting three classics in one. A tried and tested vocoder, classic string ensemble sounds and unique choirs/human voice. Use them separately, together

or split across the keyboard and it's hard to not be inspired. As a gigging vocoder, this will really come into its own as you can also cover strings and choirs while simultaneously vocoding, without the need for other keyboards to cover these duties (and I'm all about versatility from my gear these days.) Obviously, if you don't rate your own playing skills (and Herbie Hancock's not your next door neighbour!) you can easily fire MIDI note info into the VC340 via the DIN MIDI connectors or the USB port – integration is definitely a big step up from the vocoders of the '70s!

Let's also not forget the stereo outputs and the pitch shift controls that the left-hand controller provides. Really, this is a nicely complete package that sounds classic but is built to last and works well in the compact modern studio. I applaud Behringer for making what customers have been asking the original manufacturers to make for

years – it's no small job to do this and nail the sound at the same time either; digital recreations, while decent, always seem to lack that last 20% of sonic quality/human-ness that I always find with real analogue. Make no mistake: this is the real deal and I'm genuinely excited about what might be coming in the future from the Behringer labs! **FM**

FM VERDICT

9.4

For a fraction of the cost of the original, you get a killer vocoder, string and choir machine that's compact, well-built and authentic