

REVIEW

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KORG Volca Series

BY FRANCIS PRÉVE

KORG HAS BEEN AGGRESSIVELY EXPANDING THEIR OFFERINGS IN AFFORDABLE true analog synths. First there were the Monotrons, then the Monotribe, then the MS-20 Mini. Now come the Volcas, which are an order of magnitude more sophisticated than the Monotribe and feature real analog sound engines that deliver tangible depth and warmth. There are three flavors: Beats, Keys, and Bass. Beats is a vintage-inspired drum machine, Bass evokes Roland's classic TB-303, and Keys lives somewhere between a straight-up synth and Korg's original Electribe. Each Volca costs only \$150, which means that anyone with \$450 can have a completely analog microstudio that fits in a backpack.

Common Features

All Volcas share the same exterior design, but with different panels. Each has a touch panel for entering notes or drum hits; it's a little wider on the Volca Keys to allow for a chromatic keyboard. All three include the same connectors at the top of the faceplate: power supply jack, MIDI in, voltage clock in and out, and a 1/8" headphone jack. This serves double duty as the main output (monaural, though the jack is TRS stereo).

You get eight memory slots for storing your sequences and each sequence can be one measure in length. There's no pattern chaining for song creation, and given the lack of MIDI output, no ability to export sequences to another medium—to capture your explorations, you record audio into your DAW. In practice, I didn't find this to be a problem.

My only real gripe is that no Volca has any sort of swing or shuffle. A workaround for iOS users is to use Korg's free app, SyncKontrol. In addition to turning your iPhone or iPad into a master clock—

with adjustable swing—by connecting its headphone out to any Volca's sync input, it also provides WIST integration between the Volcas and Korg's iPad synths. Let's look at each Volca in more detail.

Volca Beats

The Volca Beats' sequencing tools are intuitive if you've ever used a hardware drum machine. You can tap in patterns in real time, with sixteenth-note quantization baked in (and impossible to turn off). If you're a fan of step sequencing, you'll love the vintage TR-style interface for programming grooves one drum at a time.

The first thing that grabbed me about the Volca Beats is that it *feels* retro, reminding me somewhat of a Roland TR-909. Like the 909, the Volca Beats is a hybrid drum machine. That is, some sounds are generated via analog synthesis while others are sample-based. This gives the unit a very distinct sound that covers a lot of ground.

The analog side focuses squarely on kick,

snare, a pair of toms, and closed and open hi-hat. Vintage fans familiar with the TR-808 sound will be in heaven here, considering that the kick and snare feature nearly identical tone-shaping features and sound quite similar.

The kick includes three parameters: Click, Pitch, and Decay. From tight, clicky, electropop taps to gargantuan subsonic hums suited to hip-hop and drum-and-bass music, this kick is an absolute crowd pleaser.

The snare features three similar adjustments—Snappy, Pitch, and Decay—making it quite versatile. The core sound is a short, tom-like tone which can be tuned with the Pitch knob. The Snappy knob adjusts the volume of a noise-like component, while Decay governs the overall duration. Personally, I preferred the snare to have lots of snap and a short decay, but if you lower the Snappy parameter to minimum, you can use the snare as a third tom or conga, which is great for subtly melodic grooves.

The dual toms include Pitch for each and a Decay parameter that affects both. These elements absolutely nail that early Roland sound, including the CR-78 and TR-808, and of course, the classic Korg KR-55.

The open and closed hi-hat feature individual Decay knobs for dialing in everything from percussive ticks to those long-ringing ride cymbals. There's also a Grain knob that "tunes" the metallic



aspect of the hat. At medium to high levels, everything sounds fittingly familiar. At its lowest settings, there's a dirty electronic flavor that's well suited to IDM and experimental styles.

On the sample-based side are four sounds: clap, clave, agogo, and crash. Each can be independently tuned via the Volca's PCM knob, and the tuning range is absolutely massive. When set near the middle, each drum sounds appropriate (though the crash sounds more like a human breath than anything resembling a cymbal). At extremely low tunings, the sounds get nasty and bit-crushed—perfect for industrial flourishes. At the top of the range, you get clicks and taps that are fantastic for tech-house top loops.

The Volca Beats includes a stutter effect that's actually much closer to a delay than it is to Ableton's Beat Repeat or iZotope's Stutter Edit, but I'm splitting hairs here. In practice, it's handy for a wide range of effects from tight room reverbs to reggae dub repeats, and it can be applied to individual drums or all of them as a whole.

Once you've whipped up a one-bar groove via either playing or step entry, you can manipulate it in musical ways. To tinker with the sequence itself, you can use the innovative Active Step and Step Jump options, which toggle steps on or off on the fly. Among their many uses is quickly switching from a driving half-bar loop to the full measure and then back. The caveat is that these realtime tricks can't be recorded.

Several other performance moves *can* be recorded. The stutter effect knobs can be played in real time and embedded into your sequence, either globally or on a single drum. Twists of the PCM Pitch knob can be recorded for each of the sampled drums individually. Personally, I loved this option, as it allows for either Kraftwerkian rising patterns or swoopy Sebastien Léger weirdness.

After a few days of playing with the Volca Beats, I had the basis for an entirely new track and a bunch of techy top loops for adding to some of my existing projects. When a product immediately becomes a part of my workflow, I know I have a winner on my hands.

Snap Judgment

IN COMMON



PROS Real analog synth engine. Multiple Volcas can sync via Monotribe-compatible voltage clock. Battery power option. Huge bang for buck.



CONS No MIDI output. No shuffle/swing. Headphone jack is the only audio out.



VOLCA BEATS

PROS Rich and meaty drum sounds, both analog and sample-based. Integrated stutter effect. Sample pitch and delay parameters can be automated.

CONS Some of the sampled drums could stand to be louder.



VOLCA KEYS

PROS Very warm, punchy synth sounds. Tons of knobs for realtime tweaking. Three-note polyphony in certain modes. Integrated delay and ring mod.

CONS Playing polyphonic riffs on the touch-panel keys is a bit tricky.



VOLCA BASS

PROS Brings the vibe of the coveted TB-303 into the 21st century. Three simultaneous note patterns in each groove. Oscillators can be stacked for triad riffs.

CONS No parameter automation. Steeper learning curve than the other two Volcas.



Volca Keys

From the sheer number of knobs covering the front panel, it's clear that despite its tiny size, the Volca Keys is a serious synth. It's polyphonic, to boot.

The touch panel is a 27-note (F to G) chromatic keyboard for inputting your sequences. In a studio, I'd recommend using a full-sized keyboard via MIDI as this really makes the synth come alive, but the touch panel does the trick for mobile composition. The white keys do double-duty for accessing sequencing features and a few LFO parameters.

Programming sequences into the Volca Keys is pleasingly straightforward. There's even a metronome. Unlike with the Volca Beats, you can turn off quantization (Flux mode in Korg parlance) if you have a riff that's more fluid than a standard sixteenth-note pattern.

The Volca Keys' oscillator controls deliver a ton of sonic variety in a very direct manner. For starters, a six-option knob changes the overall oscillator configuration. The "Poly" position puts the unit into single-oscillator mode with three independent sawtooth voices sharing the same filter. "Unison" stacks all three oscillators for big detuned leads. "Octave" and "Fifth" give you a pair of detunable sawtooth waves with the top note an octave or fifth up. The other two modes

offer ring modulation, with "Unison Ring" delivering a Volca version of that Minimoog square wave lead and "Poly Ring" a single-oscillator square that dissolves into madness when additional notes are played.

Each of the six modes interacts with the VCO detune knob in various ways, ranging from subtle thickening to atonal mayhem, especially in conjunction with the ring mod modes. The VCO section also includes a portamento and envelope depth controls.

The Volca filters are based on the ultra-rare MiniKorg 700S, which gives them a flavor that's a bit different from the Monotrons and the MS-20 Mini. It's still a two-pole, 12dB-per-octave affair, but with a more aggressive resonance.

As to modulation, the Volca Keys includes all of the essentials, including an ADS envelope (decay and release are tied to one knob) and an LFO with saw, triangle, and square waves that can modulate both pitch and cutoff with separate amounts for each. The LFO also includes a nifty trick from the Monotribe: You can set it to retrigger with each event, which means that at slow rates with a sawtooth or triangle wave, it can be used as an extra pseudo-envelope. Nice touch.

Like the Volca Beats "stutter" effect, the Keys version includes an integrated delay with

independent control over time and feedback.

Even though it's a digital delay, there's something warm and crunchy about it, like an old-school rack unit. With extremely long times, the highs get duller in a very musical way and with shorter times and high feedback, you can hear a touch of sample aliasing. Purists might complain, but you can always run the Volca Keys through an outboard effect. For my part, I'm glad that Korg left all that crunchy character in place.

Automation is where the Volca Keys blew me away. Every knob, except resonance, oscillator mode, octave and tempo, can be automated and recorded—including the delay parameters. Since the Volcas only support one-bar sequences, that means wiggly, morphing grooviness is baked right in. Little filter moves, LFO sweeps, and bits of delay are a piece of cake and fun to use. This makes the Volca Keys capable of some truly interesting riffs that are absolutely dance floor ready.

As a MIDI synth, the Volca Keys is a fantastic addition to a bedroom studio, and the three-voice polyphony makes it the most affordable analog polysynth for the foreseeable future. As a groove-box, it's irresistible for everything from synth-pop to bangin' electro, especially with its ability to automate nearly every parameter. Overall, the Volca Keys' sonic scope is astonishing.



Volca Bass

With its brushed aluminum front panel and over-all knob styling, the Volca Bass is reminiscent of

the legendary Roland TB-303, with the notable enhancement of having up to *three* synchronized note sequences playing simultaneously through its

filter and envelope—a serious advantage for getting complex synth patterns out of a single box.

It is a bit difficult to get the hang of inputting

sequences. If you devote an evening or two to experimenting, with the manual in front of you, it can be thoroughly mastered. But with so many of its tabs serving double duty, up to three discrete note sequences running at once, and (unlike the Volca Keys) no metronome, things can be a little confusing at first. On the other hand, one of the coolest things about the Volca Bass is precisely that it's not entirely predictable, especially when you add in the ability to slide your finger across its key tabs as though they were a ribbon. This makes those classic "acid" riffs a heck of a lot easier to whip up than on a 303.

The Volca Bass can also stack up to three oscillators on a single note. Each oscillator includes a choice of square or sawtooth, with a dedicated

tuning knob that works as a detune function between 10 and 2 o'clock, plus semitone tuning (up to 12 steps in either direction) outside that range.

If you don't want to stack all three oscillators on a single riff, two alternate options separate the oscillators in unusual ways. One mode stacks the first two oscillators on a single sequence, for detuning effects or interval riffs like major thirds or fifths. The other, mentioned earlier, lets all three oscillators work independently, including their tuning, waveforms, and note sequences. This is just massive bang for buck.

The rest of the synth engine is quite simple, with a resonant lowpass filter processing all three oscillators. Vintage synth fans take note: Like the Volca Keys, this filter is based on the MiniKorg-700S, not the TB-303, so while it's very capable of screeching acid resonance, it's not meant to be an exact clone of the Roland sound. Still, it sounds wonderfully aggressive.

For modulation, an LFO can be routed to pitch, amp, or cutoff. You get a basic attack-decay envelope with switchable sustain (release and decay are tied, like on a Minimoog). The envelope can also modulate the filter cutoff, naturally.

Unlike the Volca Beats and Volca Keys, the knobs on the Volca Bass can't be automated within a sequence. If you want the Volca Bass to play

evolving modulated riffs without twisting knobs yourself, the LFO does a great job when set to a moderately slow rate and applied to the filter.

By turning all three oscillators on, then tuning each to a different note interval, it's ridiculously easy to create parallel chord stab riffs. Tune them to a minor triad with a short filter envelope, and you've got instant Detroit techno. Big fun indeed.

Of the three Volcas, the Bass requires the most commitment. "Intuitive" is not a word I'd use here, but the same has been said countless times about the TB-303, which is still one of the most sought-after vintage synths out there. The Volca Bass doesn't sound exactly like a 303, but it does share the same soul—only with three times the brains. That makes it one of the most exotic sounding analog groove synths ever made. 🎵

Bottom Line

Korg resurrects the groovebox three ways, each with the biggest bang for buck we've ever seen in real analog synthesizers. All are Key Buy winners.

\$182.99 list | \$149.99 street (each)
korg.com

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Download the author's original Volca EDM loops for your own use!

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