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# REVIEW

BY GEORGE PETERSEN

## Vanguard Audio Labs V13 Tube Microphone A great multipattern offering from a new name in microphones

If I were to form a new pro audio company, I'm pretty sure I'd avoid creating studio microphones. There are lots of great tube and solid-state condenser microphones on the market, and the competition is fierce.

However, I should come clean and admit that I am a self-confessed mic junkie; I live by the mantra that "you can never have too many microphones." So when I first saw the V13 from Vanguard Audio Labs—a new company run by a couple of well-known pro audio veterans, dedicated to offering high quality products (the first of which is the V13) at down-to-Earth prices that mere mortals can afford—I was intrigued.

Outwardly, the V13 immediately sets itself apart from the pack, with a large capsule clearly visible under the open-weave, nickel-plated grille and wine-red body and matching power supply. The \$699 package includes the V13 itself, external 120/240V power supply with "chickenhead" pattern selector knob, shockmount, and multipin connection cable, all packed in a custom foam-lined flight case. Vanguard takes the package a few steps further, adding a wooden box housing the mic body for additional protection, an insert in the case foam to accommodate spare (or alternate) tubes, and the matching woven cloth exterior on the power supply cable. See photo 1.

### The basics

The V13 is a large-diaphragm condenser mic with a dual capsule design whose nine switchable patterns, omni through cardioid to figure-8, go beyond the usual selection of two or three choices. The mic body itself has switches for a 10 dB pad, which raises the mic's maximum SPL handling from 134 dB to a ready-for-anything 144 dB, and a high-pass filter with a gentle 6 dB/octave curve and corner frequency of 125 Hz.



The V13 capsule is a 34 mm diameter assembly with a working diaphragm that's 26.4 mm (just over 1") in diameter. The dual front/back capsules employ edge-terminated, gold-sputtered Mylar diaphragms that are a mere 3 microns thick.

### Going inside

Whenever I encounter any piece of gear, my inner geek comes forth and the first thing I want to do is disassemble it and check out the insides. So minutes after getting the V13, I went under the hood. The build quality seems solid and the fit and finish are first-rate. A base plate near the output connector easily unscrews to reveal the internal workings (see photo 2).

Looking inside unveiled a few surprises. The board layout is clean with short signal paths. The electronics take a minimalist approach with barely two dozen components, including high-grade Wima capacitors and a sizeable custom-wound humbucking transformer in a massive mu-metal casing. On the reverse side is a

board with a sturdy 9-pin ceramic tube socket for what would usually be a 12AX7 or a ECC33 dual triode, but not in this case.

The tube circuit used in the V13 appears to be the familiar push-pull triode configuration, but based on some kind of long plate triode—possibly a 12BH7, although the only marking on the tube is a Vanguard Audio logo. Vanguard is not revealing the name of the exact tube, other than to say it is of European manufacture. However, the company does suggest that users seeking to experiment with other tubes for alternate sounds could possibly try 12AX7, 12AT7 and 12AY7 types.

I tried a variety of tubes with the V13. Whether modern or NOS, the 12AX7s seemed somewhat harsh, although I did find an old and well-worn Mullard that actually sounded fairly good in this application.

Compared to the 12AX7s, I had better results with some 12AY7s, yet I kept coming back to the V13's original mystery tube, which provided the best results. My advice is that tube swapping be left to experienced users. The unit should be powered down completely before attempting any such procedures. Also, support the tube socket firmly when changing tubes to prevent snapping off the daughterboard!

### In session

Fortunately, the V13 sounds fine out of the box, and I was anxious to check it out. One nice touch is the included VLSM shockmount, which has an open front design for improved access to the mic in tight placements. It's a well-engineered and highly effective mount that does a great job of shielding the mic from external vibrations while holding the mic very securely without blocking the rear-mounted pad and filter switches. Its mounting thread also works with the commonly-available swivel clamps that come with other condenser mics, opening up other possibilities for working in cramped quarters.

As I expected, changing settings on either the pad or filter switches while the mic was powered up created loud popping sounds. However, I was pleased to discover that any changes to the polar pattern switch were noiseless, which is great for "tuning" into a source or making A/B comparisons while listening. Both the filter and pad switches are marked with laser-etched graphics for the switch positions, a tad difficult to read in dim lighting.

Like most tube gear, the V13 requires some time after power-up to reach thermal equilibrium and allow the tube to stabilize. About 20 minutes is great, but the V13 was at least 95% there at the 10-minute mark. Don't be in a hurry; chill out and take this time to do vocal warmups, fix that awkward bridge, retune that 12-string, or simply meditate to get in the proper mood.

After using the V13 for a couple of months on every sort of instrument and vocal, a few things were apparent. First of all, if you are looking for a mic with a flat, ultralinear response, you will not find it

with the V13. This mic is all about personality, rather than reality. This certainly isn't bad per se; probably the best analogy I can offer is that if you want to know what you *really* look like, check your driver's license picture or any shot taken with fluorescent lighting. It might be reality, but it probably won't be pretty.

On the low end, the V-13 exhibits a smooth warmth around 200 Hz—even more if you push the proximity effect. Be aware that this mic is extremely sensitive to

ideal when used as a distant room mic, while it's tough enough to stand up to close-miked timbales.

Another cool thing about the V13 is that it really encourages users to get out of that "always leave it in cardioid" slump. The mic's figure-8 pattern is very consistent from front to back, and moving a click or two towards the omni setting (away from cardioid) created a wonderful wide cardioid setting that was spot-on for vocalists who tend to move around during the take.

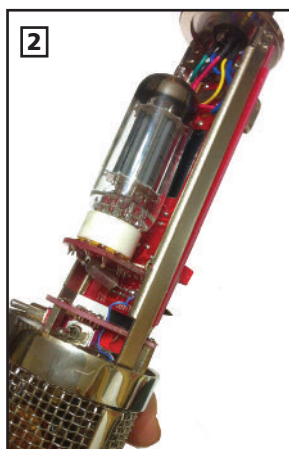


breath noise. The mic's open grille pretty much demands an external pop filter for any close-in vocal work.

The midrange seems to exhibit a slight bump—say, in the +1.5 to +2 dB range—from 2 kHz to 8 kHz, which is just enough to add a subtle emphasis, but without the massive presence boost some other mics exhibit. This was perfect for female vocals, which rarely need that edge, while male vocals might need a touch of EQ to cut through a cluttered mix.

The top end provides a substantial rising high-frequency boost, peaking about +4 dB at 10 kHz. In most cases, this offers a nice edge and sheen, whether on vocals or harmonic-rich instruments like 12-string guitar or acoustic piano. At the same time, this can sound shrill on a low-cost (or poorly played) violin or trumpet. The bottom line? While the mic's response is far from flat (even in omni), the net effect on the right source can be *sweet!*

Interestingly, the V13 claims a self-noise of only 13 dBA—impressive for any tube mic. Combined with the capsule design, the result is a transducer that exhibits a high degree of detail and clarity. True, this mic will capture even the smallest performance nuances, but at the same time will bring out piano bench squeaks, hammer noise, air handling rumble, distant streetcars—you name it. If you have a great recording space, the V13 low-noise/high detail is



### Final thoughts

I used the V13 with a variety of pre-amps, from the precision of a Millennia Media HV-3 to the warm funk of an Altec 1567 to an entry-level Yamaha MG102 desktop mixer, and was pleased with the results. Although each was distinctly different, the mic's character, clarity, and detail remained intact in each instance.

My main disappointment was that I only had one V13 to check out. But at only \$699, that's an issue with a simple solution. I like that.

Affordable and beautiful, the V13 is an encouraging start for Vanguard Audio

Labs. It will be fun to see what new mics will join the V13 in the Vanguard line. ➔

**Price:** \$699

**More from:** Vanguard Audio Labs, [www.vanguardaudiolabs.com](http://www.vanguardaudiolabs.com)

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*George, and the Editors of Recording, would like to remember Glen Helfner of Vanguard Audio Labs, a well-loved stalwart of our industry who died suddenly during the writing of this review. We'll miss you, Glen.*