REVIEWS

DryBell Vibe Machine V-1 Review – Best "Uni-Vibe" Pedal?

By Paul Uhl • November 4, 2015

By Nils Bryant –

Review of: DryBell Vibe Machine V-1

Reviewed by: Nils BryantRating:5On November 4, 2015Last modified:November 8, 2016

Summary:

More Details

An essential, yet often overlooked part of Jimi Hendrix's signature sound was his Shin-Ei Uni-Vibe. Especially live, it seems like it was engaged more often than not (Live at Woodstock and Band of Gypsies come to mind). In my quest to approximate his tone (and that of some of the greats who followed in his footsteps) I've owned a couple of Uni-Vibe style pedals, both accurate clones as well as budget approximations. The best sounding ones were always the most unpractical, since they took up a lot of space on my board, required a bulky wall wart adapter and were relatively pricey, if you even could manage to get your hands on one.

But recently the young Croatian company, DryBell, have managed to fit the actual Uni-Vibe circuit in a standard sized enclosure, without any 'exotic' power needs, a huge waiting list, or a ridiculous price tag. It's been high up on my watch-list ever since the first version was released back in 2011, and I'm glad I finally get to put it through its paces to (finally) find out if they managed all this without compromising that classic sound.

Features:

- Faithful Uni-Vibe circuit in a regular sized enclosure
- 'Intensity' control
- 'Speed' control
- 'Vibrato/Chorus' switch
- 'Bright/Original' (input buffer) switch
- Expression pedal input
- 9-16 volts DC operation (regular center negative boss style adapter only, no battery)
- External trimmers for 'Volume', 'Range' and 'Symmetry'
- Internal 'Output Buffer' jumper switch
- Internal 'Leslie Acceleration' jumper switch
- 'TFC' connection input
- True Bypass (even with input/output buffers engaged)
- Status LED which indicates speed when engaged

Technically the Uni-Vibe belongs to the 'phaser' family of modulation effects, which is why some phasers are (inaccurately) marketed as 'Uni-Vibe' style pedals. **The heart and soul of a true Uni-Vibe circuit are the filament lamp and its four surrounding photocells, which are fairly obscure parts that are expensive to implement.** Regular phasers use cheaper and more consistent op-amps to achieve a similar, but somewhat more sterile sounding result. A setup using a bulb and photocells is relatively crude in comparison, and it's this imperfection that causes a very musical phase modulation paired with some tonal filtering (a fun thing to note is that with the enclosure opened up you can actually see the bulb fading in and out through the back of the PCB).

Sourcing good quantities of high quality reliable photocells is a problem for companies building Uni-Vibe replicas, which is why **DryBell have their photocells custom made and then matched using their specially developed in-house matching process**, improving consistency from unit to unit, something I doubt was done during the production of the original Uni-Vibe.

Technical details aside, the obvious main 'feature' here is the ridiculously small footprint. This is mainly made possible by the use of Surface Mount Technology (SMT) which uses miniature sized components (Surface Mount Devices or SMD) that are machine soldered onto a much smaller (and often multilayered) circuit board. As this technology is getting more affordable, smaller companies are slowly but surely starting to manufacture using this format, which has really kickstarted the 'downsizing' hype. A lot of effort goes into accurately downsizing a vintage circuit like this, as SMD alternatives to the full size components need to be sourced and tested, and obviously the circuit board layout needs to be redesigned to accommodate them.

Going over the usual controls on the front panel we have the regular 'Speed' and 'Intensity' controls (affecting the speed and depth of the modulation respectively), as well as the 'Vibrato/Chorus' switch. 'Chorus' is the classic vibe sound, and 'Vibrato' is a true pitch modulating vibrato. Technically speaking, on the 'Vibrato' setting the dry signal is eliminated, leaving only the modulated signal, which causes a pitch (and slight volume) modulation, but no phasing.

The DC jack accepts anything between 9-16v, but the manual clarifies that due to a voltage regulator circuit (which likely bumps up the voltage to around 16v, like the original) feeding it with different voltages won't affect the headroom.

The DryBell Vibe Machine is a completely accurate Uni-Vibe circuit from what I understand, but they also managed to cram some cool additions in there. The most obvious one being the input buffer ('Bright – Original') switch on the front panel, which raises the input impedance of the circuit when set to 'Bright', preserving the treble frequencies. When it comes to copying those vintage sounds, the high end roll off of the 'Original' setting is generally a good thing, especially these days, with the rest of the signal chain often being a lot brighter due to high quality cables and buffers, etc., but I really appreciate being given the choice, since I'd rather be in control of where in my chain the high end gets rolled off and by how much.

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Next up, there are 3 small holes in the left side of the enclosure. These house tiny trim pots for volume (located on the front panel on the original Uni-Vibe, but not present on a lot of replicas), as well as 'symmetry' and 'range', which would generally be found inside (if at all) and are usually best left alone. They are thankfully impossible to move by accident, but again, I appreciate the extra effort that went into making these more accessible since they might require tweaking at some point.

Moving to the inside, first of all the incredible detail that went into the design becomes clear, as there is absolutely no wasted space. The main internal 'features' here are the two jumpers, one for the 'Leslie Speed Acceleration' which affects the speed control whenever an expression pedal is plugged in, basically delaying its response by slowly ramping up or down to the desired speed, similar to that of a mechanical rotating speaker cabinet. The second jumper switch is for the output buffer, which similar to the input buffer, preserves the high end but also decreases noise, especially when followed by long cables or a lot of unbuffered guitar pedals.

Another noteworthy feature is the expression pedal input. This isn't technically an upgrade since the original Uni-Vibe also had one, but it used a DIN plug, as opposed to a much more common 1/4 TRS connection as used by the Vibe Machine. In my understanding this is where the latest version of the Vibe Machine (V-1) differs from the very first version (serial numbers #702 and lower) which required the expression pedal to be of a specific value (100k Ohms). DryBell really went out of their way to increase compatibility in this area, and the Vibe Machine now accepts any value between 5k – 250k Ohms as DryBell also developed a procedure to calibrate the pedal's range to correspond with the minimum and maximum available settings.

Tweaking the speed while playing is an essential part of the Uni-Vibe sound, but the expression pedal sadly gets left out quite often, even on some relatively fancy Uni-Vibe clones, so **I'm glad to see DryBell not only including an expression pedal input, but also making sure it's compatible with most pedals out there.**

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To effectively use the Vibe Machine's expression pedal functionality, DryBell recommends using a Mission Engineering expression pedal such as the EP-1. (Mission Engineering were kind enough to send us their EP-1, in an eye catching glossy red finish.) Mission Engineering are a household name when it comes to expression pedals, with their units featuring a sealed pot and sturdy metal shell (similar to the standard Dunlop/Vox wah, but with a wider sweep) which makes them infinitely more durable than the common plastic models on the market today. The EP-1 is their standard (10k Ohms) multi purpose expression pedal, and it's compatible with many products out there, ranging from regular analog pedals like the Vibe Machine to more advanced digital pedals and MIDI controlled devices. For those with specific needs, their line-up also features spring loaded and switched versions, as well as product specific models. (Mission Engineering actually made a EP-100K model specifically for use with the DryBell Vibe Machine. The EP-100K is required for early V-1 pedals with serial numbers 702 and below. The EP-1 works with all current V-1 pedals, 703 and above.)

Lastly, there's the mysterious 'TFC' socket, which from what I can tell is a somewhat gimmicky voltage controlled switching system, but at the time of writing there are no compatible products available. In its most basic form this would enable other pedals to engage when the Vibe Machine's foot-switch is pressed, which in the day of MIDI loop switchers seems somewhat obsolete, but I'm just guessing here, as I have no way of trying this feature and confirming that it doesn't have a whole lot of other tricks up its sleeve. Obviously it's not a feature I would have missed, but maybe it's a hint at some of the things DryBell have coming up in the future.

It seems like DryBell experimented with a few different finishes and colors along the way but settled on a nice matte red with high quality print. On the bottom plate, besides the serial number and such, there is also some quick information on the function of the side trimmers and internal jumpers.

Also included in the box were a very thorough manual, which definitely came in handy a bunch of times, as well as a classy dark leather key chain pick holder. Although some case candy is expected with a premium pedal like this, I found it to be a very nice touch.

Visit Drybell.com for more information about the Vibe Machine V-1.

See the lowest price on eBay.

Sound & Performance:

Although it's maybe somewhat of a niche and underused effect, I tremendously enjoyed playing the Vibe Machine, and it's safe to say I did plenty of playing before I started writing this.

There would be absolutely no point in going through the huge effort to resize the circuit if the tone suffers in the process, but I'm happy to report that DryBell really succeeded in recreating the authentic Uni-Vibe sound. It gets that typical liquid throbbing sound which I'm only ever able to nail completely with a true photocell based Uni-Vibe circuit. When played clean, most people quote Pink Floyd's 'Breathe', and it certainly gets that sound when played using a Stratocaster into a clean amp, but in my opinion a vibe doesn't really come alive until it's followed by a driven amp or OD.

Obviously Hendrix is my benchmark for overdriven vibe tone, but for that matter, there are some great relatively unknown players who were heavily influenced by Hendrix and have a Uni-Vibe style pedal as an integral part of their sound. Robin Trower's classic 'Bridge of Sighs' usually gets mentioned, but my absolute favorites are Doyle Bramhall II and Philip Sayce. I'd suggest also checking out the often overlooked but highly influential Frank Marino for great use of a Uni-Vibe in a more hard rock setting.

The original Uni-Vibe was designed to emulate a Leslie cabinet (although it didn't do a very convincing job), so the range of the controls is fairly limited, and its sounds aren't what one would consider extreme by today's standards, ranging from a psychedelic swirl to a relatively fast warble. The most useable settings on the 'Intensity' control are found between 10 and 3 o'clock, and it has to be noted that at any setting past 2, a fairly heavy bass oscillation occurs, which again is inherent to the Uni-Vibe design and depending on the amount of bass present in the rig can be somewhat overbearing.

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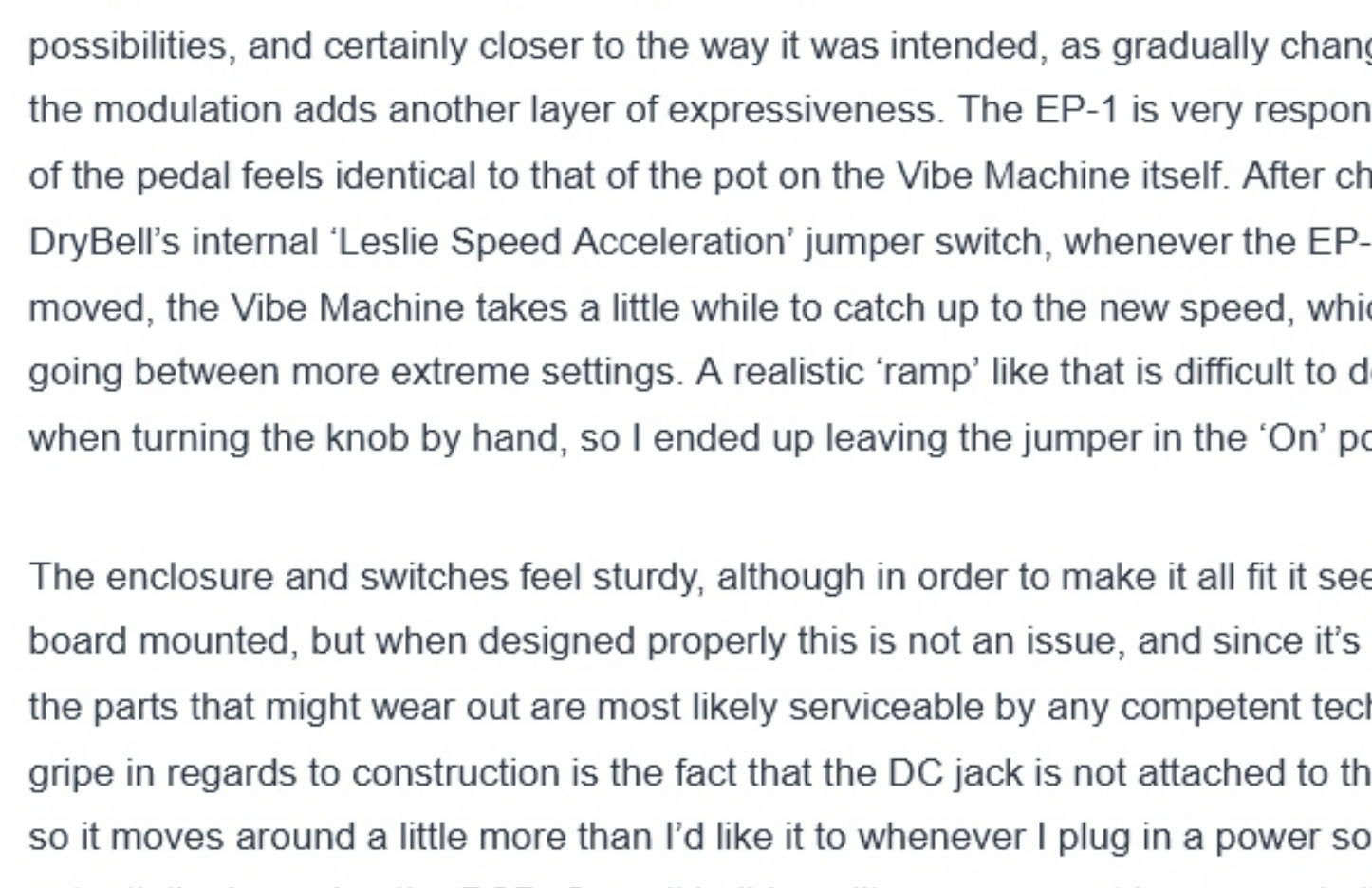
When it comes to the 'Speed' control, a lot of the classic sounds are found with the speed all the way down, at which point its wobble isn't so noticeable, but it's mainly acting as an overall filter, enhancing the frequencies that make the guitar sound a bit more vocal-like, while still adding some nice movement. When set like that it is almost an 'always on' type pedal, and I certainly spent a lot of time playing it this way.

I tend to think the 'Vibrato' setting was perhaps overshadowed by the 'regular' ('Chorus' although it should have technically been called 'Phaser') setting, as most people think of that as the classic Uni-Vibe sound, which is a shame because the 'Vibrato' setting is very useable in its own right. It doesn't require the controls to be set very differently either, and usually just flipping the switch is enough to get a good vibrato sound.

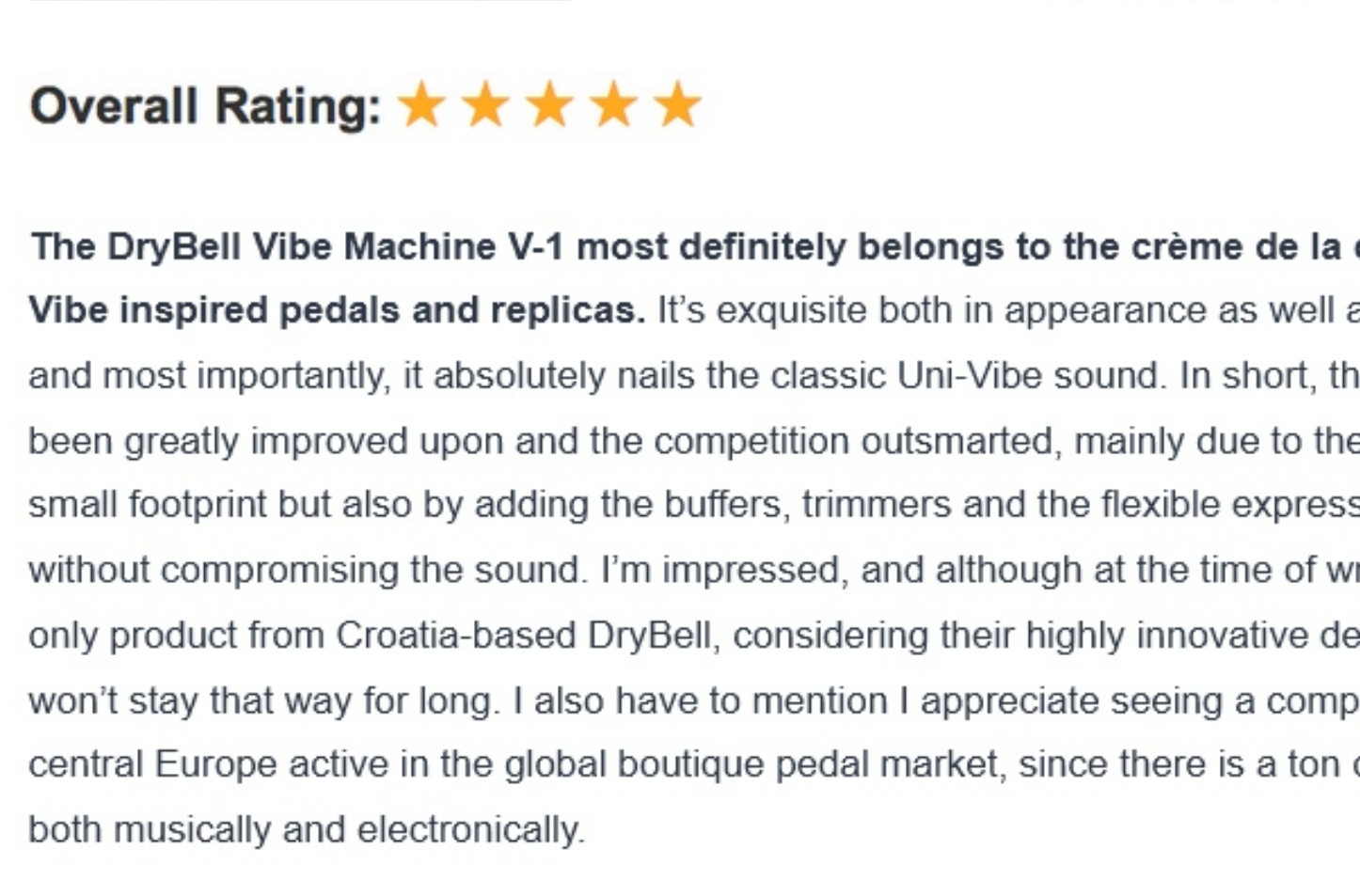
The input buffer surprised me, since it brightens things up without getting shrill or unnatural sounding and this is definitely the way to go with a heavier distorted amp and humbuckers, or some more modern sounding distortion/fuzz pedals. In general I found the Vibe Machine works equally well with humbucker and single coil pickup equipped guitars. All this definitely makes it a suitable vibe for more modern rigs. The output buffer does what it's supposed to do, which could be handy, but in my case the Vibe Machine is rarely ever last in the chain, so I left the buffer out of the circuit as the difference is negligible when used that way. After some experimenting I left the the trimmers that affect the shape of the warble ('Range' and 'Symmetry') set to factory default, as it simply sounds best (and strongest) that way.

As I mentioned before, a lot of classic Uni-Vibe tones are achieved by combining it with other effects, mainly overdrive, fuzz and delay. Pedal order is very important here, and getting the desired result is greatly dependent on the placement of the various gain stages (including the amplifier) in relation to the Vibe Machine. Whenever pedals are placed in front, their high frequency content gets accentuated whenever the phasing is at its peak, which can result in a somewhat shrill sound, but with a strong and clear phase modulation. With gain stages following the Vibe Machine, any clipping tends to either smooth out or completely mask the phasing. All of this seems to be especially true when it comes to fuzz pedals, which often require a lot of experimenting until the perfect balance is achieved. Phase modulation also somewhat decreases the overall volume, so the following gain stages tend to be cleaner than they would be when played direct.



Using it with the Mission Engineering EP-1 expression pedal I mentioned earlier opens up great possibilities, and certainly closer to the way it was intended, as gradually changing the speed of the modulation adds another layer of expressiveness. The EP-1 is very responsive and the taper of the pedal feels identical to that of the pot on the Vibe Machine itself. After changing over the DryBell's internal 'Leslie Speed Acceleration' jumper switch, whenever the EP-1's position is moved, the Vibe Machine takes a little while to catch up to the new speed, which is great when going between more extreme settings. A realistic 'ramp' like that is difficult to do 'manually', even when turning the knob by hand, so I ended up leaving the jumper in the 'On' position.

The enclosure and switches feel sturdy, although in order to make it all fit it seems everything is board mounted, but when designed properly this is not an issue, and since it's hand assembled, the parts that might wear out are most likely serviceable by any competent tech. Really my only gripe in regards to construction is the fact that the DC jack is not attached to the enclosure itself, so it moves around a little more than I'd like it to whenever I plug in a power source, risking potentially damaging the PCB. Overall build quality seems great however, similar to other pedals in its price range. **Besides the impeccable sound quality it really feels like a high-end pedal, from the finish to the feel of the switches and pots**, and I almost feel bad permanently mounting this on my board, where it's going to collect dirt and grime and have to stand all sorts of gigging abuse.



Overall Rating: ★★★★★

The DryBell Vibe Machine V-1 most definitely belongs to the crème de la crème of Uni-Vibe inspired pedals and replicas. It's exquisite both in appearance as well as sound quality, and most importantly, it absolutely nails the classic Uni-Vibe sound. In short, the original has been greatly improved upon and the competition outsmarted, mainly due to the Vibe Machine's small footprint but also by adding the buffers, trimmers and the flexible expression pedal input, all without compromising the sound. I'm impressed, and although at the time of writing this is the only product from Croatia-based DryBell, considering their highly innovative debut, I really hope it won't stay that way for long. I also have to mention I appreciate seeing a company from central Europe active in the global boutique pedal market, since there is a ton of talent out there, both musically and electronically.

That concludes our DryBell Vibe Machine V-1 review. Thanks for reading.

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Nils Bryant