

Excellent high end performer

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http://www.head-fi.org/t/548608/review-vioelectric-v181-balanced-headphone-amp#post_7395114

A Review On: [Vioelectric HPA V181](#)

Pros: Warm, smooth, immediate sound, simplistic design but exceptional build quality

Cons: More inputs might be nice, but that would require a bigger case so I like it as is

INTRO

When it comes to preconceived notions, the HiFi world is full of them. Sometimes they have to do with the way a certain brands sound, or the idea that paying more always results in an audible improvement. Other times it is based on specific technology or materials: tubes versus solid state, analog versus digital, silk tweeters versus metallic. We just %know+that a tube amp will sound warmer than a solid state model, and we just %know+that titanium tweeters are harsh, right? Sometimes this type of thinking can even be applied to encompass entire regions. For example, here in America there was once a notion that audio gear from Japan was inferior. That idea slowly faded away over the years as people got used to quality equipment from companies like Luxman, Pioneer, Sony, Victor, Kenwood, Nakamichi, Sansui, and many others. I believe some people currently hold that view of products from China, despite a large amount of great gear coming from such brands as Little Dot, DarkVoice, Matrix, Cayin, Consonance/Opera, Yulong, Xindak, Shanling, Jungson, Aurum Cantus, and Usher just to name a few. Hopefully we can all see the merit in judging each individual item based on its sound, rather than making assumptions based on materials used or country of origin.

At this point I have to heed my own advice and admit a bias that I've had for as long as I can remember. I have the idea, probably based on a lot of different factors, that stuff from Germany is of very high quality. You can easily see how this bias would develop: in areas as diverse as wristwatches, chocolate, cutlery, and automobiles, the German products that I've encountered have consistently been of very high quality. This experience extends to the realm of audio gear as well, with companies like Burmester, ELAC, Canton, MBL, Sennheiser, MB Quart/German-Maestro, Beyerdynamic, ADAM, Duevel, Ultrasone, and many more. I'm sure Germany produces their fair share of average and even low quality products, but I either haven't encountered them or just haven't noticed. Maybe they don't get exported to my area.

The reason I'm mentioning all this is because the subject of this review is the Vioelectric V181 headphone amplifier. Vioelectric is an offshoot of German company Lake People electronic GmbH. Lake People has been around since the 1980s, and seems primarily focused on studio type equipment. At some point, they started the Vioelectric division to offer high end audiophile gear. So far their lineup has included headphone amplifiers, a DAC, and a phono preamp. Once I experienced the V181 in person it only confirmed my prior opinion of quality German gear. I know I shouldn't generalize but in this case it works.

In the interest of full disclosure, I should tell the story of how I acquired this amp. I was looking for a fairly high power solid state amp, in anticipation of trying a power hungry planar style headphone at some point. I contacted Vioelectric via Email to ask some questions about which amp might best fit my needs, as I was undecided between the V181 and the V200. To my surprise, I received a prompt reply from Fried Reim, president of Lake People. We got to discussing things and he ended up offering me this deal: for the price of one he would send me both, letting me keep the one I like more and send the other back. I would need to review both of them on HeadFi, and of course I was free to be as negative

as I wanted if the situation called for it. I love trying out new equipment so I could not turn down this generous offer.

DESIGN

The Violectric V181 is a solid state headphone amplifier. It sells for around \$1000 depending on the current relation between Euros and US Dollars. The case is what I'd call smallish-medium, being about 6.7+wide by 2+tall, and 8.9+deep. Here are the highlights as listed by the manufacturer:

Features:

- Balanced inputs with gold-plated Neutrik XLR connectors
- Unbalanced inputs with gold-plated ALPS cinch connectors
- switchable unbalanced outputs with cinch connectors
- optional USB input 16 Bit / 48 kHz or 24 Bit / 96 kHz
- PRE-GAIN = switchable input gain in five steps
- Independent-channel design
- DC-coupled (switchable)
- ALPS RK27 High-Grade volume control
- High-Quality op-amps in the signal path
- High-quality MKP capacitors in the signal path
- 0.1 and 1% metal film resistors throughout the unit
- 4 amplifiers with BUF634
- 1 balanced headphone output, Neutrik 4-pin, gold plated
- 2 silver-plated Neutrik headphone outputs
- Relay-based headphone output cutoff
- Toroidal transformer
- Large filtering capacitors in the power supply
- Switchable ground lift
- Rugged aluminium case with Nextel coating
- Solid, laser-engraved aluminium front panel

As you can see, this is a relatively simple design with one pair each of balanced XLR and single ended RCA inputs, a single 4-pin XLR balanced output, and a pair of standard ¼+headphone jacks. There is no switch for selecting between the two inputs, and the single ended RCA inputs get priority when it is plugged in. So basically this is a %one analog input plugged in at a time+type of device. There is an option to make the RCA jacks function as outputs rather than inputs. This requires opening the case and using a jumper to change the configuration. This could come in handy if, for example, if you wanted to use the V181 for headphones at your desk but also send the signal out to a pair of active speakers. I personally have not tried the line out feature.

The user can choose to have one of two optional USB inputs installed for a fairly small fee. Based on the specs and pricing, I assume that the USB DAC options are more for convenience rather than an all out high end implementation. I do see it as a reasonable option (especially the slightly more expensive 24/96 capable choice) for someone who wants to dabble in PC playback, as it might be easier than picking up an entry level USB DAC like an HRT Music Streamer along with an extra set of interconnects. But that's just speculation since I haven't heard it myself. I opted to omit USB as I will be using much higher end stand alone DACs and players.

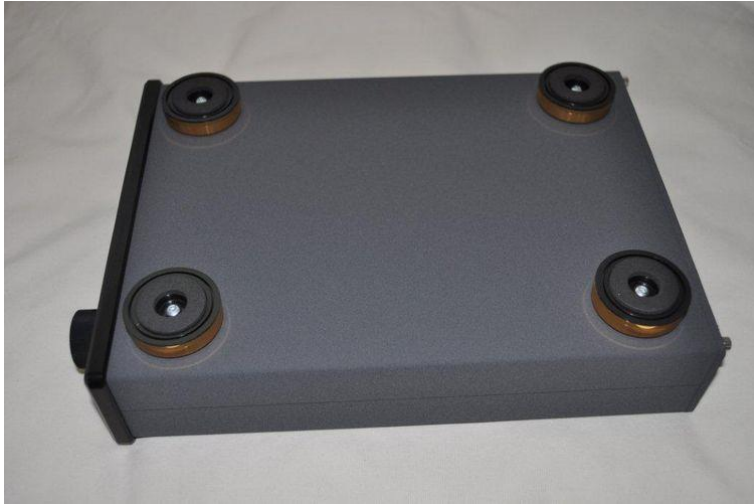


One key feature is the use of what Violectric refers to as **pre-gain** switches. This is a rear panel dip-switch array that allows you to select various levels of gain at the input stage: -12dB, -6dB, 0dB, +6dB, and +12dB. This allows for very precise matching between different components, and ensures that the V181 is always receiving an adequate signal. The end result is that I was able to use everything from vintage CD players, modern high end players, cheap consumer grade players, and even high output pro-market models, with outputs ranging from 1V to 4V RMS, and still get optimum results. This is something that I had never really considered before, but it might be one of those things that contributes to the ever-elusive **synergy** that we sometimes hear between certain components but not others. The Violectric amps, with their pre-gain switches, should be able to pair nicely with anything you throw at them. The amplification stage itself has a gain of +8dB, so combined with the pre-gain options you can have an end result of anywhere from -4dB to +20dB.

According to the manual, when using the unbalanced 1/4" headphone outputs the right phone jack gives out an in-phase stereo signal, while the left jack puts out a 180 degree phase-shifted signal. Some people believe absolute phase to be a huge deal, possibly because they have heard the Stereophile test CD that was specially made for that purpose. I personally don't think absolute

phase can be all that important if it requires very special conditions and test signals just to be mildly audible. Under regular listening conditions, I don't find that it really matters. Many pre-amps and other equipment (even very expensive models) invert phase anyway, so there is no easy way of noticing without a specialized test. If you are shocked and appalled by my attitude on this, just think of the dual jacks as a convenience feature that allows you to always get absolute polarity no matter what the rest of the setup does with the signal.

One potential issue that some people might have is the fact that Violectric employs a set of 4 opamps in the V181. To make matters worse, they use the old NE5534 opamps which are not very well



regarded by those who claim to be opamp experts around here. I asked Fried Reim about the use of these opamps rather than a more exotic model, and I'd paraphrase his answer here: He says he agrees that some opamps sound better than others in certain instances. But this is only true for situations where the opamp is more critical, such as filters or in high gain applications. In the case of the Vioelectric amps, the opamps are basically doing impedance matching and other very low gain tasks, so using a better+

opamp would not result in a tangible benefit. He still decided to make them socketed so users can easily replace them with more expensive options. He says that they have sold hundreds and hundreds of amps and have yet to receive a single report of a customer achieving better sound through opamp rolling. I completely agree with his philosophy; if the NE5534 is still good enough to use in expensive, high precision test equipment like the Boonton 8201 THD analyzer, then I don't object to Vioelectric using them under these circumstances. Still, I know this is HeadFi, and when I have decided which amp I am keeping I will open it up to replace the opamps just to see if I personally can hear a difference. If so I will report it in this thread.

I should list the power spec ratings before I move on, as they are fairly impressive:

Output Voltage in 600 Ohms	20.2 V
Output Power in 600 Ohms	680 mW
Output Voltage in 100 Ohms	16.6 V
Output Power in 100 Ohms	2700 mW
Output Voltage in 50 Ohms	10.2
Output Power in 50 Ohms	2100 mW
Output Voltage in 32 Ohms	7.9 V
Output Power in 32 Ohms	1950 mW
Output Voltage in 16 Ohms	4.5 V
Output Power in 16 Ohms	1250 mW

As you can see the V181 has enough power to drive just about anything out there. It might not be packing quite as much juice as the new Schiit Lyr (except into 600ohms it is) but it should still be plenty. Note that these figures are for balanced operation. Fried tells me that you will achieve 6 dB less voltage and about 3/4 power when using single ended headphones, which still puts the V181 on the higher end of the scale when it comes to powerful amps.

BUILD QUALITY

Looking at pictures, you can see that the V181 appears well built and fairly simple. It wasn't until I actually had the unit in my hands that I realized how nice it really is. From panels to knobs to buttons, everything looks and feels precision engineered for quality. It's hard to even put to words, but there is a sort of understated elegance that makes the V181 just seem nicer than most of the amps I've owned. Sitting next to gear from Luxman and Lexicon, the V181 does not seem out of place at all. This is not something I had expected based on the pictures. Even simple operations like pushing the power



button or adjusting the volume feel like examples of fine German craftsmanship.

Functionally, the V181 is about as good as it gets. Channel balance sounds completely perfect to my ears, and there is no static, hum, or background noise to be heard anywhere. This inky black background really contributes to the dynamic sound of the amp, as I'll discuss later.

PACKAGE

My package arrived very quickly from Germany, which I'm told is rather unusual. Apparently some people have been forced to wait weeks or even months due to customs and other issues, though no fault of Violectric or the customer. So I was happy to see my box arrive quickly and in great shape.



As seen in my photos, the exterior of the box was sealed with a special Lake People+labeled packing tape. Inside the outer box I found 2 smaller boxes containing the amps. Each amp was packed snugly inside a cocoon of foam, which almost looked like it could be used for room treatments in a home studio. Again, see the pictures to understand what I mean. Because

Lake People took such care in protecting their product, it seems much less likely that it would be damaged during the long journey overseas.

Inside the box I found the amp itself, a fairly informative user manual, and a heavy gauge power cable. Nothing more is really required and therefore nothing more is included.

EQUIPMENT

This is the gear that I used during my evaluation of the V181:

Source: Lexicon RT-20 universal disc player, dedicated music server fronted by a Squeezebox Touch

DAC: Anedio D1, Yulong D100, Audio GD Reference 7

Headphones: YHD600 custom Ortho (more on that later), AKG K701, Lawton Audio LA7000 Lite, Sennheiser HD800, AKG K240DF, JH Audio JH13pro, 1964 Ears 1964-T, LiveWires Trips, Kozee Infinity X1, Ultrason Edition 8, Westone AC2

Amps (for comparison): Luxman P-1u, Matrix M-Stage, DarkVoice 337SE, Yulong A100

Special note: I first tested the amp single ended through the standard RCA inputs and using standard single ended headphones, of which most of my collection is comprised. I later switched to balanced mode using either the Yulong D100 or Audio GD Reference 7 DACs, which both feature true balanced operation. My only balanced headphone is a custom made Ortho which I have named the YHD600. It consists of a Yamaha YH-1 Orthodynamic driver, expertly damped and placed inside the frame of a Sennheiser HD600 in sort of a semi-open configuration, recabled with a balanced custom cable made from Furutech 6N PCOCC wire (not that I think it matters much) and terminated with a 4-pin Neutrik XLR. I also have a stock HD650 cable to swap back and forth between single ended or balanced operation using the same source and headphone with the V181.

The V181 was burned in for well over 100 hours prior to listening. That's to make sure it worked properly, and to deter any complaints that might have resulted if I had listened to the fresh unit straight from the box. Although I don't believe in burn in, this has become standard practice for me. Cables used were mostly Blue Jeans and other similar brands.



DISCLAIMER

These are just the impressions of one guy. I do these reviews for fun, not profit, and I don't claim to be any special authority. Many people have agreed with my assessments of other gear but some have also disagreed, and I totally respect that. We all hear differently on a physical level and we all have different preferences as well, so I think it almost impossible for one person's impressions to apply to every other person. As with all my reviews, I hope you enjoy reading them and I hope they help our hobby to some extent, but I don't pretend that they are anything more than my opinion.

LISTENING

My first listening was done in single ended mode. I plugged in my Lawton LA7000 Lite headphones (one of my current favorites) and settled in for a few hours of uninterrupted music enjoyment. Right off the bat I could tell that the Vioelectric had more in common with my DarkVoice 337SE than my Yulong A100. Since not everyone has heard those particular models, I'd say that the V181 is closer to a Burson HA-160, Purity Audio Caliente, or Singlepower amps in general as opposed to a Meier Concerto, Blossom Blo-0299, or iQube. Another illustration would be that the V181 is closer to the Graham Slee Solo SRGII with PSU1 upgrade than the original SRG on wall wart power. I wouldn't call it %dark+at all, but it is certainly warm and punchy.

Wondering if this was due to the admittedly full sounding LA7000, I continued my listening using some more neutral or even lean sounding headphones like the AKG K701, Sennheiser HD800, and AKG K240DF. While not completely transforming the fundamental nature of these headphones, I felt that the V181 did give them a very slight boost of energy. This was not limited to the low frequency region either, but seemed to extend from top to bottom. I don't think I've ever heard the 600ohm K240DF sound quite as dynamic as it did pushing it with the Vioelectric. My DarkVoice 337SE comes close though.

Breaking it down to the various aspects: Lows were exceedingly clear and impactful, with bass drums exhibiting seemingly bottomless extension. Double bass and bass guitars sounded similarly rich; with this amp I could listen to Cecil McBee play a two-note ostinato for an entire album and never lose interest. The key factor though is that this is not, strictly speaking, what I would refer to as a %bassy amp+. There isn't much of an actual increase in bass per se, but rather a more accurate rendering of what is really there. Vioelectric presents the high damping factor of their amps as one of the strong points of the design. With the V181, I believe output impedance is .2ohms. I realize there are opposing viewpoints with regards to how important damping factor actually is. I find Dr. Floyd Toole's conclusions (dating back the 1970s) pretty convincing, but I do wonder if the use of headphones instead of full sized speakers makes any kind of difference. Probably not. But even so, at the very least a low output impedance minimizes the interaction of amplifier and headphone for smoothest voltage delivery and ensures it will deliver the maximum possible power under the given circumstances. But getting back to the sound: whatever is causing it, this amp delivers some of the best low frequency performance I've ever heard. If you're into that sort of thing.

When you have excellent low frequency performance, the midrange often suffers. This is usually an artifact created by boosted lows, resulting in the impression of recessed mids. The V181 does not have that problem. Mids are highly engaging, with a lifelike clarity that makes good recordings seem like the artists are in the room playing for you. That's assuming of course that you pair it with a headphone capable of doing so. Stringed instruments had a rich texture, allowing you to hear more than just the string on the bow, but rather the entire body working to create sound. Piano was similarly complete, with the initial attack of the felt hammer as well as the vibration of the string and eventual decay all sounding organic and %real+for lack of a better word. Voices had that same lifelike quality:

from breathy, intimate female voices like Jacintha and Julie London to the Taylor brothers (James and Livingston) with their soulful yet distinctly different styles, the V181 put the performance right there in the space with you. I don't describe mids as transparent, full, and very smooth, but I don't know if the word "liquid+quite" applies here. Depending on your definition of the word, liquid mids could be considered a bad thing with regards to ultimate detail and transparency. That's one of my only complaints about my DarkVoice 337SE; I feel that it sometimes glosses over subtleties in favor of that tube liquidity. It sounds great, but isn't completely accurate in that regard. The Luxman P-1u seems to get the balance just right, and the V181 is just a step behind. That's not bad company to be trailing.

Highs were also very well balanced. As a drummer I find cymbal sounds to be a great test for audio equipment. I don't want them splashy, edgy, or harsh, but at the same time they can't be too recessed or smoothed over, lest they lose their realistic dynamics. It's actually a very difficult thing to capture the full weight and impact of a crash cymbal without any unpleasant artifacts. Once again the V181 didn't quite wring out the last bit of detail as the Luxman did, but it wasn't all that far behind. It seems like Violectric sort of errs on the side of caution here; it chooses to omit a tiny bit of information rather than presenting it in a less than perfect manner. Don't misunderstand though; highs had plenty of shimmer and sparkle, enough to satisfy all but the most die-hard treble fan. It just isn't the main focus here.

In the area of soundstage, I found that the V181 was slightly smaller than I was used to with my Luxman or DarkVoice. To be fair, those are 2 of the most expansive sounding amps I've ever heard. The Violectric was nicely layered, with a clear sense of space and very precise imaging. It also had good depth. As I listened more, I started to appreciate this presentation for what it was . direct, cohesive, and very fun to listen to. I don't mean to imply that the soundstage is small by any means. As with the highs, it just isn't the focal point. This "directness" makes it very engaging. This might sound like it would be fatiguing, but coupled with the warmish tone and smooth highs I never had a problem. This intimate soundstage performance was something of a mixed blessing for classical music. At times the scale and grandeur of the recording would feel a little compressed. But in many other instances I really enjoyed the "small hall" feel, giving a sense of fine detail and presence that would be diminished through my DarkVoice. I guess those are two sides of the same coin, as I've both praised and cursed the DarkVoice for the way it stretches everything out to the extreme.

Performance on the V181 was very high in single ended mode. Switching to balanced operation, I felt like it improved by a small but noticeable amount. Specifically with regards to soundstage, it seemed to open up considerably while somehow maintaining the same focused perspective. If I ever felt a bit constricted in single ended mode, switching to balanced would clear the problem right up. Bass also seemed to have just a hair more drive and punch to it and there was an increased sense of ease to the whole presentation, although that could have been my imagination.

These improvements were consistent when using the Yulong D100 and Audio GD Reference 7 DACs in balanced mode. It's hard to say what exactly caused the improvement though; the balanced DAC operation, higher amplifier power output in balanced mode, or some might even say the better headphone cable. I would have loved to have the time to shuffle all of my balanced players in and out of the setup to see which showed improvement and which did not. Maybe one of these days.

Another observation has to be made about the power on tap here. My custom made YHD600 Orthodynamics are probably one of the most difficult to drive headphones around. I put them roughly in HiFiMan HE-6 territory in that respect. The V181 drives them with more authority than any amp currently in my possession, especially when balanced. They have gone from a nice little creation to actually one of the best headphones I've ever experienced. I need to hear some of the other new planar headphones to see how they compare. I know higher power numbers don't necessarily make for a better amp, but it seems Violectric has hit a good balance between quantity and quality.

CONCLUSION

The first notes I scribbled during my initial listening session were %dynamic, clear, powerful, immediate+. I could basically have stopped right there, as that is a nearly perfect approximation of what I feel the V181 sounds like. If you were a tube amp person looking for a solid state amp (for whatever reason), the V181 would be a great choice.

Among all the amps I've heard, I would rank the V181 on the bottom end of the upper tier. By that I mean that it is not quite on the same level as the Luxman P-1u, Eddie Current Balancing Act, or a well done Beta 22. But side from those types of high priced %titans+, I think the V181 matches or even outclasses many other excellent amps in its price range, including the SPL Auditor, DarkVoice 337SE, and the Meier Concerto. Just don't ask me for direct and detailed comparisons as I'm only going by memory on some of those. Certainly all of these amps have their own strengths and weaknesses, but for me the Violectric is the best choice. I remember enjoying the Auditor with high impedance headphones but felt it was not a very good performer at all with lower impedance models. And Concerto, while sounding brilliant with many headphones, doesn't seem to have a ton of power, and can be a bit too analytical at times. The DarkVoice matches the power and gusto of the V181 but lacks a tiny bit of detail, being somewhat darker. The V181 solves all those problems for me, while retaining enough of the core strengths of those other models as well; a very difficult balance to achieve but I think Violectric has done it.

One issue with an amp in this price class is the question of value. To be sure, buying a German product brings with it a higher price compared to something made in China. Pricing on high end equipment is always a tough discussion anyway. It could be said that the V181 reaches a point at which spending any further only nets you a very small ratio of performance per dollar. Then again, budget offerings like the Matrix M-Stage and Yulong A100 are hard to compete with from a value standpoint. For those on a budget, the M-Stage and A100 remain my top choices. Despite that, I can say with confidence that the extra \$600-700 increase from those to the V181 buys you a lot more than the extra \$2000 required to jump from the V181 to the Luxman P-1u.

In the end, I think the greatest strength of the V181 is that it has no major weak points. Although it isn't the best at everything it does, it is easily in the top 10th percentile or higher in every category and is only exceeded in all around performance by a few very expensive competitors. The one area where I have slight reservations is with regards to the soundstage, which might not be for everyone. I personally really enjoy the presentation but I can see how some would not, at least with certain music. Again, running in balanced mode alleviates that concern.

Overall I highly recommend the Violectric V181 as a versatile performer and a great product in general. It isn't cheap but it is a good value for the price. I'll follow up with a comparison to the V200 when I review that model next.