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Product Review

Audio Research VS115 Stereo Amplifier

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November 2008



Audio Research occupies a unique position in high-end audio — they helped invent it. When most other manufacturers were rushing to produce equipment with transistors, then the current fad, Audio Research moved in the other direction and developed equipment with vacuum tubes. Fortunately, anyone who actually listened to products (as opposed to just measuring them) like the tubed SP3 preamp could easily verify that there was a lot of life left in tubes. And Audio Research can still repair any product made during the company's over 30 years of existence. Sometimes, if parts are no longer available for older products, Audio Research will develop upgrade packages to replace failing parts with new, modern counterparts. So if your venerable SP3 is showing its age, you can have it upgraded with better parts, improving its performance and extending its life for quite a while longer. Talk about customer support!

I have used several Audio Research products over the years: an SP9 Mk III preamp, a D90B amplifier, and, currently, a PH5 phono stage and an LS26 line stage. None of them ever broke down or made any untoward noise, and they all sounded great.

The VS115 reviewed here is one of the latest stereo amplifiers in Audio Research's product line, replacing the VS110. The \$6495 USD VS115 uses the hybrid circuit currently favored by Audio Research for its non-Reference equipment: JFET inputs followed by Sovtek 6H30 tube drivers. Output tubes are Audio Research's long-favored 6550Cs, specifically Winged C-brand tubes from Russia. There are eight of them to be exact, or four matched pairs.

The VS115 is rated at 120Wpc into 4 or 8 ohms. The amplifier needs to see 1.6 volts into either its balanced or unbalanced inputs to produce its rated power output. Input impedance is 150k ohms unbalanced, or 300k ohms balanced. Neither figure should pose any problem for a decently designed preamp, although the sensitivity may be low for passive preamps. The amp does not invert polarity. Noise is extremely low: 0.2 millivolt, or 104dB below rated power. There's a slight hum when you first turn on the amplifier as the capacitors charge, but it goes away after about 30 seconds.

Review Summary

Sound

"Agile and tuneful, even bouncy.... Its graceful, non-stressful presentation drew me into the musical experience and make me want to stay put in my listening chair." "Bass with the VS115 had tangible weight and power, so that the bottom octaves provided a strong foundation for the musical structure," "but the VS115's true strength lay in the all-important midrange." "It wasn't so much that the VS115 revealed previously unheard detail in familiar recordings, but rather that it presented the detail as more clearly integrated into the whole performance so that it made more sense."

Features

"The \$6495 USD VS115 uses the hybrid circuit currently favored by Audio Research for its non-Reference equipment: JFET inputs followed by Sovtek 6H30 tube drivers. Output tubes are Audio Research's long-favored 6550Cs, specifically Winged C-brand tubes from Russia. There are eight of them to be exact, or four matched pairs."

Use

"Also on the rear panel is a series of contacts for measuring the bias setting of each pair of tubes. When you replace tubes, which must be done in matched pairs, you can use a digital volt/ohm meter to set the bias correctly. That sure beats opening up the amplifier and measuring the bias across the tube pins, exposing yourself to lethal voltages."

Value

"The S-30 Mk III, at roughly \$3000 less than the VS115, certainly holds its own, but the Audio Research amp has sonic capabilities that the Atma-Sphere amp can't match."

The VS115 measures 17 1/2" wide by 8" high by 19" deep and weighs in at 62 pounds. Connectors in the rear extend almost another inch. Unless you have a huge equipment rack, plan on using a separate amp stand. Audio Research amps have

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traditionally been designed with a full-height front panel and a chassis that encloses the circuit boards, tubes and transformers, but the VS115 has a layout that lets you see the full tube complement. It's a more traditional tubes-in-front-and-transformers-in-back layout, and I like it. If I pay for tubes, I doggone well want to see them! Ventilation holes between the left- and right-channel banks of output tubes promote cooling air flow. There is a brushed-aluminum panel on top of the chassis through which the tubes protrude. The panel reaches from the front edge back to the transformers. This open design may expose the tubes to curious pets and children, but it also makes replacement easy when the tubes expire.

The on/off switch is up front and squarely in the middle of black chassis, exactly where it belongs. A soft green LED above it tells you if the amplifier is turned on. In the rear, there are both balanced XLR and unbalanced RCA jacks at the outer edges of the chassis. Just inside the input jacks on both sides are the speaker terminals, with connections for 4- and 8-ohm speakers. A 20-amp IEC connector is in the center of the back panel. It differs from the standard 15-amp connector, so your power cords may not work without modification. Fortunately, Audio Research provides a really hefty-looking power cord, so there's no need to rush out and buy an after-market cord. "The 20A cord we use simply sounds better than the 15A version" was Audio Research's reasoning here.

Twelve-volt jacks let you turn the amp on and off remotely (as if you'd want to do that). Also on the rear panel is a series of contacts for measuring the bias setting of each pair of tubes. When you replace tubes, which must be done in matched pairs, you can use a digital volt/ohm meter to set the bias correctly. That sure beats opening up the amplifier and measuring the bias across the tube pins, exposing yourself to lethal voltages. On top of the chassis behind the three transformers is a series of capacitors used in the power supply. Choosing to use several small capacitors instead of a few large ones, Audio Research again focuses on the sound: "We use them because we have found that large quantities of small caps usually sound better than small quantities of large caps."

In spite of using eight output tubes, the VS115 doesn't run especially hot. That suggests the tubes are run conservatively and should last a long time. Although 6550C tubes aren't excessively expensive (a quick scan of several online vendors showed prices for current production-tubes between \$65 and \$70 for a matched pair), you need a total of eight, so the total cost would be \$260 to \$280. The 6H30 tubes cost about \$30-\$35 each on the open market. Of course, Audio Research keeps large stocks of all the tubes it uses, and burns them in and tests them before shipping them to customers, so there shouldn't be any unpleasant surprises if you get your tubes from Audio Research.

Setting up the VS115

Because I had to return the aptly named Audio Elegance amplifier stand after its review, I placed the VS115 on a slab of butcher block that was designed to be used as a tabletop. The VS115 produces a respectable output, so it can drive a wide range of speakers. I mostly used my Opera Audio M12 speakers for the review, because they will handle up to 250 watts, but their 97dB sensitivity didn't stress the VS115 much at all. I briefly borrowed a pair of the amazing Usher Be-718 minimonitors, which we reviewed in October 2007 and which I regard as one of audio's

greatest values. With a measured sensitivity of 83dB/W/m, they need some real power to drive them.

The preamp was Audio Research's LS26, which is the logical partner to the VS115 in Audio Research's product line. If you don't want to spend the bucks for Audio Research's stop-of-the-line Reference-series gear, the LS26 and VS115 are one step down and \$7500 cheaper than the Reference 3 and Reference 110. Unsurprisingly, they complemented each other's sound very well. I doubt you'd hear the full capabilities of the VS115 through another preamp.

Audio Research recommends 600 hours (!) burn-in for all of its gear, but Dave Gordon, the company's head of North American sales, suggested that the VS115 would sound close to its best after 200 hours, so that's when I began listening critically. However, the amp actually sounded quite good right out of the box, with only a little time on it for our measurements. Like any tube equipment, it needed to warm up 20-30 minutes to stabilize, and it continued to improve sonically for another 30 minutes or so.

After trying numerous combinations of cables, I elected to use Audience Au24 e interconnects, and speaker cables. For the Usher Be-718 speakers, I needed a biwire speaker cable, so I borrowed a massive Blue Marble Audio biwire speaker cable, which turned out to be a splendid match.

Interconnects were all balanced. I refuse to argue about whether balanced or unbalanced interconnects sound best, but I tend to think that components whose internal circuitry is fully balanced sound a bit better connected balanced. I used the stock power cord for the review, but having an Audience powerChord e with the requisite 20-amp connector, I couldn't resist trying it. This power cord provided a different view of the VS115's performance. With the Opera speakers, the powerChord e's bass seemed almost too prominent (I can see the bass lovers among you thinking I've lost it), and I preferred the bass with the stock power cord, but with my MaxxHorn Lumination speakers, the extra weight of the powerChord e was appreciated. The sound with the powerChord e seemed less noisy than with the stock cord, so that the sound emerged out of a blacker background. At first, I thought the high frequencies had been attenuated, but when I listened to CDs with extended high-frequency content, the highs were still there — the high-frequency *noise* was gone. As a result, the powerChord e produced more vivid tonality and additional clarity.

Sound

If you look at my reference equipment, you'll see that I concentrate on low-power amplifiers and high-sensitivity speakers. I wondered, therefore, if the VS115, with its substantial power output, would sound a bit slow and lugubrious compared to the sound of my reference amplifiers. Ha! — not even close. It proved agile and tuneful, even bouncy. Some (not all) solid-state gear has a bit of an edge and a harmonic structure that sounds slightly threadbare. The VS115, like all Audio Research equipment I've heard, is the antithesis of that. Its graceful, non-stressful presentation drew me into the musical experience and made me want to stay put in my listening chair.

Also in common with the current Audio Research gear I've heard, bass with the VS115 had tangible weight and power, so that the bottom octaves provided a strong foundation for the musical structure. Chris Jones's "God Moves on the Water" from his

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CD *Automobiles and Roadhouses* (Stockfisch SFR 357.6027.2) opens with a strong figure from the bass guitar, and the VS115 reproduced it with the greatest power I've heard from my speakers.

At the other end of the audio spectrum, the treble was extended but totally smooth and free from peakiness. The high chimes that open Jennifer Warnes' "The Panther" on the CD *The Well* (Cisco SCD 2034) tinkled forth with as much detail as I've heard them, but they weren't at all peaky. But the VS115's true strength lay in the all-important midrange. The vocal group A Sei Voci's sound on Allegri's "Miserere" on the eponymously titled CD (NaÖve E8909) was pure magic. Voices spread across the soundstage naturally and were quite precisely located. The soundfield of the recording venue — a church — was expansive, revealing the room to be moderately large and rather reverberant.

The VS115 didn't favor one part of the note, such as the opening transient; rather, it portrayed the entire note — from opening transient to the sustained harmonic structure to the decay — as well as I've ever heard it done. That means its rendering of a musical event — *i.e.*, a song — was more realistic than with any amplifier I can recall hearing in my system. It's one of those things you don't know exists until you hear it. My reference amplifiers are all decent-sounding, well-respected models, but the VS115 just sounded more realistic.

Some amplifiers deliver startling dynamics by driving huge transient pulses into the room. While that may be exciting as a hi-fi occurrence, sometimes those dynamic pulses don't really sound much like a live musical event. The VS115 treated dynamics a bit differently. Although capable of fast transients when the music called for them, it presented dynamics in a musically natural fashion. I heard not only initial transients but also plenty of vocal and instrumental detail throughout a musical climax. It wasn't so much that the VS115 revealed previously unheard detail in familiar recordings, but rather that it presented the detail as more clearly integrated into the whole performance so that it made more sense. The VS115 didn't prettify the sonic picture, didn't make the sound "musical," which is audiophile-speak for rolled-off, muddy sonics that mask annoying parts of an inferior system's sound. Poor-quality recordings sounded poor, but average or good recordings sounded uncannily real, which made them more fun to hear.

Driving the insensitive Usher Be-718 speakers showed a different side of the VS115: its ability to deliver raw power. These speakers need some serious juice to give their best sonic performance, and with the VS115 it was readily available. In my largish listening room (23' wide by 20' deep by 12' high), the Be-718s and VS115 produced tons of undistorted volume and a surprising amount of bass that went far deeper and with more impact and weight than I'd expect out of a stand-mounted speaker with a 7" woofer and a tube amplifier. Through the Be-718's beryllium-dome tweeter, the VS115 produced high frequencies that were oh, so smooth but replete with musical detail. Tonal accuracy was particularly noteworthy; instruments sounded unusually correct and vocals were easy to understand. Musical detail seemed to come together at the right time and in a realistic soundstage. I suspected that the Audience Au24 e cables, which focus on getting that aspect of sound right, made a significant contribution.

The MaxxHorn Lumination speakers are completely different — very sensitive (a claimed 103dB/W/m) horn-loaded speakers I reviewed a few months ago and subsequently purchased. Because of their low power-handling capability, specified at only 15 watts RMS, I was apprehensive about using them with the VS115. But after the US distributor for the Feastrex drivers used in the Luminations told me the speakers will handle quite a bit more power than their rating suggests, I had to give amp and speakers a try. The result? Possibly the most gorgeous reproduced sound I've ever heard. The ability of the VS115 to reproduce a coherent, organized musical picture proved a terrific complement to the MaxxHorns' temporal coherence. Together, they produced some of the most real-sounding reproduced music I've experienced, and not in a sterile, analytical fashion. Listening to "Miserere" was incredibly moving; although I had meant to sample only a part of the piece, I literally could not bring myself to move until the last note faded into silence, and then I sat there dumbfounded that recorded music could sound so beautiful. Jennifer Warnes' voice sounded as realistic as I've ever heard it on "The Panther." I've heard this recording zillions of times, but never has it portrayed such a real-sounding voice in a real space. And so it went with recording after recording.

Because the VS115 had produced powerful, tight bass through the Opera and Usher speakers, I expected it to do the same with the MaxxHorns. Although the sound was fast and detailed, it was also a bit lean, as though the VS115 was overcontrolling the speaker. I've heard several amplifiers, including the Art Audio PX-25 and a prototype solid-state amplifier from David Belles, that produced much weightier bass from the MaxxHorns, so I know it can be done. But aside from this one cavil, the VS115 and the MaxxHorns were divine together. I should note that with the MaxxHorn Luminations, I switched cabling throughout the system to Clarity Cables, for which the MaxxHorns have shown a strong affinity.

Comparison

When I reviewed the Atma-Sphere S-30 Mk III amplifier (\$3750) back in March 2007, it was designated a Reviewers' Choice, which was literally true because I purchased the review unit. Although it produces "only" 30Wpc, that's more than enough power to drive the sensitive Opera speakers far louder than I'm interested in listening to them. Like the VS115, the S-30 Mk III uses a fully balanced circuit, so I could eliminate a second variable in the comparison by using the same interconnects. But the Atma-Sphere amplifier's circuit is radically different from the VS115's, using 6AS7G triode tubes or equivalents in the class-A output section, and even more different, an output stage that's directly coupled to the speakers — no output transformer. That's quite unusual for a tube amplifier; eliminating the bandwidth-limiting output transformer should produce more transient detail and deeper bass. That's the theory, anyhow.

In reality, bass was perhaps just a tad deeper, although with less weight than with the VS115. The Atma-Sphere amp had fast leading-edge transients, but the VS115 was not just fast. It controlled the musical event that followed the initial transient so that the overall sound — from the initial transient, to the harmonic structure, to the decay of the notes — was reproduced with unusual accuracy. Soundstaging was excellent with both amplifiers, although the images weren't portrayed in identical fashion. With the

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Atma-Sphere amp playing "Miserere," the performers were spread more widely across the soundstage, so the room where they were recorded seemed a little larger. These differences weren't huge, but they were perceptible.

I greatly admire both of these amps. The S-30 Mk III, at roughly \$3000 less than the VS115, certainly holds its own, but the Audio Research amp has sonic capabilities that the Atma-Sphere amp can't match.

Saving the best for last

I've broken down the performance of the VS115 into categories that are hopefully familiar to audiophiles. And in each of these categories, the VS115 was simply splendid. If the review stopped here, you'd probably think the VS115 is one terrific amplifier, and you'd be right. But the real strength of the VS115 is that it doesn't fall into a single audiophile category. More than any amplifier in my experience, the VS115 combines *everything* – bass, treble, and midrange prowess; soundstaging; dynamic agility; and transient speed – to present a musical *big picture*. The VS115 presented a holistic sonic presentation. Its lucid, uninterrupted lines flowed from start to finish, clearly portraying the complete musical structure. Music seemed better organized or, rather, the organization and structure of the music seemed easier to understand. A song was not just a collection of notes or audiophile events. This sort of thing happens so effortlessly when you listen to live music that you don't even think about it, but when an audio component does it, it's quite special. Linn used to characterize the sound of its turntables as "playing the tune" rather than just playing notes. The VS115 takes this a step further – it plays the song. I've heard many more expensive amplifiers that don't do that.

You can buy less expensive amplifiers than the VS115 and, I assume, better amplifiers as well. After all, Audio Research offers its Reference amplifiers at prices starting at \$9995 and going up – way up. Other manufacturers offer comparable units. Because I haven't had the opportunity to hear any of those amps in my system, I can't comment on their sound. But until I hear something better, the Audio Research VS115 has the distinction of being the best amplifier I've heard.

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Company Info

Audio Research VS115 Stereo Amplifier

Price: \$6495 USD.

Warranty: Three years parts and labor.

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ASSOCIATED EQUIPMENT

Loudspeakers	MaxxHorn Lumination, Opera Audio Consonance M12.
Power Amplifiers	Atma-Sphere S-30 Mk III stereo amp, Art Audio PX 25 stereo amp.
Preamplifier	Audio Research LS26.
Analog	Linn LP12 turntable, Graham 2.2 tonearm, van den Hul Frog cartridge, Audio Research PH5 phono stage.
Digital Sources	Meridian 508.24 CD player, Oppo DV-970HD universal player.
Interconnects	Purist Audio Design Venustas, DNM/Reson TSC, TG Audio High Purity Revised, Blue Marble Audio Blue IC, Clarity Cables Organic.
Speaker Cables	Purist Audio Design Venustas, Blue Marble Audio speaker cables, Clarity Cables Passion.
Power Cords	Purist Audio Design Venustas, Blue Marble Audio Lightning, Clarity Cables Vortex.
Accessories	Walker Audio Talisman LP/CD treatment, VPI HW-16.5 record cleaner.