

# Equipment Report

## VTL S-200 Signature Stereo Amplifier

### Vacuum-Tube Chameleon

Wayne Garcia

**W**hen I was mere squirt of 18—a budding audiophile and therefore a devoted reader of this magazine—the first live opera I ever attended was Wagner’s *Das Rheingold*. That was here in San Francisco, and I was lucky enough to have an encouraging distant cousin purchase my aisle seat ticket somewhere roughly Row G in the front orchestra section.

The evening was magical enough for me to still recall the hushed silence from which the rumble of that famed E-flat orchestral prelude swirled and swelled, as if emerging from the very depths of the earth, or at least a musically imagined Rhine. Two-and-a-half hours later, as the gods entered Valhalla across a decidedly silly-looking rainbow bridge, I was well and truly hooked.

Over the ensuing decades I’ve maintained something of a love/hate affair with Wagner’s music, weaving back and forth between times of either enraptured immersion or dismissive withdrawal—the latter being my Wagnerian state for the last several years.

Until recently, that is, when I found myself perusing the latest edition of TAS’ Super LP List [Issue 283]. Spotting the Speakers Corner reissue of the famous Knappertsbusch-conducted *Parsifal* from the 1951 Bayreuth Festival—a highly natural-sounding mono set—I felt Wagner’s powerful tug yet again, and was lucky enough to track down a sealed copy of this out-of-print title.

Played back through the VTL S-200 Signature amp—mated with the company’s outstanding TL5.5II Signature preamp that I wrote about so enthusiastically in March of 2015—the Act One Prelude, surely among the most ethereally beautiful quarter-hours of music ever written, just about took my breath away. Or to put that more accurately, it actually changed (slowed down) my breathing, which of course perfectly reflects the pulse of the music itself—the silent pauses that Wagner wrote between sections as the prelude slowly builds, then relaxes, then builds again, before the opera proper unfolds.

The prelude informed my initial thinking about the S-200 in many ways. First off, as we get from today’s best gear, it’s notably lacking in electronic hash, noise, and the kind of low-level, nay, nearly silent but nevertheless still present detritus that oh-so-subtly gets between us and the musical experience—a harder task for tubes than it is for solid-state gear. The VTL S-200 allowed not only a fair semblance of



the famous Bayreuth acoustic to appear in my room between my Maggie 1.7s—the orchestra warmly aglow under that theater’s famously covered pit—but also gently layered the shimmering, rosi-ny strings, rising like a fine mist on a morning mountain lake; it also conveyed the rich harmonics of the brass choirs, which reminded me of the warmth of the sunshine that follows. In a word, the presentation was gorgeous.

Yet most importantly, the S-200 delivered the emotional power of this score’s—OK, I’ll just say it—deeply spiritual nature.

Before I talk more about the sound, let’s see what makes the S-200 tick.

Priced at \$12,500, measuring a reasonably tidy 18.5" x 9" x 18", and weighing in at a still fairly hefty 105 pounds, the S-200, as the name implies, is a 200Wpc stereo tube amp. Based on technology found in VTL’s far pricier MB-450 and MB-185 Series III Signature monoblock power amps, from which its basic design, fully balanced circuit topology, and parts selection derives.

As VTL’s head Luke Manley explained it to me, “In

thinking back on our initial design spec for the S-200, and its positioning in the VTL lineup, it was primarily to offer a stereo amplifier in the Signature range, to build on the solid foundation that the ST-150 has long laid (being a core product for VTL), and to offer balanced capability, to gain fuller advantage of the fully balanced TL-5.5 Series II preamplifier.”

As of their latest incarnations, every product in the Signature range not only features fully balanced differential circuitry and zero global negative feedback, which not only ensures each amp’s stability under a wide variety of load conditions, but, according to Manley, also brings them that extra something—call it musicality—that draws us more deeply into the listening experience.

Manley expanded on the design, adding: “Generally, with zero global negative feedback, the shorter, faster negative feedback loop offers less deleterious sonic impact, and allows the use of the Damping Factor switching, which allows adjustment of the applied negative feedback in approximately 2dB steps, lowering the output impedance in approximately

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½-ohm steps. Output impedance can be set to improve control of the loudspeaker loads, and to suit the listener's taste, with increasing loudspeaker control as the Damping Factor setting is increased, with slight loss of musical flow.

"We feel that this is a better approach than using output transformer taps, as we want to utilize the whole transformer for an efficient transfer of power without the high-frequency problems that typically result from tapping, and leaving part of the output transformer secondary unterminated."

The transformer itself is a proprietary interleaved-and-coupled balanced unit, designed for wider bandwidth (from -0dB at below 10Hz up to -1dB at 100kHz), stability, and zero ringing.

During his visit to my house, Luke and I experimented with the S-200's three damping factor settings: low, medium, and high. Given that the Mylar diaphragms of my Magnepan 1.7s are ultra-light-weight and unusually fast, the

low setting proved to be the most musically natural, with the medium and high toggles adding levels of what I perceived as over-control and tightness to the sound that were immediately obvious and distinctly less musically satisfying. That said, although I've not had the chance to prove my guess, it's not much of a leap to imagine speakers with large dynamic drivers benefitting greatly from the ability to apply a tad more negative feedback to the circuit. Which is of course why it's an important key to this amp design's flexibility to begin with.

Manley further explained that the other differences between the Performance Series ST-150 and the Signature S-200 is that the S-200 has separate power supplies for the input and driver stages, which he says keep the image stable even under heavy load conditions and modulation at the output stage.

Furthermore, in order to ensure a constant output tube operating point, and to stabilize the critical power supplies—even under AC and main power supply fluctuations—the S-200 employs adjustable, precision-regulated bias and screen supplies, which are designed to increase tonal stability and overall sonic integrity, most especially under complex dynamic signal conditions.

Manley and his team have also done a most welcome job of making the S-200 relatively idiot-proof for listeners—ahem, like me—who may want to enjoy the sound of vacuum tubes without having to geek-out or otherwise futz around with them.

No doubt, some tradition-



al tube-ophiles will balk at the S-200's auto-bias feature, which may add another layer to the circuit, and hence, some slight sonic compromise. Frankly, I can live with that (though you may not wish to). Because until the day when I have a lot more time on my hands, I prefer to listen to my gear rather than tinker with tubes or otherwise babysit the damn things.

Moreover—further aiding us non-technical types—in addition to the auto-bias feature, the S-200 offers comprehensive output-tube fault sensing in three redundant layers that protect the amp against bum output tubes. Deck-mounted LEDs signal to the user which tube may be causing the fault, and handy side-mounted (and easily removed) hatches allow easy tube access without the need to remove the entire top cage. Although I've experienced only a few tube glitches during my lengthy evaluation period, I can't begin to tell you how grateful I was for this thoughtful feature.

Another important design aspect of the S-200 is the ability to switch, via a front-panel Mode button, between tetrode and triode modes for the output tubes. This switching is managed by a microprocessor so that switching can be performed "on the fly" (unlike the ST-150 which required turning off the amplifier before switching between tetrode and triode). Although I've already stated my natural aversion to tinkering with gear, I must confess that I became a bit obsessed with listening back and forth to a wide range of music—from *Parsifal* to Hendrix, Sinatra to Bach—to hear exactly how each mode affected the music.

For a while I was convinced that the triode setting (which cuts the amp's output power in half, to 100Wpc) was my cup of vacuum-tube tea—more ethereal, breathy, warmly seductive, and deeper of soundstage. Especially with something like *Parsifal*—where the initial rise of the string sections was laid out with a remarkable sense of harmony, layered depth, and a rainbow of string colors—or, say, Jeff Buckley's famous cover of "Hallelujah," from *Live at Sin-é* [Columbia/Legacy LP], where

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the delicacy of his guitar work and breathiness of his vocals were mighty seductive indeed. (And was this Buckley fan delighted to finally get a fine vinyl limited edition of this set, released especially for this year's Record Store Day.)

But the more I listened, the more I realized that in most cases a brief seduction is less the real deal than what I believe is a more "accurate" take on the recording.

For example, on Gerhard's exceptional-sounding *Astrological Series: Libra, Gemini, Leo* [Decca], the S-200 in triode operation caused the lightning-strike percussive acoustic guitar strums and violin trills to initially sound more expressive, but the remarkable staging effects of this recording weren't anywhere near as precisely defined as they should have been, and the speed, dynamic snap, and high frequencies were noticeably shorn off, resulting in a relatively dull rendition of this otherwise edge-of-your-seat performance.

In tetrode mode, not only was the music a thrill from the get-go—that magical sense of instruments being played in real space (the absolute sound, after all)—surrounded by halos of air, with split-second interplay between the musicians, but the performance was now rendered as musically riveting throughout.

Likewise, listening to Buckley's "Hallelujah." Though one could argue that the vocals and guitar picking were more subtly expressive in triode mode; at the end of the day Buckley's voice also came across as a bit softer (hooded), and the tetrode setting

lent keener presence to his vocals and the room's ambience, and again delivered greater musical involvement and excitement.

I should point out that, though it's a vacuum tube design, the S-200, in the tetrode mode, does not belong to the overtly warm or "sweet"-sounding tube camp. Rather, I think that Manley's goal of "natural" sound applies very well, because in this operation the S-200 never sounds like it's imposing its own stamp on a recording but instead allowing it to be heard, warts and all.

On the other hand, sometimes we don't want, we simply want beauty. For instance, as much as I adore the Karajan/Janowitz performance of Strauss' *Four Last Songs* [DG] it is a bright recording, and came across as notably harsh-sounding in tetrode, whereas the triode option transformed it into something much more beautiful, ecstatic, and sensual, with soaring high vocal notes and a lovely orchestral presentation.

In tetrode the S-200 can rock, too. From Hendrix's 1967 rendition of "Like a Rolling Stone" from Reprise's original issue of *Jimi Plays Monterey* (with Otis Redding on the flip side), where the amp never flinched and held rock-steady (pun intended) with tremendous overall drive, snap to Mitch Mitchell's Premier drum kit, and the crunching distortion of Hendrix's Strat/Marshall stack rig, to Emmylou Harris' *Wrecking Ball* [Nonesuch LP], where another Dylan cover—"Every Grain of Sand"—was simply glorious, as if being sung by an angel. Harris' heartfelt yet driving

## Specs & Pricing

**Power output:** 200Wpc into 5 ohms (tetrode); 100Wpc into 5 ohms (triode)

**Number and type of inputs:** One pair single-ended RCA; one pair balanced XLR

**Tube complement:** 8x 6550 or KT88, 2x 12AT7, 2x 12BH7

**Dimensions:** 18.5" x 9" x 18"

**Weight:** 105 lbs.

**Price:** \$12,500

## VTL

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## ASSOCIATED EQUIPMENT

Rega RP10 turntable and Apheta moving-coil cartridge

Oppo UDP-205 disc player

VTL TL5.5II and Sutherland N1 preamps

Magnepan MG 1.7 loudspeakers

Nordost Tyr 2 interconnect, speaker, and power cables

Nordost Qx4

take on the song was rendered with a huge soundstage, percussive wallop, fat yet punchy acoustic guitars, and notable detail to Harris' and Neil Young's harmony vocals.

After many hours of back-and-forth listening comparisons, I decided to (mostly) leave the S-200 in tetrode operation. But, as you see, it's a fine thing that VTL gives listeners this option either to assess which we prefer—again, your system will certainly have its own effect on your choice—and/or which moods we may opt for.

Even though my general recommendation would be triode for chamber music and small jazz ensembles (or hard/bright recordings), for a better depth of soundstage; and tetrode for large-scale, wider-dynamic, and wider-range discs that are well recorded—we often won't know until we sample both.

One interesting example was my well-worn copy of Milstein playing Bach's Sonatas and Partitas for violin [DG]. Here, although I thought I would prefer triode operation, Milstein's fiddle came across as muffled and rhythmically plodding, less immediate and immersive. Whereas in tetrode there was far more upper-end air, a keener sense of bow on strings, lilt and momentum to his playing, and a conveyance of the instrument's whiskey-warm sound.

Beyond its outstanding sound and sonic flexibility, I'm highly taken by this amp because it does what I firmly believe is the most important thing our gear should do, which is to present music as a cohesive and engaging whole. Or, to borrow from the German—*gesamtkunstwerk*, a total, all-embracing work of art. **tas**