The Audio Beat

VTL Siegfried Series II Reference Mono Amplifiers

by Marc Mickelson, March 12, 2014
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Every maker of audio equipment has a philosophy for creating a product line that takes into account the introduction of new models as well as the upgrade of existing ones. Some companies follow a well-established script that's based mostly on time. Every x number of years -- often three, sometimes five -- the company will introduce a new model to replace an existing one. The rationale here is easy to understand, even without a business degree: new products mean new sales, and sales are why manufacturers are in business.

But this isn't the only way for a manufacturer to crack this particular nut. Some simply let the pace of their own R&D determine when a new product will be released. Instead of adhering to a schedule, this manufacturer will be more engaged in, well, manufacturing. Existing products will have to continue to entice customers, and the introduction of new products will be true events, driven by discovery instead of purely economic considerations.

VTL does things this second way. Its product line, comprising amplifiers, preamplifiers and phono stages at various price levels, is vast, ensuring that all market segments are covered and expanding the company's reach to customers. This is all part of the strategy, and it has some built-in advantages for VTL customers. A purchase today doesn't start the clock ticking, with a replacement expected at some regular interval in the

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near future. Value is ensured, and customers are more loyal to the brand, because the brand is loyal to them.

Probably the most extreme example of this goes all the way back to 1998, when VTL head Luke Manley and his team of engineers set about creating the company's Reference line of products, which led directly to the TL-7.5 preamp and the Siegfried monoblocks. The TL-7.5's circuit was updated to Series II status in 2006 and then to Series III, , in 2010. In contrast, the Siegfried went without significant change from its debut around 2000 all the way to late 2011, when the Series II appeared.

As with the TL-7.5, the latest Siegfried has undergone not so much an upgrade as a rethinking. While the amp looks and functions as it always has, uses the same output tubes and produces the same amount of power, the circuit has changed in ways that are fundamental to the amp's current sonic character.

The original Siegfried was anything but unrefined, featuring a dozen parallel output tubes (KT88s or 6550Cs), a massive power supply that occupied much of the chassis, low negative feedback, point-to-point wiring, a fully balanced input (and switchable single-ended input), an onboard microprocessor to manage startup (among other functions), automatic tube biasing and a robust system for sensing and managing faults, most often a matter of a tube going bad.

In other words, the Siegfried was a platform meant to exist unchanged for a decade or more, until such time that Luke Manley and his design team could improve upon it sufficiently to warrant a replacement. Whereas the input of the original Siegfried was balanced, the Series II goes a giant step further, incorporating a fully balanced differential circuit from input to output, "for improved isolation from noise interference, internal or external," in Luke Manley's words. VTL could have stopped with just this alone; a fully balanced circuit is no plug'n'play affair. But also new is a shorter, faster fully balanced feedback loop to improve a condition with the original amp that caused slight ringing when driven hard. An output transformer that's "more heavily interleaved and sectioned" and Teflon bypass caps in all power supplies are also new, along with 12BH7 driver tubes, which replace the 6350s in the original amp. The Siegfried II also has no global feedback.

A new feature was also introduced with Series II: adjustable damping factor. This varies the amps' negative feedback and thereby the input sensitivity and output impedance. In theory, it increases the amps' ability to control the woofers of the speakers they're driving. In practice, it is absolutely vital to getting the most from the Siegfried IIs -- and your speakers. Four levels -- Low, Medium, High, and Max -- are available, and from my experience, using the amps to drive two pairs of Wilson Audio speakers and one from Venture Audio, one setting will be considerably better than the others, halving the difference between bass control and the purity of essentially every other part of the sonic spectrum.

With both Wilson speakers, Medium worked best, and with the Ventures it was the Low setting. I asked Luke Manley about the settings for other brands of speakers. "We have found that generally Medium works well with

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speakers like the Rockports and Vivids, and I could see some people who like solid-state amps using the High setting, but I don't know if anyone would use the Max setting, honestly, as it starts to cut into the smooth roll-off in the frequency-response curve." Luke also mentioned that some listeners use different settings for different types of music, which adds a level of involvement that I personally would want to avoid but some people may appreciate.

Looking at the Siegfried Series II reveals not an audio amplifier in the well-established mold but essentially a personal power plant -- 650 watts in tetrode and 330 watts in triode -- for each speaker. The output tubes and their requisite circuit board occupy the top third of the sizeable chassis, which is two feet high by two feet deep, with the amp's power supply occupying nearly the entire two-thirds remaining. The back panel is busy with connectors, switches, fuse holders and a large heatsink, which signals one of the amp's true innovations: precision-regulated plate, screen and bias supplies that keep the operating point of the output tubes constant even as the AC power fluctuates, in Luke Manley's words, "for greater tonal stability and sonic integrity, especially under complex, dynamic signal conditions." Unlike other tube amps, even extremely powerful ones, the Siegfried II doesn't have output taps for different loads.

A tube failure during listening illustrated just how intelligent and well protected the Siegfried IIs are. The LED display on the face of the amp immediately let me know that a tube had failed, the green LED next to the tube within the amp's chassis pointing it out. After swapping the tube, I reset the amp's fault mechanism, which is behind a removable cover, and the amp was back to business. However, as Luke Manley demonstrated when he helped install the amps in my system (each weighs 200 pounds and ships in a crate with built-in shock absorbers, so help is necessary), the Siegfried II would continue to operate even with a dead tube. The amp shuts down the partnering tube and then merrily rolls along, the front panel, not a pause in the music, telling you that something deserving your attention has occurred.

There are other features hiding behind that removable cover, the ability to keep track of the number of tube hours along with measuring the amp's operating temperature and the voltage of your AC line among them. Each amp also comes with a built-in fuse tester, a very useful feature, given that the fuses for the Siegfried II are industrial ones with solid bodies, so you can't see when they are blown. You can also connect a computer and get a readout of all faults the amplifier has encountered over its lifetime. This is especially useful if for some reason VTL needs to diagnose a problem.

While the Siegfried II's circuitry relies on the nearly ancient (in technology terms) vacuum tube, it is a thoroughly contemporary piece of electronics, fitting right in in this high-tech age. I don't know of an amplifier that monitors its own operation with even half the same rigor. Yet, for the most part, you won't have to interact with all of its doodadery unless you choose to. Instead, you'll set it and forget it.

In addition to making use of the advanced features and all of that power, owners of the Siegfried IIs will be able to wile away countless hours listening to the two different sets of output tubes the amps can accommodate, and the further variation of the amps' tetrode/triode switching will only add to the intrigue. While some may see all of these choices -- four in total for just the base configuration of the amp -- as being more subtractive to the experience of listening to music than additive to owning the amps, I see them as an opportunity. In all likelihood, Siegfried II owners will use the amps with either 6550Cs or KT88s for the vast bulk of their listening and quickly settle on tetrode or triode as well. However, with the push of a button, the owner can take a sonic vacation and see how the other half lives. And just as some vacations happen close to home and others around the world, that same owner can swap output tubes and experience another culture, sonically speaking, before heading back to his cozy, familiar existence.

But enough with the analogizing. Here are some specifics. For almost all of the time I had the Siegfried IIs in my system, I listened with 6550C tubes and in tetrode, where the Siegfried IIs are able to deliver their full 650 watts each -- power that was never completely needed but whose potential certainly had its sonic effects. (Raw power has its own signature quite aside from anything else an amp achieves.) Unless otherwise indicated, the comments I make regarding the sound of the Siegfried IIs were derived with the amps outfitted and used this way.

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But during his initial visit, Luke Manley brought along a set of KT88s, and I listened to them as well as experimented with triode at various points. In general, the KT88s were short of the speed and incisiveness of the 6550Cs, although for some listeners these will be a reasonable tradeoff. With KT88s, the Siegfried IIs were sweeter and warmer, more midrangey, though less resolute, including in the bass, which was softer. Switching the amps to triode, irrespective of the tubes, effects some of the same changes, trading leading-edge definition for a fuller, rounder midrange. In most ways, the choice of output tubes and operating mode was rather like that for the damping factor: I definitely preferred one combination, even though it was not unquestionably better in every way -- a microcosm of high-end audio in general.

Regarding preamps, a distinguished collection of which I had on hand, it will probably come as no surprise that the best of those I used with the Siegfried IIs, no matter the amps' output tubes or operating mode, was from VTL, the TL-7.5 Series III. Putting aside the more obvious qualities like tonal consistency, with the TL-7.5 III, the amps just seemed to be more themselves: enormously authoritative or acutely focused, depending on the recording, each of which sounded better resolved and more distinct. Bass had greater texture and weight, and transients were a touch more swift and defined. That the two products grew out of the same design work seems evident when you hear them together.

Of all the interfaces in an audio system, those points where one component connects to another and the musical circle remains unbroken, none is more critical to the sonic outcome than that between the speaker and amplifier. It is where electrical energy becomes acoustic energy -- where the signal becomes music. We therefore must choose an amp that works with our choice of speaker or simply grope in the sonic dark, hoping that the two will couple properly. It is true that any amp, even the wrong one, will make sound with essentially any speaker, but our goals as audiophiles are so much more ambitious than merely making sound, and they put pressure on our choice of amplifier. If only there were such as thing as a universal amplifier, one whose electrical properties, not to mention its sonic character, were such that it could drive all speakers and sound magnificent doing so. Imagine a universal combustion engine, one you could drop into a sports car for racing or into a truck for pulling a yacht over a mountain. It would have to be built for both utmost speed and torque, seemingly connected qualities but in so many ways mutually exclusive.

We often consider solid-state amps as being the most widely applicable, able to drive the most speakers in the most satisfying way. They possess the torque but not the speed, so to speak, while so many tube amps come at the issue from the other direction, having the speed but not the torque.

The Siegfried II is an altogether uncommon amplifier. Its multifaceted regulation and parallel output devices ensure constant delivery of a massive amount of power under any conditions and the low output impedance required to cope with the vagaries of the load that a wide array of speakers present -- from steep phase angles to drops below 2 ohms. But perhaps more pertinent, the Siegfried IIs deliver music with detail, suppleness, authority and finesse -- from top to bottom, no matter the speakers with which they are used.

In fact, listening to them required a bit of assimilation, especially as I threw recordings of varied music in different formats at them. When the amps first arrived, I had just finished my review of the Wilson Alexandria XLFs, and the speakers were still in my system. The XLFs may be large and heavy, but they have the heart of an easy-to-

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drive minimonitor. Their load and sensitivity presented no problems for any amp I used, including a budget-priced TEAC integrated amp that I put into service for a couple of days, just for my own edification. With the XLFs, the Siegfried IIs were capable of near-PA volume levels and bass power that seemed to emanate from the core of the earth, yet when I played far less demanding recordings, the amps -- and speakers -- shape-shifted, presenting mono jazz or folk with ghostly focus and see-within transparency, all of those tubes and drivers sounding positively demure in the process. I already knew about this ability of the speakers, but I didn't understand its full extent until the Siegfried IIs were doing the driving.

I'm not talking merely about scale here -- the ability to sound big with orchestral music or intimate with solo guitar, for instance -- although that is surely part of it. It is instead a complex of qualities so diverse and wide-ranging as to prove that the Siegfried IIs were unlike any amp in my experience. So, with the Telarc SACD of Copland and Hindemith music [Telarc SACD-60648] or Keith Richards' *Main Offender* CD [Virgin V2-86499], I needed to buckle up for a ride on massive waves of power, the tam-tam strikes from "Fanfare for the Common Man" slicing through the air with the same laser-like precision as the drum strikes of "Wicked As It Seems" from *Main Offender*. As I leaned on the volume, everything just got louder and more rowdy, especially Richards' blazing guitar work, the sense of liveness, of sitting in the concert hall or standing near the PA stack, becoming more apparent.

But the silly fun came in the juxtaposition of those discs with R.L. Burnside's First Recordings [Mobile Fidelity UDSACD 2026]. I'm sure there was some head-scratching when Mobile Fidelity announced that this set of mono demo recordings from the late 1960s was up for reissue on SACD, but its otherworldly immediacy and presence certainly convinced any doubters. For all of their might, the Siegfried IIs treated this truly intimate set with a gentle touch, conveying all of its spooky imaging and ambience, Burnside and his guitar positively locked dead center. It is impossible, I think, for any amplifier to make this recording sound bad, but they don't all bring it to its fullest expression -- and this music is all about expression. The Siegfried IIs maximized the poignancy of Burnside's singing and playing by revealing every detail the recording had to offer, but doing so with natural pacing and placement. "None better," said my listening notes; if I wasn't aiming for understatement, I had certainly achieved it.

Tonality was squarely in the tradition of tubes with the Siegfried IIs: rife with color and density, the things that help recorded voices and instruments sound more human, more real. This is something tubes generally do well, but the Siegfried IIs go beyond well and into transcendent territory. Voices were always full and vivid, instruments rich in timbre, their tonality remaining individual and true no matter the demands of the recording. The amps are so convincing when it comes to reconstructing the scale of each recording, both big and small, that the dense images were never sonic dead ends, existing only for their own sake. The massive power available never overwhelmed, remaining in reserve until the music pushed past those first glorious watts and more were needed.

Again, while it seemed a pity with such powerful amps, I played (overplayed) mono recordings with the Siegfried IIs, from early '50s original LPs to reissues of music from the same era. Finding great music on LP for almost nothing allows no-risk experimentation. In this spirit, I will grab any mono Columbia jazz LP, no matter the performer. This is how I discovered Calvin Jackson, a classically trained pianist who recorded two LPs on Columbia in the mid-

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1950s: *The Calvin Jackson Quartet* [Columbia CL 756] and *Rave Notice* [Columbia CL 824]. If you want to hear them, you have one choice only: the original LPs. Neither has come to CD or been reissued on LP, and it seems unlikely that this will change, given Jackson's obscurity: he made his final recordings in 1961, but he lived for more than two decades after that. I absolutely love listening to such lost music -- lost to digital, that is. With the Siegfried IIs, Jackson's piano rang with life during his 15-minute explication of "Love Me or Leave Me," the Siegfried IIs revealing the recording's slight dryness and the closed-in quality of the venue. I find that piano in particular is well served on these older mono recordings, perhaps because early stereo miking led to the instrument sounding misshaped, the channels rarely able to mix properly. If Calvin Jackson piques your interest, other lost Columbia jazz pianists whose work you should seek out are Enrique Villegas and John Eaton. As with Calvin Jackson, you won't hear them unless you find the LPs.

Before the Alexandria XLFs were packed up, Wilson Audio shipped me a Thor's Hammer subwoofer. Knowing this, Luke Manley sent a *third* Siegfried II with which to drive it, throwing down the gauntlet vis-à-vis the kind of amp -- tube or solid state -- that was appropriate for use with a subwoofer, not to mention a subwoofer like the Thor's Hammer. As they have done in the past, John Giolas and Trent Workman of Wilson Audio visited to uncrate everything and set it all up, including the third Siegfried II, which led to a cracked ceramic tile in the entryway of my house, confirming the amp's weight, I suppose.

Once again, juxtaposed with the mono jazz I was listening to in copious amounts, the system as it was assembled, with a refrigerator-sized subwoofer in the corner, was truly dazzling in its ability to unearth previously unrealized low frequencies, and the third Siegfried II made the case that it -- and tubes in general -- absolutely can do low bass. I already knew this from the amps' depth and control with the XLFs, although the Siegfried II/Thor's Hammer upgrade went to far beyond the XLFs alone, revealing the hidden throbs on "Diver Boy" from Natalie Merchant's *The House Carpenter's Daughter* CD [Myth America MA 1026] and other recordings.

While I've heard some well-defined deep bass from solid-state amps, including the Luxman B-1000f and Analog Domain Artemis monoblocks, I couldn't say that it was better in overall quality than what the Siegfried IIs

Opus MM2: an inconvenient truth

Luke Manley wanted me to hear his top-of-the-line electronics with an equally top-of-the-line set of interconnects and speaker cables, reasoning that I would only hear what the system assembled in my listening room was capable of with cables that were equally all-encompassing and no-compromise. I was willing to oblige, even if I was less than enthusiastic. When you move as much equipment into and out of your system as I do, you become impatient at the prospect of even more gear swapping, each new variable making the work of reviewing the product at hand increasingly agonizing and difficult.

Luke was especially partial to Nordost Odin and Transparent Opus MM2, and, to make things easy, he was willing to send VTL's own set of either cables. With Nordost's Valhalla 2 coming (a full set of which I now have; review forthcoming), I didn't want to muddy the waters with Odin, so I chose Transparent. At one point, my system included a Wilson Audio Thor's Hammer subwoofer and its associated electronics, including a third VTL Siegfried II amp, so I needed an extra balanced interconnect and a single run of speaker cable, along with an extra pair of balanced interconnects for digital. Transparent kindly augmented where necessary.

Transparent Audio cables are a universe removed from the "one cable fits all" model. Opus MM2 interconnects ($11,580 per one-meter single-ended pair, $20,000 per one-meter balanced pair) and speaker cables ($34,735 per eight-foot pair) are tailored to the electronics with which they will be used. This happens within each cable's network. Essentially a filter circuit comprised of specially chosen parts, the network optimizes the electrical characteristics inherent in the construction and length of the cable as well as the point in the system where it will be used. It also combats noise and provides a measure of physical damping. This is a cursory rundown of Transparent's technology, which, at least in my mind, makes sense if you accept the notion that the electrical demands of the signal between one amp and preamp, for instance, are not the same as those between the same amp

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delivered. Their control, their grip on the woofers, was awesome in the truest sense of the word: able to invoke a sense of awe when the music had it to give -- with or without the Thor's Hammer. The Siegfried IIs will go toe to toe with any solid-state amp I've heard, even the best of them, offering a little more bounce in the upper bass, for instance, in exchange for a little less slam with the most massive bass transients.

It will probably come as no surprise that the VTL amps were also dynamically imperturbable, not so much because of their power reserves but rather their intrinsic dynamic range, especially for a tube amp, a quality enhanced by the Transparent cables (see sidebar). A good number of solid-state amps are quieter at the noise floor, but that's the case compared with any tube design. The Siegfried IIs fly below any noise, revealing the fine details that create the fabric of much acoustic music -- the touch of a pianist like George Winston or a guitarist like Michael Hedges -- as readily as the bombast of amplified rock or large-ensemble jazz. If there was a recording or kind of music that these amps didn't reveal with seemingly boundless detail and naturalness, I didn't hear it -- and believe me I tried to find it.

In fact, after a certain point in my listening, discovering some way in which the Siegfried IIs fell short became more of the goal than hearing once again that they couldn't be tripped up. Large-scale music? Check. Intimate mono recordings? Check. The naturalness and tonal glory of tubes? Check. Bass control and power? Check. Dynamic variation? Check. Intimacy? Check. The ability to drive disparate loads? Check. User friendliness and just plain fun? Check and check. The Siegfried IIs proved to be as close to a universal audio engine that I've heard and, I'm confident to speculate, exists in high-end audio here and now.

Listening with the Siegfried IIs was a constant revelation, not because, as some reviewers like to say, I heard new things from familiar recordings, but rather because the amps served every recording so well, no matter the music or the sonic qualities. The Siegfried IIs presented music in a complete and elemental way, preserving, even enhancing, its message. Roy Gregory likes to talk about the ways in which audio equipment can make music sound like it's played by better musicians. The recording is the recording, I've always reasoned, and there's nothing that reproduction can do to improve upon it. But the Siegfried IIs helped me understand and another preamp. I also personally find comfort in the fact that Transparent's technology is not based on vacuous, hopeful theory. From the company's website: "Every design is carefully calibrated according to Transparent's listening criteria as observed with long-term listening. . . ."

The arrival of a full set of Opus MM2 in its shipping cartons is quite a production. Because of the large and heavy network running along each cable's length, the packing has to be much larger than expected in order to allow ample room for foam inserts that keep everything in place, so the networks aren't moving around during transit. For speaker cables, this means a shipping box that's big enough for an enormous amplifier. Unpacking the cables is easy enough, but packing them up is another matter, especially the speaker cables, which are as uncooperative as a moody python. You also have to account for the networks when you put the cables into the system, being sure you have enough space and support for them. The networks for the speaker cables are like components themselves, down to their spiked footers.

All of these inconveniences become a distant afterthought once the Opus MM2 cables are in place and music is playing. The enduring impression I have of them is of presence and composure. Instruments and singers sounded substantial and deeply hued, and backgrounds were intensely, eerily black. If three-dimensional images are one of your audio touchstones, Opus MM2 conjures them like no other cables I've heard. Along with this were dynamic variegation and transient speed, neither of which was excessive or showy, just there. The bass power and control that the Opus MM2 cables brought to the presentation were simply state of the art, especially from 200Hz on down. In many ways, they, not the electronics or speakers, defined the low-frequency capabilities of the system.

Here's the obligatory admission of high cost: in case you hadn't noticed, these are expensive cables, *really expensive*. But then the system in which they were used was really expensive too. Transparent also offers interconnects and speaker cables that cost much less

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Roy's point. With them, musical interplay was tighter and more cohesive, just plain better, no matter the recording.

About four years ago, shortly after *The Audio Beat* first appeared, I mentioned in one of my reviews an amplifier top-five list -- a personal tally of the best amps I had heard regardless of price or technology. It caught on and readers asked me for the full list, which I was happy to supply. It has changed some over the years, although it still has an amp on it that I reviewed prior to launching the site: the single-ended Lamm ML3 *Signature*. Also represented are solid state in form of the Ayre MX-R, push-pull tubes by the Audio Research Reference 250, and output transformerless with the Atma-Sphere MA-2 Mk 3.1.

And now at the top of that list sits the VTL Siegfried II.

than Opus MM2, and they're built with the same premises and objectives in mind, and some of the same conductors, connectors and passive parts. I expect they will sound much as I describe above.

No product segment within audiophilia is more misunderstood and maligned than cables, and that's doubly true for expensive cables. However, these expensive cables delivered on the implied promise of their considerable cost, readjusting my understanding of what's possible, not just from interconnects and speaker cables but from reproduction itself. I was reluctant to try the Opus MM2 cables in the first place, but I missed them the moment they were gone.

-Marc Mickelson

Price: $65,000 per pair.
Warranty: Five years parts and labor.

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Associated Equipment

Analog: TW-Acustic Raven AC turntable; Graham B-44 Phantom Series II Supreme and Tri-Planar Mk VII UII tonearms; Denon DL-103R, Dynavector XV-1t and XV-1s Mono cartridges; Audio Research Reference Phono 2 SE and Lamm Industries LP1 *Signature* phono stages.

Digital: Ayre Acoustics DX-5 "A/V Engine," Esoteric K-01 CD/SACD player, CEC TL 1 CD transport, Toshiba Satellite laptop.

Preamplifiers: Audio Research Reference Anniversary and Reference 10, Convergent Audio Technology SL1 Legend, Lamm Industries LL1 *Signature*, VTL TL-7.5 Series III Reference.

Power amplifiers: Analog Domain Artemis, Atma-Sphere MA-2 Mk 3.1, and Lamm Industries M1.2 Reference monoblocks.

Loudspeakers: Wilson Audio Alexandria XLF and Alexia, Venture Audio Ultimate Reference.

Subwoofer: Wilson Audio Thor's Hammer.

Interconnects: AudioQuest William E. Low Signature, Nordost Valhalla 2, Shunyata Research Zi-Tron Anaconda, Transparent Audio Opus MM2.

Speaker cables: AudioQuest William E. Low Signature, Nordost Valhalla 2, Shunyata Research Zi-Tron Anaconda, Transparent Audio Opus MM2.

Power conditioners: Essential Sound Products The Essence Reference-II, Quantum QB4 and QB8, Quantum Qx4, Shunyata Research Hydra Triton and Typhon.

Power cords: Essential Sound Products The Essence Reference-II and MusicCord-Pro ES, Nordost Valhalla 2 and Frey 2, Shunyata Research Zi-Tron Anaconda.

Equipment rack and platforms: Silent Running Audio Craz^2 8 equipment rack and Ohio Class XL Plus^2 platforms (under Lamm M1.2 amps), Harmonic

Resolution Systems M3 isolation bases.

Accessories: Gryphon Audio Designs Exorcist system demagnetizer.