

Lamm Industries LP1 *Signature* Phono Stage

by Marc Mickelson, July 2, 2015

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I wrote my first review of a Lamm product, the M1.1 mono amplifiers, nearly twenty years ago. Since then, I've reviewed almost every product that has followed, including most of Vladimir Lamm's mono amps and preamps, some of which I've also owned. When I wrote that first review, and for the years that followed, I was a purely digital audiophile. I had sold my modest record collection, and my turntable along with it, years before, and I assembled a digital rig that satisfied me to such an extent that I didn't miss spinning LPs.

Over the years and the course of my reviews of his equipment, Vladimir Lamm would always drop hints that it was time for me to re-enter the analog realm. "Ah, Marc," he'd say in his knowing way, "You need to be listening to records to hear the real music." That's what he called it -- "the real music." I would either appease him by saying that it was in the plans or be more blunt and say that I didn't have the money to do analog right.

In the end, Vladimir was not just persistent but right. I did need to listen to records again and hear "the real music." I bought a TW-Acoustic Raven AC turntable, the same one Vladimir was using at the time, a Graham tonearm and a Dynavector cartridge and set about reassembling my record collection -- which I've done with a vengeance and, for the most part, for very little money, preferring to find records at thrift stores and garage sales, rather than spending top dollar at record stores and on eBay.

My re-entry to analog has not just been enlightening but also rewarding and fun, and Vladimir Lamm has been there during it all, offering me first his LP2 Deluxe phono stage for review, then his LP1 *Signature* -- the best phono stage he knows how to make. For a number of reasons, the LP1 is not your usual phono stage. First and most obvious is its configuration: three chassis comprising the main audio unit and a pair of power supplies. Why three? Because the power supplies designed for the LP1, each



based on the one used for the Lamm L2 preamp, wouldn't both fit into a single chassis. They use chokes and tube rectification and regulation (five tubes in total in each chassis), not to mention custom low-noise transformers. Energy storage is over 100 joules. If you peer inside one of the power supplies, you'll be hard-pressed to imagine stuffing the circuitry for another into the same chassis.

While its three pieces might indicate otherwise, the LP1 *Signature* is dual mono -- both channels of its audio circuitry are stuffed into a single chassis, including four tubes and two pairs of step-up transformers that provide the gain, each channel separate from and identical to the other. If you ask Vladimir Lamm about the LP1's audio performance, he'll immediately point to the tubes, two 6C3Ps and 6C45P-Es, the high transconductance and especially the high plate current that is a requirement of his circuit. While other tubed phono stages may need 5ma of plate current, the LP1 *Signature's* circuit requires 55ma per channel, which is possible because of the new-generation tubes used and their ability to handle such a massive amount of current.

The LP1 *Signature* has three inputs, two for moving-coil cartridges and one for moving-magnet. The two moving-coil inputs are slightly different: one is for very-low-output cartridges, providing 71dB of gain along with a low 30-ohm input impedance, and the other is meant for all other MC cartridges, providing 59.7dB of gain and 430 ohms input impedance. They use slightly different Jensen step-up transformers, hence the difference in gain and impedance. I could make an argument for either of the MC inputs on sonic grounds, but electrically one will make the most sense for the widest range of cartridges, while the other will be close to perfect for certain cartridges. A moving-magnet input on a phono stage of the LP1's cost may seem strange, but it has a

special function. It can be used with a moving-magnet cartridge, of course, but its primary use is with a moving-coil along with the owner's choice of boutique external step-up transformer, a thoughtful touch.

Altogether, the LP1 *Signature* weights almost 80 pounds, with much of the audio chassis's weight coming from



an internal damping plate that helps control resonance. The power supplies connect to the audio unit via umbilicals that are long enough that you'll have some flexibility in placement, although you'll still have to find room for each of the chassis -- Lamm counsels against stacking. This is probably the biggest challenge to owning an LP1 *Signature*, bigger than even its price. You will need to allot three

shelves of a standard rack to just your phono stage, which means you'll need a extra-large, extra-wide rack (like my Silent Running Audio Craz² 8) or two smaller ones.

Along with designing audio equipment, Vladimir Lamm has done research in psychoacoustics, aimed at first developing and then refining a model of human hearing. This seeks to explain "the human hearing mechanism," as Vladimir has called it, and inform the design of Lamm electronics, which all adhere to its precepts, some products more closely than others. Vladimir is famous for eschewing listening during his design process. In his mind, his model of human hearing makes it superfluous.

While the complete lack of listening may seem counterintuitive and unnecessarily rigid, there is something to this approach, if not in terms of the universal praise that Lamm electronics have garnered since the company's beginnings over two decades ago, then in the similarity of the sound from one product to another. There is definitely a Lamm sound, one that is equal



parts tonal density, transient completeness and dynamic alacrity, all of which combine to create the naturalness for which Lamm products are justifiably known. While no single brand of electronics is universally loved, Vladimir Lamm's products are as widely admired as any others, underscoring the efficacy of his design approach and model of human hearing.

While the LP1 is Vladimir Lamm's top phono stage and the third product in his *Signature* line (along with the LL1 line stage and ML3 mono amp, both of which I've reviewed), it is also sonically distinct among his products. In fact, I'll go even further: in some specific ways, this all-out effort redefines the capabilities of a phono stage for me. I don't say this casually; the LL1 and ML3 are all out and redefining in their own ways. But the LP1 grafts newfound qualities onto the standard sonic palette of Lamm equipment.

It was clear that the LP1 was consequential right from the start. I followed my standard evaluation regimen, pulling out LPs I knew well to hear how the LP1 presented them. So often reviewing is just this sort of exercise: relistening to familiar recordings, trying to pick out meaningful specifics. But I was antsy, anxious to push the LP1, to that hear what new music could reveal -- to listen without the pressure of analysis hanging over my head. One LP that absolutely floored me early on is an audiophile war-horse that had somehow escaped my experience until I found a clean copy for a couple of bucks. *The Pentangle* [Reprise 6315] is some super-tasty English folk-rock -- I can hear a chorus

of "Duh!" coming at the mention of it here -- and a *magnificent* recording, miraculous even, given that it's approaching fifty years old. Instruments are finely drawn and lithe, vocals are present but not overly round or full, and bass is well defined and weighty. The Lamm LP1 made all of this plain, while bringing some dynamic pop and bottom-end grunt to the music. In fact, if anything about

the LP1 is flashy, it is the bass, which has real power, authority and dynamic variegation, giving the music on *The Pentangle* greater grip down low than I've ever heard from analog. So often, ease is the starting point for praise of analog playback, but the LP1 took charge when the recording required, revealing ease to be more of a sonic artifact of certain records than a true quality of them all.



The LP1 sounded fast into and out of each note but preserved analog's inherent flow, the music's body and continuousness, just what so much digital doesn't do. While you might think this is attributable to the LP1's tubes, and you might be correct to some extent, I have heard it to various degrees with all Lamm equipment, especially the ML2.2 and ML3 amps, which present the music with more liquidity

and in-the-room presence than many of the best amps from other makers. *The Pentangle* was particularly illustrative here, but so were, interestingly enough, some of Telarc's *digitally recorded* LPs. I've mentioned the collection of Copland pieces [Telarc DG-10078] and Stravinsky's *The Firebird* [Telarc DG-10039] before, but one I found recently, of Moussorgsky compositions, including





Pictures at an Exhibition [Telarc DG-10042], showed off the LP1's way with large-scale music. In truth, this recording sounds great on CD, but the LP, played with the LP1, was even more impressive -- tightly focused and grand, the brass especially seeming to multiply in size and volume when it really let loose.

This is one area where the LP1 eclipsed other Lamm electronics -- the ability to sound big, bold and forceful, while never abandoning its sonic roots. With recordings that bring it out, the LP1 knocks down the walls of the listening room, putting you amidst the band or orchestra. Dynamics were extreme, the whole presentation showing off the full capabilities of my analog rig -- things I had never quite heard it do, in fact. Along with this massive sense of scale was copious air in the mids and treble. The LP1 could impart an authority even as voices and especially strings trailed off like wisps of smoke in a light wind. It conveyed nuance as readily as power, in other words. It also dug into recordings, focusing their energy within the listening space, and there was no better illustration of this than mono jazz, especially some 10" LPs of music recorded on location, like the collection of Lighthouse All-Stars titles on Contemporary. Each of these was recorded at Howard Rumsey's renowned jazz club in Hermosa Beach, California, in the early 1950s and features an impressive roster of West Coast jazz stars -- hence the title. *Vol.2* [Contemporary C2501] has an unknown trumpeter -- "name withheld by request" on the back cover -- but speculation is that it's Shorty Rogers. I'm not sure why the mystery was necessary, but the sunny playing by Rumsey on bass, Shelly Manne on drums, Russ Freeman on piano and that nameless trumpeter carry the day.



None of the Lighthouse ten-inchers is demo material; the best you can hope for is hearing everything that's captured on the recording so you can get a sense of being at the venue -- smallish and closed in, filled with damping material in the form of people drinking and chatting, the atmosphere of the time and especially the place. The LP1 revealed all, my seat somewhere in the back, the band almost sounding like it was on the other side of a short tunnel. In contrast to the Telarc records, this wasn't audiophile sound, but it was authentic, a view of a far-less-than-perfect recording, the most you can hope for and just what the LP1 delivered.

And it was really a microcosm of the LP1 *Signature*, which can play spacious and dynamic or small and nuanced, and make *all* of the stops in between. It is true to what happens in front of it, portraying recordings with a flair for differentiating them within the framework of the flow and naturalness of Lamm's house sound. Analog can sometimes sound homogenized -- as though one record is simply a slightly different version of another, for better or worse. The LP1 *Signature* achieves something wholly different. It distinguishes records from each other, unearthing low-end weight and detail, fine points of the recording's construction and venue, while sounding fluid and natural -- like analog, but just a more varied, more complex, and more satisfying version of it.

The Audio Research Reference Phono 2 SE (\$13,000) also distinguishes and unearths, but it is wholly different, both functionally and sonically. Most obvious among the differences is its single large chassis, followed closely by its vacuum-fluorescent display, which gives all manner of user information, including input, gain level, EQ curve and loading. Inside, the tubed Reference Phono 2 SE derives all of its gain



-- up to 68dB -- via active devices, so there are no step-up transformers. Using the Reference Phono 2 SE with two cartridges (or two complete turntables) is a snap, as is placing it on the equipment rack, given that it will take up only one shelf. The Reference Phono 2 SE is among the most user-friendly phono stages currently available, and it is a true destination product -- the kind that most analog diehards work up to, even though its price is roughly one-third that of the LP1 *Signature's*.

The Reference Phono 2 SE conveys scale and space extremely well, two of the things that Audio Research electronics achieve as a matter of course. The Reference Phono 2 SE ramps up dynamically without sounding excessive, possesses notable transparency to the signal

fed to it, and has an even tonal balance, if not one with lavish color. Consequently, perhaps, it sounds leaner and less physical than the LP1, transients in particular displaying just as much snap but less of the accenting resonance that gives drum strikes, for instance, much of the cut-through-the-air power of the Lamm LP1. The Reference Phono 2 SE has less low-end impact and weight, the bass drum on "Fanfare for the Common Man," from the Telarc Copland LP, still rivaling digital in its linearity, but sacrificing some of the LP1's force and weight.

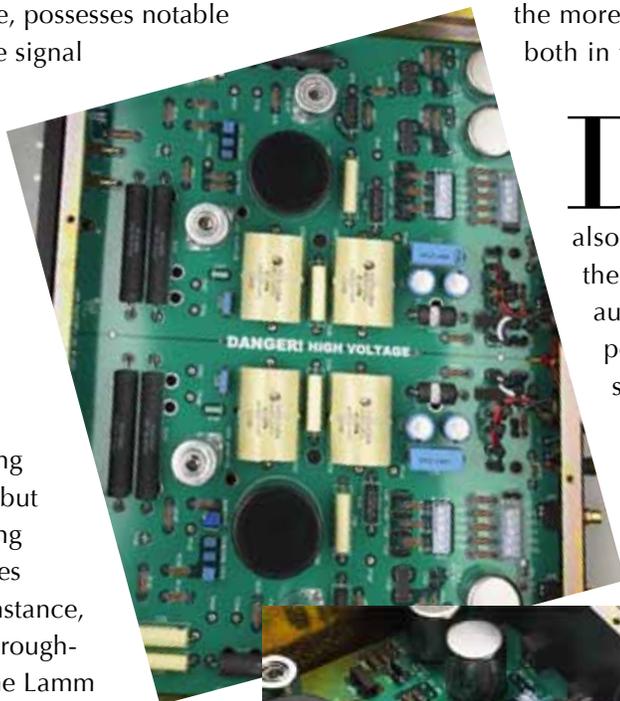
Where the Reference Phono 2 SE clearly eclipses the LP1 is in form and usability. Its single large chassis fits on all but the tightest of shelves, its two inputs are independently configurable, and it has both single-ended and balanced outputs. It

also allows you to set gain and loading, not to mention choose which EQ curve to use, from the listening seat with its remote control. It is as ergonomic as any phono stage available today and more so than most, including the LP1, which is a set-it-and-forget-it proposition -- if you are able to forget about its three chassis, that is.

As thoughtfully designed and user friendly as the Reference Phono 2 SE is, the Lamm LP1 *Signature* sounds more substantial, authoritative and vivid, and just as spacious, dynamically nuanced and finely detailed. It's worth keeping in mind, however, that Audio Research's two-box Reference 10 Phono (\$30,000), the company's top phono stage, would be the more obvious choice for comparison to the LP1, both in terms of cost and ambition.

During the time I've known Vladimir Lamm, I've had many conversations with him about music and its reproduction. We've also discussed reviews I've written and reviewing theory in general. Vladimir has his own ideas about audio reviews and especially what constitutes the perfect review of his products. His notion is a simple one: the ideal review is just a single word that perfectly sums up the product. I understand his thinking -- that each product is its own best explanation; no greater clarification is necessary and it may obscure the discussion of the fundamental character, the product's essence.

Even all of these years later, I'm still not sure what that magic word might be, and living with the LP1 *Signature* has only deepened the mystery. After playing nearly countless LPs with the LP1, I am convinced that a single word can't capture it -- at least not a single word I can devise. There is just too much to be said about this phono stage -- its presence and power, its dynamic athleticism, its focus and transparency, its speed, its intrinsic naturalness. It can play big or small, revealing the character of recordings with rare ability,





while never parsing the music into mere sonic elements. It is a Lamm product to be sure, but it's also much more.

While the Lamm ML3 *Signature* amps might not have enough power for your speakers, and you may need the balanced inputs and remote control that the

LL1 *Signature* preamp omits, the LP1 *Signature* will work with every combination of turntable, tonearm and cartridge and bring out the best in it all. It is Vladimir Lamm's finest product to date -- the one whose sound is most complete, engaging and powerfully real -- and that makes it one to consider if you won't settle for anything less.

Price: \$32,790.

Warranty: Five years parts and labor.

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Associated Equipment

Analog: TW-Acoustic Raven AC turntable; Graham B-44 Phantom Series II Supreme and Tri-Planar Ultimate U12 tonearms; Denon DL-103R and Dynavector XV-1s (stereo and mono) cartridges; Nordost Frey 2 and Valhalla 2 phono cables; Audio Research Reference Phono 2 SE, Lamm Industries LP2 Deluxe and LP2.1 phono stages.

Preamplifiers: Audio Research Reference 10 and Reference 5 SE, Lamm Industries LL1 *Signature*.

Power amplifiers: Lamm Industries M1.2 Reference, VTL Siegfried Series II Reference and MB-450 Series III *Signature* monoblocks, Jeff Rowland Design Group Model 825 stereo amp.

Loudspeakers: Wilson Audio Alexia and Sasha W/P Series 2, Venture Audio Ultimate Reference.

Interconnects: AudioQuest William E. Low *Signature*, Nordost Frey 2 and Valhalla 2, Shunyata Research Zi-Tron Cobra and Anaconda.

Speaker cables: AudioQuest William E. Low *Signature*, Nordost Frey 2 and Valhalla 2, Shunyata Research Zi-Tron Cobra and Anaconda.

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

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

Equipment rack and platforms: Silent Running Audio Craz² 8 equipment rack and Ohio Class XL Plus² platforms (under Lamm M1.2 amps), Harmonic Resolution Systems M3 isolation bases.