

Lehmannaudio Phonolith

This latest two-box MM/MC phono stage from Germany also includes a line input and preamp alongside a fully discrete headphone amp. It's the brand's first 'analogue hub' Review: **Adam Smith** Lab: **Paul Miller**

Is it my imagination, or are more hi-fi products steadily adopting greater functionality? Now, it's highly unlikely that Germany's resolutely 'analogue' Lehmannaudio brand will succumb to networking its phono stages any time soon, but the new £2599 Phonolith does wrap a trio of roles into one – an MM/MC phono stage, line level preamplifier and headphone amplifier. That said, it's not quite strictly rolled into 'one' as it's a two-box design, with the second unit being the standalone, dedicated power supply.

Of course, in typical Lehmannaudio fashion, these diminutive cases hide a good level of focused technology and functionality. The PWX II LZ power supply is a new variant of the company's PWX II PSU that has been used with other products [*HFN* Apr '23] and generates twin $\pm 15V$ DC outputs through 4-pin XLR sockets at the rear. Internally, all components are high specification through-hole types, including four 4700 μF Mundorf main smoothing capacitors. Both the PSU and main unit sit on Lehmannaudio's '3S device feet' for improved isolation and sound. The feet can be purchased separately in black or silver for use under other items, and start at £159 for a set of four '3S Point 1' models.

INTERIOR DESIGN

The Phonolith itself is also very neatly constructed inside and, again, mostly based on through-hole passive componentry. The surface mount exceptions are the op-amps in the second stage of the phono amplification, plus the single op-amp in the volume control stage, and their associated bypass capacitors. For the first phono preamp stage, through-hole THAT Corporation op-amps are used that have seen service in many other Lehmannaudio products. These

RIGHT: Top – linear PSU connects to the Phonolith via an umbilical. Centre – phono stage combines a FET-input with passive RIAA [centre], discrete headphone amp [left] and THAT line preamp [right]. Bottom – under the Phonolith, DIP switches set MM/MC loading and gain

are supplemented by a selection of film capacitors in the RIAA EQ circuitry. The volume control, governed by a large front-panel rotary, is an ALPS Blue type.

DOWN UNDER

The Phonolith has a variety of adjustments available on its underside [see pic. below] through the usual array of DIP switches, although these are usefully separated into three distinct banks. At the front of the unit are a pair that offer an additional +10 or +20dB gain to both line and phono options. In the centre are banks of three switches, two of which set the low

frequency roll-off of the Phonolith's MM/MC subsonic filter. Options of 32Hz, 50Hz and 78Hz are available, but setting all switches to 'off' still leaves a roll-off at 7Hz, so the filter is never completely bypassed [see PM's Lab Report, p73]. The third switch adds in an optional extra gain of 10dB for the phono circuitry only.

TUNING CHOICES

Towards the rear are final banks of six switches that alter gain and loading options. The first changes between MM and MC operation, with the MM setting giving a default load of 47kohm. When set



LEFT: The deep, minimalist chassis are all part of the Lehmannaudio DNA – seen here with 6.35mm headphone socket, phono/line input select toggle and volume control. The PWX II LZ PSU [bottom] sits below or to the side

and its absolute mastery of the MM genre. I've owned the 2M Black for many years and it rarely sounds anything less than superb, but a few phono stages really do take it to another level, and the Phonolith is definitely one of them.

This phono amp's overall sonic balance is very much in line with my previous experience of Lehmannaudio's 'house sound' – no unnecessary treble boost, no over-exuberant thumping bass and no sense that the unit is attempting to impart any particular character onto the sound. The Phonolith is an effortless and subtle performer, its accuracy and sense of rightness gently working their way into your ears over a period of time. And it offers enough flexibility in gain and loading to get the best out of pretty much any cartridge likely to cross its path.

SETTING THE STAGE

Given something relatively simple to work with, the Phonolith pulls everything out of the mix and paints it across the soundstage in a beautifully organised sweep. 'Fell Down

Fast', from Kathryn Williams' album *Little Black Numbers* [Snowstorm STORM008LP], was a masterclass in stereophonic layout, with Williams firmly centre-stage, the cello just behind her, and guitars to the right. Nor was it all forensic detail and

no heart – the cello strings were rich and vibrant, and each acoustic guitar note was defined with precision and clarity. Add in a sense of warmth and weight to the double bass and I was rewarded with a listening experience that was not only technically accomplished, but musically compelling.

Clearly the Phonolith is merely cruising with the higher output of moving-magnet pick-ups, so how does it fare with a more demanding MC? Swapping out the 2M Black for a Clearaudio MC Essence [*HFN* Aug '17] – while wielding a small screwdriver to reset the DIP switches governing gain and loading – revealed this phono stage's consistent sonic 'management' of both high- and low-output cartridge types. If you really want to listen to what your cartridge can deliver – unfettered rather than the buffed and tweaked version a phono stage thinks you might want to hear – then the Phonolith is your window onto the potential of vinyl. ↪

to MC, various combinations of switches 2, 3 and 4 allow loads of 1kohm, 390ohm 280ohm, 100ohm or 74ohm to be set.

Switch 5 selects an internal location within the preamplifier that has no component fitted as standard. This allows a resistor of the user's choice to be added for cartridges with specific loading requirements. Fitting this resistor is a job that your dealer will be able to do for you, although the relevant locations actually have small receptacles to accept standard through-hole component legs, so no soldering is required. Finally, switch number 6 adds in a parallel 1nF capacitive load if this is desired.

Once these settings are made, the only front panel controls on the Phonolith are the volume and a small toggle switch that selects the phono or line input. A blue LED

illuminates to show the unit is powered and a second blue LED beside the selector switch illuminates when the Line input is selected; between these is the 6.35mm headphone socket. All other inputs and outputs are through good, sturdy phono sockets – the layout is slightly unusual [see p73] but this is dictated by the lack of rear-panel real estate.

PHONO FINESSE

Kicking off with an Ortofon 2M Black installed in the SME 309 arm on my Michell Gyro SE turntable, and feeding my regular Yamaha M-5000 power amplifier [*HFN* Aug '20], the Phonolith instantly brought to mind the character of the company's Decade Jubilee phono stage [*HFN* Apr '23]

'The Phonolith was really digging into the grooves'

FROM VINYL TO CD

As the Phonolith is Lehmannaudio's first phono stage to also include a line-level preamplifier, we thought it amiss not to give it a whirl. With my regular Naim CD5 XS CD player connected to the Phonolith's line input, the diminutive preamp proved just as big-hearted as it had with vinyl playback. The overall sound balance was remarkably consistent between these two source options, both enjoying a full-bodied bass that erred slightly on the warm side. This was topped off by an open and spacious midrange and treble, with first-class instrument placement and imagery. Lisa Miskovsky's vocals on 'Lady Stardust' [*Fallingwater*; Universal 9871660] were bright and pitched confidently into the room, while still connecting with the backing track. The steady drum beats were firm and weighty, and the deeper bass notes rich and solid. Frankly, if you want to extract maximum enjoyment out of a digital source then you could do a great deal worse than investing in Lehmannaudio's new phono stage. That's a sentence I never expected to find myself writing!

LEHMANNAUDIO PHONOLITH

Our lab tests of the Decade Jubilee [HFN Apr '23] illustrated the long but steady evolution of Lehmannaudio's phono stage 'concept', a journey that began (for us) with the original two-box Decade [HFN Sep '07] but reaches another level of refinement here with the Phonolith, built into the same 'Decade' casework and partnered by the very similar PWX II LZ power supply. The essence of this high gain/passive RIAA circuit is retained in the Phonolith, yielding exceptionally low 0.0004-0.003% distortion [see Graph 2, below] and very wide 88.8dB and 77.7dB A-wtd S/N ratios in its MM and MC settings, respectively. The response too is extended at HF (+0.14dB/20kHz and -1.2dB/100kHz) but includes a gentle bass roll-off that reaches -0.8dB/20Hz before offering an 8dB attenuation at 4Hz [black trace, Graph 1]. Extra subsonic filters are included in the Phonolith, notionally at 32Hz [blue trace], 50Hz [green] and 78Hz [red], so if you have large reflex-loaded loudspeakers and a number of warped LPs, one of these settings will surely prevent you from getting into trouble!

At the time of writing, Lehmannaudio's manual and website rather undervalue the features on offer – quoting just four (36dB, 46dB, 56dB, 66dB) gain options. In practice there are six, three in MM mode (+35.5dB, +45.4dB and +55.6dB) and three in the MC setting (+56.1dB, +66.1dB and +76.0dB), these offering input overload limits of 168mV for all three MM settings and 15.7mV for all three MC settings. These represent headrooms of +20dB or more for all MM and MC gains relative to their respective input sensitivities (re. 0dBV output) – enough to prevent clipping with 99.9% of LPs. Finally, the maximum output is a high 8.95V from a moderate 51ohm source impedance. PM



LEFT: The PWX II LZ PSU [bottom], connects to the Phonolith [top] via an umbilical and 4-pin XLR plugs. A second power outlet is also provided. The Phonolith includes phono and line inputs, with single-ended preamp outs

One area which did improve slightly through Lehmannaudio's phono stage with the change to an MC pick-up was bass presentation. Through the MM settings, the low end was fulsome, but with a slight lack of texture at times. This is not a major problem, but meant that, occasionally, more insight into the minutiae of the instruments in action would have been welcome.

DIGGING IN

With an MC cartridge in play, that insight appeared. Bass elements now had a touch more definition and detail. In MM mode it had still been hugely enjoyable, but the Phonolith was now really digging into the heart of the grooves. The gentle country of Eric Bibb's 'Needed Time', from his 1994 album *Spirit And The Blues* [Opus 3 LP19401], was delivered with impressive scale and insight. The Phonolith was in its element as strong, solid vocals, plus harmonica and slide guitar, played off the melodious double bass.

That said, there is always an underlying feeling of 'politeness' to this phono stage's low end. I've often found this to be a character of Lehmannaudio's hardware and I wonder if here it might be down to the unit's high-pass (subsonic) filter, which is never quite truly 'off'. All it means is that, while the Phonolith never sounds dull or leaden, with music that gets pacier and punchier the performance remains controlled, rather than baring its teeth.

Material like the extended 'Dance Mix' of the Pet Shop Boys' classic 'West End Girls' [12in single; Parlophone 12R6115] romped along joyously, with an excellent roundness to its rich bass synths, but

I wanted it to let its hair down a bit more on a track like this!

MUSIC MINDED

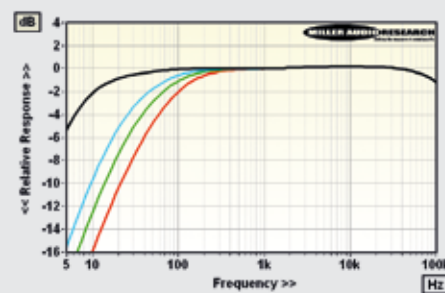
The above is more of a passing observation than a criticism, as the phono stage's measured approach was never at the expense of the things I'd already grown to love about it. The soundstaging was still wide, deep and skilfully laid out, and the fine detail and nuance of its midband handling meant instruments, whether acoustic or electric, were believably rendered.

The Phonolith was also able to both effectively spotlight a prominent instrument within a simpler mix, and capture every essence of a rather busier recording. Even some extravagantly noisy stuff like the stomping rock of Biffy Clyro's 'Tiny Indoor Fireworks' [*A Celebration Of Endings*; Warner Records 0190295282097] was handled with assurance. Put simply, this is a phono stage that doesn't get in the way of the music. ☺

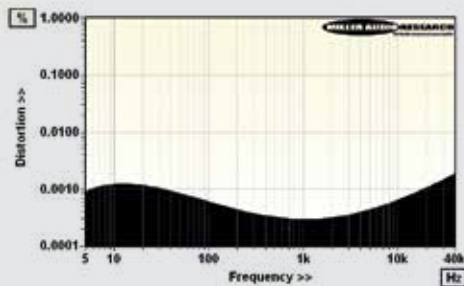
HI-FI NEWS VERDICT

The Phonolith is another great product from Lehmannaudio. This phono preamp offers very flexible loading and gain options, and turns in a consistently fine performance with both MM and MC cartridges. With the bonus of a pleasingly transparent line stage and capable headphone amplifier, it's more versatile than perhaps it looks – the German brand really has crammed the proverbial quart into a pint pot.

Sound Quality: 84%



ABOVE: RIAA-corrected frequency response from 5Hz-100kHz re. 0dBV (black trace, with alternative subsonic filters at 32Hz, blue; 50Hz, green; 78Hz, red)



ABOVE: Distortion versus frequency re. 0dBV from 5Hz-40kHz (MM '0dB' gain setting)

HI-FI NEWS SPECIFICATIONS

Input loading (MM/MC)	47kohm (0.1 to 1nF) / 100ohm-7kohm
Input sens. (re. 0dBV, MM/MC)	16.8/5.35/1.7mV / 1558/496/158µV
Input overload (re. 1% THD)	168mV (all MM) / 15.7mV (all MC)
Max. output (re. 1% THD) / Imp.	8.95V / 51ohm
A-wtd S/N ratio (re. 0dBV)	88.8dB / 77.7dB (MM/MC)
Freq. resp. (20Hz-20kHz/100kHz)	-0.9dB to -0.14dB / -1.2dB
Dist. (20Hz-20kHz, re. 0dBV)	0.00035-0.0027%
Power consumption	7W
Dimensions (WHD) / Weight	110x50x280mm (each) / 2.8kg (total)