





Xanniversary 2012 - 2022





PH-1000





The most advanced phono stage in the world

"The sound it produces is very even-handed and refined, the quality of electronics is clearly in the premium league, and this combined with the ability to change so many parameters on the fly makes it a fabulous piece of kit for vinyl lovers looking to get the best out of their collections."





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MICHAEL FREMER

Gold Note PH-1000

PHONO PREAMPLIFIER



old Note's \$11,999 PH-1000 is by a considerable margin the most sophisticated, most configurable phono preamplifier that any audio manufacturer has ever produced, at least that I know of. Remarkably, considering all that flexibility and sophistication, using and adjusting the PH-1000 is straightforward.

Despite all that the PH-1000 can do, and all that you can do with it, you'll never get lost in nested-menu dysfunctionality, thanks to what Gold Note calls "SKC" (Single Knob Control)—but before getting into control, let's explore the PH-1000's features and configurability.

The basics: The PH-1000 has two standard single-ended (RCA) inputs and one standard balanced (XLR) input; it came equipped with two line inputs, but I didn't use them. Loading can be set independently for each input, 12 options for the RCA inputs and eight options for the XLR input; see the Specifications sidebar for

The PH-1000's signature sonic characteristic is an ultrasophisticated smoothness.

details

In addition, there's a third RCA and a second XLR connection, which can be used to fine-tune loading on RCA input 2 (using RCA input 3) and XLR input 1 (using XLR input 2): Just solder loading

resistors across an RCA or XLR plug and plug it in. Both balanced and unbalanced outputs are included.

Capacitive loading choices (for moving magnet cartridges) are OFF and 100, 150, 220, 330, 470, and 1000pF. In the "OFF" position, only the cable's capacitance loads the cartridge.

The default gain is 40dB in MM mode and 65dB MC; that gain can be adjusted to six other levels relative to 65dB: -9, -6, or -3dB, 3, 6, and 9dB. So the highest setting is 74dB, which should be enough gain for even the lowest-output moving coil cartridges.

There's also a "mono" setting, phase/polarity inversion, a L-R

SPECIFICATIONS

Description Single box, balanced phono preamplifier with dual-mono linear power supply and optional line inputs (one RCA, one XLR). Other available options include two tubed output stages and two power supplies. Multifunction remote control included. Inputs: two stereo pair RCA, one stereo pair XLR. Outputs: one stereo pair RCA, one stereo pair RCA, one stereo pair RCA, one stereo pair XLR. Gain (user-selectable): 40dB MM,

65dB MC 43dB, 46dB, 49dB.
Resistive loading, RCA (12 options): 100k, 75k, 47k, 33k, 22k, 1k, 470, 220, 100, 47, 22, or 10 ohms + external load; XLR (8 options): 47k, 1k, 470, 220, 100, 47, 22, or 10 ohms + external load. Capacitive loading: 0, 100, 150, 220, 330, 470, 1000pF. EQ: 18 preset, 4 custom EQ curves, plus Neumann option (on/off). Maximum output level: 2.5V RMS. THD: <0.01%. S/N ratio:

100dB. Dynamic range: 110dB. Output impedance: unbalanced, 100 ohms; balanced, 300 ohms. Power consumption: 30W. Dimensions 17" (430mm) W × 5.3" (135mm) H × 14.5" (375mm) D. Weight: 26.4lb (12kg), 37.4lb (17kg) shipping. Finish Black, silver, gold. Serial number of unit reviewed 75209. Price \$11,999 as equipped. Approximate number of US

dealers: 25.

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channel swap function, and a "rumble" filter. There's a headphone jack. The PH-1000 has a volume control ("Preamp" mode) you can use and drive your amplifier directly, or you can use it to fine-tune the preamp-output gain. Or, if you prefer, you can bypass the volume control and run the PH-1000 at fixed output ("Stage" mode).

That's a lot of flexibility, but what really sets apart the PH-1000 from most other phono preamplifiers is its multitude of equalization options, which include, according to Gold Note, "40+ curves."

And now for a digression

Despite what some people

claim, once the stereo era began almost every label, foreign and domestic, quickly switched to the RIAA curve.

That includes British Decca and its American affiliate, London Records. Almost all of those records were pressed at the same British pressing plant. They were the same pressing. Only the labels were different. London record jackets say "use the RIAA curve" not to fool anyone but because that was the EQ used in cutting the



lacquers.¹ Sorry to have to keep repeating this like, um, a broken record, but the online blowback and charlatanism continues.

Recently, I spent some time with Allan Steckler, who was in

1 George Bettyes, one of Decca's veteran cutting engineers, confirmed this; see analog-planet.com/content/deccalondon-records-myth-exploded. John Atkinson once visited the pressing plant and witnessed this for himself. *Stereophile* published a photo of a London and Decca press order.

MEASUREMENTS

s increasingly appears to be the case with high-end phono preamplifiers, the Gold Note PH-1000 is a complicated product. It has single-ended and balanced inputs, and one of the latter is capable of accepting a linelevel signal. It has balanced, single-ended, and headphone outputs, with the option of either taking the output from the phono stage (Stage) or a preamplifier stage with a volume control (Preamp). (The latter appears to be the default for the headphone output.) Each phono input can be set to MC or MM, with gain adjustable from -9dB to +9dB in 3dB steps relative to the default OdB setting. There are multiple choices for input impedance and adjustable input capacitance for both MC and MM modes.

I performed a complete set of measurements with my Audio Precision SYS2722 system¹ using one of the single-ended phono inputs and both the phono stage's single-ended and balanced outputs, then repeated some of the tests with the preamplifier switched into the circuit. Most of the measurements were performed with the input set to MM, the gain set to its central, OdB level, and the input capacitance set to 100pF. The lowest noise was obtained with the Audio Precision's signal generator

ground floating and a separate grounding wire running from the PH-1000 input's ground terminal to the analyzer's chassis. I repeated some tests with the input set to MC mode and with the balanced phono and line inputs.

All the PH-1000's inputs and outputs preserved absolute polarity in both MM and MC modes through both the single-ended and balanced outputs. In MM mode with impedance set to 47k ohms, I measured 44k ohms at 20Hz and 1kHz for both balanced and unbalanced inputs,

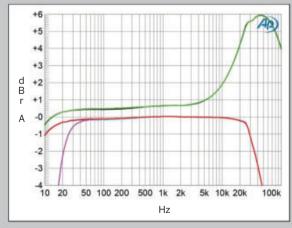


Fig.1 Gold Note PH-1000, MM, Stage mode, response with RIAA correction into 100k ohms (left channel blue, right red), with subsonic filter (left cyan, right magenta), and in Enhanced mode (left green, right gray) (1dB/vertical div.).

dropping to 20k ohms at 20kHz. In MC mode, the single-ended input impedance with the control set to "1000" was 1021 ohms at 20Hz, 998 ohms at 1kHz, and 992 ohms at 20kHz. With the control set to "100," the impedance was 104 ohms at 20Hz, 102 ohms at 1kHz, and 106 ohms at 20kHz. Set to "10," the impedance ranged from 13 ohms at 20Hz to 11.6 ohms at 1kHz and 20kHz. The balanced phono input supported only MC mode. Its input impedance

1 See stereophile.com/content/measurements-maps-precision.

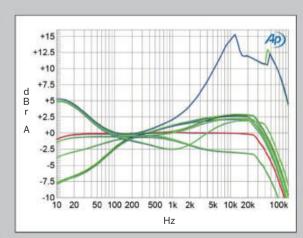


Fig.2 Gold Note PH-1000, MM, Stage mode, response with RIAA correction into 100k ohms (left channel gray, right red) and with 8 of the 18 alternate EQ settings (left green, right blue) (2.5dB/vertical div.).

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charge of the classical division at London Records before leaving for ABKCO, where he oversaw the Rolling Stones catalog. Steckler confirmed all of this. He also told me that Deccas and Londons had different cover art because he didn't like Decca's choices. He declined an on-camera interview, which is too bad because he had stories I assured him I'd not repeat! But I'm digressing from my

digression.

Old myths die hard. During a recent Zoom meeting with an audiophile society, I was challenged on the London/Decca pressing myth. A member claimed that Londons weighed less to save on shipping—proof that they were not identical. So I weighed a few London and Decca titles on a digital scale. All weighed within a

measurements, continued

defaults to 470 ohms and has a maximum setting of 4700 ohms. The measured impedances were close to the single-ended values, with the exception of 4700 ohms, where I measured 2400 ohms (1200 ohms per phase).

The PH-1000's output impedance is specified as 100 ohms unbalanced and 150 ohms balanced. I measured the balanced output impedance as 248 ohms in both Stage and Preamp modes from 20Hz to 20kHz. The unbalanced output impedance in both modes was 103 ohms at 1kHz and 20kHz and a still-low 208 ohms at 20Hz. The headphone output impedance was 40 ohms at 20Hz, 3.4 ohms at 1kHz and 20kHz.

The voltage gain is specified as 40–65dB, depending on the mode. In MM mode, with the output set to Stage, the measured gain was 42.2dB at both the balanced and unbalanced outputs with the gain set to –9dB, 51.2dB with the gain set to OdB, and 60.2dB with the gain set to +9dB. The gain in MC mode set to OdB was 65.4dB for both single-ended and balanced inputs. Switching to Preamp mode with the "Low" setting reduced the maximum gain by 6dB. With the Preamp "Hi" setting, the maximum gain was 8dB higher than in Stage mode.

RIAA correction was superbly accurate, with excellent channel matching (fig.1, blue and red traces), rolling off at ultrasonic frequencies, reaching –3dB at 41kHz. With the subsonic filter engaged, the response rolled off sharply below 35Hz, reaching

-3dB at 19Hz (cyan and magenta traces). Turning on Enhanced mode increased the level in the midrange by 0.7dB (green and gray traces) and boosted the output above 10kHz by a maximum of +6dB between 40kHz and 50kHz. This would appear to be implementing the so-called Neumann 4th pole modification of the original RIAA curve.²

Compared with RIAA (fig.2, red traces), the various equalization options offer a wide range of modified responses (blue and green traces). The most extreme of these is "Telefunken," which peaks at 15dB at 11kHz compared with RIAA, "Columbia," which is -8dB at 10Hz and -3dB at 20kHz, and "Old RCA," which is +6dB at 10Hz and -2.5kHz at 1kHz.

Channel separation was superb at around 90dB in both directions across the

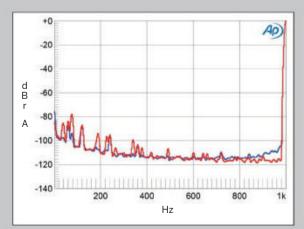


Fig.3 Gold Note PH-1000, MM, OdB gain, Stage mode, spectrum of 1kHz sinewave, DC-1kHz, for 5mV input (left channel blue, right red; linear frequency scale).

audioband. Spectral analysis of the Gold Note's low-frequency noisefloor with it set to MM and OdB gain (fig.3) indicated that both random noise components and power supply-related spuriae were very low in level. The PH-1000's unweighted, wideband S/N ratio, measured in MM mode with the unbalanced input shorted to ground and the gain set to OdB, was an excellent 83.8dB in both channels, referred to an input signal of 1kHz at 5mV. Restricting the measurement bandwidth to 22Hz-22kHz increased the ratio to 87.2dB, while switching an A-weighting filter into circuit gave a further increase to an astonishing 91.6dB. Increasing the gain by 6dB reduced the S/N ratios by the same 6dB, while reducing the gain by 6dB increased the ratios by 3-5dB. In MC

2 See stereophile.com/content/cut-and-thrust-riaa-lp-equalization-neumann-4th-pole-sic.

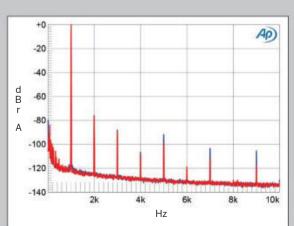


Fig.4 Gold Note PH-1000, MM, maximum gain, spectrum of 1kHz sinewave, DC-10kHz, into 100k ohms for 10mV input (left channel blue, right red; linear frequency scale).

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few grams of each other. Some of the Londons weighed slightly *more* than the corresponding Deccas.

Another phono preamp manufacturer claims that Prestige and Blue Note used different curves, yet both were cut by Rudy Van Gelder on the same lathe. Please—let's stop the nonsense! End of sermon and digression.

Here are a few of the EQ choices listed by Gold Note for the PH-1000: Capitol; Columbia/CBS; Deutsche Grammophon; Decca London USA; Decca London UK; Decca Mono 78rpm; Epic; HMW; Mercury; RCA Victor; Philips; Elektra; L'Oiseau-Lyre; Parlophone.

Gold Note also avers that "Each curve can be 'enhanced' with our proprietary technology inspired

by the Neumann Pole to extend the frequency response up to 50kHz."²

Where does Gold Note get its claim of "40+ curves"? That number results from taking the 18 selectable preset curves, adding four more that you can define yourself by specifying the bass turnover frequency, bass shelf, and treble cut—that's 22—and then



by adding the "Neumann Pole" to each one to get to "40+." Other than the \$14,500 LOCi phono preamp produced by Millennia Music & Media Systems under a government contract to the

2 Read Keith Howard's essential discussion of the RIAA curve and this (some say spurious) addition to the standard curve at stereophile.com/content/cut-and-thrust-riaa-lp-equalization-page-2.

measurements, continued

mode with OdB gain, the S/N ratios were lower but still good, at 67.9dB (unweighted, wideband), 70.5dB (22Hz-22kHz), and 74.9dB (A-weighted), these all referred to an input signal of 1kHz at $500\mu V$.

The Gold Note's overload margins were affected by the gain setting. In MM mode with the gain set to OdB, the margin ref. 1kHz at 5mV was a good 15.1dB at 20Hz and 1kHz but dropped to 3dB at 20kHz. Setting the gain to -6dB reduced the margins by 6.5dB, while setting the gain to +6dB increased the margins by 6dB. In MC mode, the overload margins were 20.8dB at 20Hz and 1kHz and 8.6dB at 20kHz, all ref. 1kHz at $500\mu V$. These margins were calculated from when the THD+noise percentage reached 1% and were equivalent to the PH-1000's output level in Stage mode reaching just over 10V RMS.

Distortion was very low. In MM mode set to OdB gain and with a 1kHz signal 6dB higher than the nominal MM reference level (fig.4), the highest-level harmonic was the second, at -76dB (0.015%). Though other harmonics can be seen, these all lie at or below -90dB (0.003%). Distortion was even lower in MC mode, with the second harmonic lying at -82dB (0.009%), this with a 1kHz signal 6dB higher than the nominal MC level of $500\mu V$. These spectral analyses were taken with the PH-1000 driving the high 100k ohm load. Commendably,

reducing the load impedance to the current-demanding 600 ohms didn't increase the levels of the distortion harmonics.

Intermodulation distortion with an equal mix of 19kHz and 20kHz tones, with the gain set to 0dB and at a peak input level equivalent to 6dB lower than the overload margin in this region, resulted in the second-order difference product at 1kHz lying at -47dB (0.5%). Reducing the input level by 6dB dropped the 1kHz product to -54dB (0.2%, fig.5).

Turning to the balanced line input, which has no EQ, gain, or input impedance settings: The gain in Stage mode was 0.76dB at the balanced outputs and 0.43dB at the single-ended outputs. Preamp mode with

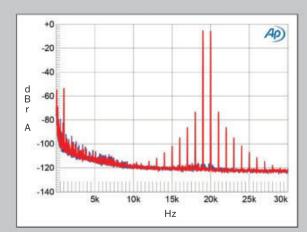


Fig.5 Gold Note PH-1000, MM, OdB gain, Stage mode, HF intermodulation spectrum, DC-30kHz, 19+20kHz into 100k ohms for 25mV peak input (left channel blue, right red; linear frequency scale).

the volume control set to its maximum increased the gain by 8dB. The Line input preserved absolute polarity, and its input impedance was a usefully high 52k ohms. The line input's distortion was very low, with the second harmonic the highest in level at -96dB (0.0015%, fig.6).

The Gold Note PH-1000's performance on the test bench reveals that it is a well-engineered phono preamplifier, especially considering the enormous range of adjust-ments it offers. Both distortion and noise are very low in level. While its overload margin at the top of the audioband is relatively low, this can be increased by increasing the phono stage's gain without incurring any significant noise penalty.—John Atkinson

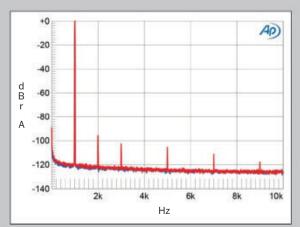


Fig.6 Gold Note PH-1000, Line input, Stage mode, spectrum of 1kHz sinewave, DC-10kHz, at 1V into 100k ohms (left channel blue, right red; linear frequency scale).

Library of Congress, which is far more complicated to use, the PH-1000 is the EQ-selectability champ.

While the user interface is digitally controlled, all signal paths, including equalization, remain strictly in the analog domain using what Gold Note refers to as "audio-grade" components and sealed single switches with the goal of keeping signal paths as short as possible.

If you have a large collection of 78rpm records, or of mono LPs from the pre-stereo era—or if you're a professional (or serious amateur) transcriptionist of early vinyl—then these preset curves could be useful. Otherwise, if you want to use them on stereo-era

records, that's fine, go ahead, but that's not how they were cut.

Gold Note offers two extracost options, neither of which was supplied for this review: the PSU-1250/1000 external power supply and the TUBE-1012/1006 external tubed output stage, both of which connect to rear panel jacks.

Big screen, complete control

As previously mentioned, a single rotary/pushbutton knob facilitates feature selection and control, aided by a generously sized, well-organized TFT LCD color screen. You can make changes without interrupting playback, although there is a momentary pause as the relays kick in.

The first button push puts a rectangle around the EQ curve choice. Then rotating the button/knob moves the rectangle through the various other options: "load"; "rumble filter"; "stereomono"; and so on. When you reach a setting you want to adjust, just push the button again and the rectangle turns red. Now, rotating the button runs you through the options within that setting. For instance, selecting "Stereo" then pushing the button and rotating it lets you select among "stereo," "stereo 180"—polarity inverted—"mono," and "mono 180." Push the button again to lock in your choice.

The system is easy to use, with just one inconvenience: Every time you change a setting, you must navigate through the menu from the beginning. Which makes "A/B" comparisons slower and more cumbersome. The firmware, by the way, is updatable in the field.

For a sophisticated multi-option product, the manual is inadequate—too casually written and full of holes, with too little guidance about which settings to choose. Perhaps Gold Note figures buyers of such a sophisticated multi-option device bring to it the requisite knowledge.

Smooth, silky, sophisticated sound

I ran the PH-1000 balanced, trying it both with its volume control and in "Stage" (fixed-volume) mode. The sound, including the quiet backgrounds, wasn't appreciably different between the two modes of operation. Which means that the PH-1000 should work quite well in an all-analog system with no line-level preamp.

Analogue Productions recently reissued Willie Nelson's *And Then I Wrote* (APP 133-45), first issued on Liberty Records in 1962. This was Willie's first album, but some of the songs had already

become hits for others, including "Crazy" (Patsy Cline), "Hello Walls" (Faron Young), and "Funny How Time Slips Away" (Jimmy Elledge and, later, Bryan Ferry, among others). You might not recognize Willie from the clean-cut cover photo, but you'll immediately recognize his voice. There's plenty of early '60s-style reverb putting Willie in a bubble and pushing him way forward on the soundstage, with the usual corny, cooing background singers way back, on some tracks straight behind and sometimes off in the right channel. This is a great period piece in which Willie alternates between singing and cartoonishly reciting sad lyrics of loneliness, heartache, and regret. I've played this record many times through



my reference gear—and now also through the devoutly feature-free Paradox Phono 70 Signature, the subject of this month's Analog Corner column. Wallowing has never been more pleasant.

The PH-1000's signature sonic characteristic is an ultrasophisticated *smoothness*. The shuffling drum kit and tinkling piano or vibraphone were somewhat softer and smoother than I'd become accustomed to but no less attractive or transparent.

The Paradox Phono 70 Signature removed some of the smoothness, slightly intensified the piano and drum transients, and put both instruments (drums and piano) into slightly greater spatial relief. There was less bloom to the reverb with the 70, which increased vocal-sibilant detail and increased the focus and attack of the walking bass line.

The sublime Electric Recording Company reissue of Herbert Downes and Jacqueline du Pré's *Music for Viola and Cello* (Columbia CSD 1499/ERC 028) highlighted the PH-1000's sonic strengths. The PH-1000's luxurious finish produced a viola sound to die for, with a rich, shimmering sustain and lifelike microdynamic nuance. On Brahms's "Hungarian Dance No.17" with Gerald Moore on piano, the timbral picture was rich and full and the physical presentation was convincing. The next track, "Ave Maria" with Roy Jesson on organ, produced low-frequency foundational depth that the less-costly Paradox phono preamp, good as it was, couldn't match.

Moving to a pre-stereo mono record, I tried Louis Prima's *The Wildest!* (LP, Capitol T755), a turquoise label original from 1956. Was it cut using the Capitol curve, or had the shift already taken place to RIAA? I don't know, but I used the Capitol curve to good effect. Following the Prima/Keely Smith medley "Just a Gigolo"/"I Ain't Got Nobody" (covered years later by David Lee

Roth), Louis and Keely do "Nothing's Too Good for My Baby." With the Capitol curve, the picture seemed to open up timbrally and dynamically. Keely Smith's vocals sailed effortlessly into the room, and the front-to-back layering of instruments would convince even the staunchest mono haters of what makes well-recorded one-channel listening special. James Blount's trombone on "Body and Soul" was *right there* with the Capitol curve. It was softer, more reserved, and less exuberant with the RIAA setting. "Tone control," or correct EQ? I don't know, but either way, I liked it, and using it couldn't have been easier.

Some people insist that Deutsche Grammophon records used the DG/Teldec curve well into the stereo era, and that's why DGG records tend to sound dull played back using RIAA. The tulip label "Brahms Symphony Nr.4" (DGG 138 927) I've been playing since college definitely opened up on top when played with the DGG Teldec curve—but is that the correct equalization to use? Was the Brahms more open on top because it was played back using the correct equalization or because it was acting as a tone control? I'm not sure.

If you want to dig deeper, the Pspatial Stereo Lab site can draw you deeply into a world of equalization confusion.³

This review could turn into a hair-pulling session about esoteric equalization. Instead, let's explore how the PH-1000 deals with rock music.

First up: Sandinistal, specifically CBS FSLN 1, the UK pressing of the Clash's sprawling 3-LP set. This is the version to have if you're a Clash fan. The American pressing can't compare to the British original's wide-open top end and enormously wide sound-stage. Recorded and mixed by Bill Price, the album is explosive, and its orderly mix contrasts well with the group's musical anarchy. The Motown tribute "Hitsville U.K." is supposed to have a bright top-end snap and crackle; with its smooth, suave sonic personality, the Gold Note PH-1000 softens and mutes it some. Topper Headon's drums should "pop" more. The top end should glisten. Paul Simonon's bass should be more muscular, not quite as polite and refined as the PH-1000 delivers it. That said, the midrange see-into-the-mix transparency impressed.

If you want a bottom-to-top frequency response report, here it is: The PH-1000's bass is well-controlled and nuanced but somewhat polite. It's better on acoustic bass than electric. When I sampled "Visions of Johanna" from an original "360 Sound" pressing of Dylan's *Blonde on Blonde* (C2S 841)—the copy I played in my college frat bedroom, which still sounds *great*—I expected more "stickiness" to Joe South's bass lines.

However: Higher up, Kenny Buttrey's cymbal hits were startlingly clean, each emphatic and meaningful in the break between the verses. Dylan's voice, well isolated at the front of the mix, was thrillingly *there*, and Wayne Moss's and Charlie McCoy's guitar parts were wiry, edgy, and disturbing—as they should be. Al Kooper's organ (that sounds wrong somehow) and Dylan's harmonica were as properly piercing and edgy as you'd want them to be and not at all soft, which, based on the Clash experience, is what I was expecting.

The star of this listening session was the PH-1000's midrange lucidity and clarity and the top end's transient precision. Only the bass disappointed, especially because it's so key to "Visions of Johanna"s musical soul.

Conclusion

Gold Note's made-in-Italy PH-1000 is a visually attractive—it looks best in gold, IMO—feature-driven, sophisticated phono preamplifier that's easy to use and uniquely configurable. In my reviewing experience, that's a rare and attractive combination. You'll *never* get lost in a nested menu system. Its volume control is

ASSOCIATED EQUIPMENT

Analog sources OMA K3, SAT XD-1 turntables; SAT CF1-09, CF1Ti-09, Schröder K3, Kuzma 4Point tonearms; HiFiction X-quisite ST, Lyra Atlas and Etna λ LambdaSL, Ortofon MC Century, Anna Diamond, Verismo, A95, A90, Grado Epoch3, Miyajima Labs Infinity (mono), Grado Epoch (mono) cartridges.

Digital sources dCS Vivaldi One SACD player/DAC; Lynx Hilo A/D-D/A converter; Mac mini running Roon, Pure Vinyl, and Vinyl Studio software.

Preamplification darTZeel NHB-18S line preamplifier; Ypsilon MC-10L, MC-16L, and MC-20L and X-quisite X-20 step-up transformers; Ypsilon VPS-100, CH Precision P1 (with X1 PSU), Paradox Phono 70 Signature phono preamplifiers.

Power amplifiers darTZeel NHB 468 monoblocks. **Loudspeakers** Wilson Chronosonic XVX.

Cables Interconnect: TARA Labs Zero Gold, Zero Evolution, Zero, and Air Evolution, Analysis Plus Silver Apex, Stealth Sakra & Indra, Luminous Audio Technology Silver Reference. Speaker: AudioQuest Dragon, TARA Labs Omega EvolutionSP. AC: Audio-Quest Dragon, Dynamic Design Neutron GS Digital power cord. Accessories AudioQuest Niagara 7000 power conditioner; CAD GC1 and GC3 Ground Controls; AudioQuest NRG Edison AC wall box & receptacles; RSX Industries Power8 box; ASC Tube Traps; RPG BAD, Skyline, and Abffusor panels; Stillpoints Aperture II Room panels; Symposium Ultra platform; HRS XVR turntable stand; Signature SXR and 2 Stillpoints ESS stands; Thixar and Stillpoints amplifier stands; Furutech record demagnetizer; Orb DF-01iA Disc Flattener; Furutech destat; Loricraft PRC4 Deluxe, Audiodesksysteme Pro, and Kirmuss Audio KA-RC-1 record-cleaning machines.—Michael Fremer

transparent and works well, which means that the PH-1000 can be used without a line preamplifier in an analog-only system—or you can set to "Stage" in a more typical system, with a line level preamplifier. The gain, loading, and equalization flexibility set it apart from most if not every other phono preamplifier currently available. Its absolute polarity and "stereo/mono" functionality, though not totally unique, are not as common in phono preamplifiers as they should be.

The PH-1000's sonic performance was as smooth and sophisticated as its operating system. It was quiet and both micro- and macrodynamically accomplished. Its transparency, clarity, and freedom from congestion in the midrange were notable.

Only the somewhat polite bottom end disappointed, and even there it was more on electric than acoustic music. Perhaps the optional outboard power supply would address that issue. The optional tube stage might produce more vivid orchestral colors, but as the Downes-du Pré record (among others) demonstrated, those sonic riches are already present. The quiet, fine-sounding built-in class-A headphone amp adds yet more value.

If you're thinking "Who needs all of this extra stuff, I just want to play my stereo records?" you're probably better off putting your money elsewhere, since much of the value of the PH-1000 is in features and flexibility. The PH-1000 becomes a very attractive choice if your record collection is rich with older mono records or if you value setup perfection alongside fine sonic performance.

3 As I did after reading this, which led me to disagree with Mikey here. Apparently, Germany officially adopted a government standard different from the RIAA standard and kept it until 1962. Labels including DG and Telefunken would have used the German EQ at least until 1962 if not for longer: Look for "33" in a triangle on the record label. See pspatialaudio.com/record_characters.htm.—**Jim Austin**

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