

Absolute Analog



CH Precision P10 Phonostage

Swiss Neutrality

Michael Fremer

In 2019, when I first visited Savimec SA, CH Precision's Le Locle, Switzerland, metal-fabrication facility, the stack of machined chassis bases for the company's new M10 amplifier shouted, "This will be a *big* product!" My estimate of two feet front-to-back turned out to be 4 inches off, but that's still plenty big. The 10 Series introduction, May 2nd, 2019, was two days before the May 4th Savimec visit, but I was traveling and missed the announcement. The M10 reveal a few days later at Munich High End 2019 made clear the scale of this almost foot-tall amplifier, twice that including the external power supply.

I reviewed the more typically sized CH Precision P1 phono preamp in 2017 and bought it, along with the X1 outboard power supply that took its already impressive sonic performance to an even higher level.

Six years later, I still own the P1/X1 and consider it a reference-quality product, as well it should be for a total of \$48,500. Its three independently configurable inputs make it audio-reviewer-friendly, but this one wouldn't sacrifice the slightest bit of performance to get convenience. Vinyl playback is not about convenience.

The P1 is a "dual-mon-aural" design, but you could also buy it configured as a four-chassis *fully* dual-mono phono preamplifier with each channel's signal-processing circuitry and inboard power supply housed individually and accompanied by its own outboard X1 auxiliary power supply. I got to experience that during the P1 review, and it upped the sound a few more notches, but the cost and the number of shelves it occupied were more than I could handle. I later heard from more than a few fortunate four-box owners, and all were more than satisfied with their purchase. One chided me for not going "the full Monty." Those P1 owners can again

do the four-box dance with the new P10 reviewed here.

The P1 is among a handful of the most "non-sounding" audio products I've ever reviewed or (not) heard. I'm satisfied that it fully expresses the performance potential of the many cartridges I've used with it, whether mm, mi, or mc, without imparting a detectable sonic character upon any of them. It's a reliable cartridge-reviewing partner.

The P1 doesn't add "warmth" or "cool" or any easily describable sonic quality, positive or negative—and I've been listening to it now for six-plus years. (Lovers of a warmer, harmonically enriched tube sound *might* call it cool, but I wouldn't.) I can't point to any obvious weaknesses or shortcomings among the usual audiophile checklist items, but I certainly could go on about its strengths, which I won't because this is a review of the new P10, CH's attempt to better the P1.

Happily, the P10 is housed in a P1-sized chassis of the same high-quality Swiss construction and not in an M10-sized one, though unlike the P1, for which the outboard X1 power supply was an option, the P10's second chassis is mandatory. It supplies all the power.

Yes, But What Do You Do For An Encore?

CH Precision's new P10 is an evolutionary, not a revolutionary product and derives from the same design strategies found in all CH products, including the P1: "ultra-short, fully discrete, fully complementary signal paths combined with sophisticated software-based control systems."

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Specs & Pricing

Inputs: 2x mc current-sensing on both XLR and RCA connectors; 2x mm/mc voltage-sensing on both XLR and RCA connectors

MC current-sensing inputs: Input impedance <100m ohms, virtual ground; gain +56dB to +77dB in 3dB steps, @1kHz, 10 ohms cartridge (on single-ended output; +6dB on balanced output)

MM/MC voltage-sensing inputs:

Input impedance variable from 100k ohms to 5 ohms; gain +41dB to +74dB in 3dB steps, @1kHz (on single-ended output; +6dB on balanced output)

Playback EQ accuracy: ±0.1dB

EQ curves: RIAA, EMI, Columbia (LP), Decca (London), DGG (Teldec), NARTB (NAB), Capitol/AES, and Philips

Ultrasonic: Neumann pole at 50kHz can be engaged with any EQ curve

Subsonic: Anti-rumble 2nd-order high-pass filter at 7Hz can be engaged with any EQ curve

User control: Five tactile push buttons, CH Control Android app

Display: 800×480, 24-bit, RGB AMOLED

Dimensions: 440mm x 120mm x 440mm (main body); 440mm x 132mm x 470mm (overall including connectors and feet)

Weight: 20kg (audio unit); 23 kg (power supply)

Price: \$76,000 (optional EQ curves, \$2250)

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Associated Equipment

Loudspeakers: Wilson Audio

Specialties Chronosonic XVX

Preamplifier: darTZeel NHB-18NS

Power amplifier: darTZeel NHB 468 monoblocks

Phono preamplifier: CH Precision P1/X1PSU,

Turntable: OMA K3

Tonearms: OMA Schröder K3 and

SAT CF1-09

Phono cartridges: Lyra Atlas Lambda SL, Audio-Technica AT-MC2022, Ortofon MC Diamond,

Cable and interconnects:

AudioQuest Dragon & TARA Labs The Zero Evolution & Analysis Plus Silver Apex & Stealth Sakra and Indra (interconnects). AudioQuest Dragon and Dynamic Design Neutron GS Digital (A.C. power cords)

Accessories: AudioQuest Niagara 7000 (line level), CAD Ground Controls; AudioQuest NRG Edison A.C. wall box and receptacles, ASC Tube traps, RPG BAD, Skyline & Abffusor panels, Stillpoints Aperture II room panels, Stillpoints ESS and HRS Signature stands, HRS XVR turntable base, Thixar and Stillpoints amplifier stands, Audiodharma Cable Cooker, Furutech Record demagnetizer, Orb Disc Flattener, Audiodesksysteme Vinyl Cleaner Pro X, Kirmuss Audio KA-RC-1 and KLAUDIO KD-CLN-LP200T record cleaning machines, full suite WallyTools

With its rich, “at the push of a button” feature set and both current- and voltage-based gain circuits, the P1 fought and won the phono preamp revolution. At least it did for me. The P10 is more of a “next-gen” design that consolidates the P1’s sonic and technological gains and attempts to further refine both, while adding some new and extremely useful features, including a handy, multi-function remote control. The P1 and P10 exteriors appear nearly identical, but inside the P10’s circuitry and layout are both all new.

The P10 includes four inputs instead of the P1’s three. Two are single-ended and balanced transimpedance inputs for use exclusively with low-output, low-internal-impedance mc cartridges, and two are more typical single-ended and balanced voltage-gain-based inputs that can be used for both mm and mc cartridges. The transimpedance mc inputs allow for gain settings from +56dB to +77dB in 3dB steps. The voltage-gain mm/mc inputs offer from +41dB to +74dB in 3dB steps. All at the push of a few buttons. Of course, there are no transimpedance loading options.

The mm/mc loading options range in very small steps from 5 ohms to 100k ohms. The CH “Loading Wizard” feature used in conjunction with a supplied test record lets you see the response flatness for a given load on a graph that appears on the front-panel

screen. You can change and load and immediately see the graph results. It’s a useful and unique feature that helps make choosing the correct resistive load less of a subjective chore—unless your goal isn’t flat response.

Having both voltage and current inputs provides a convenient way to try both, because which works best with a given cartridge is not as well ordered and predictable as a cartridge’s electrical characteristics might predict. Unused inputs can be disabled in the menu system.

CH found room for the extra input on the already crowded rear panel real estate by ingeniously repositioning

the RCA and XLR jack locations to make better use of the available space. As on the P1’s rear panel, the P10’s features single-ended, balanced, and 50-ohm BNC jack outputs, Ethernet and USB ports (USB for firmware upgrades only), and chassis and signal ground banana jacks. The ground-lift switch is new.

During my post-Munich High End 2023 CH factory visit (on *The Absolute Sound’s* YouTube channel), I asked both CH CEO Florian Cossy and an engineer who worked on the P10 project what they were hoping to accomplish in terms of upgrading the performance of an already impeccable-sounding and mea-

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asuring product. Both said they had but one major goal, which was to improve on the P1's already outstanding signal-to-noise ratio, which CH measures as EIN (equivalent input noise).

One way to accomplish the lower-noise goal, they thought, would be to isolate the power supply by placing it in a separate enclosure, kept at a distance with a pair of umbilical cords: one for analog DC and one for control DC. The P1's power supply is inboard. Placing the power supply outboard also freed up a great deal of internal space that allowed the engineers greater layout flexibility in their lower-noise quest.

The P1's measured current-sensing input spec is: <-135dBu without X1; <-138dBu with X1/1-ohm termination; gain +70dB, 22kHz bandwidth.

The P10's is: <-144dBu/1-ohm termination, 22kHz bandwidth any gain. That's a significant 6dB noise-floor improvement to what already is a very low-noise product!

"Then how do you explain what I heard during the P1/P10 comparison the other day at the Munich show?" I sputtered. I'm paraphrasing here, but their response was along the lines of, "We don't know! It surprised us, too!"

The demo, which included both P1/P10 two- and four-box comparisons using the revelatory Analogue Productions double 45rpm reissue of *Dusty In Memphis* (APP 8214-45), originally released in 1969, produced major, easily audible, and quite surprising differences in detail-revealing midband transparency, soundstage width and depth, imaging specificity, and especially in what I call image textural and transient suppleness. The differences were not subtle, nor were the improvements minor. The ability to follow individual instrumental lines of even the most incidental background musical elements became effortless but not at the expense of the picture's overall cohesion, which also improved. The lower noise floor (which at that time I did not know about) expressed itself in this recording more as studio air and atmosphere and less as a blacker background.

By comparison, what I thought sounded convincingly lifelike through the P1/X1, became cardboardy when confronted with this new, more liquid, transparent, and *vivid* presentation. The picture was definitely not "tube-like," but it was kind of "tube-ish" and just plain floated hologram-like on the now seemingly audible recording-studio air. It had a heartbeat, whereas the P1 delivered an impressive document. If that sounds like I'm selling the P1 short, I'm not. I'm just selling the P10 long, so profound and surprisingly different and better was the latter.

The centerpiece of Chips Moman's legendary American Sound Studios in Memphis where *Dusty In Memphis* was recorded (it folded in 1972, was torn down in 1989, and replaced with a Dollar Store) was a rich-sounding Universal 610 vacuum tube-based console through which passed hundreds of classic recordings from The Box Tops' "The Letter" (the "jet plane" that ends the tune

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was the studio vacuum cleaner) to Neil Diamond's "Sweet Caroline."

By the time of this recording, the studio had a 4-track Ampex and an 8-track Scully. When you hear a drum kit isolated in one channel like it is here, it often indicates a 4-track recorder and a need to conserve track space, but with everything else so nicely spread out across the stage, one can't be certain. On tracks like "Son of a Preacher Man," there's a lot going on in a relatively small room—horns, Fender Rhodes, background singers, strings, rhythm section, and, of course, Dusty's voice, though that was supposedly recorded later in New York.

Through the P1 it sounded recognizably fine, with individual elements effectively mixed yet easily identifiable. With the P10, within seconds

of the stylus hitting the record, the room opened up, the studio backwall appeared, putting the drum kit in a defined space well back from where it appeared in the previous play, the strings and background singers became neatly layered front to back and arranged in an orderly array across the stage in a well-defined space, and a textural grace suffused the strings and voices that added weight and presence to the images and made them sound more lifelike. Springfield's voice—wherever it was recorded—appeared well in front of the other musicians with greater three-dimensionality and with more head and body attached to throat. Also notably improved was the bottom end, which on the various demo records played afterward became nimbler, better extended, and definitely more clearly defined.

It wasn't a "hmm, that's somewhat better" moment. It was more a "wow, that's *amazing*" one, in which the entire presentation—everything that had already been plenty good—was fundamentally and completely *better*, though cut from the same high-precision cloth—which is why a



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few days later in the factory I sputtered when the engineers told me about the lower noise floor goal and their inability to explain at the time why *everything* sounded so much better. Knowing these guys, I'm sure at some point they'll figure out how to measure and explain it.

The Home Install

CH's International Sales Manager Kevin Wolff arrived in early July to install the P10. There'd been a circuit revision since the review unit was shipped, and it required him to swap out modular-board/rear-panel jack assemblies that had also been shipped in advance of his visit. While he did that, I played a selection of records, and then we removed the P1/X1 from the system and replaced it with the P10.

The umbilical, hard-soldered to the power supply, was not long enough to go where the X1 had been, so it required some gear swapping. If you buy a P10, be sure to order it with a sufficiently long umbilical set!

One of the records was a recent reissue of Blossom Dearie's eponymous album originally released on Verve in 1957. This edition was pressed at Jack White's Third Man Pressing plant and mastered at Sterling Sound in Nashville, lacquers cut by Ryan Smith and Joe Nino-Hernes (probably from a digital file as was Kevin Gray's for VMP a few years ago). The improvement in Ray Brown's bass was immediately noticeable: the transient attack was firmer and cleaner—kind of like the sonic differences between Kevin Gray's old AcousTech mastering system at RTI and his new Coherent Audio chain—with more finger in the pluck, better sustain, greater “elasticity.” Not even close, and the P1/X1's bass performance—its rhythmic authority—was and is among its most attractive attributes. The rest of the Norman Granz assembled combo—Herb Ellis on his Gibson hollow-bodied ES-175 guitar, Jo Jones on drums, and Dearie on piano produce an intimate, breezy, cabaret/small-club feel that might remind you of Norah Jones' debut album. Improved sound fresh out of the box, still cold and not broken in.

After a few months experience with the P10, I found it clear that, while you probably don't want to leave it on 24/7, it needs a good half hour to 45 minutes before it's ready to fully deliver the sonic goods.

A few other features: a choice of global or local feedback, an improved “wizard” experience for both loading and gain, a sub-sonic filter, an all-new circuit featuring three separate gain stages, and two-stage passive EQ with seven optional EQ curves: EMI, Columbia (LP), Decca (London), Teldec (DGG), NARTB/NAB, Capitol (AES), and Philips, all of which you can abuse as tone controls to convince yourself that all of these labels used proprietary curves well into the stereo era when only Teldec actually did, or as one Columbia Records veteran mastering engineer told me when I said that some people think Columbia used their own curve into the 1980s, “What are they on, *crack*?”

You can also easily add wherever you wish, the so-called Neumann “4th pole” (“ultrasonic time constant around 50kHz”) supposedly designed to curtail ultra-high frequency amplification during disc cutting that must be compensated for in playback, though I swear, no such pole exists and implementing it probably

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does more bad than good, but that's a discussion for another time!

The Concert Sinatra from 1963 is an “odd duck” in the Sinatra catalog featuring Frank backed by a symphony orchestra, arranged and conducted by Nelson Riddle. It was their first recorded collaboration. Frank wanted large-space natural reverb, so it was produced on four stages of Goldwyn Studio's Soundstage 7 to accommodate the large group and was recorded to 8 tracks of 35mm tape. Only an original (Reprise R9 1009) with Frank's face on the “deep groove” label will do, and then you can be transported to the space shown if you fold open the gatefold cover. Frank's voice has a full-bodied richness only a large space can provide, which is mostly absent from his studio recordings, though, of course, those have other appealing sonic qualities. On “Old Man River,” he hits what is probably the lowest and longest note Sinatra ever recorded and one that amazes every play.

A phono preamp or cartridge that adds midbass warmth can easily overload the vocal and muddy it up with the room reverb. Sinatra's vocal presentation on this album will sound muffled throughout under those

conditions, especially as he descends to the lowest “Old Man River” note. The P10/Lyra Atlas Lambda SL combination delivered cleanly and distinctly both Frank's rich “light baritone” and the room reverb.

I started playing various mono versions of “Like a Rolling Stone” from *Highway 61 Revisited*—original, MoFi double-45, and the Sterling Sound cut box set. I'd played all three of these versions a few weeks before the P10 install, to help a friend find the best version to buy. Bruce Langhorne is on tambourine. This time, for the first time, I swear I could hear when Langhorne hits the tambourine with his hand and when he hits it against his body, which produces a more muted jangle. I've never heard that! Not that I was listening for it. The P10 effortlessly and naturally allowed each musician to be heard, followed, and appreciated throughout the song. The Sterling Sound box set version was best. It's available separately from the same master pressed at Record Industry for Music On Vinyl.

Final experiences: Two records arrived as I was wrapping this up—The Electric Recording Company's reissue of *Monk's Music* recorded in mono June 26th, 1957, and Chasing The Dragon's all-analog production *Scheherazade* performed by The National Symphony Orchestra conducted by Anthony Inglis.

For these I compared the current and voltage-amplification inputs. Both produced the same delicate, transparent “non-electronic” presentation, but for the Monk I preferred the voltage input and for the Rimsky-Korsakov the current input. Nice to have

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both. The Monk, in a septet setting with Coltrane, Coleman Hawkins, Wilbur Ware, Art Blakey, Gigi Gryce, and Ray Copeland, sounded as if it could have been recorded yesterday, so vibrant, three-dimensional, and “in the studio” transparent was the presentation, with each musician, though recorded in mono, easy to follow. The “Scheherazade,” recorded in a relatively small former church, produced a fifth-row center seat experience with startling macrodynamic expression—and I mean more than a few times explosive SPL bursts pushed me back in my seat.

Conclusion

Speaking of being pushed back in one’s seat, the price for all this sonic and technical wonderment is \$76,000 (EQ curve options excluded). Though the P1 and the P10 look similar, their feature sets are very different. The remote control allows you to switch EQ curves from your seat, to go from stereo to mono, to go from local to global feedback, to invert absolute polarity, to change inputs, and essentially be the master of your analog fate without having to get up. Nonetheless, some of these options work way better from the listening chair, and now you can have them.

As for the sound. The differences between the P1 and P10 are not subtle, nor is the improvement “incremental.” Nor have I heard a phono preamp remotely as musically sophisticated and

fulfilling as the P10. The P1 was/is a very accomplished product, but the differences between the two were obvious and mind-boggling under Munich show conditions, and they are even greater listening at home.

I can honestly say to you that every record I played with the P10 installed presented new musical pleasures from the most familiar records. Listening to *Beatles For Sale*, for instance, the original Parlophone pressing of which I’ve been playing for *almost 60 years*, delivered surprises on just about every track, and where there were none there was at least an ability to hear into known events with new and highly pleasurable understanding.

Most of the vocals on that record and other Beatle albums are double tracked, and The Beatles were masters at it, to where, if you don’t pay close attention, you might not even notice. With the P10 you can’t help but hear each of John’s vocals laid out before you with an ease that lets you appreciate separately each effort. That may sound unimportant in your musical world, but whatever that world may be, visiting it through the CH Precision P10 will take you on musical adventures into uncharted territory you may not have thought even existed within your most familiar records. Boy, does that sound like hype, but it’s what I experienced every listen and I stand by it! **tas**