# the absolute sound

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## **Absolute Analog**



# **HSE Masterline 7 Phono Preamplifier**

## Swiss Masterpiece

### **Michael Fremer**



**gleaming late model gray Mercedes sedan sits** parked behind the factory, engine running. Vladimir opens a back door. Slobodan points, says, "Get in." I

do as I'm told. The two strangers take the remaining seats, Alex punches the pedal, kicking gravel and dust into the air announcing with a visual and sonic flourish our late afternoon Turbenthal exit.

The day wasn't supposed to end this way. It began as expected following Munich High End 2024 with a visit to Micha Huber's Turbenthal, Switzerland, HiFiction factory where Thales and EMT turntables and arms are assembled and EMT cartridges are built. *The Absolute Sound*'s editor-at-large was the only invited journalist, joining a group of HiFiction distributors from around the world, for the debut of the new Stellavox-designed Thales Magnifier phono preamplifier.

After the launch and lunch, I overheard two in attendance plan-

ning the afternoon drive to HSE—Robert Huber's design and assembly site (it would be greatly overstating the place to call it a factory), and since I was shortly going to receive for review an HSE Masterline 7 phono preamp—easily one of the coolest-looking pieces of kit on the planet—I begged a ride. A serendipitous turn of events.

Micha Huber had no problem with me heading over to the competition, nor do I doubt Robert Huber would have one with Micha's new product being mentioned here. The Swiss are a friendly bunch of competitors—as anyone reading this would know who's seen the video I shot where darTZeel's Herve Delatraz pops up from behind a loudspeaker in CH Precision's listening room!

That's how I ended up joining three total strangers, two with pseudo-sinister-sounding names (at least for an American) on a drive to Schlieren, Switzerland, to visit Robert Huber—no relation to Micha Huber or to FM Acoustics' Manuel Huber—just by coincidence

#### **Specs & Pricing**

Inputs: 3x balanced **Outputs:** 1x balanced (24dBu) Gain: Up to 72dB 1kHz (37 positions), higher gain available upon request Impedance: 7.5 Ohms-47kOhm (24 positions) Capacitance: 33pF-680pF (12 positions) Noise: EIN -144dB BW 22-22kHz (49.8nV) **RIAA:** Passive balanced ±0.05dB THD: Not measurable **Frequency response:** 1.5Hz-150kHz **Channel separation:** >120dB Headroom: >24dB Subsonic: Passive balanced 15Hz, 18dB/ oct Functions: Mute, phase, overload, ground lift Weight: 14kg Dimensions: 446 x 88 x 410mm **Power supply weight:** 2.5kg **PS dimensions:** 110 x 115 x 280mm Price: \$89,000

#### HSE SWISS HUBER

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#### Associated Equipment (for this review)

Loudpeakers: Wilson Audio Specialties Chronosonic XVX, Acora VRC Preamplifier: darTZeel

**Preamplifier:** darTZeel NHB-18NS

#### **Power amplifier:** darTZeel NHB 468

monoblocks Phono preamplifier: CH Precision P10

#### Phono cartridges:

Lyra Atlas Lambda SL, Gryphon Black Diamond DLC, Audio-Technica MC-2022, Audio Technica ART-1000x **Cable and** 

#### interconnects:

AudioQuest Dragon, TARA Labs The Zero Evolution, Analysis Plus Silver Apex, Stealth Sakra and Indra (interconnects), Esprit Eureka phono cables, AudioQuest Dragon, and Thunder and Dynamic Design Neutron GS Digital (AC power cords)

#### Accessories:

AudioQuest Niagara 7000 (line level), Niagara 5000s (amplifiers), 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, Thixar and Stillpoints amplifier stands, Audiodharma Cable Cooker, Furutech Record demagnetizer, Orb Disc Flattener, Audio Desk Systeme Vinyl Cleaner Pro X, KLAUDIO KD-CLN-LP200T record-cleaning machines, full suite WallyTools

three Swiss Hubers in pursuit of analog excellence. To be clear, Vlad and Slobodan (not going to call him Slob for short)—two very congenial Baltic HiFiction importers laughed when I asked if they promised to not kidnap me.

#### HSE Headquarters

All signage at HSE's office suite was printed on paper and taped to the walls and windows, as if Huber was prepared at any moment to pull up stakes and flee a bootleg operation or, as one friend suggested upon seeing the pictures, the signage was hastilv posted for our visit and would later be removed. Following the visit, I was certain we'd come upon the place as it was and would remain-a somewhat eccentric genius' minimalist command center for the design and construction of maximalist audio gear. Please watch the factory tour video now posted on The Absolute Sound's website, though in case you choose not, to here's a very short introduction: Mr. Huber is a veteran of the pro-audio world. He joined Studer/Revox in 1981 and stayed on for 33 years in the R&D department as a development engineer. Huber holds 14 worldwide patents acquired during his work for Harman International (which bought Studer), Soundcraft, and AKG. He's also a musician. While still working for Studer in 1987 he founded HSE (Hard & Software Engineering). He's designed and built a variety of well-regarded pro-audio pieces found at many of the world's best recording studios. He's also one of those individuals, like our Robert E. Greene, who's perpetually sharing a laugh with

himself about something that he won't share with others.

## The Masterline 7 Began Life as a Microphone Preamp

Mr. Huber was quite forthcoming about it. He'd designed what he thought was the world's best and quietest microphone preamplifier, but it turned out to be too costly to manufacture in Switzerland and market to the cost-conscious pro-audio world—and he wasn't going to farm it out to China—so he pivoted and turned it into the Masterline 7 Phono preamplifier aimed at the cost-no-object high-performance audio market.

Knowing the Masterline 7's heritage helps make sense of many of its features including the pair of prominent VU meters and associated 37-position gain knobs, offering in small steps the unusual flexibility of 0 to 72dB-adjustable separately for each channel. An additional 10dB is available via one of eight switches, four on either side of the VU meters that also offer input selection, a 3rd-order, passive, below-15Hz subsonic filter, "mute," left-channel phase inversion, VU meter scale (0/-10dB), three-position VU meter light, and a "Balanced/SE" impedance switch—the purpose of which I'll explain later.

This is an unusually flexible three-input phono preamp, especially in terms of gain but also in loading—24 impedance choices from 7.5 ohms to 1.2k Ohms (plus 47k Ohms) and 12 capacitive choices between 33pF and 680pF. Plus, each channel can be individually adjusted, though I'm not sure why you'd need or want to, and, as long as I'm at it, while *polarity* inversion would

be a useful option, I'm not sure what inverting one channel's phase gets you other than putting your system *out* of phase, nor do the instructions offer any suggestions for its use. I suspect some of the individual channel adjustability is related to the unit's original purpose as a two-channel microphone preamp.

In addition, two pairs of front-panel-mounted LEDs monitor overload, and a DC offset monitoring circuit lights up if DC appears at the output—a light you don't want to see! Twelve HSE-designed discrete Class A gain stages and a pair of zero-ohm Class A ultra-low-noise "head amps" produce up to 82dB of gain. No step-up transformers are inside, which is especially impressive given the EIN noise specification: –144dB BW 22Hz–22kHz (49.8nV). Build- and parts-quality are commensurate with the cost, which is \$89,000 (or \$100,700 with a variable EQ option, which the review sample did not feature).

In the YouTube video factory tour, you can see the impeccable insides and watch two women adding to the gain pots, one at a time, the hand-selected resistors. You'll also meet the Orbray (formerly Namiki, then Adamant) representative who was there, obviously to discuss what stylus/cantilever assembly Huber was going to use for a new cartridge project.

Interior components are from ELMA, Goldpoint, NKK, Panasonic, WIMA, Neutrik, and Schurter, plus HSE in-house-wound coils. The audio signal passes through HSE's proprietary Silverteflon wiring, and the oversized toroidal transformers are static and magnetically shielded. Finally, the Masterline 7's chassis, milled from a solid aluminum block, features 20mm-thick walls designed to isolate from the dirty outside world the delicate components inside. In other words, the Masterline 7 is much more than a pretty fascia, though obviously it is that too!

#### **Unpacking And Setup**

A red-velvet-lined wheeled flight case molded inside to cradle the jewel-like chassis makes for a dramatic presentation, though it doesn't match the theatrics of having DHL confirm delivery when nothing's at your front door. Fortunately, my across-thestreet neighbor is neither an audiophile nor a thief.

The chassis' three pointed

feet sit in cups located at the angles of a triangular base, helping to produce both isolation and an elegant presentation. In Mr. Huber's world, that's secondary to features and performance, but he clearly knows his customer base, and he delivers the front-panel bling. It's difficult to not gaze at it, and I did so often while listening. An outboard dual-mono power supply of modest size connects to the main chassis via a multipin umbilical.

The fully balanced Class A discrete design's rear panel mirrors the front's layout, though it's not mirror-imaged. A multipin power supply input, a second "on/off" switch (the main one is on the PSU), and a trio of ground lugs are located between the



three pairs of balanced XLR inputs and a single pair of XLR outputs. Switches labeled "CLG" (case, lift, ground) above each input determine pin 1's connectivity. With a true balanced cable Pin 1 goes to chassis. A "pseudo balanced" RCA-to-XLR adapter lifts the ground ("hot" and "cold"), while a single-ended RCA-to-XLR adapter features two active pins: hot and ground. If you get no output, try a different position. This feature allows you to use single-ended and balanced cables in and out with adapter si f necessary. Anyone who's had tough times and no sound with XLR-to-RCA or RCA-to-XLR adapters understands this feature's importance.

Here's where that aforementioned Balance/SE switch comes in. If your adapters are SE and you are running a moving-magnet cartridge, the switch adds a resistor to produce precisely 47k Ohms. The output XLRs feature a switch for balanced XLR and single-ended output using an XLR-to-RCA adapter.

#### **Using and Listening**

I ran the Masterline 7 balanced "out" but with RCA-to-XLR adapters "in" from the SAT CF1-12 tonearm. Cartridges were the Audio-Technica AT-MC2022 (\$9000 the one with the Orbray one-piece lab-grown-diamond cantilever/stylus), the Gryphon Black Diamond DLC (a \$20,000 Ortofon MC Diamond variant featuring a DLC diamond-like coating, SLM body, and newly developed elastomer suspension), the Lyra Atlas Lambda SL (\$14,295), and finally the just-installed Audio-Technica ART1000x (coils mounted on cantilever atop the stylus \$5500). Being able to easily swap out headshells is a must for me given this job.

Every Masterline 7 gets a two-week factory break-in, both to discover faults and to break in the circuitry. It's designed to sound good out of the flight case (assuming DHL delivers it to your door and not your neighbor's), but to sound even better after around 300 hours of use. The rear-mounted secondary power switch is not there for convenience sake, that's for sure, so between that and the recommended ½-hour wait after turn-on for best sound, I just left the Masterline 7 powered up and was glad I did because while the sound was spectacularly "not there" (which for me is a phono preamp's goal) at first, the few issues I did immediately notice (with the AT-MC2022 installed) faded to black over time—and not because I got used to them.

Reading the small impedance and capacitive loading-knob figures can make adjusting a bit of a chore for some. There are no memory pre-sets, so if you're using two or all three inputs, when you switch, you might have to change gain and loading. Overall, though, using the Masterline 7 was easy, and any excuse to get close to it and fondle the knobs and run hands across the faceplate was welcome.

Unchanged over months of listening were the super-black backgrounds and lack of noise that on great recordings opened the door to the deepest soundstage recesses. The EIN specs are only 2dB quieter than my reference CH P10, but that can't possibly account for the increase in depth that was immediately obvious through all the cartridges. The Masterline 7 throws a *deep* soundstage.

I have to pause here for a second: If I were a "30-something" with limited experience and restricted exposure to "top-shelf" gear, instead of having been doing this for more than 30 years, and had someone put this piece in my system in place of the average pretty good phono preamp I'd become accustomed to, I'd be writing a foaming at the mouth with superlatives gusher review right here (you know the kind: "game changer," "sell your mother for this one," etc.), because it was clear after a few months with it, that the Masterline 7 has the highest level of sonic finesse in every category that only the best deliver-a combination of quiet, macro-dynamic muscularity, microdynamic delicacy, transient attack precision, and overall refinement that makes your average very good phono preamp sound mechanical by comparisoneither coarse and sharp with obvious spotlit timbral colorations, or soft and veiled with a different, dark set of timbral and ill-defined transient characteristics-both kinds imposing themselves on the music and unable to get out of the way. Any half-way discerning reviewer regardless of experience would hear the difference between a piece like the Masterline 7 and your competent but average phono preamp.

I already have "a piece like the Masterline 7"—the CH Precision P10, for which I dropped considerable coin, and I don't regret it. But the comparison—and I repeatedly went back and forth proved fascinating and consistent with all the cartridges, through both my reference Wilson Audio Specialties Chronosonic XVX speakers and later through the Acora Acoustics VRC loudspeakers Andrew Quint recently reviewed in Issue 349. I listened to the CH through both its current and voltage gain inputs.

With their low noise floors both phono preamps can handle the lowest-output cartridges. In the case of the P10, in both modes.

Rather than deliver my findings through the usual laundry list of recordings, which can be exhilarating when you turn readers onto new and exciting finds (and boring when you drag out of the stable the same tired warhorses you hear at hi-fi shows), I'll go through the general differences and then get specific on one record: a 2015 Audio Nautes reissue of a BIS original, Gregorio Paniagua's Atrium Musicae De Madrid-La Spagna, Music From the XV, XVI, and XVII Centuries (AN-1401)-the original was an HP "Super Disc" selection. The late Stan Ricker mastered the 1/2-speed reissue directly from the original mastertapes using no noise reduction, EQ, compression, or limiting.

Re: general differences. For macrodynamic slam, wallop, and punch to the gut, the CH wins—not that the Masterline 7 was deficient, it just wasn't quite as good. The P10 also wins for bass transients and dynamics—likewise, not that the Masterline 7 was lacking. It's just that its bass definition was softer and less rhythmically audacious, but it's a better fit with the rest of the presentation.

This was immediately noticeable on the first record I played, but don't hold me to what that was. It was also

obvious on the last record I played, which was Davy Spillane's *Atlantic Bridge* (Tara TA 319). The title track, which musically explains how Irish immigrants created Bluegrass music features Bela Fleck, Jerry Douglas, and Christy Moore—and I admit it's an old warhorse, with phenomenal bass that I regularly drag from the stable, but it still runs well!

Eoghan O'Neill's thunderous bass digs down tight and subterranean deep through the CH and somewhat softer yet well-textured through the Masterline. The transients of Fleck's banjo and Douglas' dobro have crystalline clarity through the CH and a slight diminution of it through the Masterline, though if you didn't make the direct comparison, you'd not consider the latter unnaturally "soft." Spillane's Ulleann pipes though, through the Masterline sounded rounder and lusher and "juicier."

If your musical tastes run toward rock, while both do well and are at the very top of what I've heard, the CH wins. I compared them for one of my young writers, who mostly covers rock and metal, and "bass punch" was the first thing he noticed was more pronounced through the CH, but he's never heard a system like this, so he had to remain seated throughout both plays and left woozy.

However, the turntables completely turned with the Audio Nautes reissue and with other classical titles baroque through symphonic stunners—and jazz releases for the most part, as well.

I was not surprised by the far deeper soundstage the Masterline 7 delivered on La Spagna because that was consistent throughout on very familiar recordings even without direct comparisons. But I was kind of shocked to hear how much more refined and finely drawn were the particulars on the deeper soundstage. The first 10 or so minutes of La Spagna consists of short pieces filled with ancient, plucked instruments, plus cymbals, castanets, clappers, Spanish guitars, kettle and other drums, and wind instruments-an exotic array of percussive transients set in what sounds like a naturally reverberant space. Incredibly, it was recorded to a consumer grade Revox A-77 tape deck using a pair of Sennheiser MKH105 microphones.

Definitely not easy for Stan Ricker to cut or for cartridges to track. The notes say Stan "broke" a cutter head, and buyers are warned of tracking problems. Fortunately, I had none with any of these cartridges.

Through the Masterline 7 the attack, sustain, and decay of the cymbals and bells-all the high-frequency percussives-were cleanly rendered events finely and compactly focused and layered three dimensionally in space. They were larger and more amorphous through the CH-still fine but following the sharp initial transient, not as good. The castanets were particularly very different sounding. Through the Masterline 7 they were "woodier," compacted in size, and better focused. I swear you could hear the hollows. They sounded more like woodblocks through the CH-I'm exaggerating but the difference easily caught my ears. The cymbals and bells through the Masterline 7 were tiny and finely focused with precise yet graceful and not overly sharp attack and generous but controlled sustain that didn't stray from the image.

La Spagna didn't call upon the Masterline 7 to produce deep bass "punch" and drive, so its weak suit (it wasn't really "weak," just not as good here as the CH) was not exposed. Just as most of the rock and jazz records spotlit the CH's superiority there.

I twice played Bruckner's 7<sup>th</sup> with Von Karajan conducting the BPO, from DGG "Original Sound Series" *The Complete Symphonies* box set mixed directly to lathe from the 8-track original analog tape. Both "performances" were captivating. The CH did the big strings with more drive, "grunt," and instrumental separation, but they sounded steelier. The Masterline 7 better captured the orchestra in relief within the dry hall and delivered greater orchestral depth, lusher and more fully fleshed out string textures (as luscious as that purposely dry hall can produce), and a richer palette of harmonic colors. Overall, on this and on most of the orchestral recordings I auditioned, I preferred the Masterline 7's richer and more graceful overall presentation.

With music that's more heavily rhythmic the CH wins. Having both would be nice. Having either would be, too.

#### Conclusion

As sophisticated sounding as it looks, and as exquisitely built inside as it is finely appointed outside, the HSE Swiss Masterline 7 is one of those special products a reviewer covers and is then very sad to see leave, (though admittedly it took a while to be seduced by its subtle charms). The instruction manual claims it's designed to last at least 35 years. I believe it is an heirloom-type piece destined to function perfectly for at least that long or at least until the vinyl fad finally ends. Then maybe it can hold its value by being turned into a microphone preamp. Please tell me you know I'm kidding.

As I was wrapping up this review word came that the British band Oasis was reuniting (a miracle if you know the Gallagher Brothers saga). I hadn't played the UK edition of the debut album Definitely Maybe for many years. Prices on Discogs start at \$190 for this copy. Vinyl is dead. I took it out and played it, and from that I learned the value of the Masterline's VU meters and selectable front-panel gain settings (as well as the value of the record)! It's a loud cut! It pinned the meters. Now, I'm sure the overload margin on the Masterline 7 is very high, but when I lowered gain to a reasonable VU meter level and then upped the volume on my preamp to a commensurate level, the sound greatly improved, though the opening track is still loud and noisy as bloody hell, as the band sounds live. But compared to how the LP used to sound when I first got the record, played it, and put it back on the shelf, Liam Gallagher's vocals now floated freely and surprisingly three-dimensionally in front of the din.

I'm not claiming it's worth spending \$89,000 to hear Oasis sound so swell, but next I played Falla's *The Three Cornered Hat* with Ansermet conducting L'Orchestre De La Suisse Romande (appropriately enough)—an FFRR second pressing promo copy—and 44 minutes later, I'm thinking it would be money well spent! I'm certain Vladamir and Slobodan agree. **185**