

OLA BJÖRLING

Soulnote P-3

PREAMPLIFIER



My wife and I are both very specific about how we take our coffee, to the amusement of everyone around us. She likes her coffee so black and violently strong that it has its own event horizon, while I swoon over ultralight roasts with fermented, fruity, and flowery notes. My wife makes her weapons-grade coffee in a moka pot that looks like a World War II hand grenade, while hipster dork me fights a losing battle against the urge to buy an umpteenth variation on expensive Japanese paper filters.

This descent into coffee-gear nerdery began a decade or so ago when I bought a gooseneck kettle. A gooseneck spout creates a more restrained flow for better control over water dosing and coffee-bed agitation. When, earlier this summer, its heating element began misbehaving, I replaced it with a different design that supposedly allows even more control over water flow. The reviews were right: I can effortlessly and with great precision pour at anything from 25gm/s to 1gm/s—and to my astonishment this does,

somehow, allow me to achieve more consistent and better-tasting coffee. But \$160 is a lot of money to set the temperature and pour some water.

You could argue that marginal differences in flow rate and coffee-bed agitation and turbulence shouldn't make a meaningful difference, as long as the temperature is right. To a bystander—and to my wife—that would be reasonable, but you'd be throwing hypotheticals at experience. Which brings us to preamplifiers.

Rogier van Bakel seemed to share my skepticism going into his review of the PS Audio PMG Signature preamplifier earlier this year.¹ But assisted by PS Audio's Paul McGowan, he made a great technical case for why and how adding a preamplifier might be not just neutral but an actual improvement. I won't repeat it all here, but a common argument for preamps is that they can supply a low and unwavering output impedance. Otherwise, frequency response and distortion can vary.

For the past year I've delegated preamp duties to my Grimm

SPECIFICATIONS

Description Dual-mono, class-A, no negative feedback, fully balanced stereo preamplifier with RSR (Reference Soulnote Relays), naked foil resistors, and photocoupler isolation. Inputs: four balanced (XLR), four single-ended (RCA). Outputs: three balanced (XLR), one selectable (XLR or RCA). Maximum gain:

11dB. THD: 0.0015% at 1.5V RMS. Frequency response: 2Hz~1MHz, ± 3.0 dB. Residual noise: 13 μ V (20kHz low pass). Maximum output: 21V RMS. Output impedance: 6.8 ohms. Included accessories: Spike board, spikes, spacer (for Spike board floating), power cable. **Dimensions** 17.9" (454mm)

W $\times$ 6.85" (174mm) H $\times$ 17.1" (430mm) D. Weight: 55 lb (25kg). **Finishes** silver, black. **Serial numbers of units reviewed** 221030004 (auditioned); 22103002 (measured). Manufactured in Japan. **Price** \$26,400. Approximate number of US dealers: 7. **Warranty:** three years.

Manufacturer Soulnote Inc., 5-33-4 Sagamiono, Minami-ku, Sagami-hara-shi, Kanagawa, 252-0303 Japan. Tel: (81) 42 705 5170. Web: soulnote.audio. US distributor: Supreme Acoustic Systems. Tel: (702) 210-8456. Email: info@supremeacousticsystems.com.

MU2, which in John Atkinson's measurements showed an XLR output impedance of 94 ohms across the audioband.

By almost any standard, that's as low as it needs to be, yet the Soulnote P-3—the component under review—has a specified output impedance of about one-fourteenth that, at 6.8 ohms; we'll see what the measurements say. It is also overbuilt to an almost comical degree, weighing 55 lb compared to the petite MU2's 10 lb—and the MU2 has a lot of other stuff inside the box. Sheer mass, surely, is not a reliable indicator of performance, but it can be a proxy for other things that are. The P-3 has dual monophonic construction, with two identical sets of I/O terminals, circuit boards, power supply circuits, power transformers, relay-drive circuits, and relay power supplies.

It also costs more, at \$26,400. And it's a purist component. That price buys you just a line stage: no phono stage, no D/A processor, streaming or otherwise, no headphone amplifier, and no tone controls. That's a lot of money to select inputs and change the volume.

The sum of its parts

The P-3 is as physically imposing as many power amplifiers. It even electrically outspecifies many of them. Each channel has a 280VA toroidal transformer, and the control circuitry gets its own, separate transformer. That makes it more powerful than Soulnote's own A-2 integrated amplifier.

That might seem excessive in a preamp, but Soulnote evidently believes it provides sonic advantages. The massive transformers aren't potted—not encased in epoxy resin. That yields better thermal dissipation and makes mechanical decoupling from the chassis

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slightly easier. The extra rigidity of a potted transformer means it can vibrate more forcefully—and as discussed in my Soulnote A-3 Core review in the October issue, Soulnote obsesses over vibration control.

For switching, the P-3 uses a proprietary component Soulnote calls the RSR-2-12D, described as an “ultra-low loss glass tube sealed reed relay.” Relays provide galvanic isolation in the sense that the control signal that switches them on and off never touches the signal the relay transmits. Apparently nothing else on the market was good enough for Soulnote Chief Sound Manager Hideki Kato, so he made it himself.

The P-3's design uses custom naked foil resistors, which are made by bonding a thin metal film directly to a ceramic substrate and etching a pattern into the foil to achieve the desired resistance. As the name implies, the foil isn't given any sort of coating, which, if present, would reduce and delay heat dissipation. Since heat affects performance, in an ideal implementation, the thermal expansion of the substrate mechanically counteracts the thermal resistance changes of the foil, making its resistance stable across transients in a way regular resistors can't achieve. The dizzying rabbit hole that is naked foil resistor design goes deeper than this, but the point is simple enough: Soulnote not only uses them but has designed its own.

MEASUREMENTS

I used Audio Precision's APx555 analyzer to perform a complete set of measurements on the Soulnote P-3, serial number 22103002. The P-3 draws just 20W of power at idle and runs cool; its chassis temperature did not deviate from ambient over several hours of testing in a 70°F room. Unless otherwise noted, all measurements were taken from the balanced (XLR) outputs, with the rear-panel GND switch set to SEPARATION, which Soulnote recommends for the best sound quality.

The P-3 has four balanced and four unbalanced line inputs, three balanced outputs (which are wired in parallel), and one unbalanced output; the balanced and unbalanced outputs are selected with a front-panel button and can't be used at the same time. Absolute polarity was preserved via all inputs, ie, the P-3 is noninverting. The volume control, which uses reed relays to switch a ladder of naked-foil resistors, operates in 0.5dB steps from a display reading “-0.0” (maximum) down to “-71.5,” below which

the output is muted. With the volume control at its maximum, balanced gain measured at 11.27dB, close to the specified 11dB, and unbalanced gain was 6dB lower, at 5.27dB.

The P-3's input impedances were lower than I usually see. With the volume control at its maximum, the balanced input impedance was 9.1k ohms at 20Hz and 1kHz and 9k ohms at 20kHz. The unbalanced input impedance was half that, at 4.55k ohms at 20Hz and 1kHz and 4.45k ohms at 20kHz. The P-3 is best used with sources having a low output impedance; a source with a high output impedance, or with a small-value output coupling capacitor, will lose some level and possibly some low bass into the balanced load. At unity gain, the unbalanced input impedance still measured on the low side, at 5.95k ohms.

The output impedance is specified as a very low 6.8 ohms, presumably per phase. I measured 13.4 ohms at 1kHz and 13.1 ohms at 20kHz from the balanced output, which is consistent with that

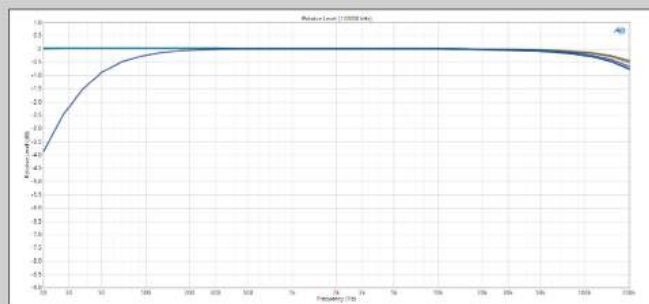


Fig.1 Soulnote P-3, frequency response at 2V into 200k ohms (balanced output) and 100k ohms (unbalanced output) with volume control set to maximum (balanced red, unbalanced purple) and to unity gain (balanced green, unbalanced teal), and into 300 ohms (blue) (0.5dB/vertical div.).

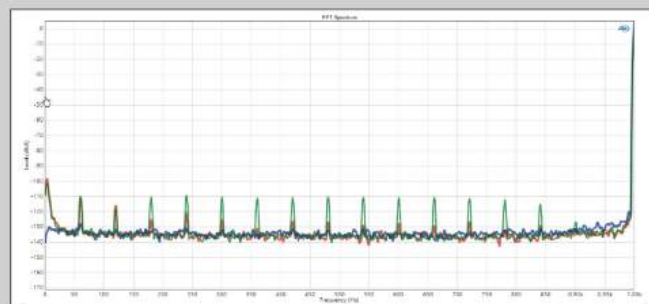


Fig.2 Soulnote P-3, spectrum of 1kHz sine wave, DC-1kHz, at 2V from balanced output into 200k ohms (blue) and from unbalanced output into 100k ohms with GND switch set to SEPARATION (red) and to CONNECTION (green) (linear frequency scale).

Each P-3 uses 94 RSR-2-12D relays and 156 naked foil resistors. Looking up the prices for high-end versions of these component types starts to make the price of this preamplifier justifiable—even before you hear it.

Input, output, stay put

The P-3 shares several idiosyncratic design choices with the A-3 Core—choices that, if you didn't hear the explanation, you might assume are superstitious. The top cover rests loosely on three spikes and rings conspicuously when wobbled. Its AC inlet is loose and wiggles when touched. However, on the P-3—in contrast to the A-3 Core—the dual input/output boards aren't loose.

The P-3 offers eight inputs, four each on balanced XLR and single-ended RCA. Each input has an optional source bypass setting that fixes output to a zero-gain setting, a feature typically used in home-theater setups. There are three XLR outputs, for triamping, or for biamping plus a headphone amp, or what have you. The single RCA output can't be run in parallel with the XLRs.

The P-3 sits atop a custom wood plinth on three sliding footers or spikes—your choice. Soulnote says both footer and plinth-material choice affect the sound. I think I heard the effects their website describes, but it was so subtle I won't grant it more space on the page than this.

As in the A-3 Core, there is no overall negative feedback, and

grounding is taken extremely seriously. The two channels and the control system—volume and input selection—have ceramically insulated chassis and use optocouplers to completely separate the left and right channels and control ground. To avoid the detrimental effects of ground loops and noise propagation when connecting multiple sound sources, the P-3 switches unselected devices to a state where their connectors are completely unplugged. A switch on the rear lets you turn on a more conventional grounding scheme if a hum problem occurs, but that was never necessary in my system. Here, the P-3 was dead quiet.

Interface

The user-friendliness of a preamplifier's interfaces is crucially important in daily use. The P-3's front has only four buttons: a power button, a toggle between balanced and unbalanced outputs, and one button each to cycle through balanced and unbalanced inputs. Input cycling via the remote goes through all eight, so it's unclear why the front panel needs two buttons for the same task.

The volume is adjustable in half-dB steps and is shown numerically on an easy-to-read red segment display. Such old-school displays are more reliable and less likely to emit RFI than fancier technologies; that judgment comes from me and not Soulnote. You can turn the display off, leaving only the blue power LED. If you opt to do so, the volume readout lights up for a couple of seconds when

measurements, continued

specification, and 7.9 ohms at 1kHz and 8 ohms at 20kHz from the unbalanced output. At 20Hz, however, the output impedance rose to 468 ohms balanced and 181 ohms unbalanced, presumably due to the presence of a coupling capacitor in series with the output. The balanced outputs all share the same buffer, such that loading multiple amplifiers from separate XLR outputs simultaneously will load the P-3 in parallel and may be subject to cross coupling between the downstream components.

The P-3's frequency response was flat across the audioband into high impedances (200k ohms balanced, 100k ohms unbalanced), with the output down by no more than 0.05dB at 20kHz (fig.1; 0.5dB/vertical div.). From the balanced output, the response was down by just 0.1dB at 100kHz and 0.43dB at 200kHz, the limit of this graph, with the volume control at its maximum (red trace), and by 0.16dB and 0.5dB with the control set for unity gain (green trace). The unbalanced output rolled off very slightly earlier, down by 0.2dB at 100kHz and by 0.65dB (maximum volume, purple trace) and 0.71dB (unity gain, teal trace) at 200kHz. Into the punishing 300 ohm load (blue trace), the high-frequency behavior

was identical, but, as expected from the rise in output impedance at 20Hz, the low-frequency response rolled off, with output down by 0.9dB at 50Hz and 3.8dB at 20Hz, the -3dB point lying at 24Hz. Such a low load impedance is very unlikely to be encountered in practice; into a typical power amplifier's input impedance of 10k ohms or more, the P-3's response will be flat well into the infra-sonic region.

The P-3 offers very low noise. Fig.2 shows the spectrum of its output while it reproduced a 1kHz tone at 2V. The spectrum, which was taken from the balanced output (blue trace), is completely free of power-supply-related spurious. From the unbalanced output (red trace), spurious at 60Hz and 120Hz can be seen at -114dB and -116dB (0.0002%), with higher harmonics of the AC supply frequency at -120dB and below—all so low in level as to be inconsequential. The green trace shows the unbalanced output in an intentionally ground-looped arrangement with the GND switch set to CONNECTION, which ties the separated left- and right-channel grounds to the chassis. With the grounds connected, the entire series of supply-frequency harmonics from the third up rose to a

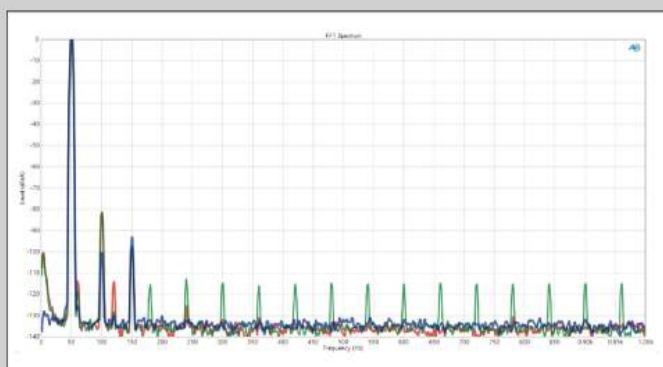


Fig.3 Soulnote P-3, spectrum of 50Hz sinewave, DC-1kHz, at 2V from balanced output into 200k ohms (blue) and from unbalanced output into 100k ohms with GND switch set to SEPARATION (red) and to CONNECTION (green) (linear frequency scale).

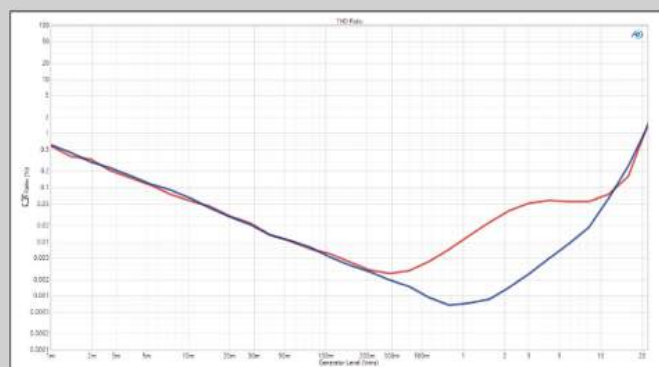


Fig.4 Soulnote P-3, balanced output, THD (%) vs 1kHz output voltage with volume control set for unity gain into: 200k ohms (blue), 300 ohms (red).

you change volume with the remote or the very pleasant-feeling knob. The latter uses an optocoupler to set the volume via those RSR-2-12D relays. The volume is remembered even when the unit is powered off, but it is—sensibly—limited so that it never initiates above -20dB when switched on.

The old-school display means that some P-3 features are instead communicated via the color of various LEDs: Invert the phase, and a yellow light shows. The P-3 remembers your choices even when it's been turned off.

When the P-3 launched, it had a different remote than the one it ships with now. The new one is long and slender, and like the old one, it's designed for far more features than the P-3 has. For a full Soulnote system that involves a CD player, this remote makes sense, but at this price I will argue that the remote control provided should not have 25 unnecessary buttons. That said, the input selection and volume up and down buttons are easy enough to find by touch alone. All in all, I found the P-3's remote—indeed the P-3 itself—frustration-free.

Listening

I received the P-3 alongside the A-3 Core stereo power amplifier, but I didn't want to change two things at once, so the preamp was sidelined for weeks as I evaluated the A-3. The amplifier was so impressive on its own that I felt no rush to add the P-3. I eventually

did—but first I played Eivind Aarset's kaleidoscopic rock-prog-psych-jazz-ambient *Strange Hands* (24/96 FLAC, Jazzland Recordings/Tidal). Then, after putting the P-3 into the system, I played the whole album again. The most noticeable change was in the precision, depth, and textural refinement of the bass. That reinforced foundation in turn gave upper frequencies a greater sense of physicality, turning the sonic picture from aquarelle toward impasto. I was so captivated I played the album a third time in a row.

Beyond the bass, and particularly when partnered with the A-3 Core, the P-3 filled out sonic crevices only perceived by their absence. This fairing of the sonic hull provided a sense of ease, a naturalness, a rightness that exceeded what the system achieved without it. With the other power amplifiers I had available—the AGD Forte, AGD The Audion MkIII, and Mola Mola Ossetra²—I heard much the same improvements, but they were less marked. I suppose a downstream power amp can impede some of the sonic qualities of a preamp, whereas a power amplifier is in itself the final stretch of signal path before the speakers. There is also the question of synergy.

Svarte Greiner, Norwegian for “black branches,” is the often somber solo project of Erik K. Skodvin, who is also half of personal favorite Deaf Center. “Syringa,” the opening track on *Five Hundred*

² It is coincidental that all these alternatives are class-D. They're what I happened to have on hand at the time.

measurements, continued

consistent (and low) -110dB (0.0003%).

Measured wideband and unweighted with the volume control set to its maximum, the residual noise at the balanced output was $33.3\mu\text{V}$, which equates to a signal/noise ratio of 89.6dB ref. 1V output. The S/N ratio improved to 96.3dB when the measurement bandwidth was restricted to the audioband and to 98.25dB when A-weighted. The audioband figure corresponds to a residual of $15\mu\text{V}$, close to the manufacturer's specified $13\mu\text{V}$. The unbalanced output was noisier, at $57.2\mu\text{V}$, giving S/N ratios of 84.5dB wideband, 91.5dB in the audioband, and 93.9dB A-weighted. Setting the GND switch to CONNECTION increased the unbalanced output's noise almost fourfold, to $219.5\mu\text{V}$, but had no effect on the balanced output. In bypass mode, the balanced output's residual measured $35.4\mu\text{V}$ independent of the selected input, suggesting that the noise originates in the output stage rather than in the earlier circuitry. Channel separation (not shown), measured from the unbalanced outputs at 2V , was superb, at 110.5dB at 20Hz , 117dB at 1kHz , and 114.6dB at 20kHz , which is what might

be expected from the P-3's dual-mono construction, with separate transformers, power supplies, and grounds for the two channels. With the GND switch set to CONNECTION, the channel crosstalk was degraded by about 6dB across the frequency range, but was still acceptable.

Fig.3 shows the spectra of the P-3 driven with a 50Hz tone at 2V . From the balanced output (blue trace), the second harmonic lay at -100dB (0.001%) and the third at -93dB (0.0022%), with no higher-order harmonics visible above the noise floor, which lay at -133dB . This predominantly third-harmonic signature is what one would expect from a balanced, symmetrical circuit like the P-3's Type-R output stage, in which the even-order harmonics generated by the two halves of the circuit cancel. From the unbalanced output (red trace; green trace with the GND switch set to CONNECTION), the third harmonic lay slightly lower, at -103dB (0.0007%), but the second harmonic was much higher, at -81dB (0.009%); the unbalanced output is taken from one phase of the balanced circuit and doesn't benefit from cancellation. Even so, 0.009% of the second

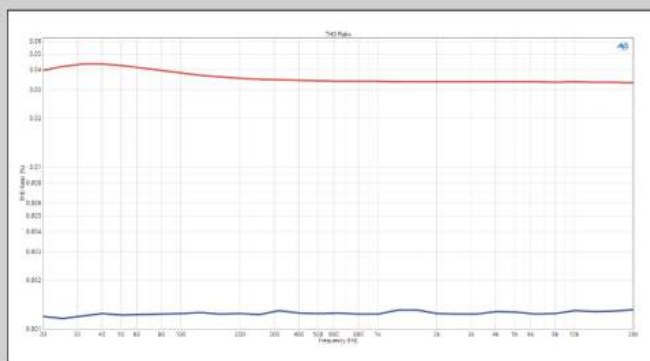


Fig.5 Soulnote P-3, balanced output, THD (%) vs frequency at 2V into: 200k ohms (blue), 300 ohms (red).

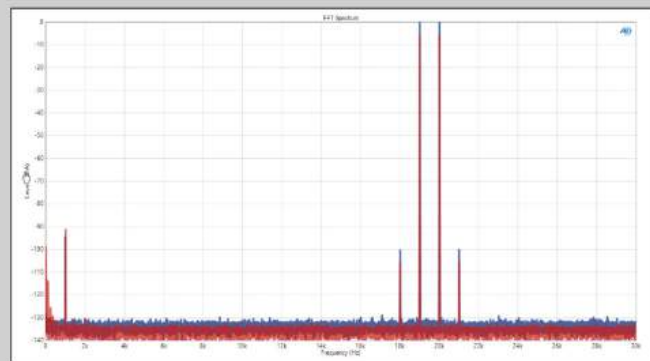


Fig.6 Soulnote P-3, HF intermodulation spectrum, DC- 30kHz , $19+20\text{kHz}$ at 1:1 at 2V , balanced output into 200k ohms (blue), unbalanced output into 100k ohms (red) (linear frequency scale).

Fink Experience (24/44.1 FLAC, Rose Séavy/Tidal), combines a high-pitched droning sound with an astonishing treble shimmer, like time-stretched cicadas. I find it intoxicating. With the P-3 this sound billowed out to vaster proportions, engulfing me more fully than I've heard it do before. When something sounds strikingly open and clear, it's customarily due to a heightened upper midrange or treble. But at no point did the P-3 feel spectrally tilted in the slightest, even with harsh metal or noisy electronica. This preamplifier's sense of unveiled presence is of a fundamentally different kind.

In common with the A-3 Core, the P-3 benefited from being powered on for a long time. What it brought to the Svarte Greiner track was less evident in the morning than in the afternoon. I left it turned on for most of the review period.

I lack the imagination and experience to say with any certainty what the P-3 does not do. Could bass, dynamics, fluidity, or any other parameter of your choosing be improved further? Hypothetically, perhaps. What I know is that I had to force myself to even think about such things, because its conveyance of musical rightness, sincerity, and authenticity sounded so complete. Soulnote says the P-3's elaborate grounding scheme offers "an incredible expansive three-dimensional soundfield with expressive, natural sound." On its own, that sounds like advertising hyperbole, but it takes only a few minutes of listening to realize that it is undeniable truth.

Through a different lens

After having the P-3 in the system for a couple of weeks, going back to the MU2 feeding the A-3 Core was, metaphorically, like going from a photo with infinite depth of field to a tilt-shift lens. Everything was still there, but it was somewhat miniaturized, intimate, petite, and at times adorable. It was a fundamentally pleasant and appealing perspective, and much as with a tilt-shift lens, the sense of space and depth was intensely present. The P-3 added vastness to the sonic vista, lifelike scale, grandeur. It grabbed my brain like a vise and made it impossible for my attention to slither away. Everything was in focus, at the expense of no other part of the experience.

In one session, just before I reluctantly returned the A-3 Core, I played varying combinations of the Grimm MU2 feeding the A-3 Core, the Mola Mola Ossetra monoblocks, or the AGD Forte, with close attention to level matching. When getting up every two minutes to switch cables and play the same track over, it is natural to start listening for differences rather than listening with your heart, which is why I often distrust the conclusions drawn from rapid switching. Yet these exercises are not without merit: After maybe half an hour of hopping between power amps, I plugged the P-3 back in and my body surprised me with a hearty chuckle that tackled my brain out of analytical mode. It sounded so right, so lush, so inviting.

measurements, continued

harmonic is very low in absolute terms, and this harmonic is the most subjectively benign. The AC-related spurious seen in fig.2 are also visible in this graph.

I examined how the P-3's distortion changed with level using the balanced output with the volume control set at unity gain, so the horizontal axis of fig.4 shows both the input and the output voltage. Below 200mV, the measured THD+N was dominated by noise, which doesn't vary with level, so it decreases as the level rises. Into 200k ohms (blue trace), the THD+N reached a minimum of a superbly low 0.0007% at 800mV then rose gently with increasing level, reaching 0.01% at 6V and 0.1% at 12.8V. *Stereophile* defines a preamplifier's clipping point as when the THD+N reaches 1%; this occurred at 20.8V into 200k ohms. In a separate test, with the volume control at its maximum, the balanced output reached 0.89% THD at 21.27V and 1.15% at 21.58V, with an input of just over 6V, so the manufacturer's specified maximum output of 21V RMS is accurate.

Into the very demanding 300 ohm load (red trace), the THD was higher, reaching a minimum of 0.0026% at 300mV, rising to 0.01% at 1V, then plateauing at 0.05%–0.057% between 3V and 8V before rising to 0.1% at 13V and 1% at 21.2V. The P-3 thus delivers

its full 21V even into 300 ohms, indicating high current capability for a preamplifier output stage. The P-3 met its specified THD of 0.0015% at 1.5V via the balanced connection, where fig.4 shows 0.0009% at this level into 200k ohms, and the lowest wideband THD+N I measured was 0.002%.

To examine how the distortion changed with frequency at a level where the reading was not dominated by noise, I measured the THD at 2V into 200k ohms and 300 ohms (fig.5). Into the high impedance (blue trace), the THD was superbly low and almost constant with frequency, at 0.0012%–0.0013% from 20Hz to 20kHz. Into 300 ohms (red trace), it was almost 30 times higher, at 0.034% in the midrange and treble, rising slightly to a maximum of 0.043% between 30Hz and 40Hz.

Tested for intermodulation distortion with an equal mix of 19 and 20kHz tones at unity gain and 2V RMS, the P-3 performed well from both outputs (fig.6). The second-order difference product at 1kHz lay at –95dB (0.002%) from the balanced output (blue trace) and at –91dB (0.003%) from the unbalanced output (red trace), the latter again reflecting the absence of even-order cancellation at the unbalanced output, while the higher-order products at 18kHz and 21kHz lay at –100dB (0.001%) balanced and –105dB (0.0005%) unbalanced.

Soulnote specifies the P-3's frequency response as extending to 1MHz, ± 3 dB. I was unable to verify this, as 200kHz is the upper limit of the APx555's signal generator as currently configured. However, the P-3's reproduction of a 30kHz squarewave (fig.7) had short risetimes, of 1.8 μ s, with no overshoot or ringing and with the two traces overlaying exactly. There is no reason to believe that specification is out of reach.

Overall, the Soulnote P-3 offers excellent measured performance: an extremely wide bandwidth, superbly low distortion into normal loads, very low noise, and superb channel separation. Prospective buyers should take note of the relatively low input impedances, however, when selecting the ideal source pairing.—

James Grinalds

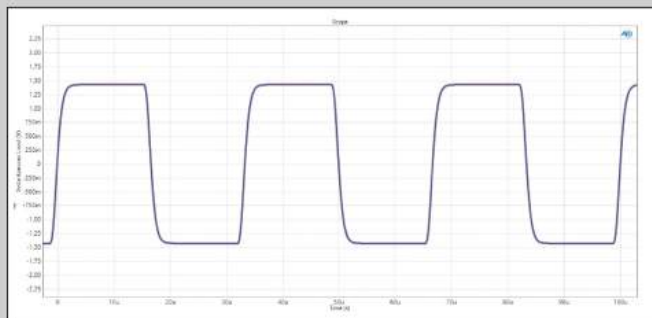


Fig.7 Soulnote P-3, 30kHz squarewave at 2V into 200k ohms.

When someone talks in your direction but not directly and intentionally to you, you can sense their intent—that what they say is not meant for you. That makes it easier not to listen, or not to listen closely. The P-3 speaks directly to you.

Balanced or not

Balanced differential signals can cancel unwanted distortion, but that also means they might cancel wanted distortion, distortion perceived as harmonic richness. To see if the loveliness of the P-3's sound would be enhanced further in single-ended mode, I employed my Grimm MU2, which has both XLR and RCA outputs. Supposedly the MU2 performs best when only one output is connected, so I played it safe and removed the unused cable from the MU2 each time I switched. This made the comparison less instant and more laborious, but it seemed the more scientifically rigorous approach. To my relief, both input types on the P-3 yielded exactly the same volume, so level matching was taken care of.

My distaste for the chore of quick-switching A/B comparison was at least temporarily derailed by an interesting phenomenon: Every single time I switched, it sounded better. Or I thought it did. I thought that surely this phenomenon had to stop at some point, but it continued. "Oh yes!" I wanted to blurt out the fifth and sixth and seventh time I restarted John Surman's "On Staddon Heights" from *Saltash Bells* (24/96 FLAC, ECM Records/Qobuz).

This tells me several things: First, that the P-3 sounds addictively and bewitchingly good. Second, that neither input format is at a disadvantage to the other, at least with my source and cables. Third, that A/B comparisons, despite their inherent dullness, can yield interesting results—just not (or not necessarily) the results their proponents claim.

My Manley Steelhead phono preamp has only unbalanced RCA outputs, and while it has a volume control, I normally handle that through the MU2. On *raison d'être* & Troum's *XIBIPIIO. In and Out of Experience* (LP, Cyclic Law 49thCycleLP), the droning vespertine murk was rendered subtly but meaningfully more palpable and intentful with the P-3, as if the sound was at once more focused and vast, attributes that ought to be at odds but were married in this preamplifier. This sense of infinite focus stayed consistent across other LPs, ranging from scraggly indie pop to jazz and techno.

An ambient album in heavy rotation this year is Alio Die & Lingua Fungi's *Lento* (16/44.1 FLAC, Hic Sunt Leones/Tidal). It meanders through sonic garden paths devoid of narrative tension or release, instead rewarding listeners with deliciously intimate sonic scents and colors. That I hadn't yet found a place for this album in other reviews is perhaps for the best, because the P-3's conveying of space and flow rendered this more evocatively than any other signal path I've tried. At times this is barely music at all, which highlights a core ability of the P-3: All signals that travel through it, music or whatever else, are infused with animistic meaning. Soulnote, indeed.

To see if I could poke any sort of hole in this characteristic, I pulled up an old favorite playlist I've called "current drift," which is made up of ambient-esque music with electronic-sounding textures. Could tracks that are deliberately electrical—even sterile-sounding—be granted life, too?

ASSOCIATED EQUIPMENT

Analog sources Dr. Feickert Woodpecker turntable with inertia platter, Jelco SA-750D tonearm, Stack Audio AUVa Equipment Isolators, Technics SL-1200GAE turntable, Dynavector XX-2 MkII, Ortofon 2M Black cartridges.

Digital sources Grimm MU2 streamer-DAC, Shanling ET3 CD transport.

Preamplifiers Grimm MU2, Mola Mola Makua, Manley Steelhead, Lejonklou Slipsik 8.

Power amplifiers AGD Forte, AGD The Audion MkIII, Mola Mola Ossetra, Soulnote A-3 Core.

Integrated amplifier MBL C51.

Loudspeakers Auer Acoustics Versura V1, Focal Scala Utopia (1st gen), Boenicke W11 MK2, Vivid Giya G1 Spirit Cu.

Cables Digital: AudioQuest Carbon AES3; AudioQuest Cinnamon Ethernet; Supra Trico S/PDIF. Interconnect: Acrolink 7N-A2200III, AudioQuest Yukon, Wireworld Gold Eclipse 8.

Speaker: AudioQuest Brave Heart, AudioQuest Lone Ranger. **AC:** AudioQuest NRG-Z3.

Accessories Degritter Mark II ultrasonic record cleaner. Supra MD06-EU/SP power distributor. Verk V.Lf.02 rack/equipment table. Four GIK Q7D Quadratic Residue Diffusers. Four Svanå MiljöTeknik Wing diffusers.—Ola Björling



The short answer is yes, but what struck me the most was something else. The P-3's voluminousness was not applied to everything equally. The P-3 vividly rendered space in recordings, but it did not artificially inflate recordings that are inherently flat. Consequently, this playlist sounded more scattered and disjointed than I'd heard it before. Tracks with less spatial information were not presented in an unflattering or unpleasant way, but their technical shortcomings were laid bare by the track-to-track contrasts.

Conclusion

Part of me remains uncomfortable with the fact that adding another device

in the signal chain yields particular kinds of improvements. If a superfluous signal detour adds some color or flavor, I can understand that. But what I felt the P-3 added was a sense of authenticity. Maybe it doesn't add anything but instead *removes* something I couldn't detect that had veiled and suppressed certain qualities. That explanation better fits the evidence. Even so, I find it baffling how it boosts corporeality, timbral verisimilitude, temporal liquidity, and vastness. Beyond all that, it also glues everything together into a unified whole. It is best with its partner the A-3 Core, but with every amplifier I had on hand, the improvements it wrought were not offset by a single downside.

These improvements are readily detectable and unequivocally desirable, but they are modest. Those who can't look unflinchingly at the price tag might rightfully wonder if spending this kind of money on nuance can ever be reasonable. Salt is a tiny ingredient in practically any recipe, but its omission can ruin most of them. Even minute improvements to one's daily indulgences, be they coffee or music, are difficult to let go of once you've tasted them. ■