

Review of Tektron' Neptune integrated amplifier by S. Ebaen, 03/2024 on :



AUDIO REVIEWS



NEPTUNE

COUNTRY OF ORIGIN



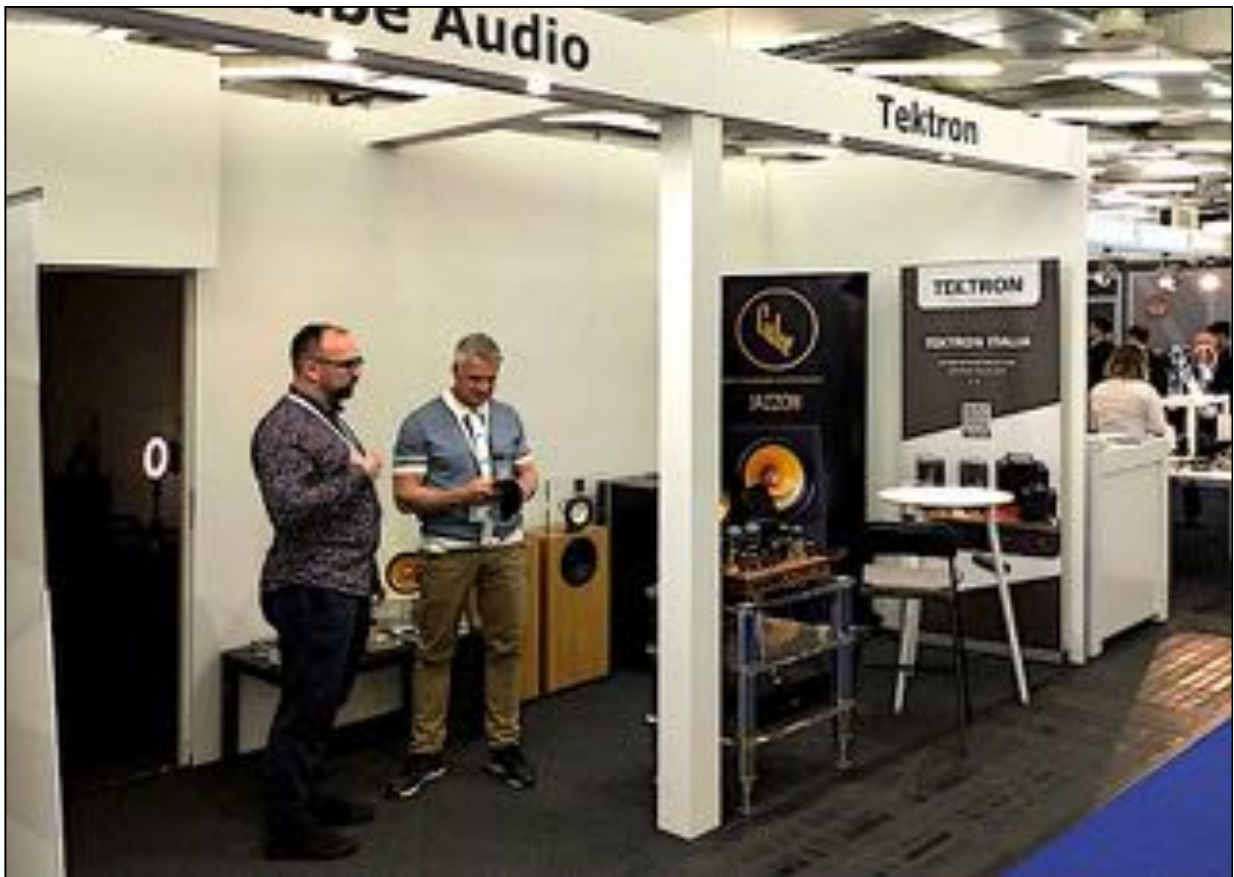
Sicily



*These and the following 4-up photos are by Alessandro Coletta, the industrial designer of Tektron's Masterpiece models.*

**Neptune.** With six planets in Aquarius, I'm the original Aquaman; minus Jason Momoa's mane and ripped physique. Can't have it all. Kicking off this tangent was a surprise email from sunny Catania. "Remember me? Years ago we organized a review with Marja & Henk who then unfortunately passed away within days of each other. With much delay we managed to get our loaner back. I'm now readying our new Masterpiece model Neptune which I would like to send you in Ireland.

Can you help me?" 'twas Attilio Caccamo of Tektron Italia. Indeed, I remembered it all. Getting someone into M&H's house in the aftermath of their deaths to locate the amp and its packaging, submit prior email threads to the law firm charged with the dissolution of their estate to prove that the amp was indeed on loan and due back then getting it moved to a manned office in Holland where FedEx could execute a pickup... it had all been painfully slow and sad beyond compare. I *definitely* owed Attilio a review. Now Neptune had my name on it not just because. At 19wpc...



... this tube integrated would have plenty of traction to airlift our Nenuphar v2 from a speaker brand Attilio exhibits with regularly, even distributes in Italy. So strictly speaking this review should fly the formal Italian flag. Given how rare it is to come across a piece of advanced hifi kit from the isle of Inspector Montalbano and risotto al nero de seppia—a classic rice dish with squid ink—I simply decided otherwise. Why not plug Sicily for different reasons than the usual?

The first valve integrated I ever reviewed was Bel Canto's 845 before their subsequent embrace of Tripath then ICEpower then nCore. How time hustles when you're having fun. These days my valve presence is down to a lone Vinnie Rossi L2 Signature preamp flying direct-heated Elrog ER50 power triodes. Without transformers or capacitors, those feed a Kinki Studio THR-1 Exicon Mosfet amp for HifiMan Susvara headfi of the highest calibre. Reacquainting myself with single-ended 845—or were these 211?—on properly pre-approved loudspeakers seemed most à propos all around.



A bit later Attilio's wife Angela filled me in on the basic specs. "These indeed are 211 and driven by 6SN7. Input sensitivity is 400mV for full power and the circuit is auto bias to require no adjustments. The volume control is a high-quality potentiometer under remote control. Inputs only switch manually. Standard output impedance is 8 $\Omega$  but other common values are available by request to avoid multi-tapped transformers. The transformers are EI cores with high-quality laminations all made to Attilio's specs. Formal bandwidth is 14Hz-36kHz. We're still working on the remote's styling so don't have photos yet. The XLR are true balanced inputs internally converted to single-ended via transformer. Dimensions of the Neptune are 60x46x24cm DxWxH and weight without tubes is 35kg. The tubes themselves are pair-matched JJ **6SN7** and Psvane **211-TII**





"We also have a pure stereo amp version called Jupiter which has 990mV input sensitivity; and for it the Venus preamp with 2 x 6J5 and 2 x 6X5."



It goes without saying that Attilio's three Masterpiece models are the very best he knows how to make. My trident was quivering with anticipation. "Attilio called me some years ago to design the aesthetics of his new line of no-compromise products. I pondered on it for quite some time, wanting to create something that had a functional minimalist aesthetic yet could represent a tribute to some legendary designs of the past with a distinct made-in-Italy flair. These models represent the 35-year history of Tektron as well as its future. The new line reveals an ensemble of geometric shapes, materials and colours that bear an unmistakable signature." – *Alessandro Coletta*



At the Munich show this year..... reader David Hyman of US distributorship Metavox Audio had emailed in tersely with "heard Cube Audio in Munich today with Tektron 211. Blew my mind. *Must* have this magical combo. Plan on it!" At the 2023 Milan show half a year later—the below video is from the 2021 installation—Attilio once again participated with his favourite speakers. I don't know though whether David managed to land the combo for his Sausalito showroom. As late as he crossed their paths, both brands were likely already taken. In any event, like there is for Kondo + Living Voice, consensus is high that Tektron + Cube make an ideal match to be promoted together show after show.

<https://youtu.be/i9sewsnxqXw>

Here is another presentation.

<https://youtu.be/5YOVWHf3M0c>

**As to a basic 845/211** difference, the 211 grid is high-mu/gain to need a high-current driver stage. The low-mu 845 requires a driver of high voltage swing to often be preceded by a 2A3/300B. An 845 works well with a 6-10K $\Omega$  output transformer and 850-900V plate voltage whereas the 211 prefers 15-20k $\Omega$  and ~1'100-1'200V. Whilst looking somewhat similar, the 845 and 211 aren't readily interchangeable. The arguably most famous 211 amplifier of all time was the 27wpc Kondo Ongaku from 1989. A famous 845 amp with 300B driver was Cary's 27-watt CAD-805RS. Thomas Mayer, today the man behind German tube brand Elrog, had this on the subject a long time ago<sup>1</sup>:

"The only valid comparison between these tubes would be if both were tested in the same amp capable to operate either. Otherwise it's more a comparison between driver stages, output transformers etc. I do have a 211 amp with 211 driver which can be converted to 845 via simple switch to change the bias voltage. The 211 driver is certainly capable of providing enough voltage swing for the 845. Output transformer is a Tango X10S which is also okay for the 845. Surprisingly I prefer the 211. I expected the 845 to be better but liked the 211 more. The 211 were NOS GE and the 845 NOS United Electric."



Looking at this Elrog product **page** (<https://www.elrog.com/products/>), we see an amplification factor of 12 for their 211 vs. 5.3 for the 845 and a plate resistance of  $3'600\Omega$  for the former,  $1'700\Omega$  for the latter. To outfit Neptune with this glass would cost €1'620 for a matched pair. It makes another German tube resource called **Tube Amp Doctor** (<https://www.tubeampdoctor.com/en/>) rather attractive who just then had Psvane 211-TMkII for €275 the matched pair. Given its high plate voltage, we already know that a 211 will run very hot no matter who makes it or what it costs. For the lowest point of entry, the same German vendor sells Psvane-made TAD- branded 211/VT4/CV620 which at time of publication carried a price of €89/ea. Those are the tubes Alessandro captured in his photos. Though soliciting costly review loaner tubes is quite an imposition seeing they can't readily be sold afterwards despite just short-term use, I did ask Thomas Mayer whether he'd like to make available a pair of his premium Elrog 211. To my surprise he was happy to. From Tektron Masterpiece to 211 master tube?

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*1 "I've gained much experience since and of course now make my own 211 and 845. This quote still has a lot of relevance but neglects the change in damping factor when comparing these tubes in the same amp. Depending on the speakers used, this can have a positive or negative influence to cloud any differences heard. Also, the driver in 845 amps becomes more critical to dominate the sound more than with 211 amps. So it's again from difficult to almost impossible to correctly pin any sonic changes on just the output tubes alone."*

Here we see a friendly shoulder-to-shoulder rub with Audio Note UK's 211 Ongaku Kensei on two dealer shelves; and a Tektron integrated of their aptly named Heritage range to reiterate the cosmetic step change of the Masterpiece editions. Past November's half time, Attilio emailed apologizing that waiting on certain critical parts to finish 'my' build would delay its shipment. By January 11th, Thomas inquired whether I had finished with his tubes. I still hadn't received the amp. Attilio advised that he'd need another 30 days. So I shipped the Elrog glass back to its maker unopened. I couldn't in good conscience add a second month to his loan. The best-laid plans and all that pain.



By February 16th, FedEx in Sicily had the shipping label. Pickup of my sample pallet was booked for the following Monday. Neptune was finally inbound. Would it—in hopefully no uncertain terms—explain why tube amps remain relevant in 2024? After all, environmentally green 90% efficient GaNFet class D amps switching at up to 800kHz are here already and more around the corner. For tubular fire power, I'd get a factory-matched pair of 211 MkII Psvane and a pair of ElectroHarmonix 6SN7. That's glass from Chinese and Russian current production respectively. Fancy pants insisting on NOS bottles will source their own. Having been out of this game, I had no hot-swappable inventory, only 300B and ER50 for my Vinnie Rossi preamp. I'd drive Neptune stock and would surely live to tell the tale. Just to be difficult, I'd briefly leave our usual Qualio IQ in place crossed out and over at 100Hz/4th-order to an active cardioid subwoofer. My signal path has a surfeit of voltage gain. I was quite certain that Neptune would easily get loud enough on these unconventional 3-ways. The real question was, would it leave anything vital under the table? Obviously our Cube Audio Nenuphar v2 was the real destination. But why not take a prior detour to see what a single 211 might do on a suitably efficient but on impedance probably sub-optimal load? At this point I still hadn't the faintest moolah notion. Neptune was that new. Though the general Masterpiece range had been teased as early as January 2021, Neptune didn't see the light of first production until February 2024. It meant no prior published pricing. Had I unwittingly signed up for a Kondo Ongaku piece of exotica in extremis? Attilio promised that reveal for the day Neptune was to leave Catania. The one vague lead I had on the score was UK dealer Nintronics' webpage. It listed the Tektron Classic range as starting at £1'750 for a CD player tube buffer and topping out at £29'900 for a pair of 38-watt parallel single-ended 211 monos with 6SN7 driver. What would this mean for the by contrast half-power Neptune as now an integrated in snazzier threads hiding still stiffer sonic ambitions?

**Just then** *Stereophile's* review of the BAT **VK-80i** integrated fitted with 4 x 6C33C published. In it writer Alex Halberstadt interviews designer Victor Khomenko to learn more. "While working on the design of the first BAT power amp the VK-60, Khomenko considered the usual beam tetrodes like the KT88 and the 6550 but decided they weren't sufficiently linear. He also ruled out large radio transmitter triodes like the 845 and 211 because of the lethal voltages and massive transformers they required. The 6C33C solved both of these problems but introduced one of its own: The tube has an unusually wide range of sample-to-sample variation and a high failure rate. According to Khomenko, during the selection process he discards a great many 6C33C-Bs." From the previous page we remember the 211's 3'600Ω plate resistance and ~1'200V plate voltage. I asked Attilio what such a plate resistance means for the transformation and turns ratio of his output transformer; what run-on effects there are for bandwidth and phase shift; and what the advantages of such voltages are to begin with. Unlike Victor, Attilio after all strategically embraces the massive transformer requirements and lethal voltages. Is this just the understandable pursuit of wringing 19 non-paralleled watts from a single bottle where a 300B tops out at ~8 watts?

Or does an extreme ratio between plate voltage and music-signal voltage pack sonic payback which fully justifies the heat strain on parts and users plus extreme impedance step-down ratios that still don't come anywhere near the low output impedance we expect of generic transistor amplifiers? The first cover letter in response to my questions was still more generic:

"Attilio Vittorio Caccamo founded Tektron in 1991. He discovered tubes when very young whilst repairing vintage radios. He found their sound warm and enveloping by conveying even the smallest nuance of the human voice or the silences between the notes. Thanks to his careful study of tubes and their potential, Tektron soon became a reference in Italy and abroad for anyone searching for quality NOS valves or tube amplifiers. Meticulous attention to the sound and differences between tubes (their brands, production plants, even year of production) is mirrored by equally meticulous attention to customer requests and needs with artisanal product that guarantees the quality of the largest companies but is made in small batches of a few carefully crafted pieces. Attracted by the past but looking towards the future, Attilio began his production of amplifiers with the Heritage range characterized by the use of wood, with particular attention on Italian species like the olive tree. The most recent addition to the catalogue is his Masterpiece series. Each model is a unique piece built by hand with extreme care. From the chassis in fine materials to particular wooden inserts carefully crafted by Italian cabinet makers, each is a precious treasure chest that contains a technological heart of the highest level. The aim was that of a continuous challenge to ourselves for an ever better product which combines a pure effective aesthetic with sonics at the highest level. Just as the cosmetics blend into the furnishings of the homes that host them, their sound adapts like a very thin transparent case to the music you wish to reproduce – invisible but protective."

"In the new Masterpiece models we tried to elevate our projects to a higher technical level without regard for cost. So we developed a new power supply with two new inductances of still lower ripple to obtain significantly less noise and better filtering. We improved the quality of the parts and transformers which are made to our specs by a specialized Italian company. As regards the choice of 211 tubes for Neptune, this was predicated by some considerations. Thanks to tests carried out over the last few years, for us the 211 is one of the best options for sonics, bandwidth, dynamics, current and power. Among other things, the high driving voltage of ~1kV allows for a better match even with top speakers of not necessarily high sensitivity i.e. the majority of commercial options. Those now achieve a faster more dynamic sound than for example a 300B would produce."

The price list was very specific of course: €12.5K for the Venus preamp, €12.45K for the parallel single-ended KT170 40wpc Mercury amplifier, €13.64K for the 20wpc 211 Jupiter SET, €17'090 for the 40wpc parallel single-ended 211 Mars, €13'420 for the 40-watt parallel single-ended KT170 Saturn integrated and €16'220 for today's challenger. We can break this info down as follows. One, with my 23% Irish VAT, Neptune demands a full €20K. Two, there are no push/pull or class A/B designs anywhere in the Masterpiece range.



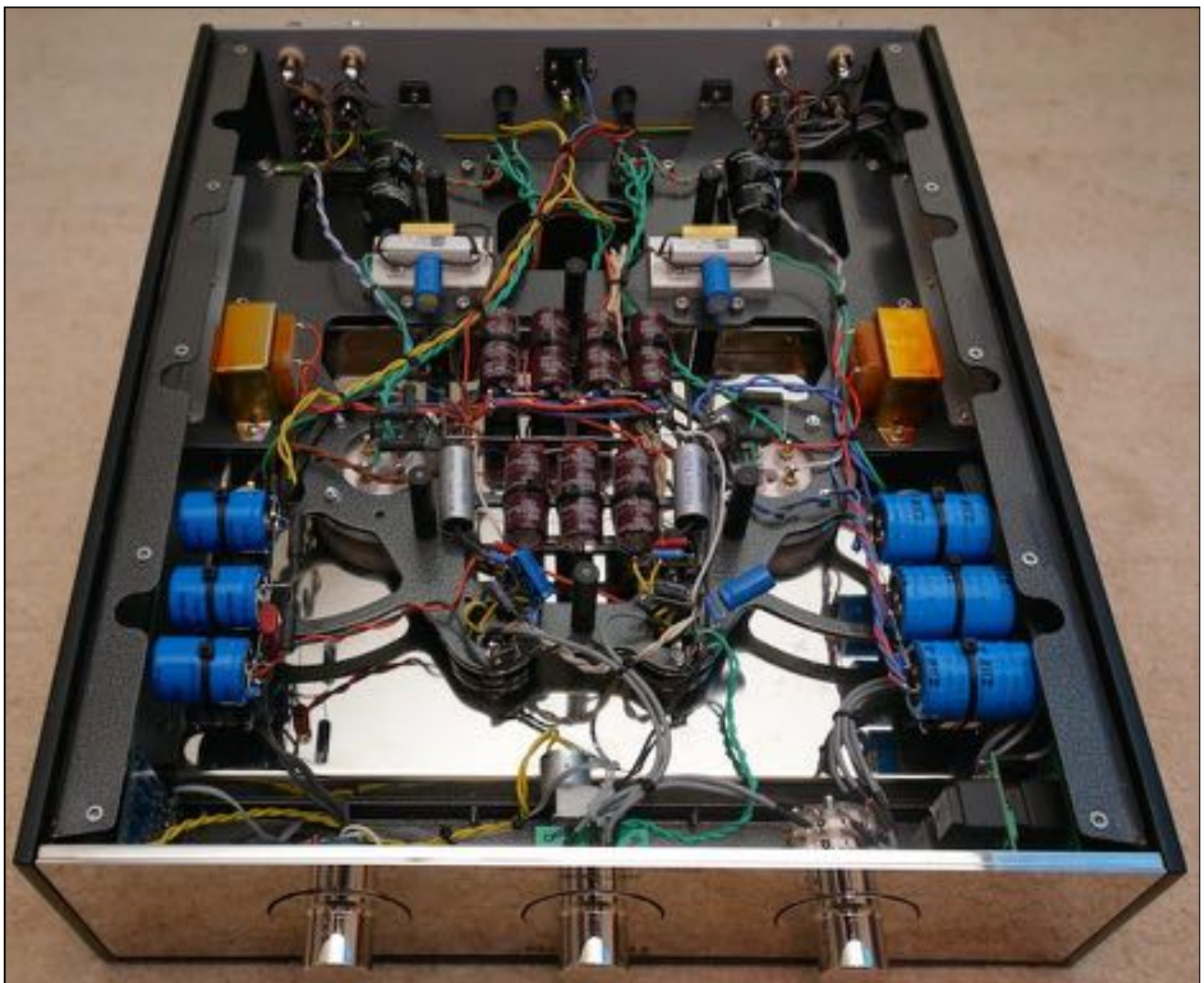
Three, the series only uses two power tube types, the 211 triode and KT170 tetrode. Four, to double power, some models pair output tubes for parallel single-ended operation. Five, no matter what model, max power is 40 watts per channel. Attilio must consider that sufficient; or expects us to use speakers which won't need more. To exceed his power spec would require still beastlier glass like GM70 or other industrial exotica; or phase splitters and push/pull operation. That's for other brands like Audio Research, BAT, Octave, VTL & Co. Tektron's finest remains dedicated to classic single-ended mode; and to tube types in current production.



Aside from ongoing Chinese 211 options and the aforementioned German Elrog, Neptune fanciers can also go Czech with KR Audio before dipping into NOS inventories. For current-production 6SN7, options increase and tube rollers are encouraged to not overlook their importance in voicing the final sound. Hoping to learn more about Attilio's new 211 output transformer and its design challenges as well as more specifics on other upgraded parts in the Masterpiece range and how sonics eclipse prior Heritage models some of which cost even more, I reframed my original questions. Not that I was asking for keys to the kingdom. I just hoped to pry loose some insights on how engineering a high-voltage 211 SET differs from the challenges a classic 300B variant might represent. Wherever reviewers aren't engineers like I'm not, asking nosy questions on behalf of readers and the hobby's knowledge pool is all our kind can do on the objective score. We include however much or little comes back. Then we take a few photos and move onto our subjective evaluations. On the appointed day, FedEx's 'out for delivery' note said 71kg. Serious iron promised a few huffs and groans before it'd be in position to fire.

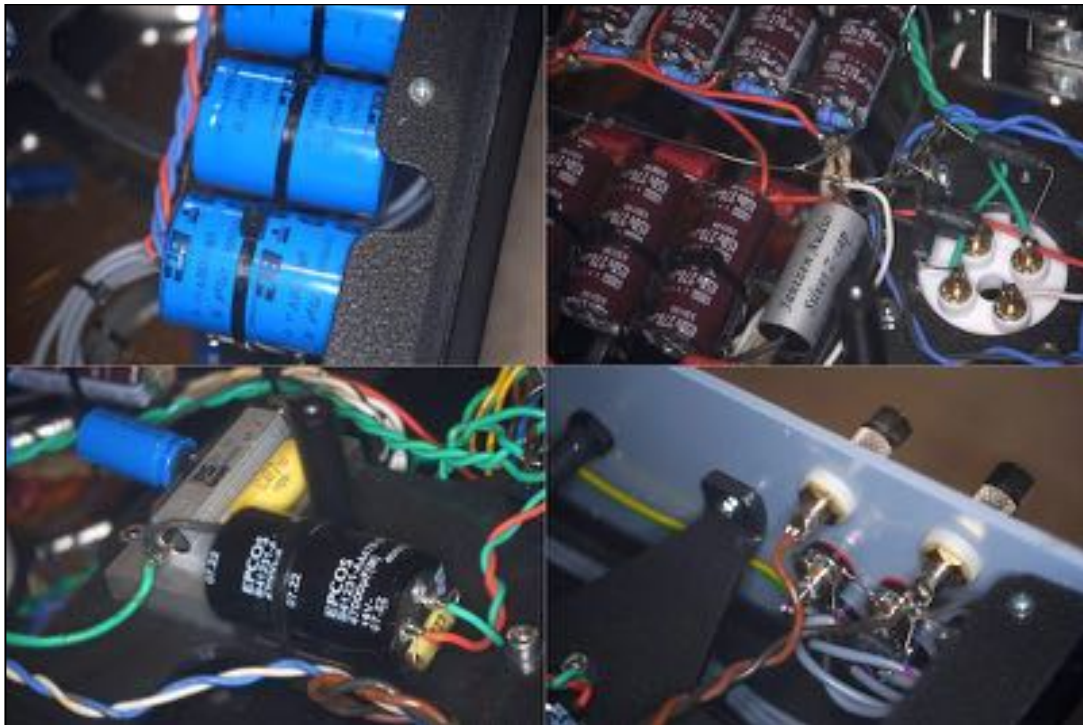
Time for an extra helping of porridge? What soon stared at me in our hallway 60x60x82cm large atop an integral mini pallet wrapped in black shrink killed all appetite. Lifting on a full stomach felt ill advised. Channelling Jason Momoa was better, no long black mane required. What emerged from thick panels of cut foam clad in a black drawstring bag was more wrapped translucent film and beneath it this note: "Warning!!! To clean the steel parts, use only the included chamois cloth. Always handle with cotton gloves (pair included) to preserve the amplifier." Why can cheap Chinese wristwatches execute polished true *stainless* steel which only needs the very occasional minor removal of skin oils whilst otherwise never tarnishing whilst a €20K hifi amplifier must be stroked with cotton gloves? With heavy condensation and streaky discolorations disfiguring its surfaces upon arrival, Neptune looked very much worse for wear. I'd have to hit my G spot of glamorous gleam well past these initial impressions. Due first was popping the underbelly for a look-see at the innards.

**Given the considerable** very asymmetrical weight seen by the hammer-finish bottom plate, Attilio added six beefy stand-offs across the mid section to not rely exclusively on a few screws along the side edges for support. Hover your mouse over the next three photos to activate the loupe enlarger function; or right-click each image to open it at full size in a new window.



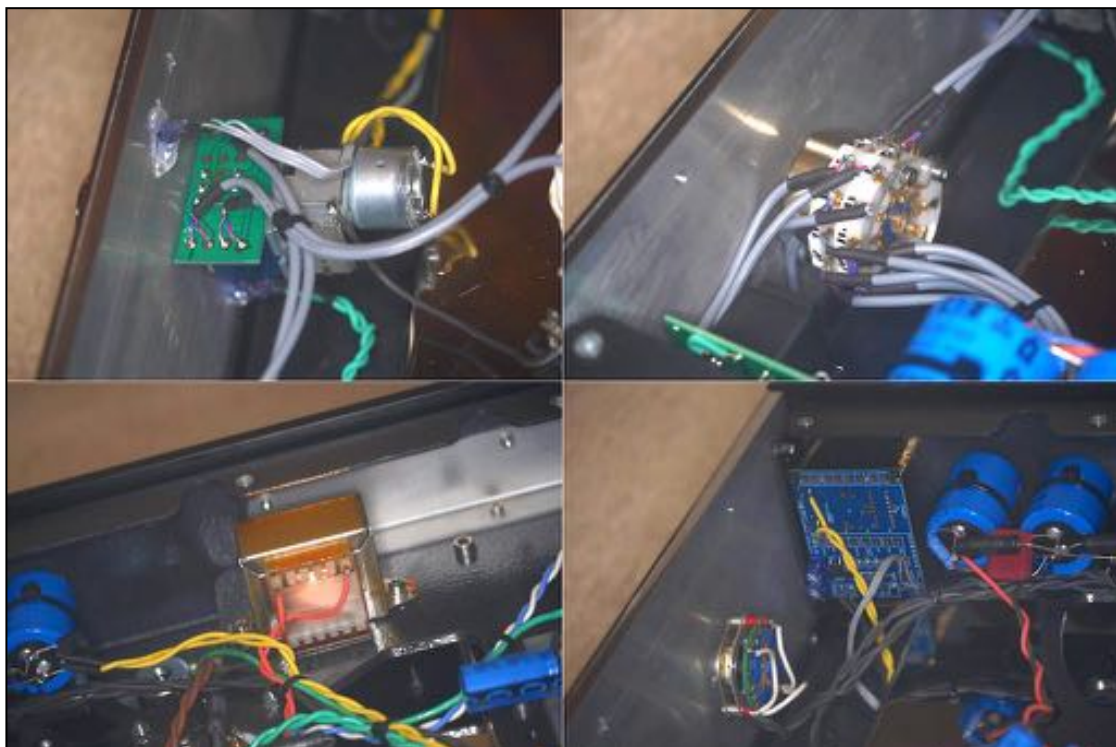


Parts pornographers will have a field day identifying various bits and bobs from such well-sorted spacious innards.



Structural architects meanwhile appreciate the stout curvaceously cut cross braces which give this enclosure extra strength and rigidity.

Whilst we won't see any of it in daily use, it's gratifying to know that our serious investment here rests on a very solid mechanical foundation indeed. As to parts pedigree, you'll be the judge.



The only low point is the small plastic remote. It telegraphs as utterly declass  in a  20K context and would even at 1/4th. We'll meet it soon enough. Even for low-volume artisanal constructors there are much nicer alternatives available. P l Nagy uses such a one for his Lifesaver Audio range of icOn autoformer preamps and Gradient Box smart crossovers. Whatever your Neptune perch of choice, you'll need room for a 36x36cm centre-to-centre footprint for its spacing of the four stock footers. That square sits forward of the actual chassis midline so there's more amp past the rear footers than the front's. My only realistic option was atop the dual 15-inch sound|kaos cardioid subwoofer. Using four Carbide Base Diamond mechanical decouplers as the best heavy-duty such solution I've experience with, soon Neptune floated atop dual roller-ball layers and serious viscoelastics. This also left my usual amps in place for rather more convenient A/B without downtime from rejigging the setup.

**Show('n'tell)time.** Without any speakers or cabling attached to insure that the big transmitter glass fired up without any sparks, I turned the right power knob sans white gloves. Too old for such fuss. I'd already meticulously polished the chassis to mirror magic. Virtually instantaneously the 211's signature intense white light came on followed by demure little specks of orange inside the 6SN7.



I seemingly was in business without *any* operational fuss or tubular testiness. All shined up, Neptune certainly cut an imposing figure. Time to wire up signal cables, check on self noise then run some get-to-know-ya tunes to regain my sea legs on the good ship Direct-Heated Triode.



As might be clear from the next photo, the single lateral pin on the 211's fat metal base means there's only one way to insert it into Neptune's orange-anodized dress barrel with matching lateral slot. With the 6SN7 you'll use the equivalent orientation pin built into its black base nipple. It's easier than screwing in a light bulb. Without optional tube cage, the big emitter bottles must obviously be kept out of reach from small kids and curious animals. They'd cause serious skin burns. This is the polar opposite of cool-running class D you don't even know is on. Does Neptune's vintage solution of anachrophilia retain 21st-century relevance on sonic grounds? Early transistor sound had to equal or better prevailing tube sound before it gained acceptance amongst the cognoscenti. To this day some of them insist that tubes do things transistors cannot. Class D too had to prove its sonic mettle over against solid-stage class A and A/B. Likewise for USB then Ethernet then wireless streaming vis-à-vis CD which itself was judged against vinyl, open reel and cassette tape.



To know whether progress goes beyond the emperor's new clothes, we need ongoing premium examples of prior art. Without it streaming fanatics for example can go off claiming all sorts of nonsense until, one fine day, they get to hear a top-quality CD transport/DAC combo. Stern dismissal of nostalgia confronts actual assessment not just hearsay and gets humbled and finally honest. Time to admit that aside from cost and convenience, hifi progress often isn't all it's cracked up to be? In this context, how would I feel about my favourite 2.5MHz direct-coupled transistor amps on either side of Neptune? Now Attilio's wife Angela checked in: "The remote is only provisional as you'll see in the answers to your other questions Attilio will send soon. Also, a tube cover includes with all our amplifiers. We didn't send one to speed up shipping since we were late already and this was a review not sale."

From the listening seat, Neptune's self noise was a low-level hum through the dipole midrange and ported woofer. From prior SET ownership I'll call its magnitude quite low. My inner noise nazi of course who abhors *any* hum felt vehemently vindicated in his transistor truth. With raw voltage gain in massive surplus for this system, I heard no SPL reasons not to focus on Qualio's IQ over Cube's Nenuphar v2. Why pursue a specialty speaker when Neptune's design brief aims at more regular speakers and instantly showed itself fully capable? Would there be more to it than just sufficient voltage gain? To assuage complaints over my 100Hz transition to a big sub, one press on my active crossover's remote bypasses the filter to hear speakers in standard uncut mode and assess any amplifier's control down low. But remember that without the sub's cardioid radiation pattern, any speaker good to 30Hz rides my room's 35Hz and 70Hz modes for unavoidable boom. For proper linearity, it's either massive most unsightly bass traps; serious digital EQ; or the Ripole sub. My choice is the latter.



***A mirror polish means exactly what it says. You see everything; including my beheaded reflection taking this shot.***

Before we talk tubular tonal turkey, here's what I asked Thomas Mayer of Elrog on the high-voltage SET topic before I knew to expect more from Tektron: "I don't know whether you've the time or inclination but asking never hurts. Could you explain what the impedance step-down ratio of a single-ended 211 means relative to winding ratio, bandwidth, phase shift and parasitics for its output transformer? Also, are there any inherent advantages in a 1'200V plate voltage relative to the music signal voltage—another subject of ratios perhaps—versus power triodes that run on much lower voltages? In other words, despite running very hot and requiring more complex output transformers, are there technical advantages to a properly designed 211 SET which exceed what an equally properly designed 300B SET can do if we disregard its lower output power by using speakers that are ably served by the 300B? I'm trying to understand what, if we disregard the 19-watt power rating of a single-ended non-paralleled 211, the ongoing appeal is to operate 'lethal' voltages, high heat and buy into the need for a complex and by necessity costly output transformer when two paralleled single-ended 300B would make very similar power, even more if we used the high-power KR/EML/Vaic-type 300B variants."



"There's no simple answer to all this. If you ask three amp designers, you'll get three different opinions. I'm thinking about writing a blog post about this topic because a thorough answer is quite lengthy and then I prefer to use it myself as well. But if you plan to publish it as part of your 211 amp review, the designer of that amp might not like my views which are most likely contrary to his."

That was a perfectly fair answer of course and readers curious in a 2nd opinion can look up Thomas' **blog (<https://vinylsavor.blogspot.com>)** for his eventual formal take on the topic. From Attilio: "As previously mentioned, I decided on 211 because they're historic valves that have always been used for audio-frequency power amplifiers, mainly in single-ended configurations with excellent linearity. This intrinsic linearity also allows for low THD without feedback whilst delivering good power in a single stage with a direct-heated triode. As you know, it operates at around 1000 volts and due to its medium- high internal resistance of  $\sim 3'600\Omega$ , it requires an output transformer with a primary impedance of  $10k\Omega$  with a 35:1 ratio. Our transformers are handcrafted in Italy using only high-quality ultra-permeable thin 0.23mm laminations. The coils are OFC copper and each layer is insulated with 0.05mm mylar. Furthermore, the windings are cemented in class H polyester resin on a autoclave mould with vacuum values close to zero. The Masterpiece range culminated after two years of collaborative R&D with industrial designer Alessandro Coletta and our mechanical engineer Jacopo Bartiromo who brilliantly implemented the mechanical aspects of Alessandro's design outline to recall the screw-less Italian minimalism of the 1960. One of Jacopo's key contributions is the internal intermediate base to which mount the most delicate components of transformers, capacitors and valves. This intermediate structure not only provides higher mechanical integrity but decisively cuts down vibrations. All steel laminations are thick, ensuring extreme strength and robustness. Finally the design team includes Antonio Panzetti who manufactures all of our transformers and Walter Gentilucci who provides technical assistance and performs all measurements."

**Off course.** My thoriated tungsten DHT ship was, on these loads and for my taste. Of course the latter is of no concern. Good reviews aren't about a writer's likes. They should describe the effect the subject had on pre-existing sonics. What changed? Let's rewind. These ivory-coloured 6-inch Satori midranges don't see the usual restorative assist from trapped air in a box acting like a spring. Neither are they specifically made for dipole use to feature stiffer surround/spider compensation. As such they are small current hogs. Higher damping from lower output impedance adds control for more precise braking. Think and hear higher resolution from reduced overhang. Two, dipole dispersion from below 300Hz up to beyond audibility deliberately energizes my room's ambient field unlike classic direct radiators. These hybrid dipoles' tonality fleshes out naturally as a function of acoustic reverb. Now octave-doubled 2nd-harmonic distortion from a no-feedback single-ended triode steers deeper in the very same direction. As such Neptune sounded decidedly thicker, slower and less separated. Then the treble rolled off demonstrably vs our usual 2.5MHz direct-coupled class AB push/pull amps with their more 3rd-harmonic dominant THD. A curtailed top end imbued the colour palette with a more burnished patina and clearly sweeter feel.





Jump factor, microdynamic responsiveness, transparency, brilliance, urgency, speed and timing relaxed or softened. Meatiness, density, saturation, heaviness and diffusiveness all grew. More curves, less speed. Late afternoon not early-morning sun. Cappuccino not ristretto. On the SET topic such words or images are in heavy rotation. Hence they're doomed to feel derivative. They're simply no less true or accurate. If this is how one wants to season one's sound, no DSD DAC I know goes remotely as far. Even a transistor-based single-ended amp from the FirstWatt catalogue stops short. It'll be similar but still feel like a lighter version. If we revisit relevance—has a legacy-tech amp like this ongoing raison d'être—I'd answer in the affirmative. Whilst one could attempt to clone the effect by other means, I don't think they'd arrive us in the same place. That includes S.P.E.C. of Japan whose class D amps are deliberately tuned to follow SET precedents.



Despite this page's lead-in, I found myself ill habituated to enjoy Neptune's sonic course correction. It reminded me of exactly why I'd given up on using direct-heated triodes for speaker drive very many years ago. In preamps they drive an amp's fixed high input impedance not a reactive load of back EMF and highly variable impedance. Now things can change significantly. Answering my earlier question, there's more to optimal SET performance than easily going louder than we'd ever want. To not unfairly critique Neptune for being itself in less than ideal circumstances, I thus quickly moved Qualio's IQ out. Again, this was *not* because 19 watts proved insufficient. Tonal/textural balance shifts, looser driver control and resultant losses in resolution and transparency were my key deciders.

Right off I heard that Nenuphar v2 would be a very different game indeed. I just had to get past the hum which now telegraphed louder in the seat and would frankly be uncouth at €500. At €20K I doubt anyone considers it part of the deal. To insure that it wasn't a low-level ground loop from the active xover linking Neptune and Gold Note monos, I wired the 6m interconnects from the DAC straight into Neptune. No difference. The hum was hear to stay. Compared to the big sub handling sub 100Hz, I also suffered an overripe bass balance on amplitude; and sloppier stoppage in time. So I reverted to my usual stereo 2.1 setup and determined to overlook the hum. Most people doing vinyl overlook pops and clicks and consider them part of the ambience. Why would Nenuphar be such a different game when its ~91dB sensitivity is bog standard? Because its tapered quarter-wave tube backloads the driver whose motor with a real army of neodymium slugs rocks flux in excess of 2 tesla. That exerts high self damping to not lean on Neptune for control and to in fact prefer a much lighter hand. What on the Qualio load had been a demerit turned into a virtue on the Cube. It's a core aspect of proper SET matching. Could there be others?





Attilio: "Sorry that I forgot to mention it earlier. The two unmarked knobs next to the 211 are noise trimmers. They must be readjusted each time you change speakers." Armed with this vital bit of intel, I indeed managed to suppress hum to virtual inaudibility at the seat whilst not entirely right next to the widebanders. But as tube lovers would remind us, who listens to their speakers from just five centimetres? Extreme intimacy is for headphones.

**Goal.** High-sensitivity widebanders can seem a bit like e-stat or ribbon headfi. For all its amazing speed, immediacy and directness, that can feel a bit thin, sparse, tipped up and nervy. Overly crisp attacks and hyper-exact timing with exuberant dynamic spikiness can lack in follow-up body and mass. Whilst the designers of Nenuphar v2 deliberately 'detuned' this high-sensitivity effect, remnants of it remain. That's where Neptune's fluffier textures, sweeter more relaxed demeanour and richer colouration all dovetailed into an ideal antidote. With this speaker's micro dynamics liberated already, Neptune's focus on the macro meat balanced well. With Neptune's subdued brilliance region, the tonal centre of gravity shifted down to subvert any subliminal widebander tendencies of behaving top heavy. Neptune's more leisurely gait guaranteed that v2's twitchy reflexes didn't overshoot the mark. Lower amp resolution didn't telegraph much against the speaker's own magnification powers. Across the board then, mutual give 'n' take ended up like two hands praying. With all fingers interlocked, it's a strong connection without any gaps.



For some tracks from my local playlist, use the mouse-over loupe enlarger or right-click to open at full 6'262px width in a new window. I didn't really hear Neptune play favourites on genre, tempo or complexity though it should go without saying that a certain prettification factored. If you prefer hard-hitting tracks in all their gritty and gnarly cartilage glory, you'd likely not consider a SET in the first place. You'll want something from the odd-order harmonic and overdamped side of the fence.



Having confirmed for myself just why the Tektron/Cube combo is such a perennial show-demo pleaser, curiosity got the better of me. In the same 2.1 scheme to offload bass duties and sidestep sub 100Hz room issues, what would these 211 do for earlier Accuton ceramics? Those drivers always had a rep for a greyish harmonically monochrome tint. My Albedo Audio Aptica is a 5 1/4" transmission- line compact two-way tower with 1st-order filters. Low ~85dB efficiency didn't faze me a penny. My hardware chain plus Neptune packed gain to raise the dead.

How dead? With Neptune's attenuator bypassed, depending on median recorded level Aptica had me between 30dB and 40dB *below* my DAC's high 6Vrms output. If as a paper warrior you sternly wrote off 85dB and 19wpc as impossible, you'd now be profusely bleeding from paper cuts. Get out into reality more often. This quickly became my favourite combo. Because it could seem just a bit subversive, I decided to stick with it for the remainder of this review. It's a more interesting bit of news than rehashing well-known Tektron/Cube bliss. SET + widebanders or horns is an established recipe whose advocates tend to be very well informed already. SET + 'normal' speakers? Not so much. Making deposits into that mostly empty account felt like a good deed I should commit. And if I may say so myself, I thought it *looked* rather good to boot.





Before we talk Accuton sonics, a quintet of likely factors *why* this combination may have worked so well. 1/ simple 1st-order 2-way crossover. 2/ small mid/woofer actively crossed out at 100Hz/4th-order. 3/ transmission-line loading on the small mid/woofer. 4/ high system gain to compensate the low speaker efficiency. The latter even had the fringe benefit of fully suppressing the amp's remaining self noise. 5/ hard well-damped cones. If I paraphrase the speaker's innate gestalt as perhaps Alberto Guerra-type GaNFet class D, we net a final pointer. In Rogue fashion where Mark O'Brien couples small-signal triodes to switching Hypex power modules, Neptune's harmonic injection and tubular textures turned Aptica's gestalt into a type of hybrid. To hifi Buddhists on the Middle Path, that's nearly the best of two worlds coming together. If I had any misgivings, it wasn't the end but means. Gazing at brightly emitting 211, I remained keenly aware of just how hot they run to stress their internal materials. I never have any such concerns spotting the mostly concealed Western Electric 300B in my Vinnie Rossi L2 Signature direct-coupled grounded-grid preamp. Again, anyone considering 845/211 kit is made of sterner stuff than worry about a high-voltage SET and the longevity of its glass. Here it's important to report that Neptune powered up and down without any fuss, crackling or disconcerting transients. From our earlier inside photos and the amp's unmistakably hulking size, we also appreciate that its circuit very strategically spreads out sideways for plenty of internal spacing and venting to run as cool as possible. It's the big glowing bits on top which radiate fiercely. To the right shoppers, that's a big attraction in fact. On that score and the ask, I'm simply the wrong punter. Having been through all manner of tube gear in years past, now I favour DHT in my preamplifier where they're barely taxed and need neither output transformer nor coupling capacitors to enjoy extra-wide bandwidth. But again, today isn't about my preferences but Neptune's performance in the listening seat, under what from my options felt like the optimal speaker. And there the shiny chap with the invisible trident cut a really impressive figure.

**Moisturizer.** Counter-steer Accuton dryness. *Gilder.* Shift the overall hue from platinum to gold. *Diffusor.* Move emphasis from attack to bloom. *Flowing.* Connect the dots in more leisurely than sprung fashion. *Scaling.* A side effect of bloom, image less laser-locked but puffier so larger. *Densifier.* Emphasize pigmentation over separation. *Sweetening.* Soften subliminal tendencies to harden up or feel subtly brittle. *Bodybuilding.* Add mass. All these aspects had obviously been present already on IQ. There they'd simply added in ways which to varying degrees overshoot. Though only a partial stand-in, think of pouring wine into an already full glass. You'll spill a minor mess. With Aptica that glass was only half full so topped off beautifully. In tube circles, the 6SN7 is referred to as a big-tone bottle. Without prior experience with 211, I don't know whether cognoscenti apply the same term to it. If they do, I'd not be surprised. Whilst many tubes hang body, Neptune's flavor combined the meaty with the fluffy. I didn't hear any 45-type airiness or Takatsuki 300B brilliance. That fluffier aspect wasn't from aeration but a looser grip without shortness of control. I didn't hear blur or ethereal, just buoyant slightly diffuse mellow materialism. On this small-driver'd compact tower, Neptune's handling of the macro had it stand unexpectedly tall.



*Hum pot right next to power triode.*

I wouldn't call the effect chunky though. That particular billowing undermined thinking of sounds as smooth hard golf balls. Instead they suggested more suede-finished breathing things. This textural quality also explains why on perceived resolution from crisp separation and inter-note blackness, Neptune played it less fastidious. The performance feel wasn't the observer's bean-counting perspective but a relaxed semi merger into fields of gently spreading strongly back-lit water colours. Because that's not an inherent quality of Aptica, Neptune's injection didn't go overboard. It felt like a satisfying enhancement well apart from caricature. What it couldn't do simultaneously was render inter-note space as completely silent and freshly dusted. Whether due to a higher noise floor or some microphonic 'dithering', Neptune portrayed connective tissue, not outer-space nothingness between/behind the sounds. This is more similar to a concert's far seats where reflective sound massively dominates direct sound to create the cohesion of overlay and intermingling. If you fancy the drier spikier more energetic sharply separated vibe of the near seats, Neptune probably won't be your first choice. It plays thicker just not sticky or suffocating. Again, inherent fluffiness counteracts clumping.

Without fluffing them up with sundry music samples—at nine pages I've tested your patience enough already—these are my findings on Neptune's voice. Three different loads agreed on the details just not their extent. Extent depended on whether my chosen speaker further emphasized the same traits, changed direction to modify them or introduced technical reasons for a mismatch. With my time with the Elrog ER211 over before Neptune landed, I can't speak to voicing leeway from tube rolling. From prior experience with other valve amps, that can really nudge the sound's overall gestalt. I don't see why it wouldn't here, too. I just couldn't predict by how much and in what direction. I heard the provided JJ and Psvane MkII bottles.

In *The Audiophile's* tradition of 'what did I really think', remember my status quo as an ex tube fancier who switched from the 2nd-harmonic to the 3rd harmonic camp and to DC-coupled transistors for exploded bandwidth. Conducting a new blind date with an example of prior love and lust so many years later hasn't changed by changed proclivities. Unless a surprise that's still to come educates me otherwise—somewhat unlikely given this sentence unless it's another Berning or LTA—I'm off the tube-amp wagon for good. But that's just me. Against prior valve-powered sessions, I could easily appreciate Neptune's lovely mix of qualities, feel impressed and reassured by its build quality and finish. Personally I'd not opt for the endless selfie that was my loaner's mirror-gloss polish. Looking at myself in an amp's reflections isn't my idea of (cough) beauty. I was also impressed that once I understood the hum pots, self noise really suppressed; and that Neptune came on/off without any noises or protracted warm-up. Team Tektron clearly know their glowing beans and feel that with their Masterpiece range, they've eclipsed their previous best. I'm in no position to argue with that!

*Srajan Ebaen*