SPIN DOCTOR BY MICHAEL TREI

THIS ISSUE: The Acoustic Signature Verona NEO turntable, TA-5000 NEO and TA-7000 NEO tonearms, and the Ultra Carbon TC-40 record weight.

German heavy metal

sometimes joke about how audio designers create products that resemble themselves, not just in how they look, but also in the design approach used, and especially the way they sound. So, we have tall, cool, pragmatic Scandinavians making gear like the lean, elegant Børresen loudspeakers, while the Italians build luscious curvy equipment endowed with natural wood and leather, like Sonus Faber speakers and Unison Research amplifiers. Continuing this blatant stereotyping, we have Acoustic Signature founder Gunther Frohnhöfer, a stout German known for creating precision-built turntables that are as solid-looking as he is.

When I visited the Acoustic Signature factory in 2023, I watched as they hewed massive slabs of aluminum into beautiful, heavyweight turntables. This approach is the opposite of the lightweight-but-rigid philosophy embraced by Rega, and while the resulting performance has different strengths, I would argue that it is at least equally valid. As with Rega, Acoustic Signature products have a purposeful simplicity, in a way that would allow a nonaudiophile to instantly recognize what their function is.

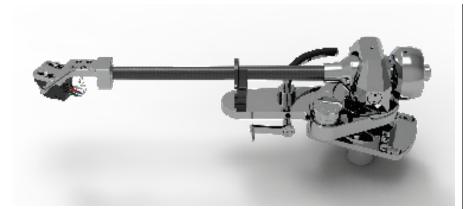
During my visit to the Acoustic Signature factory last year, I got a sneak peek at the Verona NEO turntable (\$15,995 in Macassar Ebony or Piano Black) just before it was officially launched at the High End Munich audio show a few days later. Unlike the sculpted-aluminum forms used for most models in the Acoustic Signature turntable lineup, the Verona joins the Double X NEO as the only models built around a wooden plinth. This endows these two models with a warmer and more furniturelike appearance, which should make them more domestically acceptable in a designconscious household. The plinth itself is made from a multilayered sandwich of plywood, steel, and medium-density fiberboard (MDF), providing constrainedlayer damping to minimize vibrations. The top surface of the review sample was finished with a Macassar Ebony veneer, topped with a mirrorlike high-gloss finish, while the sides of the plinth were high gloss piano black. As an option, you can get the Verona with its entire plinth finished in the high-gloss black, while the metalwork, including the platter, arm bases, and control panel, can be finished in either silver or black.

Note that I said arm bases—plural—because unlike the smaller Double X NEO, the Verona comes ready to accept two tonearms, both of which can be either 9" or 12" long. Acoustic Signature can provide arm bases for a variety of common tonearms, while their own tonearms are normally fitted with an adapter plate that makes them compatible with the popular SME arm mount. The review turntable came with two arms from near the top of Acoustic Signature's extensive range: a 12" TA-5000 NEO (\$8995) and a 9" TA-7000 NEO (\$15995). At first, I figured I would mount the more upmarket 7000 in the standard right-side position for easier access, but I found that when you put a 9" arm on the Verona in the right-hand side position, it must be rotated outward when it is in the rest position rather than sitting parallel to the side of the plinth. There's absolutely no problem with doing this from a functional or performance standpoint, but it could upset OCD sensibilities. By swapping the arm bases and moving the 7000 to the rear position, I was able to put the longer 5000 in the standard position on the right, where it could sit parallel to the side of the plinth and be less likely to trigger anyone's sense of (dis)order.

The Acoustic Signature Verona NEO is a massive, high-performance turntable with two motors, two tonearms, and an external power supply, but the company has gone to lengths to make the setup as straightforward and unintimidating as possible. After hefting the Verona's main chassis into position on your rack or shelf, you connect it to the DMC-20 power supply using a pair of RJ45 network cables provided in fetching shades of red and blue. The same power supply is used for several Acoustic Signature models, current and legacy, so there are a bunch of additional connectors you won't need to use. But while you're back there, take note of the two little buttons that can be used to fine-tune the pitch at each of the Verona's two speeds.

Continuing with the main chassis setup, you remove a pair of hand-tightened plastic transit screws near the main bearing, level the chassis using the three big, threaded isolating feet, and lower the platter onto the main bearing. At no point do you need to add oil to the bearing or even touch a





drive belt, and there's no fiddly suspension to adjust. If you didn't read the manual, you might not even realize that this is a belt-drive turntable, because most of its working parts, including the inner platter, the two AC synchronous motors, and the two drive belts, are hidden under a cover beneath the platter. Along the top front edge of the plinth are two switches, one to start and stop the platter, the other to change the speed from 33.33 to 45rpm. In normal use, you should never need to access the DMC-20 power supply; it can be tucked away from view.

The TA-5000 NEO and TA-7000 NEO

tonearms continue the effort to keep things simple, providing all of the key adjustments and most of the tools needed for an accurate cartridge setup. Azimuth adjusts in the familiar Acoustic Signature way, by slightly loosening the two screws that attach the armtube to the bearing assembly, then rotating the tube. An uncalibrated counterweight screws onto a fine-pitch threaded rod at the back of the arm, making it easy to fine-tune small changes in the tracking force. The antiskating adjustment is a simple, calibrated dial. The arm comes with a nice dedicated Dennesenstyle single-point alignment protractor for setting overhang and zenith, but you will need to provide your own tracking force gauge. I recommend and use the Riverstone Audio gauge: It's accurate, affordable, and it measures the tracking force close to the level of a record's surface.

The one adjustment Acoustic Signature could have made easier is changing the arm height to dial in the VTA/SRA. It would be great to have a VTA tower such as you get on many VPI and Kuzma arms, but that capability wasn't provided here, presumably because it could compromise the arm's mechanical stiffness and energy-transfer efficiency. A simpler approach is to add a simple height-limit screw such as you get with SAT. Brinkmann, and SME arms. Acoustic Signature has chosen to keep it old school with a simple clamping arm collar to hold the arm post at the required height. If you loosen the clamp to make a change, be sure to have a firm grip on it with your other hand or be prepared for the arm to fall to its lowest position. This is just me griping from the perspective of a turntable-setup guy; once the arm is tweaked and locked in position, such details don't matter.

The advantages and disadvantages of 9" vs longer tonearms has been a popular debate topic among turntable aficionados

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for decades, so let me summarize briefly. The longer an arm is, the lower its maximum lateral tracking error will be when properly adjusted; an infinitely long arm would have zero lateral tracking error. remaining tangential to the record groove at all times-but an infinitely long arm has other disadvantages. Another advantage of a longer arm is that the headshell offset angle is less acute, so less antiskating force is needed. On the other hand, making the armtube 3" longer introduces more opportunity for the arm to flex and resonate, which can result in a loss of dynamics and clarity. Twelve-inch arms tend to be a bit more awkward to use, with less precise cueing: really long tonearms can feel a bit like the tail wagging the dog.

With this in mind, I found it interesting that Acoustic Signature chose to equip the review Verona with a 12" TA-5000 NEO and a 9" TA-7000 NEO, the third and second models, respectively, from the top in their five-model lineup. On paper, the 5000 and the 7000 seem quite similar, but when you dig a little deeper the differences become clear. Both have carbon-fiber armtubes, but the 7000's tube uses an internal lattice structure that adds stiffness and damping. Both use high-precision gimbal bearings, but the structure and materials are quite



different. The internal wiring on both arms is made from 4N silver, selected for its exceptional flexibility to minimize any effect on the arm's freedom of movement, in both planes. A 5-pin DIN connector at the base of each arm allows you to connect the included Equator Achromatic cable, from Atlas Cables of Scotland. Standard, singleended RCA connectors and balanced XLR connectors are available.

I could prattle on about such things as sintered-bronze bearing bushes that hold an ample supply of bearing oil, or the eight cylindrical silencers inserted into the platter to damp ringing, but I expect you're more interested in knowing something about how the Verona NEO sounds. Ideally, I would have installed samples of the same high-performance cartridge on each arm and done a direct comparison, but I didn't have two examples of the same high-performance cartridge on hand. What I was able to do was optimize most settings on both arms for my recently acquired Lyra Atlas λ Lambda cartridge; I was then able to move the cartridge between the two arms with a minimum of fuss. I also tried my trusty Dynavector DRT XV-1s and the DS Audio W3 with the EMM Labs DS-EQ1 equalizer. The Verona NEO may disguise its





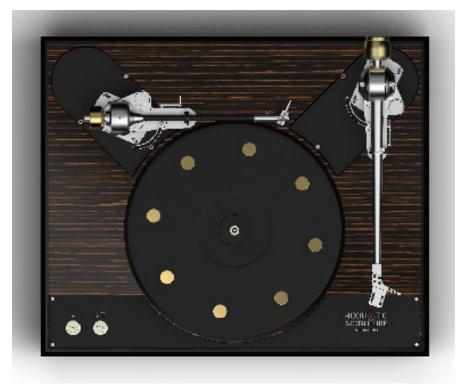
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heavyweight approach behind a pretty wood veneer exterior, but it doesn't hold anything back sonically. First up, I used the TA-5000 NEO to play "Hard Day on the Planet" by Loudon Wainwright III, from his 1985 album More Love Songs (Rounder Records 3106). Don't let the album title fool you; this is Loudon at his snarkiest. At the start of the song, stand-up bassist Danny Thompson's solo burst from the speakers, dropping deep and tight and moving plenty of air. Rounder was making some wonderful, natural-sounding recordings in the 1980s, and this is one of their best, with the kind of true-to-life dynamics rarely heard on today's recordings.

After moving the Lyra Atlas over to the TA-7000, I played the song again and heard a few subtle but distinct differences. The 7000 took the strengths of the Acoustic Signature house sound, solid, lean, powerful bass and rock 'em sock 'em dynamics, and clicked them up another notch. Both arms are clearly cut from the same cloth, but the 7000 sounds tighter, faster, and more powerful, as if it had been working out at the gym a bit more regularly.

To get a different perspective, I played the Chesky Records reissue of the Rachmaninoff 2nd Piano Concerto played by Earl Wild with the Royal Philharmonic Orchestra conducted by Jascha Horenstein



(Chesky CR2). This wonderful recording and performance was made in England in 1965 for one of those big Reader's Digest box sets you often find at thrift stores for a few bucks. Engineered by the EMI classical recording crew with the legendary Kenneth Wilkinson at the helm, the Chesky version is a sonic revelation, with a sense of coherence and ambience that few modern orchestral recordings capture. Through the Verona/TA-7000/Atlas front-end, the sound was captivating, bristling with energy, transporting me to Walthamstow Town Hall 59 years ago. The third movement was really brought to life, with Wild's flourishes in the opening section set in a vast soundstage carved out by the orchestra's sound. The dynamics here are massive, and the Acoustic Signature front-end sailed through it with verve and dynamism. This is the kind of sound that just makes you want to keep listening.

At around \$16k plus the cost of the tonearm, the Verona NEO offers performance that is truly reference quality at a price that hopefully won't require you to take out a second mortgage. The TA-7000 NEO is undeniably expensive—the same price as the turntable—but I could count the other tonearms that compete at this level on my fingers. The TA-5000 NEO is the real deal too, delivering 90% of the 7000's performance for about half the cost.

This turntable and these arms are everything you would expect from a top-shelf German manufacturer: They're beautifully made and presented, and everything fits and works perfectly. The Verona NEO comes with a 15-year warranty, which is pretty much unheard of in the turntable business and should provide the owner with plenty of confidence. The tonearm warranty is shorter at five years, but that's still significantly longer than the industry standard.

ULTRA CARBON TC-40 RECORD WEIGHT

In Spin Doctor #4,1 I talked about the differences between record weights and clamps and the importance of the interface between the record and the platter surface. On a suitable turntable, a weight can ensure a more intimate bond between an imperfectly flat record and the underlying platter, resulting in better control of resonances within the record itself. Record weights come in many shapes and sizes, but few if any are as beefy as the Ultra Carbon TC-40 (\$275). Machined in Poland from a hunk of nonmagnetic stainless steel, the TC-40's body contains layers of carbon fiber and steel designed to absorb resonances transferred from the record.

The machining quality is beautiful, and the shape of the handle allows for a secure grip when lowering the TC-40 onto a record.

Tipping the scales at a hefty 2.17lb (985gm), the TC-40 is the heaviest record weight I'm aware of, so care is required when matching it up with a turntable. I usually scoff at those naysayers who claim that a record weight will destroy your bearing, cause the platter to slow down, or wear out your belt, but with this 2lb chunk of steel, you probably should put some consideration into its compatibility. No, it will not slow down your platter or wear out your belt, but I would only use it on a turntable that already has a pretty substantial platter and bearing. A 5lb platter sounds like a reasonable lower limit, so I would shy away from using it with Rega, most Pro-Ject, and other lower cost Music Hall, Fluance, and Audio Technica turntables. It's also not going to be a good match with a softly sprung suspended turntable like a Linn, Thorens TD-160, or an older Systemdek. Better matches include turntables from Clearaudio, Kuzma, AMG, Brinkmann, and SME.

I tried the TC-40 on my Brinkmann La Grange with its record lift washer removed and found it kept a relatively flat record in good contact with the Brinkmann's glass platter surface, but with records that had visible warpage, Brinkmann's own screw-

¹ See bit.ly/PlatterMat.



down clamp did a better job of flattening the record. The Acoustic Signature Verona NEO in for review was an excellent partner for the TC-40. Its platter alone weighs more than 24lb (11kg); an extra 2lb won't cause bearing distress. Acoustic Signature makes a few weights and clamps of their own for use with the Verona NEO, but none was supplied with the turntable. The TC-40 is an excellent alternative at a substantially lower cost.

To audition the weight's effectiveness at damping record resonances, I figured a thinnish pressing with lots of groove energy would offer a worst-case scenario. I played a UK pressing of the 12" 45rpm single of "Arabian Knights" by Siouxsie and the Banshees (Polydor POSPX-309). This is a congested-sounding recording, coming from an era in the early '80s when record producers were in love with their reverb units, but musically it's a great single. Adding the TC-40 had a subtle but unmistakable effect, tightening up Steven Severin's four-on-the-floor bassline while putting a bit more air around Budgie's massive, reverb-washed drum sound. The sound was a bit leaner and less congested with the TC-40, providing some welcome clarity to the sound.

I found that the TC-40 delivered a worth-

while bump in performance as long as you have a turntable that's stout enough to handle its bulk.

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