

ENTRY-LEVEL INTO MASTERY

The new entry-level turntable Merlin Neo has borrowed a lot from Acoustic Signature's master-grade drive systems. In the STEREO review, it therefore pulled off a few surprises.

Text: Matthias Boede



TEST EQUIPMENT

Turntables: Michell Gyro, Thorens TD 404 DD, Transrotor Rondino nero with tonearm TRA 9 and MC cartridge Figaro

Cartridges: Excalibur Midnight Blue, Dynavector DV 20X2A-L, Skyanalog P-1M, Transrotor Figaro (MC), Rega Nd 9 (MM)

Phono preamps: Brinkmann Edison MK II, Pro-Ject Tube Box DS3 B

Pre/power amps: Accustic Arts Preamp V/Amp VI

Loudspeakers: B&W 801 D4, Peak Sinfonia

Phono cable: Audioplan Maxwell A

It is the fate of entry-level models in exclusive series that they are often associated with second-hand features or imitation, offering only the dubious consolation of at least providing a glimpse of the splendor and glory of their „full-fledged" counterparts. This is entirely different with the new Merlin Neo – named after the wizard from Arthurian legend – with which the analog specialist Acoustic Signature is literally „enriching" the lower end of its lineup.

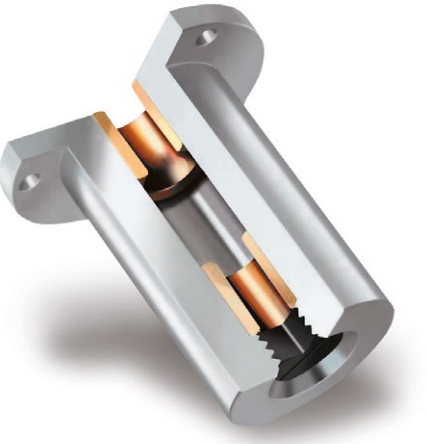
Because, to be honest, we were first stunned and then simply delighted by the abilities of this flat, visually understated yet handsome turntable, offered at a price that is certainly not student-loan friendly, but still affordable at around 4,000 euros. Not that we wouldn't have trusted the manufacturer based in Süßen, Swabia, southern Germany, working with state-of-the-art machines and an unusually high level of in-house production, to deliver such a surprise. Quite the opposite! After all, STEREO has tested several Acoustic Signature turntables in recent years and is well aware of their mechanical as well as sonic strengths.

Still, we weren't prepared for this impact and this sharply defined, ultra-dynamic drive when, upon first encountering the purist Merlin Neo, we played the superbly produced Evolution reissue of the „Elixir" album by the U.S. group Fourplay through our system. What on earth is happening here? The drum hits came crashing out of the speakers with bone-dry precision, and the funk guitar cut through with clarity; the sound had a focused energy and precise character that one wouldn't have expected in this league.

Spurred on by this relaxed yet sophisticated performance, we kept turning the volume up further and further, which led to no feedback whatsoever between the turntable and the bass-powerful B&W 801 D4 rocking directly next to it. The Merlin Neo carried on in stoic calm, unimpressed. Respect!

An audiophile stroke of luck

At that point we had mounted Excalibur's new top MC Midnight Blue on the TA-500 Neo, the smallest tonearm in Acoustic Signature's extensive program, which has served us well since its test in STEREO is-



The Tidorfolon bearing of the platter comes from Acoustic Signature's own development.

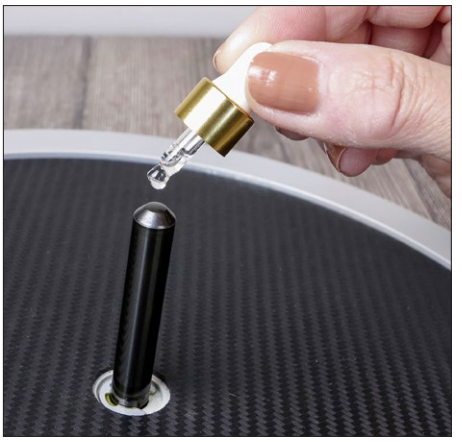
sue 4/26. It costs around 1,900 euros and is familiar to us as a top-class cartridge with a slightly noble, distinguished note. In this setup, however, it really let loose, sweeping around the corners with such dynamics that it was a pure joy. Because there wasn't a trace of annoyance or even sloppiness.

The originator of this analog moment of bliss, with more to follow, the aforementioned Merlin Neo, consists of two parts: the actual turntable with its associated tonearm, plus the likewise round drive unit, which is to be placed a short distance from it and keeps the six-kilogram platter, lined on its underside with a damping carbon-fiber mat, spinning via an angular belt.

Operation of the turntable could hardly be simpler. A push-button to the left or right means 33 or 45 rpm respectively, with the elaborate control system, in order to protect the belt, first lets the virtually silent AC motor start gently before accelerating it to the target speed. The center position of the easy-to-grip concave button switches the drive unit off. Once the Merlin Neo is set up, which does require inserting and adjusting the externally supplied tonearm, there is hardly anything left to do in practice.



The grippy feet, flat on their underside, can be adjusted in height by turning.



The bearing is lubricated at the factory, but two drops on the platter axle can't hurt.

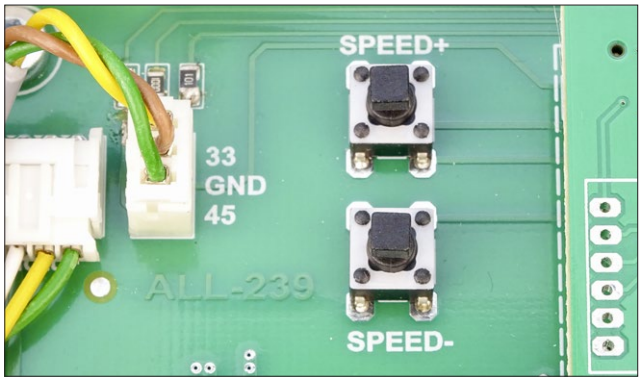
THE MERLIN'S SPEED TRICK

Fine adjustment of the speeds is not intended, but possible.

Unlike Acoustic Signature's larger models, the Merlin Neo offers no externally accessible fine adjustment for the two speeds. Since the turntable was meticulously calibrated at the factory, we did not miss it at any time. But in the event that, for example, a strobe disc indicates a certain deviation from the target speeds, the listener does not have to accept it.

Once you loosen the four Allen screws that secure the drive unit's base plate, you gain access to two small push buttons on the circuit board. These are labeled „Speed+" and „Speed-" and are used to make the motor run faster or slower. This adjustment is made in very fine increments and only works while the motor is running, with the most recent setting saved each time. To find the optimal setting, you press the corresponding button two or three times while the pulley is turning, then reinstall the belt and check the result. In practice, you'll likely have to repeat this procedure a few times until the speeds are exactly right. You should perform this for both 33 and 45 RPM, as the Merlin Neo saves the values separately.

We're sharing this handy „life hack" because it's really easy to do, nothing can go wrong, and even beginners can handle this simple adjustment.



After loosening the bottom plate, the speed switches are freely accessible.

Damped sandwich

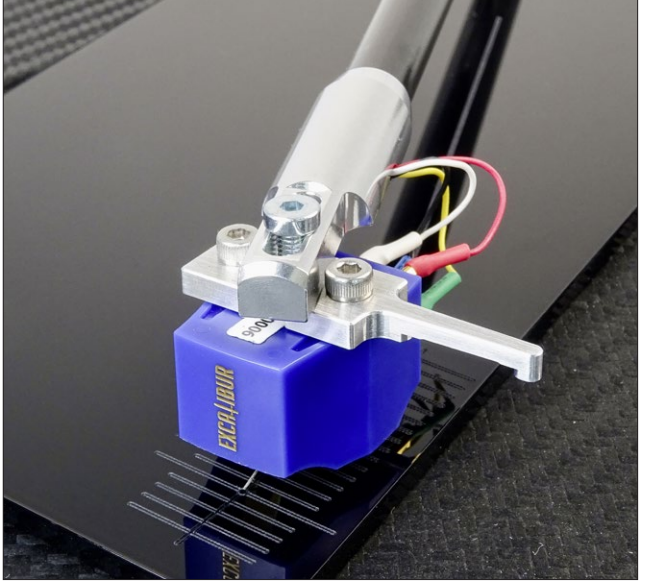
But first, the 35-millimeter-thick base chassis, milled from solid aluminum and given a visual kick by two lateral grooves, must be placed in position and aligned perfectly level using its three adjustable feet. With the help of a small spirit level, this is quickly done thanks to the smooth-running threads.

The multi-layer construction follows the proven principle of „Constraint Layer Damping", in which a sandwich of materials optimizes damping properties. More precisely, in the Merlin Neo this is achieved by a layer of brass between two layers of a special aluminum alloy. If you knock on this plinth, the response is a short „plock". There is no bright, metallic ringing.

The centrally installed bearing sleeve is pre-lubricated and sealed at the factory. Just in case, an oil bottle with pipette is included with the Merlin Neo, and it does not hurt to wet the steel axle with one or two additional drops before carefully inserting it. Then let it slide slowly into its guide so that the sensitive Tidorfolon plate at the bottom of the bearing, an extremely durable mixture of plastic and metal, is gently loaded by the platter weight. Unlike conventional bearings, it absorbs oil, so it cannot simply be squeezed out by the high contact pressure of the axle. This is intended to guarantee optimal lubrication.

Digital motor control

The Swabians point with particular pride to the plasma coating of the platter axle made of vacuum-hardened stainless steel. As a side effect, it takes on a dark coloration. More important is that this CLD process creates a diamond-like, extremely smooth surface which, according

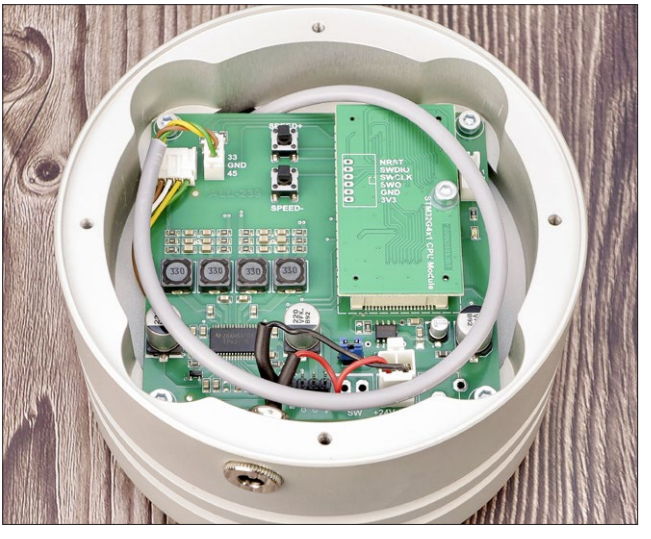


A plastic template helps with installing the cartridge. Its edges and the tonearm tube must align with the template's guide lines.

to Acoustic Signature, reduces the coefficient of friction by about 60 percent compared to conventional solutions. Laterally, the axle is guided by sintered bronze bearings that likewise are marked for exemplary smoothness, yet are said to have a slightly porous structure, thereby also storing oil and keeping it where it is needed.

The motor control box offers a completely different kind of high-tech – namely, electronic technology. Anyone who assumed that the synchronous motor would simply follow the mains voltage is in for a pleasant surprise. Modeled after the larger motors produced by the company, sine and cosine curves are continuously and precisely calculated by a microprocessor.

For that reason also, there are no potentiometers that could drift over time and eventually require readjustment. Instead, the Germans guarantee speed stability, calibrate the drive meticulously at the factory, and dispense with any option for fine adjustment. Should this nonetheless become necessary, there is a simple workaround (see box).



The motor control is elaborate: a microprocessor generates the sine curves for the synchronous drive and suppresses vibrations.

Photos: STEREO



The internally damped arm tube gets its stiffness from two layers of carbon fiber. The TA-500 Neo is manufactured as immaculately clean as the turntable, right down to the flawless surfaces.

But that's not all: the motor and electronics are individually tuned to each other to counteract vibrations. This is achieved through a slight phase correction, which compensates for variations in the construction of the motors. The larger mass drives from Süßen also served as the inspiration for the „Automatic Vibration Control," or AVC for short.

Quality in the phono cable

The nine-inch tonearm, known as the TA-500 Neo, is also the company's entry-level model, but it proves to be just as uncompromising as the turntable itself. The tonearm tube consists of two layers of stiff carbon fiber over a damping core made of leather and rubber. The brass counterweight, which comes without a scale and runs on a fine thread, can be loaded with an additional weight disc for heavy cartridges. Once the tracking force has been set using a tonearm scale, the small screws that secure the cylinder to the end tube should be tightened slightly. This prevents anything from shifting, and, most importantly, ensures the part does not move on its own.

A big plus is the included phono cable from specialist Audioquest. Its Golden Gate, with an individual price of just under 160 euros, is sonically far superior to the usually included cables. During our extensive listening tests it was always in the chain. The preceding, necessary setup of the Merlin Neo, especially configuring the tonearm, where anti-skating is handled in the classic way via a thread and a tiny weight, should be done by a professional or someone who knows what they are doing ...

That also includes installing the cartridge. Be careful with the thin lead wires and their connector pins, which bend easily. The headshell is a narrow carrier that can be shifted lengthwise, but can also be twisted slightly sideways. A sturdy plastic protractor with guide lines plus a defined set-down point for the diamond makes alignment vastly easier.

Nuanced and punchy

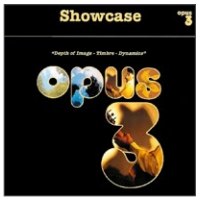
Apart from the top Excalibur, which we had mounted at the beginning more or less at random and with which the Merlin Neo, so to speak, burst in through the front door, we of course dutifully listened to it with additional cartridges. Besides, it is simply fun to handle the mechanically flawless TA-500 Neo, which moves in smooth-running gimbal ball bearings.

It became clear that even top MC pick-ups such as Transrotor's Figaro, costing around 3,000 euros, whose potential it makes accessible, do not overtax it. On the other hand, bargain hunters looking for an inexpensive combination can get everything out of Skyanalog's price-tip MC P-1M (around 400 euros). If you prefer to run an MM pick-up, you might want to take a look at Rega's Nd 9 for about 900 euros. Its sonorous yet lively and transparent manner fits perfectly with the straight, assertive, but also sensitively graduated charac-

WHAT WE'VE HEARD



FOURPLAY: ELIXIR
Smooth jazz at its finest from four master musicians and a sonic hit.



VARIOUS: SHOWCASE
Sonic and musical pearls from the rich repertoire of the high-end label Opus 3.



If necessary, an additional metal disc can be screwed onto the back of the counterweight. Acoustic Signature includes an „appropriate" Audioquest Golden Gate as the phono cable.

ter of the Acoustic Signature that is only small on the price list.

On the MC side, this applies in particular to the combination with the Dynavector DV 20X2A-L, which costs about 1,200 euros and, not least for that reason, suits the Merlin Neo beautifully. But it worked its magic with all of our test pickups. Its magic lies not least in the ability to generate and sustain musical tension even when not much is happening yet.

Quiet, composed, and calm, Patricia Barber starts her song „Too Rich For My Blood“, which builds into feverish madness. What hardly any turntable in this price range manages, the Merlin Neo achieves: from the start there is an expectation in Barber‘s delivery, a subliminal premonition. Despite the clearly increasing level, the turntable never closes up at



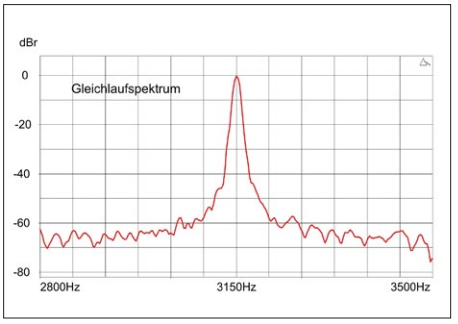
Matthias Boede
STEREO editor

»WHO WOULD HAVE THOUGHT IT? THE MERLIN NEO PROVES TO BE AN ANALOG WIZARD.«

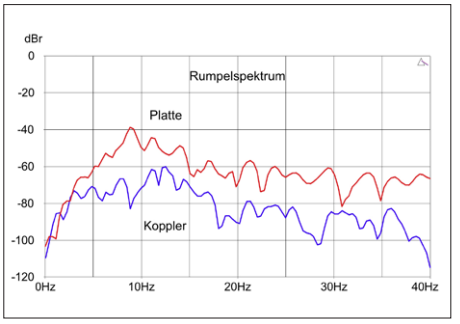
any time, plays open and free, nuanced in its facets and punchy on the drum kicks. A refined rendition of this difficult track.

Diana Krall‘s rhythmically tricky „Deed I Do“ from her Paris live LP came across relaxed and breezy. The Merlin Neo wove together the swing of the Entertainer and band, the engaged audience, and the hall‘s acoustics that set the frame into a natural, breathing atmosphere, once again untroubled by any sense of constriction.

Of course, there is still room for improvement with more expensive, more elaborate turntables, not only from Acoustic Signature. But the sonically astonishingly complete Merlin Neo is not really lacking in any aspect. On the contrary, it conveys unfiltered joy in listening to records and thus proves to be an eager student of the master turntables from Süßen, whose technical tricks provide the basis for its performance. We'll certainly accept an entry like this! ■



The synchronization diagram is flawless, particularly in terms of speed accuracy.



The low rumble figures prove the quality of Acoustic Signature‘s Tidorfolon bearing.

TEST RESULT: PROFOUND. CRITICAL. TRANSPARENT.	
ACOUSTIC SIGNATURE MERLIN NEO	
Product type	Turntable
Website	www.acoustic-signature.de
Price in euros	3,998 (without cartridge)
Dimensions (W x H x D) in cm / weight in kg	51 x 14 x 30 (incl. motor pod) / 14.7 (without motor pod)
German distribution / phone	AS-Distribution / +49 7162 207970
Turntable type / drive principle	manual / belt
Bluetooth / connections	no / five-pin
Integrated phono pre / cartridge included	no / no
MEASUREMENTS 35 %	**very good 1.1**
Rumble	very good
Speed deviation (in percent)	very good (0.001)
Power consumption idle (in watts)	very good (2.9)
FEATURES 25 %	**satisfactory 3.4**
Cover included	no
Haptics and workmanship	very good
Tonearm cable replaceable	yes
Speeds in rpm	33, 45
Fine speed adjustment or automatic regulation	no
Impact noise damping	no
Hard mains switch	yes
HANDLING & OPERATION 40 %	**good 2.5**
Speed switching	very simple via switch
Quality of the manual	good
Warranty in years	15/5 (turntable/tonearm upon registration)
Adjustability	tonearm height, foot height
Removable headshell	no
Initial setup	adequate
Adjustment convenience	good
PRACTICAL MARK	**good 2.2**
Sound description	in every respect a refined, dynamically assertive sound with high attention to detail, flair, and nuances
SOUND SCORE	**82 / 100**