Sonic excellence summated with 33 years of vinyl reproduction technology.

Acoustical Systems

A*STELLAR turntable

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In the blink of an eye..., I've been using Acoustical Systems (AS) products for more than 9 years. Back then I was upgrading my vinyl replay system: A few knowledgeable hi fi enthusiasts recommended the AS Axiom tonearm to me. Since then I've accustomed to its precision in flexibility and adjustability when it comes to extract the best possible performance from setting up cartridges and records. It has allowed me to truly enjoy the sound of my records.

Back in 2016 Audio Show I finally met Dietrich Brakemeier, co-founder and designer of AS. During our conversation, I found Dietrich has extensive knowledge and experience with vinyl replay and LP production. Since then we met once or twice a year and exchange ideas about analogue audio and future AS product development. Whenever there is a new AS product launch, I always tried to audition it as soon as possible (this normally resulted in burning hole through my wallet).

In 2018, Dietrich told me after years of research, the Apolyte super turntable has finally become available. This behemoth embodies the accumulation of years of his vision and ideas about vinyl replay - whether it is about vibrational isolation, suspension, driving system, materials (the platter along weights over one hundred pounds)… the various audiophile elements involved are truly dazzling and breathtaking. Unfortunately this Acolyte is just too big (WHD 112 x 122 x 82 cm).
I said to Dietrich, "this doesn't fit into my room, if possible can you make a smaller one then I'll definitely get one" .

Time went by, 4 - 5 years gone. At the end of 2023 and beginning of 2024, Dietrich has finally launched the new A*STELLAR turntable at Hongkong's Prestige Audio show. The new turntable's concept is to downsize the flagship Apolyte's main structure and try to maintain its sonic characteristics. A*STELLAR has inherited the flagship turntable's driving system - its ' inertia / torque with tangential belt driven' minimises the surface area where the turntable meets the driving belt. Also these two contacting points are axially symmetrical ensuring a balance drive. The main feature of the driving motor and its control system uses inertia speed sensors - when the turntable has reached its chosen speed, the motor will reduce its torque. Conversely, if the turntable needs to increase its speed, torque will be increased to accomodate. This way, rotational inertia has been fully utilised, reducing its influence caused by the drive system on the turntable.

Base layer with symmetrical drive system

The turntable features a triple-layered design. Each layer carries different function which in turn made use of different aluminium alloy with different characteristics. The bottom layer houses the driving motor and tangential belt flywheel. The middle layer houses the platter and bearing. The bottom layer and the upper two layers are isolated by air-suspension. Hence any vibration caused by the motor would not reached the upper layers. Dietrich's design concept is based on the speed of energy / vibration transmission - the closer to the sound generating source (cartridge/ tonearm), the faster the speed of vibration. Based on this principle the unwanted vibration can be dissipated. Consequently, the middle layer transmits vibration slower than the upper layer and the bottom layer would be the slowest. Resonance from various contact points in the tonearm travels down from the upper layer to the bottom layers like travelling down a one way street. The spindle shaft in the middle layer features a push-pull magnetic bearing, effectively pre-loading the bearing to eliminate any extraneous vibration. When a record is played, a low level sound can be heard whilst the stylus is in contact with the record groove. To reduce these sonic reflections from interferring with the music information being picked up by the stylus, a two inch thick platter made of vinyl plastic (identical to LP vinyl) is used to form the contact surface with the playing LP. Furthermore, the whole platter uses 38 different materials in its composition in order to absorb all kinds of physical and airborne vibration.

Edward is assambling the middle layer with captured bearing

From design to manufacture, the A*STELLAR's prime objective is to make good sound. For certain, the knowledge and manufacturing technique are complicated and complex. From unboxing at Avantgarde Audio to setting up at my place, the author was participated in the process throughout in order to grant himself full understanding of A*STELLARS's construction/ operational logic/ fine tuning. The whole process took two person to complete in 20 to 30 minutes (excluding setting up the tonearm and cartridge)! Although the whole turntable weights 130kg, but each layer and its accompanied parts doesn't exceed 30kg in weight. (Any muscular hunk should have no problem handling it all by himself!) This demonstrates the turntable's thoroughness in engineering principle and philosophical finesse.
The design is complicated but operation, upkeep and maintenance are simple.

規格：

■ Tonearm mounting boards with "Zero-tolerance" – automatic perfect re-location design: each tonearm mounted and aligned to one position can be moved to different position without ANY re-alignment / recalibration needed. ■ Full air suspended plinth with 1.2 Hz resonance frequency. ■ Dimensions: 69 cm x 48 cm x 23 cm. ■ Footprint: 63 x 42 cm ■ External power supply 45 cm x 38 cm x 13 cm ■ Weight: Approx. 130kg.

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The A*STELLAR's Power Supply

A*STELLAR turntable / 2 x AS Titan GC tonearm and DS Audio Grand Master EX cartridge

I've been living with the A*STELLAR for a few months now. Its self-effacing but avantgarde looks imbue with lines of beauty. I'm captivated. To talk about its sonic performance, this must be one of the two turntables which has the quietest background. To play fine condition records is like entering a black hole. The blackness of the background unmasked all the micro sonic details which appeared unobtrusively in this deep and wide soundscape. Previously, some records with high surface noise with its crackling sound deemed distractive. Upon playing them with the A*STELLAR, they are rendered listenable. Playing Reference Recordings *Pomp and pipes - The Viking*, the bass drum and super low frequency organ with its huge dynamic swings, the sound penetrated very organ of my body. Most shocking. But the turntable just plays calmly, the sound has no tension and features no sense of compression. Utterly convincing.

Analog: Acoustical Systems A*STELLAR turntable, Acoustical Systems Titan Grande Complication tonearm and DS Audio Grand Master EX cartridge

Digital: JMF DMT 3.7 CD/SACD/Bluray + DXC2.2 MKII DAC, Aurender W20

Amplifier: VTL TL7.5 mk.3, Siegfried 2 Monoblocks

Loudspeaker: Gryphon Pendragon

Cables: Vertere HB Interconnects, Vertere HB Power Cables, IsoTek EVO3 Ascension

Power-Conditioner: Stromtank S 5000HP, Shunyata Denali, Triton V2 + Typhon V2, IsoTek EVO3 Super Titan 32A

Stands / Isolation: Tripoint Troy Signature rack and dedicated ground posts, Accurion isolation base

The A*Stellar proved very easy to live with from day to day. I periodically check and adjust its levelling. Every now and then I switch on and off the unit to refill its air-pump, that's it. One thing needs mentioning; the turntable tend to be quite demanding regarding choice of its stand/ supporting structure / platform. Good result was obtained with a combination of acrylic and Corian composite. But substitution of a bespoke zero-vibration stand had brought huge improvement to its sonics which can only be described as staggering. The Acoustical Systems A*Stellar is also available in many different colour finishes. Dietrich promises to continue developing and upgrading his range of products so as to guarantee its longevity and competitiveness.

A dynamic perspective from any angle