

Another Precision Tool from Acoustical Systems

The AIWON Cartridge

by Richard H. Mak

Dietrich Brakemeier, designer of Acoustical Systems, is one of the most innovative individuals to have come out of the analog world in the last decade. In 2011, Brakemeier invented the UNI-DIN cartridge alignment geometry, the first serious attempt to improve upon the old Lofgren and Baerwald geometry of 1938. In that same year, Brakemeier came up with the Uni-Protractor and the subsequent SmarTractor cartridge alignment tool, bringing cartridge setup and alignment to an unprecedented level of accuracy (2015 *TONEAudio* accessory of the year).



In 2012, Brakemeier invented the Arché headshell, the first in the world to incorporate both azimuth and SRA (stylus raking angle) adjustments right into the headshell. We are fortunate enough to have the first crack at his latest brainstorm: serial number 001 of his new AIWON phono cartridge.

The AIWON's design philosophy is in keeping with that of the rest of Acoustical Systems' products: utilizing precision engineering to deliver realistic analog playback while retrieving as much delicate analog information as possible, and to accurately retrieve recorded information through precision engineering, delivering the most realistic playback of the original performance. In developing a straightforward moving coil design, Brakemeier pays close attention to a combination of materials delivering the most efficient energy transfer, especially in the areas of resonant properties and hardness. He uses a material called TIMET 1100, a grade 5 titanium with an ultimate tensile strength of 1100 psi: one of the strongest materials in existence. (continued)



The gold stripes that you might mistake for paint are actually 24kt gold traces epoxied to grooves carved in the titanium body to eliminate resonance related effects. A hollow aluminum cantilever further reduces these effects because, unlike diamond or boron, aluminum resonates at a frequency outside of the audible spectrum, minimizing the hissing effect that other materials can cause. Finally, silver coils and strong neodymium magnets have the ability to generate a strong signal with the minimum number of coil windings, resulting in an output of 0.28 mV with an internal resistance of only

4 ohms, making the AIWON one of the most efficient cartridges available.

Special setup

When the sound did not come together immediately using normal setup parameters, a quick call to Brakemeier provided the necessary solution. Unfortunately, all the bells and whistles did not give rise to a good start. With this cartridge having a steeper than normal angle (92°), determining the optimal angle by eye is impossible. Using a distortion analyzer, I performed an intermodulation distortion analysis and determined that the

optimal SRA requires lowering the tonearm a few centimeters at the pivot column from where I would normally set it.

At first go, this not only looks awkward, the armwand plays so low that the lift mechanism must be removed to prevent hinderance of movement. The Arche headshell solves this problem, allowing the extra adjustment right at the headshell itself. A mere 2 degree adjustment to the SRA at the headshell level is equivalent to approximately a 2 – 2.5 cm change in tonearm height, eliminating the need to change the height of the tonearm's pivot column. *(continued)*

Adirondack & Plinius Audio

NOW IN THE BIG APPLE!

Adirondack Audio & Video
adkav.com

Contact Adirondack today to discover Plinius, Technics, Soulines, Hegel, Blue Circle Audio, Triangle, Amphion, KEF, Solid Tech, Nordost, and more!

340 East 57th St, 1D, New York, NY 10022
(212) 784-6084, By Appointment

1048 State Route 9, Queensbury, NY 12804, (518) 792-3528

PLINIUS

Plinius Audio Limited
Christchurch, New Zealand
P: 503 662 8210
E: info@pliniusaudio.com

The heart of music
www.pliniusaudio.com



SA-REF 300 wpc Class A Power Amplifier on active display at Adirondack Manhattan store.

Fortunately, all subsequent models of the AIWON will come with a standard 92 degree SRA angled stylus, requiring no unusual VTA angle beyond the normal acceptable range.

Optimal torque on the headshell screws is found to be 0.65-0.70 in/lbs, and the tracking force most pleasing to my ear is at 1.705 grams. Because each cartridge is made by hand, invariably each will require a slightly different tracking force. Brakemeier recommends that users experiment with different tracking forces as long as they are within the range specified by the owner's manual.

A few sonic comparisons

Where my favorite Koetsu and Kondo cartridges focus heavily on invoking an emotional response from the listener and can be known to embellish a bit, tonally speaking, the AIWON offers remarkably fast transient attack and accurate sound, providing it is properly set up. The explosive dynamics of the AIWON remind me of the Goldfinger V2, but with more body and warmth in the midrange. Its transient response is not as fast as the My Sonic Lab Ultra Eminent BC, nor does it have the frequency extension of the ZYX Universe Premium, yet the Aiwon cartridge strikes a unique balance between realism and emotion, conveying music with an exquisite balance of physical presence and power, never sacrificing tonal color and body at the expense of sharpness or visual transparency.

Valentina Lisitsa plays Liszt on DECCA captures Lisitsa's performance directly onto analog tape

and is pressed onto LP without edits, resulting in high quality production that instantly reveals the AIWON's strengths. Despite the fact that several countries have banned Lisitsa from performing because of her controversial political stance on the Russian Ukraine conflict, her dazzling performance on Liszt's masterpiece makes this LP well worth purchasing. The AIWON gives the most dynamically satisfying performance of Liszt's Ballade No. 2 I've yet experienced in my system. This technically challenging piece is performed on the famous Bosendorfer Imperial 290 piano, featuring 97 keys versus the normal 88 keys of a standard piano, registering eight full octaves, providing a system-stretching test like few others.

Where the lower notes are muddled through the intense passages with Kondo IO-M or the Dynavector XV-1T, making the notes less distinguishable, every key is perfectly rendered with weight, punch and clarity via the AIWON. The resonance decay on the lower notes of this piece is over 15 seconds long, and may be mistaken for rumbling on a lesser cartridge. The AIWON delivers low-level definition with the utmost clarity and detail. The only two cartridges I've experienced that rival the AIWON with this performance, are the Lyra Olympos and the Clearaudio Statement or V2, neither of which is better or worse; each cartridge simply registers its own unique presentation. The Olympos is liveliest; the Goldfinger has the most dynamic contrast and intensity, while the AIWON projects the piano with the most weight and palpable solid presence – a lovely blend.



Hans Zimmer's soundtrack for the movie *Interstellar* is another recording worthy of demonstrating the AIWON's realism. While frustrated fans have pointed out that the all-important "Day One Dark" track used in the climatic docking scene is missing from the soundtrack, the LP has enough monumental sequences to create a 2-channel "surround sound" experience making its \$29.99 price tag on Amazon justifiable, especially for a double LP. Be sure to buy the Sony version, not the Warner Brothers copy, which has less frequency extension than the Sony. Drop the needle, crank the volume up high, turn off the lights, and buckle up for a major sonic experience. The AIWON will retrieve every deep vibrational note from the soundtrack's lowest organ pipes, sending it across the room, up onto your sofa and into your spine in a way that you actually feel the music through every vein in your body. It transports you into deep space and immerses you in a psychedelic journey extending beyond the boundaries of the room's four walls.

The AIWON performs very well with jazz and big band music. Cymbals, drums, percussive instruments, and double basses are rendered with enough snappiness and liveliness to recreate realism in your audio room without sounding bright or clinical. *(continued)*

WA7 FIREFLIES

All-tube Headphone Amplifier
32-Bit, 192K USB Digital-to-Analog Converter



CRITICALLY ACCLAIMED

"THIS LITTLE AMP SOUNDS POWERFUL" - THE AUDIOPHILIAC

"THIS IS POSSIBLY THE MOST LINEAR
DAC AND HEADPHONE AMP I'VE HEARD " - POSITIVE FEEDBACK

"THE WA7 IS PRACTICALLY A STEAL IN TERMS OF
SOUND QUALITY AND PHYSICAL PRESENTATION. " - HP SOUNDINGS

"THE WA7 IS A THING OF MUSEUM-GRADE BEAUTY AND SIMPLICITY." - KEN ROCKWELL

"THE FIREFLIES IS VERY HIGHLY RECOMMENDED FOR ANYONE BUYING THEIR FIRST,
OR EVEN POSSIBLY THEIR LAST, REFERENCE AMPLIFIER." - DAGOGO



The AIWON may not be the last word in rendering minute details and the fastest of transients; the holographic projection of the relative size and weight of physical instruments in the spatial dimension is what makes the AIWON stand out amongst its peers. Violin and guitar strings are presented with a bit of a bite, as in a live setting. I particularly enjoyed Kai Windings and J. J. Johnson's "Out of This World"; the trombones had a life-size presence and a high level of contrast between the two players' unique style and conception. The AIWON will not artificially smudge the edges of the sonic picture to make the presentation more pliable. The dynamic contrast and

the textural vividness of the sound makes the AIWON one of the most realistic sounding cartridges on the market.

In a world where a handbag or a pen can cost more than a car, the value equation is best left to each person's own devices. As Boromir in *Lord of the Rings* says, "Is it not a strange fate that we should suffer so much fear and doubt, over so small a thing, such a little thing?" AIWON is hardly fanfare for the common man, but if you are in the market for a *little thing* that will rival the very best cartridges in the world, the AIWON will undoubtedly be a strong contender. ●

REVIEW

MANUFACTURER
Acoustical Systems

CONTACT
www.arche-headshell.de

PERIPHERALS

Preamp
McIntosh C1000

Amplifier
McIntosh MC2301

Speakers
Dynaudio Temptations

Turntable
JC Verdier La Platine
Vintage, TW Acustics
Raven AC

Tonearm
DaVinci Virtu,
Rossner & Sohn Si 1.2

Phono Stage
Audio Research
Reference 2,
Burmester PH100