## EAT B-SHARP TURNTABLE REVIEW



# European Audio Team gives us a look at a new, stylishly designed and well crafted turntable offering.

Known as the B-Sharp, this model is the most affordable entry in EAT's lineup and yet, it feels like anything but an entry-level product. It distills many of the significant performance features of the more expensive C-Major turntable and delivers them in a more simplified package.



### **Highlights**

EAT B-Sharp Turntable

Simple and elegant design.

Suspended sub-chassis.

Beautiful and functional carbon fiber tonearm with slotted aluminum head shell.

VTF, anti-skate, azimuth and VTA adjustments are all available.

Comes with Ortofon 2M Blue MM cartridge pre-installed with factory set up.

RCA output jacks allow owner to use favorite cables but included cable set is already quite good.

#### Introduction

European Audio Team (EAT) is a company that is new to me, and while I may have been unfamiliar with their turntables, many attendees and vendors at this past Munich High End show knew EAT very well. A number of the speaker and electronics manufacturers that had demo rooms at Munich High End were using EAT turntables as sources. EAT also had an impressive display area of their own showing off some new products and prototype concepts that were both bold and intriguing. EAT started as a Czech company that specialized in manufacturing highcaliber, hand-made vacuum tubes which they continue to do to this day. Owner and CEO Jozefina Lichtenegger (nee: Krahulkova) had been looking for additional European and US distributors for her growing valve company when she met Heinz Lichtenegger, the owner of Pro-Ject. This fortuitous meeting created an enduring business partnership and eventually led to marriage. From a business perspective. the union led to the leveraging of each company's strengths to where EAT began fielding its own line of specialized turntables and phono electronics. And while expertise may have been shared between the two companies, EAT and Pro-Ject's product lines are intentionally kept separate and exclusive, even as far as having completely different distribution channels. In North America, EAT products are distributed by VANA Ltd out of New York. EAT currently has six different turntables available and the most affordable model, the B-Sharp, is the subject of our attention here.

#### Design



Technically and operationally, the EAT B-Sharp turntable is a fairly straightforward, no-muss no-fuss, design. It's a belt drive affair with two available speeds that you change by moving the belt, found under the platter, between two cogs. It has a straight, 9-inch tonearm with an included MM cartridge and the power switch is located under the front edge of the table. That's basically it. However, when you start looking more intently at the details, things become a bit more compelling. The body of my rather classy-looking gloss black review sample is actually comprised of two sections. The first is the main outer body and the second is a separately suspended sub-chassis that floats within the main body. Both sections are made of MDF. Meant to keep mechanical vibration down to a minimum, the sub-chassis hosts the motor, sub platter, main platter and tonearm mount. The platter itself is quite substantial, made from thick aluminum and topped with a felt mat, it provides a secure surface for vinyl to be played. To avoid any doubt, the screw down aluminum record clamp secures the LP to the platter and seals the deal.









Turning our attention to the tonearm, the first thing one notices is the handsome carbon-fiber weave pattern on the wand. The B-Note tonearm, as it is called, is a 9-inch straight arm with a real carbon-fiber wand. Not just for looks, the material's inherent lightness and rigidity is properly suited for this application.

The wand also has an internal magnet that works with the magnetized arm rest keeping the tonearm securely docked when not in use. The B-Note sports an anodized aluminum head-shell and features integrated adjustments for VTA, VTF, anti-skate and azimuth. The anti-skate mechanism deserves specific mention. It is essentially a movable counterweight on a small rod which is attached to a kind of pulley system that is secured to the tonearm body with a high-tension line. As the tonearm moves from the outer to the inner grooves of a playing LP, the counterweight is raised by the pulley, balancing the natural pull/skate of the tonearm on the vinyl. Behold, its physics at work! While not as granular in adjustment as perhaps the anti-skate dial on my Technics table, the B-Sharp turntable manual has recommended counterweight settings for various cartridge VTF ranges. In practice, it seemed to work well. The bearings used in the pivot point of the tonearm provided very smooth movement in the horizontal and vertical planes with no resistance that could be felt.



The B-Sharp has no built-in phono preamp and has separate RCA jacks and a grounding lug so that owners can use their cables of choice. The table does come with a rather nice set of braided cables with an integrated grounding wire which looked good and worked perfectly well.

Rounding out the package, the B-Sharp turntable comes with an Ortofon 2M Blue, Moving Magnet phono cartridge pre-installed and with the commensurate set up performed at the factory. The 2M Blue is a well-regarded cartridge and, purchased on its own, costs \$249.00.

#### Setup

For this review, the connected components consisted of: The Paradigm Persona 7F loudspeakers, a Bryston BP-25 preamplifier, a Class D Audio SDS-470C Power amplifier (300 watts @ 8 ohm, 600 watts @ 4 ohm), the PASS Labs XP-25 phono preamplifier, a Rotel RQ-970BX phono preamplifier and a Panamax M5500 power conditioner. Speaker wire and interconnect cable are by Blue Jeans Cable.

#### In Use

Let me first say that the assembly and setup of the B-Sharp turntable was a simple and straightforward enterprise. EAT included some clearly written and illustrated documentation, and that helped out the process immensely. I double checked the azimuth, VTA and cartridge alignment, which were already dialed in at the factory, and they all were perfect. Setting the right tracking force (in this case 1.8 grams) was a familiar process with the rear mounted tonearm counterweight. For the antiskate setup, I adjusted the weight to the recommended position as laid out in the instructions. I double-checked the anti-skate performance with the anti-skate calibration tracks from the Shure V15 Series V test LP and the results checked out. All-in-all, I had it up and running in no time.

Aesthetically, the whole package looks very appealing and the quality of the materials seem to be of a very high standard. That tonearm alone, with the carbon fiber wand and the milled aluminum pivot base, is such a beautiful looking thing. This, combined with the gloss black finish and that substantial aluminum platter, gives you a sharp (pun intended) looking turntable that shows off quite well in your system.

In terms of sound quality, the EAT B-Sharp acquitted itself very well. The included Ortofon 2M Blue cartridge is a well-known entity and seemed to create a harmonious union with the B-Sharp. The 2M Blue is purported to have a fairly neutral character and that is predominantly what I encountered with my listening. The B-Sharp/Ortofon combination sounded quite splendid with most genres of music that I threw at it. Sweet and open sounding with plenty of details and dimension, although perhaps not quite as euphonic as the Audio Technica VM540ML that I reviewed last year. Jazz vocals, both male and female had a very nice overall presence when played through this combo. Large orchestral and choral works were rendered with the appropriate scale, but details such as subtle vocal inflections, reverberations from string and harp plucks or brush work on a drum were not lost in the shuffle.

Bass came across very well with the B-Sharp/Ortofon team. Whether I used my Rotel or the PASS Labs phono preamp, acoustic, electric or synthesizer bass notes were played with plenty of weight and impact along with minimal (depending on the LP) additional rumble coming through the speakers. With regard to treble performance, I didn't detect any undue sibilance with any of the material that I played, nor did I discern any premature roll off of the upper frequencies. In general, cymbals sounded crisp with a good sheen to them while strings, by and large, had a lovely smoothness to their performance. The tracking ability of the B-Sharp turntable appeared to be quite good. There may have been only one occasion where I heard a little mis-tracking on the inner grooves of an orchestral LP that had some robust and loud playing going on; otherwise, not another hiccup.

The 2M Blue has an output voltage of 5.5mV which means that my PASS X-25 phono preamp probably has a little too high a gain, even at its minimum setting (47dB single-ended output), for my Bryston preamp. I think choosing a phono preamp with a MM gain of 40 dB, when used with most other solid-state electronics, puts you in the sweet spot with this cartridge.

Some of the musical selections that I found particularly enjoyable in my time with the EAT B-Sharp Turntable were:

Charles Gerhardt-National Philharmonic Orchestra "The Classic Film Scores of Bernard Herrmann". An excellent overview of Bernard Herrmann's Hollywood scoring work featuring music from Citizen Kane, On Dangerous Ground, Beneath the 12-Mile Reef, Hangover Square and White Witch Doctor.

The LP begins with "The Death Hunt" which is a powerful and dynamic track with the full orchestra. The brass section, in particular, gets a thorough workout here and the B-Sharp/Ortofon combination reproduces that power and intensity quite faithfully. The horns sound properly bright, but never edgy, even at the peak volumes that they reach. There are also some powerful tympani playing on this track whose bass impact, the B-Sharp does proper justice to. Each successive hit comes across as deep and solid. On the track "Aria from Salammbo," soprano Kiri Te Kanawa's voice is handled with great care by the B-Sharp. I heard a great amount of texture and detail in her voice during the aria and when she hit those really high notes, the B-Sharp/Ortofon team kept the delivery sounding tonally pure and unfatiguing. When we arrive at "Octopus," there are nine full harps and what seem like a squad of tympani drums playing all through it. The B-Sharp does a great job of resolving the underlying thick, deep, wave-like bass rumble of those drums all while imaging that complement of big harps playing en masse. I could still make out the details of the individual string plucks within the huge soundstage. An excellent performance by the table and cartridge.

#### Nancy Wilson "Today-Tomorrow-Forever"

Possessing one of the truly great singing voices, Nancy Wilson covers several classic love songs and standards here. Her take on "One Note Samba" has a jazzy/ blues feel to it. The B-Sharp/Ortofon duo centers her voice just right and successfully relays all the great character and nuance of her vocal performance. There's also great sounding bongo and tambourine work going on in the left channel while an almost boogie-woogie tempo piano plays in the right channel. Both sounded completely natural and practically in the room. Her version of "Unchain My Heart" has a great quality to it that comes across as equal parts plaintive and defiant. The electric organ playing on this track sounds especially soulful and it's imaging has great depth. The electric guitar playing here is very tasteful and has great style; the same could be said for the sax solo as well. The B-Sharp just makes each component of this song sound so right and so natural that you just can't help but enjoy the overall execution. Wilson's version of "Wives and Lovers" is a textbook example of when a number of song elements are being performed with such a sublime perfection that the whole work comes across as seeming deceptively simple. The B-Sharp sets up a great foundation for the Ortofon to allow us to experience each component in complete detail: her voice, the piano. drums, guitar, shakers and triangle. Each one, enjoyed on its own, is a perfect little precision performance. Experienced together and it becomes a little musical jewel. Thank you EAT.

#### Tony Bennett "I Wanna Be Around"

Starting with the track "If I Love Again," the B-Sharp/Ortofon combo handled Tony Bennett's voice with finesse, projecting great detail and body in his singing. And the accompanying piano, in the opening of the song, had a lovely natural tone to it with good depth to the notes as well.

"Until I Met You" is performed with the Ralph Sharon Trio and here the B-Sharp/ Ortofon duo successfully relays the more intimate staging of Bennett's singing. His breathing and subtle vocal inflections are easily heard on this track and the acoustic bass playing here is also rendered with the right amount of punch too. "Quiet Nights" continues the more intimate feel in Bennett's singing but there is an acoustic guitar playing on the left side that sounds so detailed but is played with such delicacy that I give props to the B-Sharp for making it sound that nice and effortless. Same goes for the maracas playing on the right side too.

#### Culture Club "Color By Numbers"

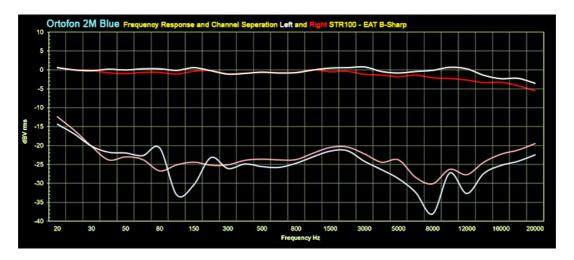
Snicker if you must, but I am a child of the 70's and 80's and this was the first LP that I ever purchased with my own money. And yes, I still own it! For a typical 80's pop album, it was pretty well recorded and not as flat sounding as a lot of the music of the time.

From the opening of "Karma Chameleon," the B-Sharp reproduces the synthesized drums as....well... properly synthesized! The electric bass lines are really impactful and punchy throughout the song, which help add dimension, and Boy George's trademark voice sounds clean, well processed and properly centered in the soundstage. "Black Money" is more of the same, but background vocalist Helen Terry's singing is almost as prominent and characterful as George's lead. Full credit to the B-Sharp/Ortofon combo for getting her voice sounding just right. I also believe there is an actual real drum kit used in this song and the kick drum hits are notably potent through the entire track. "That's The Way" is almost gospel-like in its execution and is stripped down to only George and Terry's vocals and a piano backing them. Boy George's voice sounds much more natural and unprocessed here and the B-Sharp helps give it great depth and presence. Same goes for Helen Terry's voice as it puts up great, soulful support to his singing. The piano is definitely farther back in the mix, but the notes still have a nice ring and decay to them. Well done to the B-Sharp and 2M Blue for successfully transporting me back to middle school with this one!

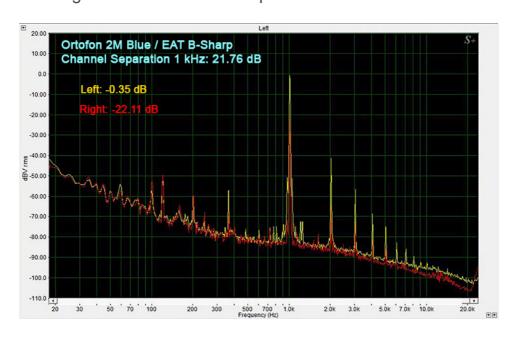
Overall the EAT B-Sharp turntable looks to be a beautifully well-rounded source component that I could happily live with. Beyond being an elegant piece of equipment, EAT does you the courtesy of bundling a fine cartridge that helps bring out the best qualities and capabilities of this table. There is very little that I could ding this turntable for. If I had to nitpick, I would say that the cueing arm action could be tweaked a little. I found that once I started lowering the tonearm to cue up a track, I couldn't stop the cueing arm mid-way. If I did, I would have to keep a finger on the arm to prevent the tonearm from continuing its travel. I'd like it to be so I could bring the tonearm down part way if I wanted, let go of the cueing arm, and have the tonearm stay put until I went back to lowering the cueing arm. It made cueing up specific tracks a little more work than it needed to be. But, again, I'm nitpicking here.

#### On the Bench

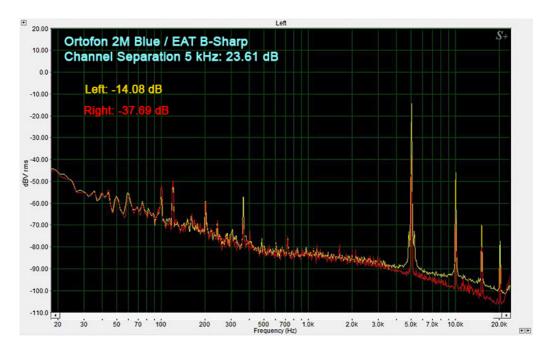
While this is a review of the B-Sharp turntable, the Ortofon 2M Blue cartridge is sold with this table, as a set, so it's performance is integral to the review as they are working as a unit. The EAT B-Sharp was connected to a Rotel RQ-970BX phono stage. The output, from the phono stage, was recorded digitally at 24-bit 48 kHz (to minimize groove wear on the test LPs) on a TASCAM HD-P2 digital recorder. Those results were analyzed on my computer using SpectraPLUS audio measurement software via the Lynx TWO B professional sound card. The CBS Labs STR 100 test LP was used to measure frequency response, channel crosstalk and distortion. Measurements were taken with a VTF of 1.8 grams applied to the cartridge as specified by EAT.



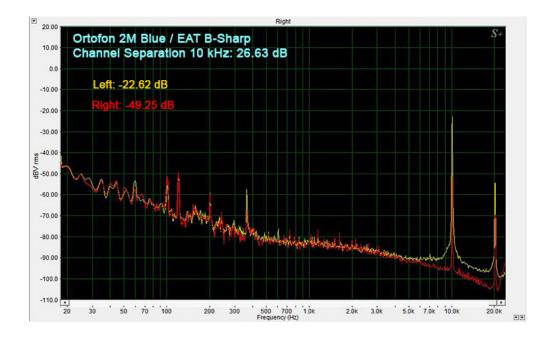
This chart shows the frequency response and channel separation measurements of the EAT B-Sharp/Ortofon 2M Blue combination. Overall we see a commendibly flat response across the bandwidth. The left channel drops about 3.5 dB from 13 kHz to 20kHz. The right channel has a more gradual high end decline that begins earlier at around 6 kHz and drops to -5.5 dB by 20kHz. The channel separation components seem to stay pretty close to each other through much of the range, having 3 medium and 2 large deviations at various points.



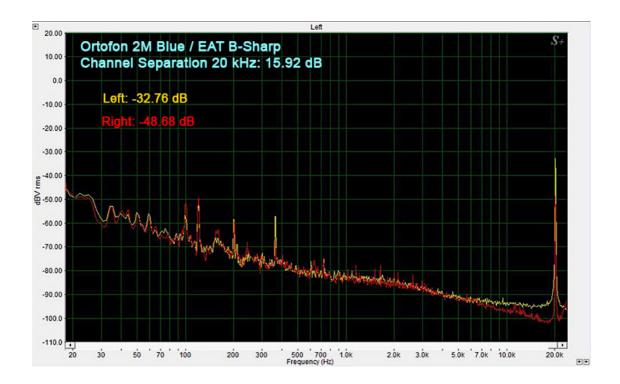
The measured channel separation for the EAT/Ortofon combo at 1 kHz is 21.76 dB. This figure is 3.24 dB less than what Ortofon specs for this cartridge but it can easily be chalked up to sample variation in production. On a side note, spurs at 60Hz, and multiples of that frequency, are from power line hum getting into the cartridge. Depending on the cartridges design, this can change significantly. The EAT / Ortofon combination produces well suppressed power supply harmonic spurs.



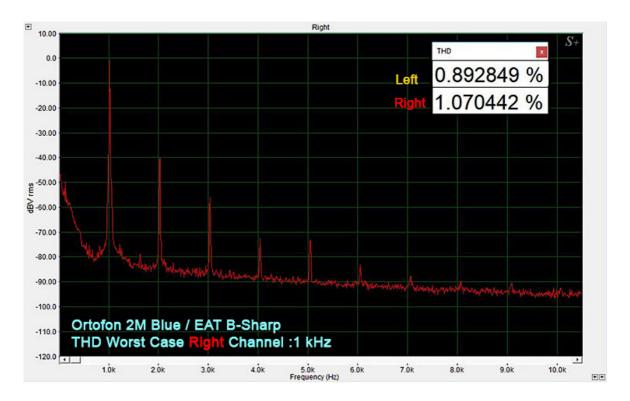
The measured channel separation for the EAT/Ortofon combo at 5 kHz is 23.61 dB. Not bad at all



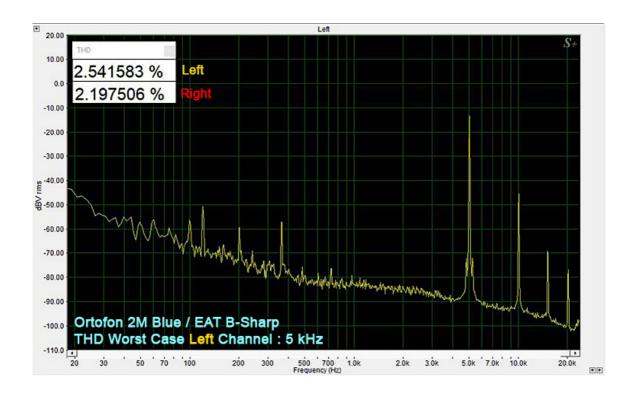
The measured channel separation for the EAT/Ortofon combo at 10 kHz is 26.63 dB. Nice.



The measured channel separation for the EAT/Ortofon combo at 20 kHz is 15.92 dB. Ortofon publishes a 15 kHz channel separation spec of 15 dB and that seems to fall right in line with the rest of our data. A quick look at the traces of the first graph shows that this particular 2M Blue sample probably betters that figure.



Here is the 1 kHz THD measurement for the EAT/Ortofon combo. While we show figures for both channels, the higher number is the one that gets reported, hence worst-case. In this instance, it's the right channel with a THD of 1.070442%. While okay for an elliptical stylus, this is a little higher than would be preferable.



The 5 kHz THD measurement for the EAT/Ortofon combo shows a worst-case figure in the left channel of 2.541583%. This is better than average performance for an elliptical stylus.



The 10 kHz THD measurement for the EAT/Ortofon combo shows a worst-case figure in the right channel of 3.235354%. This is better than average performance for an elliptical stylus.

#### **Conclusions**



The EAT B-SHARP is a turntable that I could happily live with. It gives me everything I need for great sound without any excess gimmickry or fluff. And it looks....wait for it....Sharp!

#### **LIKES**

Beautiful streamlined and thoughtful design with all the important features.

That carbon fiber tonearm is gorgeous!

Includes a great quality cartridge.

Has sound quality to match the looks.

#### **WOULD LIKE TO SEE**

Revised cueing arm/tonearm travel.

The EAT B-Sharp turntable is an excellent choice for people who are seriously looking to get into vinyl and are demanding something a bit better than average, without breaking the bank of course. It is a bold and refined design that provides you all the necessities and does away with the superfluous. Its handsome look is eye catching and is sure to be noticed. Its performance is also a step above, with the bundled Ortofon 2M Blue cartridge. This could easily be someone's first and last turntable as it provides a most suitable foundation for more resolving cartridges should one's desires and budget grow. Let's see: it's good looking, easy to live with, sounds sweet and it won't put you in the poor house. Sounds like the perfect date. All you need is the wine!