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World Premiere Review!

European Audio Team B-Sharp Turntable

If anyone asks you what they should buy....

Review By Ron Nagle



The renaissance of vinyl marches onward with the new European Audio Team (EAT) B-Sharp turntable. The B-Sharp debuted in April 2017 and is the results of being a trickle down version of EAT's more expensive turntable called the C-Major. At the very same hour the B-Sharp arrived at my door I found a full page photo of the B-Sharp turntable online. The price listed by the distributor is \$1595. That includes an Ortofon 2M Blue moving magnet (MM) phono cartridge, a dust cover and an aluminum record clamp. Also in the box is are a felt mat, very nice tonearm cables plus a 15 Volt Class 2 power supply. This is a two speed turntable, 33.3 and 45 rpm, driven by a drive pulley with two different diameters. This is exactly the same configuration as my review turntable.

Back Story

EAT's turntable is manufactured within the Czech Republic and is a spinoff off of a well-known Austrian firm, *Pro-ject Audio Systems*. Pro-Ject was founded in 1990 by Heinz Lichtenegger and is now an OEM manufacturer of an extensive line of analog turntables. Counted among these are some special addition versions commemorating rock and roll icons. European Audio Team began about eight years ago and is the brainchild of a very talented Jozefina Lichtenegger. She is the wife of Pro-Ject Audio founder Heinz Lichtenegger. EAT turntables are built in a facility on the grounds of the Pro-Ject factories in Litovel, Czech Republic.

During the past two years, the Lichteneggers have invested somewhere between 10 and 20 million Euros in a new state-of-the-art machining center in Litovel, a logistic center in Austria and updates to the existing seven story assembly plant. Many brands assemble their products from parts produced by other firms. The majority of components in an EAT turntable are built in-house. This includes the synchronous drive motors and controllers. Although the two companies share some of the same machinery used to manufacture their turntables, EAT tables along with the B-note carbon fiber tonearms are exclusive designs by Jozefina (seen below holding EAT's new E-glo S vacuum tube phono preamplifier with *Enjoy the Music.com*'s Creative Director Steven R. Rochlin).



The B-Note tonearm on the B-Sharp has a conventional bearing arrangement with ABEC7 ball bearing and Cardan bearings. This layout is similar to those of a Linn or Rega tonearm. The arm tube is made out of super stiff and rigid carbon fiber. The traditional Cardan bearing insures high stability with very low friction. Also inside the tonearm is energy absorbing TPE Thermoplastic Elastomer to dampen tonearm resonances. Of necessity the startup EAT production line was moved to an extensively renovated and modernized facility. A separate plant houses a production line manufacturing the highly regarded EAT 300 B and KT88 Vacuum tubes. The EAT web site lists a full lineup of phono related audio along with some unique offerings not available in the USA. Among these are two perfumes called *Stylus* and *Fina*. Additionally, they sell two candles named the *Blue* and the *Black*. Both candles are named L'Oiseau de Feu. With these offerings I think I can detect a woman's touch. Employing some very innovative engineering Ms. Lichtenegger has managed to bring down the cost of manufacturing the EAT B-Sharp Turntable to \$1595, that's with the Ortofon 2M moving magnet cartridge included. The overall appearance of the B-Sharp has impressed me, it is outstanding, sleek modern and even more impressive when you consider the cost.



Out Of The Box

Strange to say but I am impressed by the way the turntable is double boxed and packed for shipping. It is sent along with a dusting cloth and a pair of white cotton gloves, there's brains behind that. The shipping carton has every Major part held separate from the next by compartmenting them in stacked sections. All sections are carefully and individually wrapped. Each section is then held in place by component shaped foam padding. First thing out of the box is the table itself.

The Owner's Manual

Parts list, diagrams and descriptions were all in a neatly printed owner's manual. But here is where we get to my main criticism. The manual is missing a step-by-step assembly procedure. So the following *is how not* to assembled the B-Sharp. After screwing on the energy absorbent TPE rubber feet and leveling the plinth, I foolishly assembled the sub platter, installed the motor drive belt and record platter. What I *should have done* first was plug in the wall wart power cable and tonearm cable. With the weight of the platter tipped to one side I lifted the table to get at those connections on the bottom. Also I found the installation of the anti-skating mechanism was partially blocked by the platter. Additionally, the manual's assembly procedure should tell you to install the anti-skate device after you install the arm counter weight. Moreover the design of the weighted anti-skating device is much more complicated than it needs to be. Most often you can find anti-skating implemented by a simple fixed weight attached to a notched post and hanging by a mono-filament line looped through a wire arm. The B-Sharp anti-skating mechanism, plus it's installation and weighted adjustment, took me about 30 minutes of fiddling (with a tiny set screw) until I was satisfied it was correct. Last but not least, European Audio Team's B-Sharp turntable does come with a factory installed cartridge. We assume that it was properly installed, but...

The Reviewers Job...

...is to understand the many things that needed to be done to set up this turntable and cartridge. There are critical adjustments that can have a significant effect on how a turntable produces sounds. I began by checking the cartridge alignment with a mirrored protractor and a Dr. Feickert protractor. And everything looked spot on. Next, I needed to verify the speed of the turntables platter with my strobe gun. The 33.3 rpm speed setting was at 33.4 without a record and tonearm on the platter, that's perfect! The speed at 45 rpm was 45.2. Tracking a record dropped the speed by one tenth to 45.1 rpm, that's still very good. Next thing I adjusted the tonearm counter weight with a digital scale and set the tracking force at 1.814 grams. The range is between 1.5 and 2.0 grams. Anti-skate force was approximated, since it can't be precisely measured, at about 1.5 grams.



Running-in the turntable and listening with a stethoscope on the plinth/base can tell just how well the platter bearing and motor noise is isolated. On the base of the table the noise of the motor is quite apparent. But it is not a low frequency rumble; it is of a higher pitch. The motor is fixed to the turntables base but the platter sits on an energy absorbent sub chassis. Therefore the noise should not be so easily transmitted to the record surface. Consider that the aluminum record platter is heavy and damped by a large Thermoplastic Elastomer TPE energy absorbent ring on the underside of the platter. That in combination with the supplied felt mat and clamp should block any residual noise. Next up, we need to check exactly where the Cartridge Vertical Azimuth is set. Using The Ultimate Analogue Test LP from Analogue Productions. I Measured a 1.Kilo Hertz test signal on the left channel and then repeated by measuring the right channel. The precision Fozgometer indicated that both channels' voltage readings were equal, Therefore the channels are balanced and the Vertical Azimuth was adjusted correctly before it was packed and shipped.

The next critical adjustment would be the cartridge stylus position in the tonearm. The first requirement would be setting the stylus overhang and cartridge tracking to be parallel to the record grooves, both set with a mirrored protractor. The most finely detailed micro settings involve positioning the cartridge's diamond stylus contact orientation. This involves adjusting the stylus vertical tracking angle (VTA) and stylus rake angle. Adjusting the VTA via height of the tonearm influences both positions. This setting can affect the tonal balance of the music and the resolution of fine details. It also affects the proportions of treble, midrange, and bass retrieved from the record grooves; therefore the overall sound. Lowering or raising the base / pillar of the tonearm changes the VTA angle of the cartridge stylus in relation to the record groove.

Depending on the starting position lowering the back of the tonearm generally increases bass content. Raising the height of the arm has the opposite effect. This does alter the overall sound of the recording. Since this is a setting made by the dealer or at the factory I will not / cannot mess with it! The whole point of this review is to determine what \$1595 gets you.

Bottom line is that I checked to see how carefully the EAT B-Sharp was setup, but did not change any preset adjustments. Note: Over a period of 30 or 40 hours of playing time the cartridge will "break in" so the cartridge alignment and the sound can change slightly and may have to be rechecked and reset.

Consider

If I make comparisons to my Sota Star Sapphire 2 and Grado Laboratory tonearm and my Ortofon 2M Silver (silver wired) MM cartridge. That would be like comparing apples to oranges. However, after 35 hours playing time I can draw inferences relating to the sound of the cartridge and the tonearm. The alignment will effect what you will hear. My first impression was that it had a little too much low-end / bass. After playing for 35 hours, it still sounds a bit bass heavy, or more precisely, it has excessive bass that is out of proportion to the midrange and treble frequencies. The overall effect is a tendency to mask the higher frequencies that impart spatial clues that form the soundstage.

Conundrum: Even though I know how to make adjustments to achieve what I think is accurate sound this leads to an ethical question. Should I change adjustments? Fiddle around with the setup? Do I assume that whoever buys this table has the tools and the knowledge to adjust the sound to their liking? I can't go that route. My understanding is not universal. Logic dictates that everyone has their own idea of what sounds good.

Theoretically

A perfect turntable and tonearm properly setup would not add or detract anything. It would be perfectly transparent. Theoretically, the only thing you should hear would be the information encoded in the record grooves and the tonal characteristics of the cartridge. Note: At this point in time I do not believe that a totally transparent and neutral phono cartridge exists.

This is why I rechecked the turntable setup. I needed to know if this could be a contributing factor to the sound of the turntable itself, it was not. As for bass response, I believe in time that the cartridge's tonal balance will probably change for the better. As with many things high-end audio, there is also system synergy and other factors to consider as well.

Bottom Line

The turntable factory and dealer setup was done competently by someone that knew what they were doing. During the review process I used three different phono preamplifiers. The first was the [Raven MK 2 Silhouette Reference preamplifier with MM phono stage](#). Next was my Parasound P5 preamplifier that is very impressive. Last was my reference, [Tavish Design's Adagio vacuum tube phono stage](#). All were set for MM and loaded at the required 47k Ohms. Yes, there were differences yet you could plainly hear back to the cartridge that produced the sound. I remain very highly impressed by the design, construction, and price of the European Audio Team B-Sharp turntable. There is an upscale version of the carbon fiber EAT tonearm that can be had with a 10" or 12" length if you so desire. I can only wonder what they might be able to do. My feelings are that the overall quality of the music retrieved by the EAT B-Sharp was, and is, inherent to the limitations of the cartridge and the recording quality.

More simply stated, European Audio Team's B-Sharp turntable will not be a limiting factor if you want to employ far more expensive cartridges than the supplied Ortofon 2M Blue. If anyone asks you what they should buy, the EAT B-Sharp at \$1595 is my personal benchmark for this market position. A no brainer, as it were, at this point in time. EAT's B-Sharp turntable it is an outstanding value! Remember to...

Enjoy the music & from me, Semper Hi-Fi!

Specifications

Platine TD à courroie et changement de vitesse manuel

Variation de vitesse en 33tr/min < 0,11 %

Variation de vitesse en 45 tr/min < 0,12 %

Pleurage et scintillement en 33 tr/min < 0,08 %

Pleurage et scintillement en 45 tr/min < 0,07 %

Rapport signal/bruit mécanique : -40 dB

Rapport signal/bruit électrique : -68 dB















Plage de réglage de force d'appui : 0 à 30 mN (0 à 3 g)

Contrepoids : 125 g ; avec insert additionnel 142 g

Bras : masse effective : 12,5 g ; longueur : 230 mm : dépassement : 18 mm

Dimensions avec couvercle fermé (LxHxP) : 460 x 145 x 380 mm

Poids : 9 kg

Equilibre tonal	
Grave (10 Hz - 60 Hz)	
Haut- grave (80 Hz - 200 Hz)	
Médium (200 Hz - 3kHz)	
Hautes fréquences (plus de 3 kHz)	
Attaque	
Extinction	
Résolution	
Etalement de la scène sonore	
Profondeur de la scène sonore	
Relief	
Extension de la scène sonore dans le local	
Focalisation de l'image sonore	
Fabrication et finition	
Bruit de fonctionnement	
Rapport qualité/prix	