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Knockout Electronics! Aesthetix Calypso & Conrad-Johnson Premier 18LS



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VPI Super Scoutmaster

HP's Golden Ear Awards

THE VPI SUPER SCOUTMASTER

PLAYBACK DECK

\$5000

www.vpiindustries.com (See review)

HARRY PEARSON



This is a tale of tables turning that I am here to tell. And to do that, we must begin, albeit e'er so briefly, with the American turntable company, VPI, and its 2002 introduction of the Scout.

VPI's soft-spoken eminence, Harry Weisfeld, decided he could manufacture a (relatively) low-priced turntable that would compare favorably with the 13 models that preceded it in VPI's then 24-years' history, and just maybe sound better than many of the older ones.

What he came up with was a playback system—the Scout and a nine-inch version of his JMW Memorial arm—that he was able to sell for \$1600. Indeed, this combination has since become the company's bestseller. And maybe not so curiously, many, many sold overseas. Actually, Weisfeld says, more than half of his product goes abroad. It

will come as no surprise, one supposes, that the number of turntable manufacturers in America has shrunk to a handful, while overseas, in Great Britain particularly, the turntable business apparently flourishes.

The Scout had a few innovations new to VPI, including the use of its bearing within the platter, one inspired by the old Kenwood table, a direct-drive unit of unusually good sound that made a temporary splash in the high-end pond. The redesign of the arm made it "inherently more stable" than its larger brothers, according to Weisfeld, and he was able to incorporate a 600rpm motor (with a 10-cycle resonance frequency). Reviewers here and abroad found much to praise in the Scout. Through a twist or two of fate, the Scout escaped my notice at the time, and that is unusual because I'm a sucker for a really good-sounding product at a price more democratic (small "d," of course) and because

I know, from experience, that VPI has never made a bad-sounding or even mediocre product. Like the speaker company Magnepan, VPI represents the best the high end has to offer, at each and every price level. No market research boys had to tell these folks what the public needs.

About the time I caught up with the Scout's existence, Weisfeld had moved along to the Scoutmaster (at \$2400), which doubled the thickness of the chassis (essentially by using two of the Scout's), incorporated a thicker platter with a larger bearing shaft, and used a 300rpm motor, which reduced the resonance to 5 cycles, well below the level at which any cartridge could respond to its vibrations. These changes filled out the bottom end of the Scout (which I hadn't heard), says Weisfeld, and fleshed out its nimble quickness.

Weisfeld says that the turntable measurements that can be made—for

rumble, wow, and flutter and acoustic breakthrough—are vanishingly low in not only his design but those of virtually all reputable turntables. “The problem is,” he continues, “even though the improvements I’ve made to the Scoutmaster won’t essentially change any of those basic measurements, the sound is audibly quite different.” Such a sentiment underlies the entire field of observational listening in the higher realms of audio reviewing. It is an axiom that almost any component of serious design can meet or exceed the standards we’ve set in things we know how to measure, but it is beyond that pale wherein we find the true differences, differences for which no reliable measurements have yet been designed, other than those audible to the trained ear.

I’d like to say that I had the time to live with the Scoutmaster, but again, a turn of events, of, let us say, the tables, took place. Weisfeld arrived in Sea Cliff with the Scoutmaster, fitted with the superior new Dynavector XV-1s moving-coil cartridge (his current preference). We set it up on Arcici suspension racks, and set about the listening on the reference system in Music Room 3, which is dominated by the Exotica Grand Reference speakers and all interconnected with Nordost Valhalla wiring. I’m not bragging when I tell you that there was a level of resolution in the system that took Weisfeld’s breath away, and he began to tinker with the Scoutmaster—and, to his amazement, hearing every last change or addition he made to the playback system. He added the periphery damping ring (\$500), a design that he has made to work (the earlier Kenwood had such a ring for holding down the outer edges of an LP that would keep the cartridge from tracking the opening grooves of the music), his SDS synchronous drive system (\$1000) designed to keep the turntable exactly on speed, and, most astonishingly audible, he took the HRX motor assembly from that turntable (which I had on the premises) and substituted it for the Scoutmaster’s motor. Then he added an extra belt or two to connect the platter to the motor. My first impression of the Scoutmaster itself

was strong enough to warrant a solid rating, but the transformation of Scoutmaster to Super Scoutmaster (at an even five grand, minus the cost of the cartridge) plainly put the “created” playback system into the major leagues.

Which leaves me with the question of what it sounds like. I say “question” because it would have been much simpler just to track the perceived differences among all three versions had I had the necessary experience each would have required. I don’t know about other analog junkies, those who need the extra information that can be retrieved from the best vinyl to get closer to the music, but I’ve never found it easy to describe the character of a turntable. Part of that difficulty arises, I believe, from the fact that most of the time when we are listening to a turntable playing a disc, we are hearing information from the grooves—the music—which is a mighty distraction from the “sounds” produced by the revolving mechanism. I’ve come to see that you have to listen, might we say, between and beneath the notes to find out what’s going on. And much that we can learn from listening this way has to do with the noise floor beneath the signal, with its character.

We might analogize this with the ability of a speaker system to resolve softer sounds, for which no standard measurement has ever been devised, even though we all know, say, that a good electrostatic will play back the softer sounds at natural levels. You have to boost the volume on many speakers, such as the early Magneplanar designs, to bring them to life; and as a consequence, you’re listening to soft passages at louder levels than would be natural (or measurable in the hall, as I learned when I slipped a sound meter into Carnegie many a year ago).

With turntables, the lower the noise level beneath the signal, the bigger the dynamic range of the music. And to these ears, the lower that level, the less squished the individual orchestral images sound, and the greater depth there is available on the soundstage. You might argue that reducing noise lends greater oneness to the sound—enhancing continuity. Much of this has, I’m guessing,

to do with the material out of which the platter is fashioned. Certainly that material, as in the Clearaudio tables, can affect the “character” of the sound. Clearaudio, to continue the example, produces a neutral, perhaps even slightly yang, character. The VPIs have traditionally had a darker sound.

We ought not to leave the stability of the drive system out of the equation: The Super Scoutmaster’s sound became smoother when HW added the HRX motor, the speed control box, and the extra belt(s). More coherent, you might say, or more—dare I?—liquid in the sense of continuousness. It’s occurred to me (see the Super Maggie review) that the ear quite rightly perceives discontinuities in sound as unreal and unnatural, because they can much more easily be identified as artificial, while a soundfield all of one cloth will inherently sound more natural and get in the way of the source less obtrusively.

Thus, with the Super Scoutmaster you simply are not aware of any contribution the playback system is making to the sound, so tremendously far down are its noise components. You can only get at its lack of contributions through a process of indirection, looking to dynamic distortions in the soundfield as a guide. With this playback system, you’ll hear information stretching back to the outside edges of the rear wall (instead of the truncated or triangular field usual with most playback systems); there will be more body (imagine this as being able to hear the chest of a singer resonating) to individual images, a greater sense of fullness. You’ll hear no layering of the field of depth but rather one block of space stretching between and behind the speakers, a block in which each instrument occupies its own acoustic space. And perhaps not surprisingly, this system allows as wide a dynamic range as you will hear from any competing playback system—perhaps wider. (It puts the lie to the claim that CDs have wider dynamics.) Jon Valin has used the word “jump” in trying to describe this phenomenon and I think it can be rightly used here.

No doubt Harry Weisfeld will, one of these days, build a better mousetrap, but for now I really cannot see how.

The VPI TNT HR-X and VPI 12.6 Tonearm

Anthony H. Cordesman



I cannot tell you that the VPI TNT HR-X and VPI 12.6 are the best turntable and tonearm combination in the world, only that it is the best I have yet heard. I'd also have to say immediately that others might prefer the top-of-the-line SME combination for

a lighter, more "dynamic" sound, or prefer the Graham or Tri-Planar arms for their respective colorations. The competition is real, and much does depend on listening preference.

At the same time, it is possible to pay far more and get far less. There are

some extremely high-priced combinations that seem to be in a constant state of mutation—"evolution" is too generous a term—always offering the promise that at some point several models might actually sound the same and actually be reliable. You might be the audiophile lucky enough to find one that is an actual product and not a promise.

What I can tell you is that Harry Weisfeld has taken a great set of earlier products, and evolved them into a superb and highly synergistic set. The devil in turntable and tonearm design does not lie in radical innovation, but in a constant attention to detail, and refinement based on listening experience.

In the case of the HR-X, this involves the following changes.

- (1) The chassis is now made from three layers of acrylic-aluminum-acrylic, laminated together using GE Silicone Seal as the damping agent. (The center aluminum layer is used as the ground for the arm and platter, giving lower noise and less static buildup.) As compared to the one-piece acrylic of the TNT series, the HR-X is less resonant and less colored.
- (2) The center clamp has been replaced by a center weight, to be used in conjunction with the periphery ring clamp (PRC). The combination of the center weight and PRC is equal to vacuum with none of the noise, air problems, and possible record damage that a vacuum system is capable of.

- (3) The new platter is made from solid clear acrylic mounted on an inverted three-inch-long main bearing. The thrust plate is a Teflon and Delrin 50/50 mixture and is self-lubricating and noiseless. The bearing accuracy is $\pm .0005$ " with a vertical motion of the platter $\pm .001$ ". The system is extremely stable, because the belt is turning the platter through the center of the bearing assembly.
- (4) The HR-X uses a dual motor-flywheel combination with low-speed 24-pole 300-rpm AC synchronous motors. The motors drive a 14-pound, inverted-bearing, stainless-steel flywheel at 250 rpm. The flywheel is a very speed-stable source for driving the platter with no cogging or torque ripple effects. The flywheel is the perfect speed filter and is now an integral part of the motor assembly removing 6" of space that the TNT-5 used.
- (5) The new HR-X drive belt is a molded one-piece design made of black Nitrile. This generates no charge and is accurate to $\pm .001$ ", for lower flutter and wow.

The VPI 12.6 tonearm involves the following changes.

- (1) The arm is the new 12.6 undamped unipivot with a dual-mounting system for great stability and rigidity. You can adjust the VTA very easily and then lock the tonearm body in place, in two positions, for better bass and greater detail. This is a major advance over the former JMW 12.5. The damping was removed because the new periphery ring clamp removes all warps and drops vertical motion to near zero. With the arm not bobbing up and down the damping could be removed, giving greater air and life with the same stability.
- (2) The tonearm was lowered in mass to take advantage of the newer medium-compliance moving-coil cartridges with bodies weighing over nine grams—the combination of the 12.6 with the Blackbird, the Dynavector XV-1s, the Benz LP, etc. has to be heard to be believed.



As HP has said in several of his recent commentaries, the VPI TNT HR-X and VPI 12.6 are Harry Weisfeld's best work. In fact, from my perspective, this duo clearly makes him America's top designer-manufacturer of real-world analog equipment—products that range from the eminently affordable to \$10,000 for the combination of the TNT-HR-X and VPI 12.6.

Why is the VPI TNT HR-X and VPI 12.6 combination so good? In simple terms, because it does less to color the sound of a record than the competition, and does so with absolute reliability and consistency with virtually all of today's top cartridges and even with records with moderate warp and/or surface noise.

There are plenty of turntable and tonearm combinations with more "character"—combinations that offer the joys of constant tweaking and readjustment, or the special pleasures of hoses and noisy pumps. There are turntables that do far more to change sound character according to the shelf or table they are mounted on, or that respond to acoustic breakthrough in interesting ways that can alter an otherwise dull recording. Above all, there are combinations that come and go—along with their manufacturers—having a brief moment in the sun and leaving the audiophile thousands of dollars poorer and with an orphan product that has never really reached engineering or manufacturing maturity.

There are units that offer "straight arm tracking" directly across the radius of the record. Units that may seem to offer less distortion in theory, if you are not actually familiar with the problems in making such arms work, and the complex mix of different distortion products that result from any kind of

mechanism that tries to move the cartridge across the record. (Not to mention the fact that the next error budget will still be dominated by the inherent tracking and alignment problems of the cartridge and stylus and VTA, SRA, and other distortion-causing errors.)

What you get with the VPI TNT HR-X and VPI 12.6, however, is as close to the sound of silence as I have yet heard. This is not just a matter of the best signal-to-noise ratio I have ever heard from an analog front end. There is an amazing lack of low-level coloration to the sound. The inner detail of the recording is clearer, the low-level dynamics are more apparent, and high-level dynamics are notably cleaner. Speed stability is improved to the point where I can detect no waver or coloration on sustained piano or string tones, and the ability to vary speed using the electronic power supply also allows you to correct pitch problems in the original recording.

There are inevitable limits to LP bass quality, but there also are some Telarc, Reference Recording, and other records that test the limits of bass performance as much as any CD. I have never previously gotten the same deep bass extension and clarity out of any analog front end, and while analog is not capable of the detail of digital, the superior dynamic life of analog bass came through with stunning impact. The speakers involved included the TAD-1, Pass Rushmore, and Thiel CS7.2—all of which are intensely revealing in these areas.

What I listen most for in a turntable and tonearm, however, are midrange and treble transparency and musicality, and here the TNT HR-X and VPI 12.6 are

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truly superb. They both involve a series of refinements over past VPI designs that add up to superb soundstage detail, a level of natural musical detail and harmonic integrity, and sweetness I have yet to hear in a consumer-level digital product.

It may not mean much to most U.S. audiophiles, but I have a collection of Accent chamber music records that remain my personal standard for musical realism of a kind that can be reproduced in the home. Many involve musicians and venues I have heard live, and most involve the kind of Bach and Telemann music where there are no sonic “special effects” to disguise the importance of natural timbre, musical detail, and soundstaging. The TNT HR-X and VPI 12.6 did not produce any magical epiphanies, but, damn, they were better in terms of musical nuance than any previous combination, and equally good on the most demanding direct-to-disc and 45-rpm material.

Cartridge compatibility is excellent. This is not a minor issue in a “system” whose sound is the result of cartridge-tonearm-turntable-room interactions, and where a turntable or tonearm review is often an inadvertent review of tonearm-cartridge compatibility. I have a stable of some twenty years’ worth of the cartridges from cartridge surveys and individual cartridge reviews. I would not recommend the VPI TNT HR-X and VPI 12.6 for the now-ancient ADC and Shure high-compliance designs, but I went through a wide range of Van den Hul, Koestu, Sumiko, and other moving-coil cartridges and got equally good results with all of them. Moreover, setup was a snap with the VPI alignment tool, and the fact the entire tonearm wand lifts off the unipivot makes cartridge-swapping and comparisons easy. Just replace one wand with another, and you have instant

setup for tracking weight, overhang, VTA, and azimuth. An analog-cartridge-collector’s dream!

The VPI TNT HR-X and VPI 12.6 also produce a striking apparent reduction in surface noise, something that always occurs with the best turntables, but for reasons I still cannot explain at a technical level. My LP collection spans some 40 years, and my previous TNT did very well in terms of scratches, etc. Record after record, however, was cleaner and record “noise” was less obtrusive. The end result was to offer much of the sonic clarity of CD, SACD, or DVD-A with all of the benefits of analog. Interestingly enough, several visiting listeners thought I was faking it when I told them they were listening to a record. They simply couldn’t believe they were hearing an LP, rather than a CD.

Are there some limits to the VPI TNT HR-X and VPI 12.6? Three that deserve mention.

First, the 12.6 tonearm is far less sensitive to hum and mechanical vibration than the earliest VPI tonearms, but it does need a highly flexible interconnect with separate ground connections to avoid having a wire so stiff that it can affect the turntable’s acoustic isolation and leveling, and/or produce trace hum problems. Stiff interconnect, or interconnects with floating grounds, are not advised.

Second, the turntable uses inflatable “air bags” rather than springs. These are the key to many of its sonic merits, but they can leak over time. This affects the leveling of the turntable, which is critical with a unipivot arm, and eliminates much of its acoustic isolation. You need to regularly check the air pressure by looking at the distance between the top of the turntable frame and the base.

Third, the damping ring that fits over the outer edge of the record requires careful alignment, and some

SPECIFICATIONS

12.6 Tonearm

Effective mass: 9.6 grams

Spindle-to-pivot distance: 301mm

VTA: Adjustment of 1" (each line on the VTA knob equals .003")

HR-X Turntable

Motors: 300 RPM with a fundamental resonance of 5Hz.

Wow, flutter, and rumble: Virtually nil

ASSOCIATED EQUIPMENT

Van den Hul Black Beauty, Sumiko

Celebration, and Koetsu Onyx Cartridges;

Meridian G08 CD player; Sony SCD-

XA9000ES SACD/CD player; Pass Labs Xono

phonostage, X0.2 preamp, and XA160 power

amplifiers; TAD Model 1, Pass Rushmore,


and Thiel CS7.2 speakers; Kimber Select,

Transparent Audio Reference XL, and

Wireworld Super Eclipse and Eclipse inter-

connects and digital cables

records are too small for its use—not a problem with practice, and the ring is not critical. If you can lower a tonearm without breaking the cantilever, you have all the required dexterity. However, some care is needed.

One final point: The VPI TNT HR-X and VPI 12.6 are also by far the best-looking product VPI has ever made, and arguably a candidate for one of the best-looking audio products ever made. Not a consideration for the true audio perfectionist, but a Museum of Modern Art quality consideration for those of us who care about living with the visual impact of a high-end system. 

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