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Subject: Air Tangent 2002 Tonearm

Posted by [Manualblock](#) on Fri, 10 Jun 2005 11:35:35 GMT

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Even the best pivoted arms have pretty major problems tracking the grooves on the record. Since all mastering cutterheads are straight line arms then by definition the standard pivoted arm can only be truly accurate at two points on the disc. Tangential arms solve this problem, although they have other issues; the Air Tangent is probably the best arm in existence. With pivoted arms ever notice how the vocalist is never centered but seems to drift around during playback. That is a result of Skating and the application of Anti-skating design methods. Skating is the force that seeks to pull the tonearm inward as the record rotates. Consequently the arm must be compensated for this force by an equal but opposite force applied to neutralise this effect. The fact that records are never perfectly punched on center is another problem. Watch the arm on your table as it plays; the arm shuffles side to side as it suffers from the offcenter placement of the center hole. This causes the soundstage to shift and drift an effect easily heard in high mass arms as the inertia tries to keep the arm moving after each shift in direction. This can cause damage to the walls of the groove which is cumulative and easily heard. More issues to come but you can do yourself a favor and try to hear this or any other well designed tangential arm. BTW the Airtangent lists for about 8500.00\$. Are your records worth it?

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Subject: Re: Air Tangent 2002 Tonearm

Posted by [Russellc](#) on Fri, 10 Jun 2005 23:06:08 GMT

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NO! for \$8500 I'll just replace vinyl...even at absurd blue note prices, it wouldn't be a problem with that kind of cash to shop with. Anyone who would spend 8500 on a tone arm is a clear example of "a fool and his money" or an example of one who has too much of it in my book. Of course, this is just my opinion. You can buy a nice used car for 8500, and a damn nice ENTIRE stereo system. My 70's vintage black widow tonearm, which I paid all of 50 bucks for is probably 80 percent of that arm ( at least on my setup) I can buy a lot of vinyl for 8450 bucks! Clearly, I can not afford a 8500 arm, and if I bought it, my friends would put me in a home for the befuddled. Russellc

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Subject: Re: Air Tangent 2002 Tonearm

Posted by [Manualblock](#) on Sat, 11 Jun 2005 00:24:47 GMT

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Russell my friend; of course we cannot afford, nor would we if we could. You know I have been mulling some things over and reading. I think low mass arms are superior in tracking and detail retrieval. As long as the bearings on the Black Widow are sound then I suggest you have no need

to change, and why would you? Have you noticed a lack of anything in your vinyl playback? If I were rich do you think I would even have a stereo? I would be climbing Everest. Or working with the poor in Darfur. And listening to my MP3. Audio is a middle-class pursuit. Hell; we used to pay good money to get befuddled.

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Subject: Re: Air Tangent 2002 Tonearm  
Posted by [Russellc](#) on Sat, 11 Jun 2005 03:31:33 GMT  
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How true! I might like a different arm for this reason: While it is an excellent choice for my shure V15Vxmr, it is not a good choice for moving coil and other carts that need more mass. We have both spoken of the Morch or moerch or how ever spelled tonearm and it is very appealing because of the interchangeable wands of various masses. As far as differences in vinyl sound, all the things I've done have been very positive. While the basic table sounds musical, it is a little bloated, but enjoyable. The first step was building a new interconnect cable with cardas materials, a worthwhile endeavor with noticeable improvements across the board, not jaw dropping, but better. Next I replaced the springs and posts with scillias extended studs and a set of linn springs, lower grommets and nice locking wingnuts that allow easy and precise adjustment of the suspension. The Linn springs allow a much larger range of adjustment. At the same time, Scillia made me a nice delrin arm board which allowed me to mount the black widow ( boy that didn't sound right) arm. That combination made a huge improvement. VERY noticeable. Another step forward was replacing the ortofon super OM 30 (very nice for the small price) with a shure V15Vxmr. The next surprisingly large improvement was adding the lead Merrill mat That Mr scillia provided. It replaced both herbies mat as well as my Ringmat, besting them greatly. This lead mat may have been the most surprising performance increase. At this point the table is sounding much better, with a much darker background was presented and the music having great drive with improved detail. Adding the delrin inner platter and inner platter lead mat, new bearing and precision stainless shaft and stud threaded for a clamp, the acrylic platter with already mentioned lead platter mat again raised the bar for its performance. Even darker background with bass and dynamics much more powerful. Music appearing explosively with impressive detail. Not perfect, but very enjoyable sound. These improvements are not slight but quite noticeable. The clamp should tighten and improve this as well, the whole setup is designed for its use, as well as the use of the perimeter clamp which I want, but is pricey. My last step (besides the clamps) will be the improved motor and digital power supply from the Merrill Heirloom turntable. I know there will be those that question this expense on the AR, I could have bought a nice used Linn, a new VPI, BIX, and several others. It should be kept in mind that these mods are clones of the Old Merrill mods which are amazing improvements if you've never experienced them. Plus, it was cheap tuition for the learning experience. This AR is very mint, I've had it a while, and enjoying keeping it in the system. It blasts my rotel 971, which for the money has been very nice sounding ( enough I quit using my seperate D/A converters) All in all, a positive learning experience for a DIY someone like myself. Others not so inclined might want to seek out the already built tables mentioned. If you've got a nice AR like to tinker, you can end up with a surprising nice result. It surpassed what I expected the improvements to be, and I WAS familiar with a couple full blown Merrill modded AR ( which approached 2 grand for all the goodies even back in the day) Its fits the big tube sound with horn speakers in a very fun way..not perfect of course, but very fun. Russellc

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Subject: Re: Air Tangent 2002 Tonearm  
Posted by [Russellc](#) on Sat, 11 Jun 2005 13:59:47 GMT  
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One other change is greatly reduced "woofer flutter" even at high volume and with ported speakers. I just noticed that one.[Russellc](#)

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