Subject: Tweeter replacement
Posted by Mr Vinyl on Thu, 22 Jan 2009 16:15:55 GMT
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Hi all,Hoping that someone here would have an educated opinion on this. I have a pair of Wilson X1 Grand Slamms that I got for an unbelievable price. I recently found out that the previous owner had replaced the Wilson custom Focal Tweeters with a readily available (at the time) standard Focal Tweeter. In other words, Wilson is supposed to customize the same model Focal tweeter (details below from Stereophile review) as the replacement, for use in the X1. Wilson wants $1200 for a pair of new tweeters. This is a bit out of the range I would be willing to spend if the difference is not going to be significant. The speakers sound fine as they are but being the neurotic audiophile that I am, I am thinking they could sound much better with the correct tweeters. So here is my question:Do you think replacing these tweeters with the Wilson custom drivers of the same model would "significantly" (read worth $1200) increase sound quality? Or would it probably be just a little smoother etc. Of course I suspect Wilson will say it's worth it. What's your opinion?Thanks for your help. Info follows below.Mr Vinyl"Much development has gone into the new 1" tweeter built by Focal for Wilson Audio. It has a double magnet to raise its sensitivity to an all-time high for a direct-radiator type of 96dB. While the WATT 3 used a fiberglass material for its distinctive inverted dome (not Kevlar, as is commonly stated), the new version of this tweeter uses titanium. This metal's great stiffness helps push the primary resonance up to 23kHz from the 16kHz of the earlier fiberglass type. Now the intrinsic response is essentially flat to 20kHz at the greatly increased sensitivity. The new, highly stable synthetic suspension is fitted with a small half-roll termination to control sub-harmonic rocking. Wilson has also fine-tuned the viscosity of the ferrofluid cooling medium in the gap, as well as the size and treatment of the air volume behind the dome. A tapered hollow pole leads to a sealed rear chamber within the ferrite magnet rings."

Subject: Re: Tweeter replacement
Posted by Wayne Parham on Thu, 22 Jan 2009 17:59:35 GMT
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It's definitely cool that you picked those up!It's hard to say what difference the tweeter will offer. I'm generally skeptical of claims made in marketing material. Even if the engineering is sound, the marketing descriptions are usually hyped.However, if the diaphragm material and magnets are different, this is a whole different tweeter.

Subject: Re: Tweeter replacement
Posted by Mr Vinyl on Thu, 22 Jan 2009 18:18:52 GMT
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Hi Wayne,Thanks for responding. The diaphragm material is the same but the surround is different. Whether or not the magnets are different I don't know. But even if both were different (diaphragm and magnets) how much can a tweeter change the sound? Aren't we just talking about high frequency? So bells or cymbals may sound clearer but does a better tweeter effect anything else? Basically what I'm asking is if a better tweeter can transform a speaker?Thanks for your opinion.Mr Vinyl

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Subject: Re: Tweeter replacement
Posted by Wayne Parham on Thu, 22 Jan 2009 19:03:24 GMT
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Regarding the magnet and diaphragm change, I was refering to the Wilson comments about the new tweeter having a double magnet and using a titanium diaphragm instead of fiberglass.Let me see if I understand what you're saying. I guess what you're saying is the new tweeter Wilson uses is similar to an off-the-shelf Focal unit. Is that what you're saying? It's different than what they used to use, but the new one is similar to what Focal makes?As to what audible differences that might cause, it's like anything else. You have a set of characteristics that can change: resonance, efficiency, bandwidth, amplitude response, phase response, impulse response, group delay, various forms of distortion, directivity, etc. From what I'm hearing, I expect there could be small differences in amplitude and phase response. An improved tweeter might be a little smoother.Or it might just be marketing speak.

Subject: Re: Tweeter replacement
Posted by Mr Vinyl on Thu, 22 Jan 2009 20:29:18 GMT
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Wayne,Sorry if I wasn't clear. I just got off the phone with Wilson. Of course they say there would be a huge difference in quality. The tweeters we are talking about are the exact same model that Wilson has modified for their speakers. The difference is the "of the shelf" model has an oxide coated titanium diaphragm while the Wilson driver has no coating on it's titanium diaphragm. The Wilson model also has an extra magnet and a different surround (rubber instead of foam). So the two drivers are fairly different even though they start out as the same driver. Hope that helps clarify things.Mr Vinyl

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Subject: Re: Tweeter replacement
Posted by Wayne Parham on Thu, 22 Jan 2009 20:47:51 GMT
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Since you're talking with Wilson, I think it would be worthwhile to ask for measurements. That will tell you everything.