Subject: Tweakin' Two's
Posted by Jerrod Harden on Sat, 09 Aug 2003 00:41:27 GMT
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Hi Guys! Works been very slow so I've had some time to play with the 2's a little. I wanted to work on the big speakers, but can't until works better. Then I have no time to play! Anyway, I had various materials around the house and decided to put them to use. I started with a roll of plenum rated cat 5 network cable I had. That became braided speaker cable. I ran a run directly to the tweeter and terminated the amp end. I then braided up a nifty little harness that runs from the tweeter to woofer with a break in the positve side to wire in the inductor. The negative side runs continuous without any break in the wire. While I had all the drivers out I decided to damp the exponential horn with mortite. I probably tripled the mass of these lightweights. I decided to carry on that same agenda and damped the Alpha baskets with some dynamat I'd had in the parts box for ten years. To be honest I've never been a big tweaker. Well, I should rephrase... I've tweaked but rarely heard a lot of difference. This time I do. The speakers are noticeably different. Cleaner and more defined comes to mind. Different instruments seem to really stand apart more where they used to be glossed over just a bit. The high frequencies sound much cleaner and more extended. The low frequencies even appear to have a more controlled sound with greater pitch definition and a more taut sound. It's a bit hard to explain the difference but I think you get the idea. For the record I replaced some AR flat 16 gauge cable that I had biwired with. Obviously I changed to many things at once to tell exactly what contributed to the change in sound. I think the damping of the horn was a good move and I feel the single run of cable could have contributed to the increased coherency perhaps more so than the particular materials or geometry of the cable itself. And I suppose that damping the speaker basket could have reduced some resonance in the driver. Or maybe I just wanted them to sound better so they do. :) Whatever it is I don't have that same desire to try a different tweeter anymore. Now I'm just enjoying music! Have fun! Jerrod

Subject: Re: Tweakin' Two's
Posted by Wayne Parham on Sat, 09 Aug 2003 04:47:35 GMT
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There are a handful of horns that really benefit from damping and/or destressing, and the plastic piezo sure couldn't hurt from added mass. So I can certainly see this as an attractive thing that can be done, in the spirit of "tender loving care."As for the drivers themselves, I've rarely seriously considered modifying them - particularly the diaphragms - because it's too hard to maintain consistency by hand. I suppose a precise mass could be glued between the cone and spider to lower resonance of a woofer or something, but with so many choices available and companies willing to build to spec, this doesn't really make sense to me. Basically, I tend to take the attitude that I'll choose a different part if I don't like it's characteristics.That's not to say that I've never applied something to the diaphragm of a speaker. I've repaired cones that were ripped, and I've even colored some that were discolored. But that's more a repair issue, and something done as an option in lieu of reconing. I don't do this as a planned modification or a "tweak." Basically, I'm just not big on the whole tweaking biz. I build 'em according to the numbers, use good parts and

enjoy the sound.But there's always room for improvement. There's certainly a lot of things that can be done and it stands to reason that the greatest improvements can be made to the least expensive speakers. So if you're doing something that's working and you like it, then I'd say it's time well spent.Thanks for your input. I think maybe I'll surround a KSN-1038 with clay and

Subject: Re: Tweakin' Two's
Posted by jlharden on Sat, 09 Aug 2003 13:07:25 GMT
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Hi Wayne, I should clarify. I only damped the Alpha baskets using Dynamat. It's an asphalt based product with an adhesive back. It's used primarily in the autosound industry to dampen panels but also sees use in many electronic components. I was attempting to deaden the baskets a bit and control some of energy transfer from the cabinet back through the basket and motor assembly. I did not attempt to increase the mass of the cone to lower the resonant frequency. The Alpha works so good in the big cabinets, I just can't see messing with that. Definately try the clay on the exponential and report back. P.S.Enjoying some Government Mule as I type. Take care! Jerrod

Subject: Re: Tweakin' Two's
Posted by Wayne Parham on Sat, 09 Aug 2003 19:15:23 GMT
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I didn't think you had modified the cone, but it is a fairly common practice regularly discussed on other forums. A popular modification is to apply material to coat the speaker cone. I've done that a few times, but only when I was very young. I tried model airplane dope, paint and glue - Sometimes for looks and sometimes to change the cone's weight and stiffness. But I realized pretty quickly that doing stuff like that by hand wasn't very consistent.About the plastic horn of the tweeter, I'll have to cover them with clay or tar or something and test it out. The midwoofer energy probably excites the plastic just a little bit, so maybe adding something like this will deaden it. Honestly, I've never noticed a sound from any of the plastic horns, but it sure can't hurt to cover 'em with clay and give it a go.

Subject: Re: Tweakin' Two's
Posted by Matts on Mon, 11 Aug 2003 14:03:22 GMT

I damped the back outside of the tweeter and the basket of the woofer with Dynamat Xtreme in my Two Pi's, and was very happy with the results. The Xtreme version is a constrained layer material that has a lot more damping than the asphalt version. Available usually where good car stereos are sold.I noticed a clearer & tighter sound, and the bass notes improved more than the treble, even when I had only damped the tweeter. I was wondering if maybe the frame of the tweeter had some resonance that absorbed some bass notes. Was well worth the small amount of material it took- I had bought it to dampen my CDP and it made a much larger improvement there- but that would vary from player to player.