Subject: Re: bad breakup
Posted by ToFo on Tue, 20 Dec 2005 00:04:39 GMT
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Regular paper cones do have issues, but they can sound great. I think they throw off a lot of people because they often sound better than the measurements would suggest. The exotic cones can easily beat the rigidity to weight ratio of straight paper, but paper is quite rigid as well as being self damping unlike magnesium. With a lot of exotics you must cross over low and steep, and/or with a notch filter to avoid the dreaded breakup of these drivers. Paper if more forgiving at the extremes. Something like my Theater Four Pi's would be near impossible to do without a paper woofer. A rigid carbon or metal woof would never behave all the way to crossover frequency and the hyper self damping and extra flex of polypropylene would be far too lossy to ever give the require SPL. So in the case of a high output, low distortion, full bandwidth two way, there aren't many alternatives. If you go to a Home Theater store, you will see lots of poly and a few exotics, but when you see guys running low watt amps, or high dB's (or both)in medium to big rooms, you start to see a lot of paper.There are a few paper examples for the best of the bleeding edge of ultra high end as well. There are so many ways to acomplish all these things. A great designer could make a nice speaker with diamonds or cardboard. Paper will always have a place though. Right now we have Scan Speak slit paper mids re-defining high technology midrange, Alon used an old school paper & alnico approach from Vifa in a hip dipole midrange application, and Iconic is keeping the Altec thing alive quite nicely. I do see the other materials ratcheting up a notch too. Seas magnesium 7" that can work in a two way for a small room! Scan Speak is doing metal cone woofs now, so I think tings are getting pretty cool all over. Seem weird, since Home Theater and Best Buy has all but cleared my town of anything more exotic that entry level monitor audio. Then again, that may be why the hi-fi big dogs are trying so hard to please. It's hard to figure sometimes.Thomas