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Subject: bad breakup

Posted by [ToFo](#) on Sat, 17 Dec 2005 04:41:10 GMT

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if it's just rising response from the collapsing directivity of the large driver then you are right on. you can set the crossover electrically lower than your real acoustic target. You will not get an ideal summation of the two drivers, but you can take steps to insure you don't cancel out either (or just hook the tweeter up in and out of phase and see which is louder at your crossover frequency, and hope for the best). A calculated second best is not necessarily a bad thing. Cone breakup resonances are another matter altogether. I believe all the big drivers have some past 800 Hz or thereabouts, so it's more a matter of how bad are they and which sound least offensive. There can be a lot of sound still coming off the cone after the event is over because the cone is ringing like a bell at certain frequencies. You can cross it over or EQ it all you want, but it can still quack like a duck if the driver is spikey up high. I heard a frat party system once that had a hot 18 crossed to a small 3500 hz horn. Didn't matter what the instrument was, handclap - quack!, Snare - Quack!!, saxophone - QUACCKKK!!, you get my drift. Most frequency plots are set so the "pen" moves too slow to show how bad breakup really is, so you just have to be a carefull shopper and find designers/posters you trust (guess your in the right place already). Thomas

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