Subject: Re: Building a Pro Sound Speaker Pair
Posted by Wayne Parham on Mon, 13 Sep 2010 14:42:20 GMT
View Forum Message <> Reply to Message

You can generally swap woofers having similar frequency response and impedance curves up high. The crossovers need rework if the upper end of the woofer is too different, because acoustic phase is off. But in general, I've found that if the response and impedance curves near upper cutoff are pretty similar, the crossover will need little adjustment. The Zobel is sometimes the only thing that needs to be tweaked. Obviously, you'll have to match sensitivity but that's just a matter of picking the right R1/R2 values.

What can throw you off is when swapping a midwoofer without a shorting ring with one that has one. Sometimes, the swap works with just a Zobel change but more often than not, you'll need more modification than that. Another is if moving mass is so much different that the rolloff curves don't match. Of course, too much mass can make the woofer unsuitable for the crossover point, so that's easier to spot. But either way, the point is things that change the phase require modification of the crossover to dial it in. You can usually get an idea how much modification is necessary looking at the raw impedance and response curves.