Subject: FredT's looked so good and Shane complained, so...
Posted by Bill Epstein on Mon, 06 Mar 2006 22:36:59 GMT
View Forum Message <> Reply to Message

...I re-made the super-tweeter baffle and cleaned up the wiring just for you guys.

Subject: Re: FredT's looked so good and Shane complained, so...
Posted by Shane on Tue, 07 Mar 2006 01:48:45 GMT
View Forum Message <> Reply to Message

Oooooo! Nice. I like it!You ought to see the "shop" speakers I have now. Some cheap-#ss Radio Shack full rangers I picked up for $1 each stuffed in the end of a 4L aluminum ether can. They sound like junk, but I'm not afraid to blow em either!

Subject: Re: FredT's looked so good and Shane complained, so...
Posted by Wayne Parham on Tue, 07 Mar 2006 05:00:56 GMT
View Forum Message <> Reply to Message

Looks great, Bill! I kinda dig what you guys are doing with the super tweeter pods.

Subject: Re: I wonder what's going on electrically?
Posted by Bill Epstein on Tue, 07 Mar 2006 12:00:32 GMT
View Forum Message <> Reply to Message

While I had the temporary set-up apart and waited for the glue and then finish to dry I was listening to the basic 2-way: 902 and 2226.Union Station didn't sound that different but on the Redbook layer of the Stones "Hot Rocks" SACD, Mick's voice on 'Jumpin Jack Flash' was breaking glass all over the neighborhood!When I replaced the Vifa, first thing I did was listen to "Hot Rocks" again. The edge was gone to Mick's voice and the whole song sounded a little darker.I have/had the 902 padded 14dB and the Vifa has a 16OhmR in parallel and just the 3.0 cap in series for about a 13kHz cross.Can the Vifa be masking the 902 that much or is there just enough resihttp://img133.imageshack.us/img133/1015/supertweeter0051bz.jpgstance change with the 2 drivers in parallel to smooth out the treble?Besides the tone and improved imaging I also like what the super-tweeter "pod" enabled me to do for the convenience and wire dress of the cross-over.Can you find the cat?

Subject: Re: I wonder what's going on electrically?
Posted by spkrman57 on Tue, 07 Mar 2006 13:25:47 GMT
View Forum Message <> Reply to Message

Bill, You definitely bring up a interesting dilemma. I too have tried using some different horns/drivers with my 4 Pi pro's(as long as I have a JBL 2226 in the house-I have a 4 Pi to be able to use!)Right now there is a ALtec 806-8A on a 811B horn with EV T-35 tweeter. I am using 15 ohm parallel with 25 ohm series(bypassed with .33 ufd cap) and then running through a L-pad.The T-35 is using a .5 ufd oil cap with shunt .5 mh coil and L-pad also.If the tweeter level is to high, the mid horns sound too screechy and if the mid horns are to high, then the sound is shouty.Trying to add a powered sub in the mix adds more phase issues.The reason for the L-pads is so I can swap compression drivers and horns quickly.Ron

Subject: Re: I wonder what's going on electrically?
Posted by Wayne Parham on Tue, 07 Mar 2006 16:06:45 GMT
View Forum Message <> Reply to Message

Whenever I consider the interaction of a super-tweeter with the rest of the system, I always expect it to have dense interference with the adjacent tweeter just below it in frequency. It smooths the response through averaging, because the two tweeters cannot really be coherent. The tweeters form a two-element array that is several wavelengths apart so interaction is complex. It tends to smooth the field. Look at the energy distribution graphs in the pages on this link, and find those described as having dense interference. The document linked is actually about horizontal arrays, but your super-tweeter forms a vertical array with the tweeter just below it, so the concepts are the same, just on a different axis."Dense interference" is when lobing becomes so severe that response actually becomes smoother. It's massive comb filtering, but on a scale that averages the sound field rather than pitting it. Comb filtering generally produces deep nulls in response, but it is most noticeable when the out-of-phase region is fairly large, so there is a wide spot in the room where some band of frequencies is missing. If the interaction is so dense that nulls and peaks form every fraction of an inch (as is possible at high frequencies) then the sound field tends to average out.

Subject: Re:Dense interference; that's a good thing,right?
Posted by Bill Epstein on Wed, 08 Mar 2006 00:51:39 GMT
View Forum Message <> Reply to Message

Or at least the smoothing.There's no need to hire a patent attorney, then?

Subject: Yep, it's a good thing

Posted by Wayne Parham on Wed, 08 Mar 2006 04:13:49 GMT
View Forum Message <> Reply to Message