Subject: Theater 4 Tweaking - Wayne?
Posted by Garland on Thu, 16 Mar 2006 11:50:17 GMT
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Hi guys,A post from a few days ago by Tofo mentions using a blanket of fiberglass hung from a cross brace to improve the sound of certain drums in the Theater 4. I am curious because I feel perhaps the sound with my Theater 4s could stand a bit more impact from drums. I have always wondered if my use of dense felt carpet padding against the cabinet walls under the 2" or so of poly batting may have over damped the boxes and dulled the drum "kick". The insulation is placed in the recommended locations. Do you think I should rip out the carpet padding and just go with the looser stuff i.e. fiberglass or poly batting? And can you comment on the purpose and effect of the blanket?FWIW, my cabinets are baltic birch front,rear,top, and bottom and MDF sides.Thanks!Garland
Tofo's post

Subject: Partitioning layer of insulation
Posted by Wayne Parham on Thu, 16 Mar 2006 14:50:20 GMT
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Thomas is referring to a "partitioning layer" of insulation, spanning the cross-section. This is the

that long waves pass right through it so bass is unaffected but midrange is trapped by it and attenuated. Insulation lining the walls helps absorb sound too, but spacing the insulation away from the cabinet sides helps its effectiveness at lower frequencies, down into the lower midrange.

Subject: Re: Partitioning layer of insulation
Posted by Garland on Thu, 16 Mar 2006 17:56:01 GMT
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Wayne, what is your take on my carpet padding? Might that be damping the impact of drum strikes? You may recall that I had felt that the Studio 2s I had made for a friend was better on rock than my Theater 4s though the 4s were more refined sounding. I worry that this difference may be showing a problem I might be having in the drum strike impulse responce(?). I may just rip out the padding just to see but I imagine it's not going to be easy to re-line the cabinet through the woofer hole.Thanks for any suggestions.Garland

Subject: Re: Partitioning layer of insulation

Posted by Wayne Parham on Thu, 16 Mar 2006 21:51:40 GMT
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It's hard to say. In general, the thinner the layer, the less it does. Absorbent material is best

the absorbent material thicker or space it away. The lower you go, the thicker the padding would have to be. But if that requirement would result in having too much fill, spacing it out becomes a better option. If the crossover point is low or the box is small, it doesn't matter too much but if that isn't the case and standing waves can setup in the midrange, sometimes a partitioning layer or two is the best way to go.

Subject: Re: Theater 4 Tweaking - Wayne?
Posted by ToFo on Fri, 17 Mar 2006 03:22:45 GMT
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Hi Garland,I don't want to overstate. It's a little thing I'm sure, but I heard it straight away. I like the partition config because it magnifies effect. The same effect that led me to spend an afternoon in a mask with yellow cotton candy glued to my gloves, so more for free is good to me. I will do all my boxes like this now, guess that says it best.Wayne mentioned the lower mids, and thats just it. It seems like everytime I have to add eq to a kick drum track it's the mids. I find it mostly from 250-1000 Hz. I used to never associate this range with this instrument, but try it. Put a song with a snappy(but not clicky) bass drum sound(I like "Home at Last"[Steely Dan - Aja]) in your Windows Media Player and turn the EQ's 250-1K range all the way down. Sure you still hear the drum, but the toe tappin' snap is gone. I realize cabinet colorations are a lot more subtle, but we're going for frequency range demonstation here.Thomas