Subject: Re: Baffle wall
Posted by Wayne Parham on Fri, 27 Apr 2012 15:39:13 GMT
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A couple of posts about the subject of soffit mounting:
4Pi soffit mounting
3Pi wall baffleThere are a few linked pages in each of those threads. Be sure and read the content contained in each of the links because they describe the underlying issue - which is actually directivity. In-wall mounting makes the minimum radiating area be halfspace, so there is no transition from freespace.

About the surface of the back wall, if the speaker are flush mounted, it doesn't matter what the surface is because it will not act as a reflector. If the speakers are pulled away from the wall, then reflectivity does matter and it could benefit from damping. The problem is the frequencies you really need to damp are so low nothing really works.

At high frequencies the speaker is directional enough that the wall behind is not an issue. At lower midrange frequencies where the reflection can be a problem, no damping material helps. It's not thick enough. That's the reason we use flanking subs - Their job is to reduce anomalies caused by the nearest boundaries, the back wall being the biggest offender.
Speaker placement and wavefront launch
Room modes, multisubs and flanking subs