

I love the looks of that cabinet. The cork front is a nice touch, as is the rabbet edge. Good work!

Looks like a nice little Bottlehead system too.

prevents excessive energy way down low. You can't really tell it's there, it's just a snubber, an impedance control device. Again, it just protects the tweeter from getting excessive energy down low.

Now for the cabinet. I see that you installed the port on the back. This change, paired with the change of stuffing material is probably what has caused the differences. Could be that the polyfill has settled over time, and has become less effective at absorbing midrange standing waves.

I suggest installing fiberglass insulation before evaluating any other changes, like the larger coil. Your 0.6mH coil is not so much bigger that I would expect to make a huge difference, but still, let's get back to a baseline. You can't really do that since the port is in a different position, but I don't think that will be a problem if you use R11/R13 lining the walls. Might want to cut a hole in the insulation where the port is though, or perhaps line the front instead of the back. But definitely go with fiberglass insulation, and then see where you're at.

I've tried other damping materials over the years and find most to be lacking, some really bad. What I often find in other padding materials is they are less effective at attenuating midrange. Sometimes not only that but they can also modify cavity resonance and detune the box. I'm not sure if the problems with other materials are that the fibers are too heavy and/or rigid to vibrate and absorb energy or if it's more of a bulk/mass thing where the sheets just acts like a solid block. Could be a little bit of both. But whatever the case, I find good old fiberglass insulation works best.

Fiberglass insulation may be a little irritating to your skin when you install it, but once it's there it doesn't enter the air. The sound of the loudspeaker may vibrate the fibers, but they don't break free. And glass is a quite benign, really. It does not cause cancer, and is probably one of the safest fibrous materials to use. It's not like asbestos, but probably gets associated with that in some people's minds because it looks similar. So I think it is probably the best, safest and most effective material to use for this purpose. I find no downside to using the stuff.

Beyond that, I often tell people not to make cabinet mods without testing. The reason is you don't want a port to be in a pressure node of a standing wave. All cabinets have internal standing waves, and that's why we use insulation inside, to attenuate the standing waves.

Large cabinets are particularly sensitive to cabinet mods because internal standing waves are at low enough frequency the insulation is only partially effective. So the positions of the midwoofer enough that the standing waves are in the upper midrange where insulation usually does a very

good job. So they tend to be a little less sensitive to cabinet mods, provided the insulation is effective.

That's why I suggest using fiberglass insulation - It could be that you've put the port in a pressure node that causes a midrange peak, and the polyfill you are using is unable to attenuate it. But once you use fiberglass insulation, I think the port position will matter less. Should get you back to where you want to be and sounding good.