Subject: Re: Ruined system horror stories
Posted by Wayne Parham on Tue, 13 Dec 2011 22:32:41 GMT
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I've been very lucky with my children and my pets. They know I'm pretty careful with my sound system equipment and with my cars, so they don't mess with them. Maybe it helps that my speakers have horns instead of cones with delicate voice coil covers. Those seem to be finger magnets for kids.

But I do have two stories, probably mostly the kinds DIYers might relate with.

I didn't totally avoid the voice coil cover poke-in dilemma. The drivers I use have pretty tough voice coil caps, but they aren't completely immune to damage, of course. One time, I had a JBL 2226 with a damaged cone that I had reconed. Can't remember if it was from damage to the cone or to the cap, but I do remember that I took the speaker while the glue was still setting. Normally, I would leave it overnight but this time, it just made sense to take it with me. I kept the speaker facing cone-up for the short drive back home, cone taped in place, glue tacky and drying. It arrived perfectly, and I set it in my office, again, face-up and closed the door so no cats would get in.

Evidently I trapped a cat in the room. And what's the most comfortable spot for the cat? Why of course! On top of the freshly coned speaker. Must have looked like a perfect little cat nest.

So when I realized the cat was missing, looked around a while and eventually looked last in my office, sure enough, there was the cat perched in the basket. Nice. The new cap was dented, glue had hair and no telling what all else. It was so great to take the speaker back the next day for a fresh recone, and get the razzing from the shop. Needless to say the speaker stayed overnight this time.

Next one is even funnier, at least to me. Only funny in hindsight, though, because when it happened I was mortified.

Some of my horns have dead air spaces and occasionally, I've opted to fill those spaces with expansion foam. When done properly, the foam makes the dead-air space more like a solid mass but adds very little weight. So it is great to drill a couple holes, fill with expansion foam, and then put a plug in the hole after the foam cures.

First time I did this, the expansion foam I used gave an estimated expansion volume, which I use to calculate how much to inject. I actually only went about half the calculated amount, thinking I would wait a while to allow for expansion and then add more as needed. I was sure this was a safe process, because I had tried some foam out in the open and saw how it expanded.

What I didn't consider is that the foam does not flow and fill a void, nor does it expand homogenously. It appears to - out in the open - but when it comes in contact with a boundary, it tends to apply pressure to the panel right away rather than expanding to fill the void. Even when the volume is only half full, it can apply enough pressure to burst a container at the points of contact. You can bulge the sides even when the box is only half full. So much to my dismay, I

watched an expensive horn swell long before the foam filled the cavity. It ruined the cabinet.

I realized that this stuff doesn't really flow - it sticks and swells immediately. It isn't safe unless it is applied in a lot of places, filling the cavity a little at a time. You can't expect it to flow much at all, and you have to apply it in many small areas instead.
