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Subject: Re: 4 Pi Screws

Posted by [Wayne Parham](#) on Mon, 01 Oct 2012 17:54:04 GMT

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I like using T-nuts for the larger drivers, 10-32 size button head or hex head screws. Wood screws are fine for dome tweeters and small cone speakers, but I do like something a bit more substantial for horns and larger prosound drivers. Some people prefer threaded inserts - and those are great too - but I've worked through all the problems you commonly run into with T-nuts so I'm good with them. The trick is to get good T-nuts (like from Midwest Fastener) and pull them into the wood before assembly.

Don't beat them in with a hammer, and don't pull them in place when you're putting the speaker together. Use a washer and a sacrificial screw (or three) to gradually pull the T-Nut in by tightening it down. Only use the screw to pull-in three or four T-nuts, then discard it and get a new one. I also recommend a drop of PL adhesive on each T-Nut to hold it firmly in place.

Don't skimp on this step. You are planning for the T-Nuts to last the life of the cabinet, and to provide you with trouble-free, serviceable access. If you install them as I've described, they'll be that for you. But if you don't, they can be a real pain.

Every time I hear of someone complaining about T-Nuts, it's because they've failed from one of these causes:

1. Tapped the T-Nuts in with a hammer - The tangs bent, and the T-Nut is loose, held only by the screw clamping force. So when you loosen the screw, the T-Nut spins. Makes it really hard to get the speaker out for service.
2. Didn't put a spot of epoxy on the T-Nut - Even if the tangs go in straight, a few knocks on the head of a partially loosened screw can make the T-Nuts come loose. They hold pretty well, but it's easy insurance to add a dab of PL adhesive during assembly. Just a dab though, don't get any on the threads.
3. Pulled the T-Nuts in with a screw, as described, but used the same screw over and over again, damaging the T-Nut threads - Sacrifice the screw, only use it to set two or three T-Nuts. You don't want them to have damaged threads, 'cause once they're installed, they're permanent.

Put 'em in right, and they'll last a lifetime, giving you trouble-free serviceable access. But put 'em in wrong, and you'll be frustrated to no end when it's time for a woofer to come out.