Subject: Speaker Tweaks
Posted by bsolof on Mon, 04 Dec 2017 14:30:54 GMT
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Been futzing with the 2 Pi Towers and have made some nice sonic changes. It's all speaker building 101 stuff but it's worth mentioning as it's made some nice sonic improvements without spending any real money.

The 2 Pi Towers are open and clear sounding, dynamic as all get out and will reflect any change to the system clearly. They'll take on the character of whatever you feed them.

When the towers were first built there was duct seal put on the frames of the woofers and on the backs of the tweeters. I recall liking these changes. In my somewhat limited experience most pressed metal frame woofers sound better with something like duct seal or rope caulk on their frames. It's cheap and easy to try and if it doesn't help you can always remove it.

Unfortunately there was a bit of midrange and particularly high frequency hash/grunge/ugliness when the speakers were played loud. It's never been a big deal as most of my listening is generally lower or medium volumes but it always bugged me. Wayne's 2 Pi Towers at the Lone Star Audio Fest didn't have this issue so something was wrong with my build.

First new tweak: the plastic tweeter flange was slightly lower than the wood baffle and there was a ridge where the plastic and wood came together. So a bit of weatherstripping was put behind the tweeters and they were tightened only enough to level the plastic tweeter frame and the wood of the front baffle. This probably took about 1/2 of the grunge away.

The weatherstripping behind the tweeters was only in a few spots so there was no way of knowing if there was a good air seal between the tweeters and the cabinet anymore. So a bead of rope caulk was run round the back of the tweeter where it comes in contact with the wood. This not only ensured there was a good air seal but added a bit of vibration control. This was audible, too. It didn't change the bass so there probably wasn't any issue with the air seal but the mids and highs did get more refined with the rope caulk. Subtle but audible.

OK, if the seal on the tweeters were suspect we might as well attack the woofers. So a strand of rope caulk was placed between the woofer and the wood. It's most definitely air sealed now and has a bit of vibration control, too. It's audible.

Last tweak was done while the woofers were out. The wires from the binding posts were routed a bit differently to get as them as far away from the woofer magnets as possible. I won't lie, there was duct take involved, too. Turned the woofers upside down so the wires are at the bottom of the baskets to keep them as far the magnets as possible. I've moved wires away from magnets on other speakers in the past and found it clears up a lot of noise and grunge.

All of these tweaks have refined the sound quite a bit. Notes are clearer and the soundstage has improved dramatically. The speakers now sound better loud and sound better at lower volumes, too.

No way to tell which tweak was "best" but they all added to the refinement of the speakers. They

are still clear and open sounding but the notes are more articulate and perhaps a bit more textured.

Good tweaks. Cheap, easy and reversible.