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Subject: Re: Boomtoobz

Posted by [Martin](#) on Fri, 19 Mar 2004 14:27:14 GMT

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Hi Lon, "My pipe diameter is standard 4" with the fittings. I do not have golden ears for listening to what's here... more like cabbage ears." So you probably have an  $S0/Sd$  of about 1.6 which is a little low but not too bad. As a TL's area gets bigger the bass response gets better. I have found that this effect starts to reach a diminishing return at about  $S0/Sd = 3$ . The classic rule of thumb recommended  $S0/Sd = 1.25$  which in my opinion is too small and chokes the bass response. "My 1197s are blue box and cost about the same. I read about them in the forums and so word of mouth sent me to the store to go see if there were any left." I did the exact same thing, I hit every Radio Shack I came across in my daily travels. I think my wife even hit the mall stores and scored a couple of the 1197 drivers. I think we have the same versions of the 1197 drivers." As part of this dialog I began reading your introductory pages the t-lines but am not very far with that yet so I don't have any sensible sort of questions. I'm moving the 1197's from one project to another. They started out in cardboard boxes. "I bet you are learning a lot and having a great time in the process.

If I were to recommend a classic TL per my understanding of the topic, I would recommend the length I previously posted and a pipe diameter of at least 5 inches. If you could find a way of mounting the driver 20% to 33% along the length you would get additional improvement. Maybe a "T" could be used. "I had wondered how SPL effects pushing the sound through such a long length... or which of the parameters addresses the issue of pushing the sound through a long length." The sound does not really get pushed through the length. The pipe responds at discrete frequencies that are related to the length. At these frequencies the air in the pipe resonates, attenuates the driver's motion, and almost all of the sound comes from the pipe's open end. This is similar to a BR but at more frequency values. "Send me a mail with your address. I will take some snaps and send them to you. The footprint of these things isn't really that large. Both toobz sit on a piece of chipboard shelving I get for \$.69/ea. The shelving is 10 1/2 inches by 23 1/2. I'm reminded of some recent postings in the Full Range Driver forum which related to building with sonotube. More dimension is available with that and the upshot of the article was that sonotube sound (which I figure is similar to what I have) sounded better to the listeners than more expensive rigs in the same room." I used a sonotube for my test TL and it worked great. I seen many TL designs using sonotube both tall straight ones and folded ones using nested tubes of different diameters. If you can cut cardboard easily and glue joints that are air tight then sonotube would probably be as flexible to use as the sewer pipes. Nothing wrong with cheap and easy. "I have not found any fault with the boomtoobz except insofar as announcers on their various mic setups can sound from ok to peculiar. But those shortcomings are transparent when listening to concert performances like Pipe Dreams and other classical reproductions. To conclude, you said up there that a 3/4 wavelength pipe would be a total of 10 ft. What could I expect by adding on another short length to go the full 10 ft. distance? Would anything be gained?" I have no idea how a 3/4 wave pipe would work and if there is an advantage or disadvantage to using one. I always try to keep things small. TL's tend to be big enclosures and I struggle building big boxes and getting up two flights of stairs from the basement to my listening room. "Since the 3 ft. 4" length for a TL is pretty close to my shorter tube, I'm thinking that the driver should be on the shorter length which would be closer to listener's sitting height and the back tube would be open and may not even need an elbow for "directionality" if I'm reading what you're saying correctly. In that configuration it'd probably look more like a calliope." I think that this experiment would answer the question above. Try the two different lengths and see what you hear. Maybe one will be far superior to the other.

The proof is in the listening. "Which way to go for a driver upgrade or leave well-enough alone?" The two manufacturers that come to mind are Fostex and Tangband (spelling?) for an upgrade that would not cost an arm and a leg. I don't know anything about Tangband and have seen mixed reports on different models. Some appear to be very good and others are reported to be not so good. In my gallery is a back loaded horn using one of these drivers and it is reported to be excellent. I think any of the smaller Fostex drivers would be a step up but at a little more money. Hope that helps, Martin

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