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Subject: Construction details: crossover parts and fiberglass insulation

Posted by [Wayne Parham](#) on Wed, 05 Sep 2001 06:12:56 GMT

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About coil wire guage, 18 guage wire is acceptable but 14 guage is better. The difference isn't really in the highs, it's the lows. Coils with larger conductors have lower resistance and this improves damping. The speaker is slightly overdamped though, so smaller coils that shift the alignment towards less damping aren't terribly troublesome. Still, I'd prefer a larger conductor with less resistance. As for insulation, line the back, bottom and side nearest the port with R11 or R13 insulation. In larger speakers with braces, lay a sheet on the braces spanning the cross-section of the cabinet. Braces should be installed approximately every 18" of linear panel, and cross-section standing wave insulation barriers should be placed there as well. These steps serve to reduce midrange standing waves inside the cabinet, and prevent them from entering the port. Failure to do so will cause the speaker to sound hollow and resonant.

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