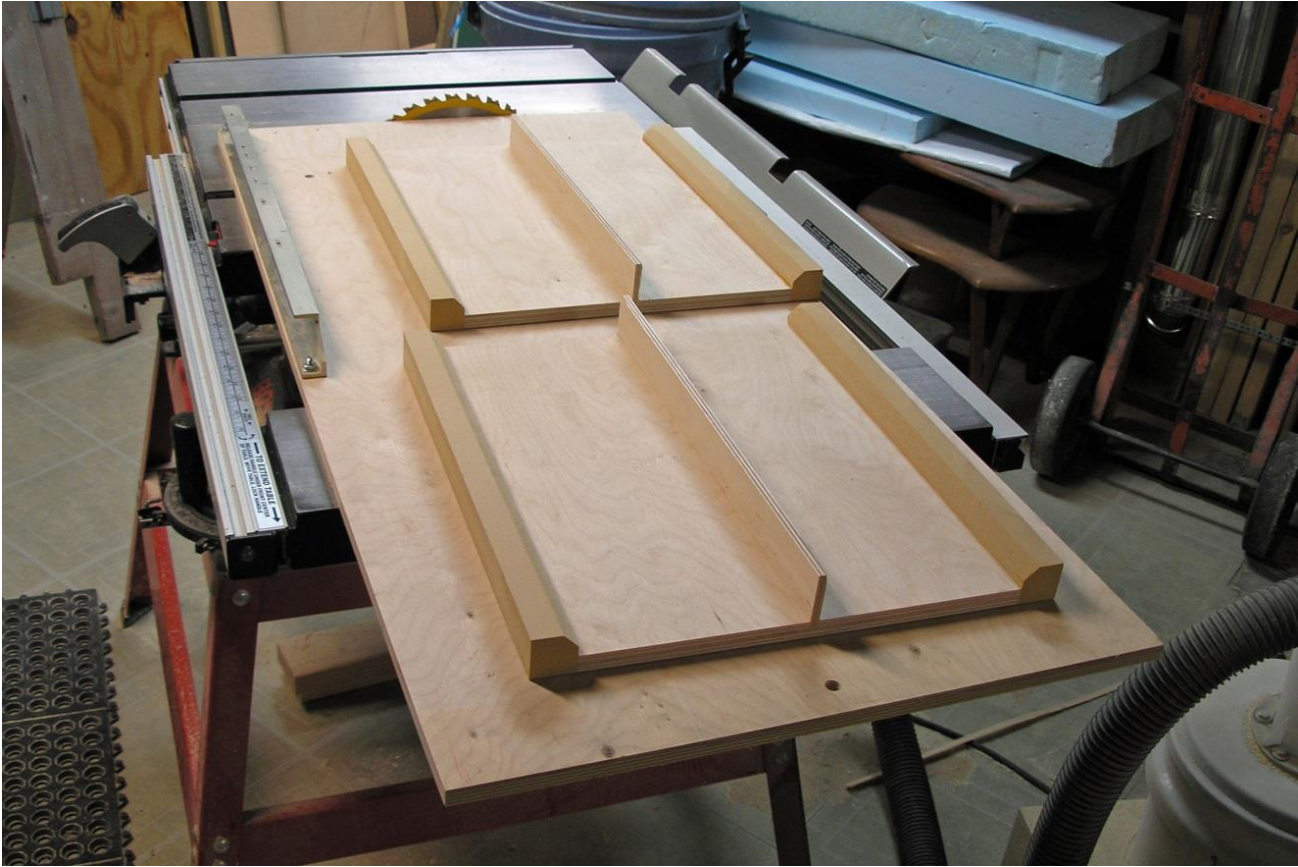


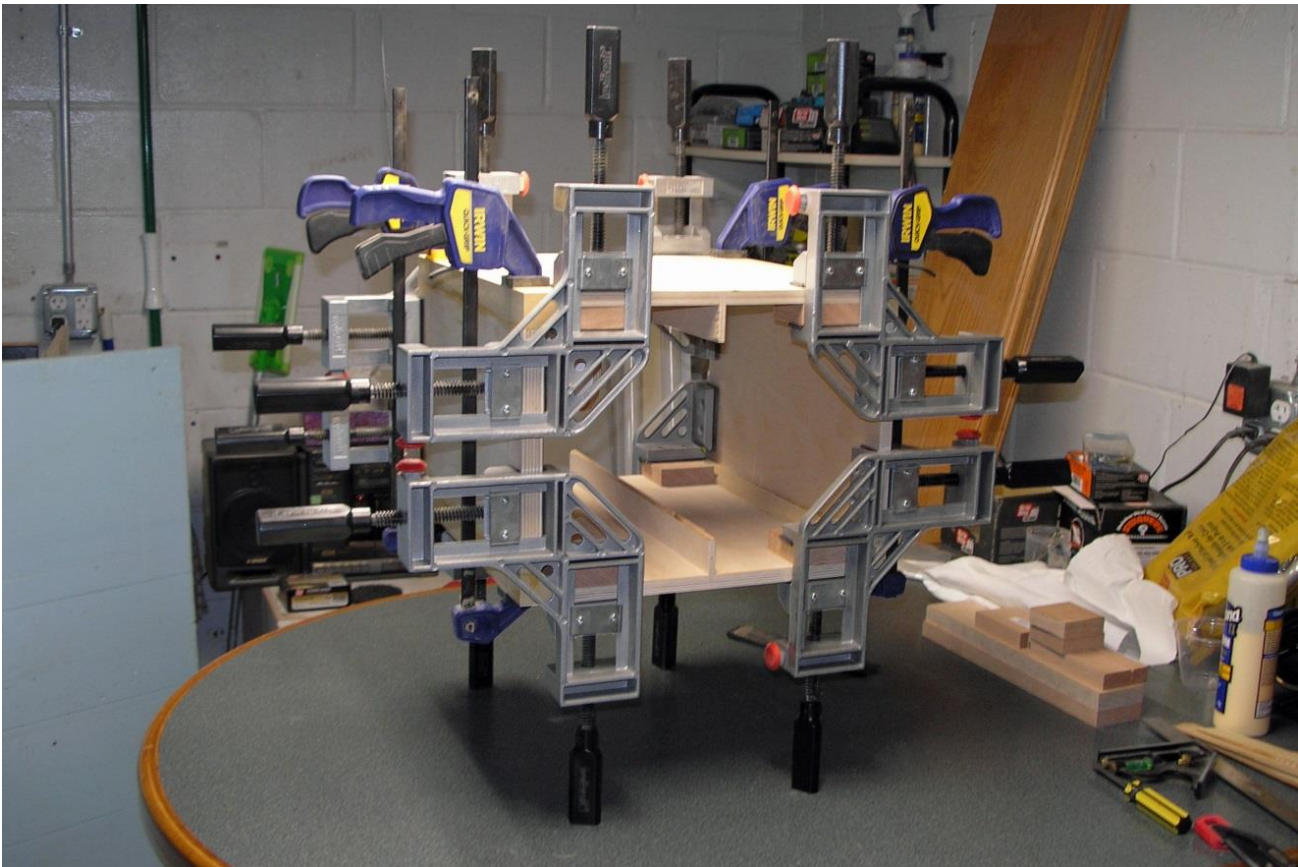
I built these speakers as wedding presents for my sister-in-law (affectionately known as evil Barb) and her new husband Steve. I started with side panels made of 1/2" Baltic birch plywood with 1 1/8" corners made from MDF stair treads. I added a 1/4" rib glued into a dado cut to use for internal bracing later in the build.



I made a rear chamber for the mid from a piece of 3" mailing tube and baltic birch and pre-wired it before the cabinet was glued up. The front panel is  $\frac{3}{4}$ " BB.



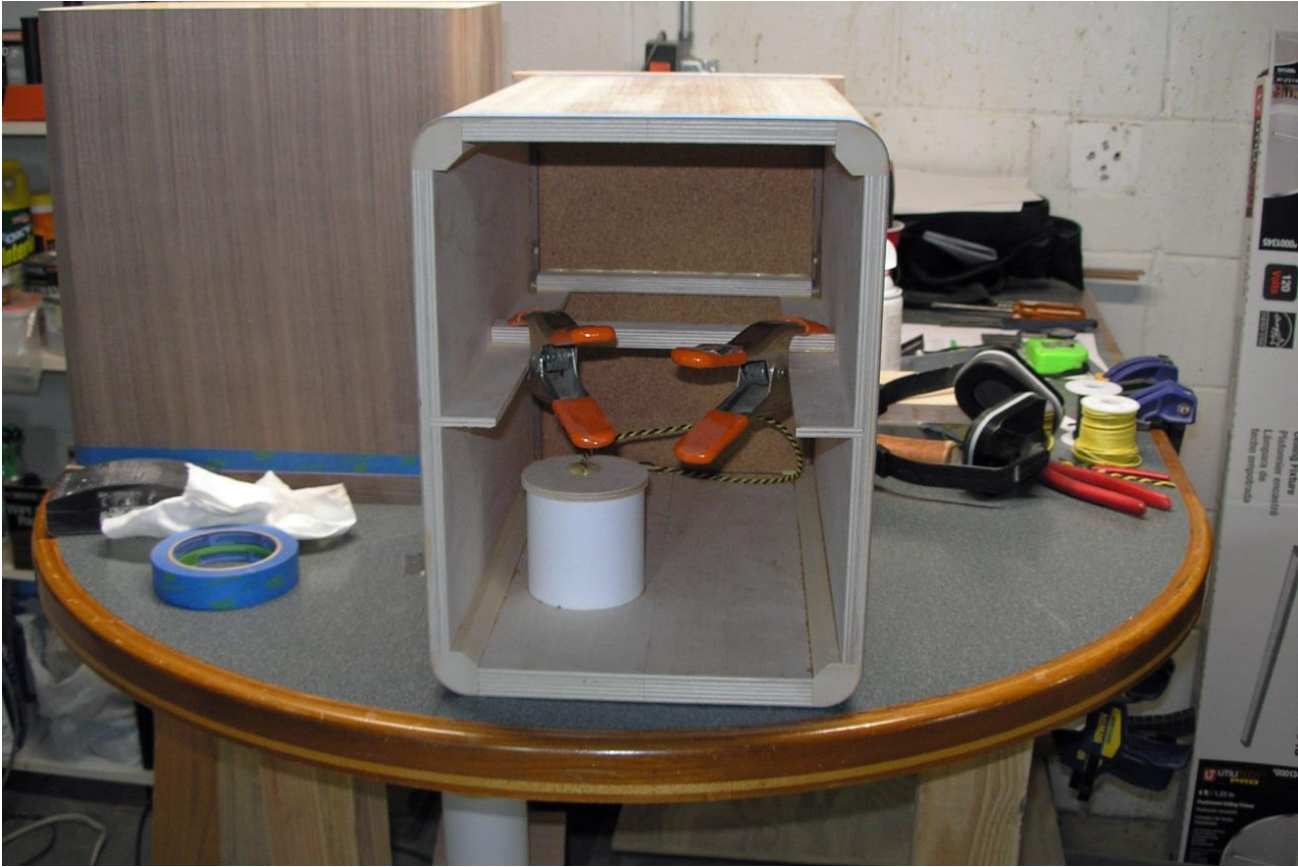
The sides were glued up.



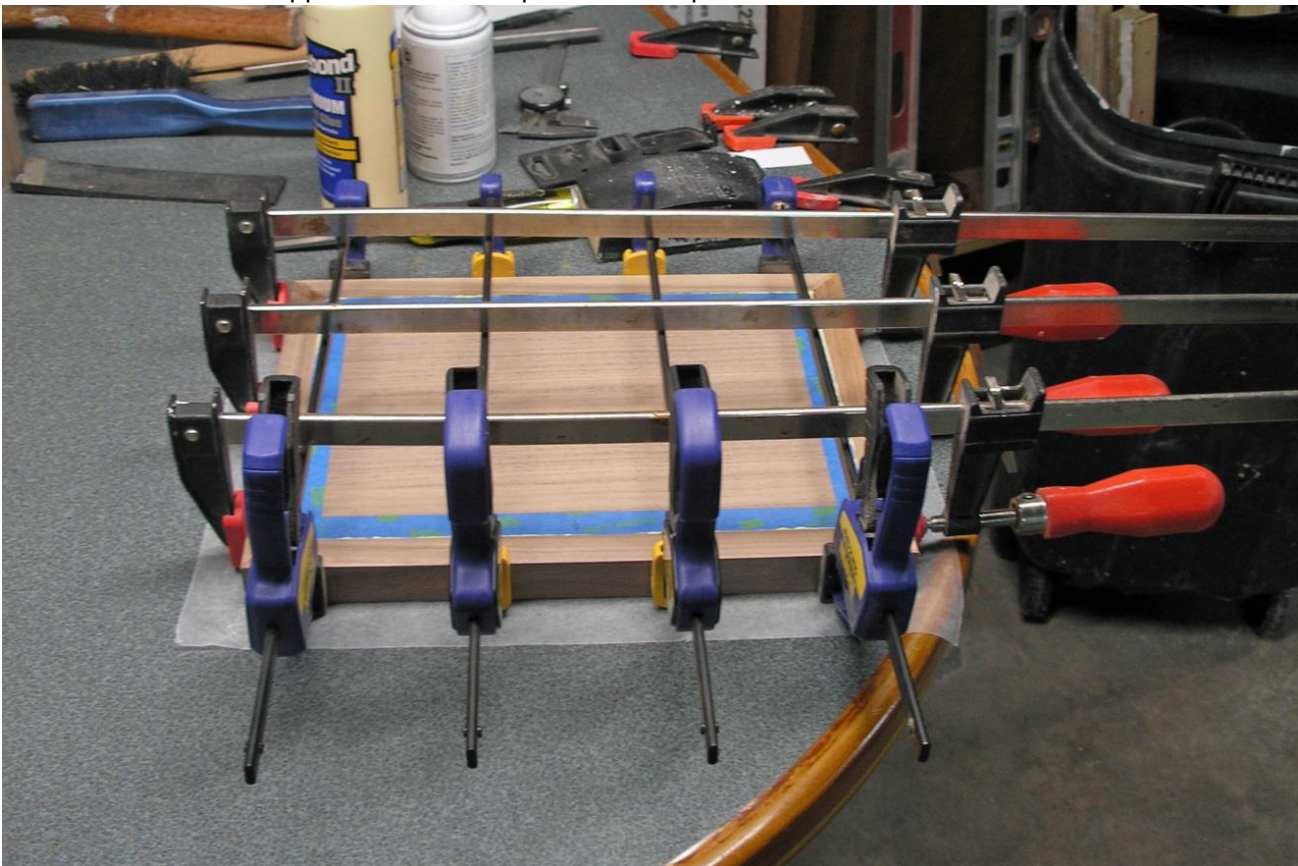
The box corners were rounded over with a 1" round over on the router table and the quarter sawn walnut veneer was wrapped all the way around the cabinet with a single seam in the back. I used the iron on method.



Cross bracing is glued in place.



Hardwood trim was wrapped around the top and bottom panels.



The finished tops and bottoms.



The tops and bottoms were glued on.



I trimmed the corners on the table saw before using a router bearing bit to trim the tops and bottoms to mate with the cabinet sides and then I added a slight 45 degree chamfer on the edge.



I finished the cabinets with a couple of coats of Watco Natural Danish Oil and waited 72 hours before putting several coats of Minwax wipe-on poly on.



The remaining driver cutout were cut.

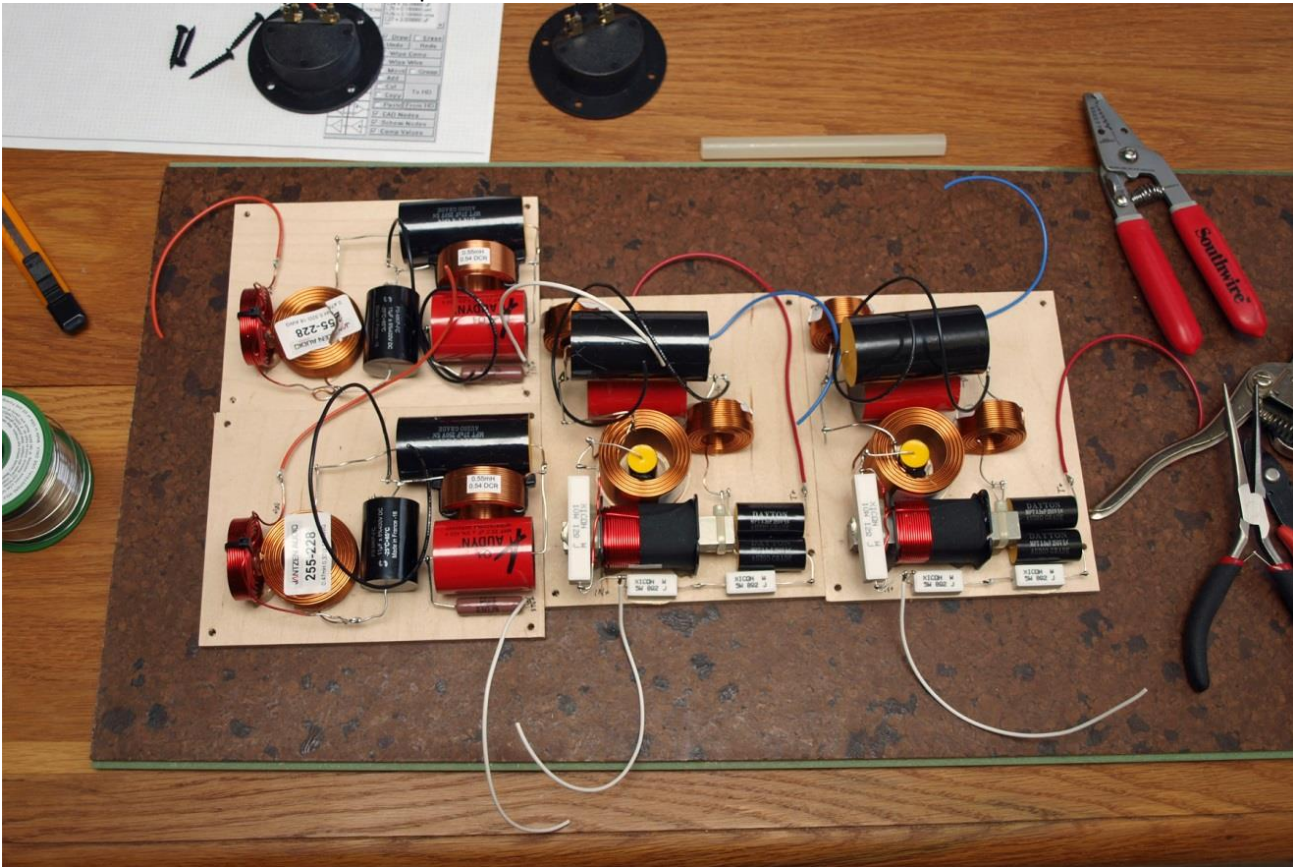


After the rebates were cut using templates and a top bearing router bit the drivers were test fit.

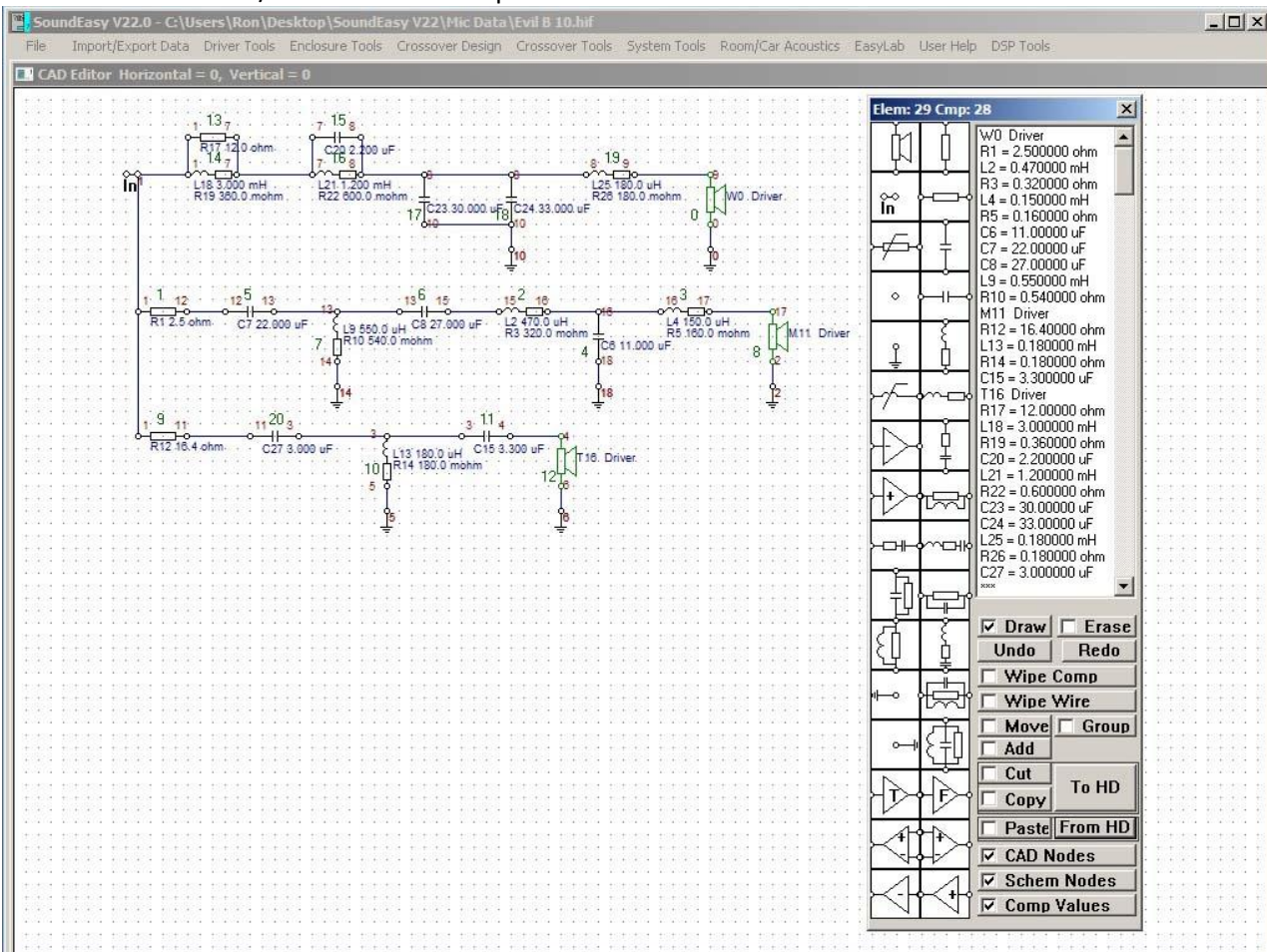




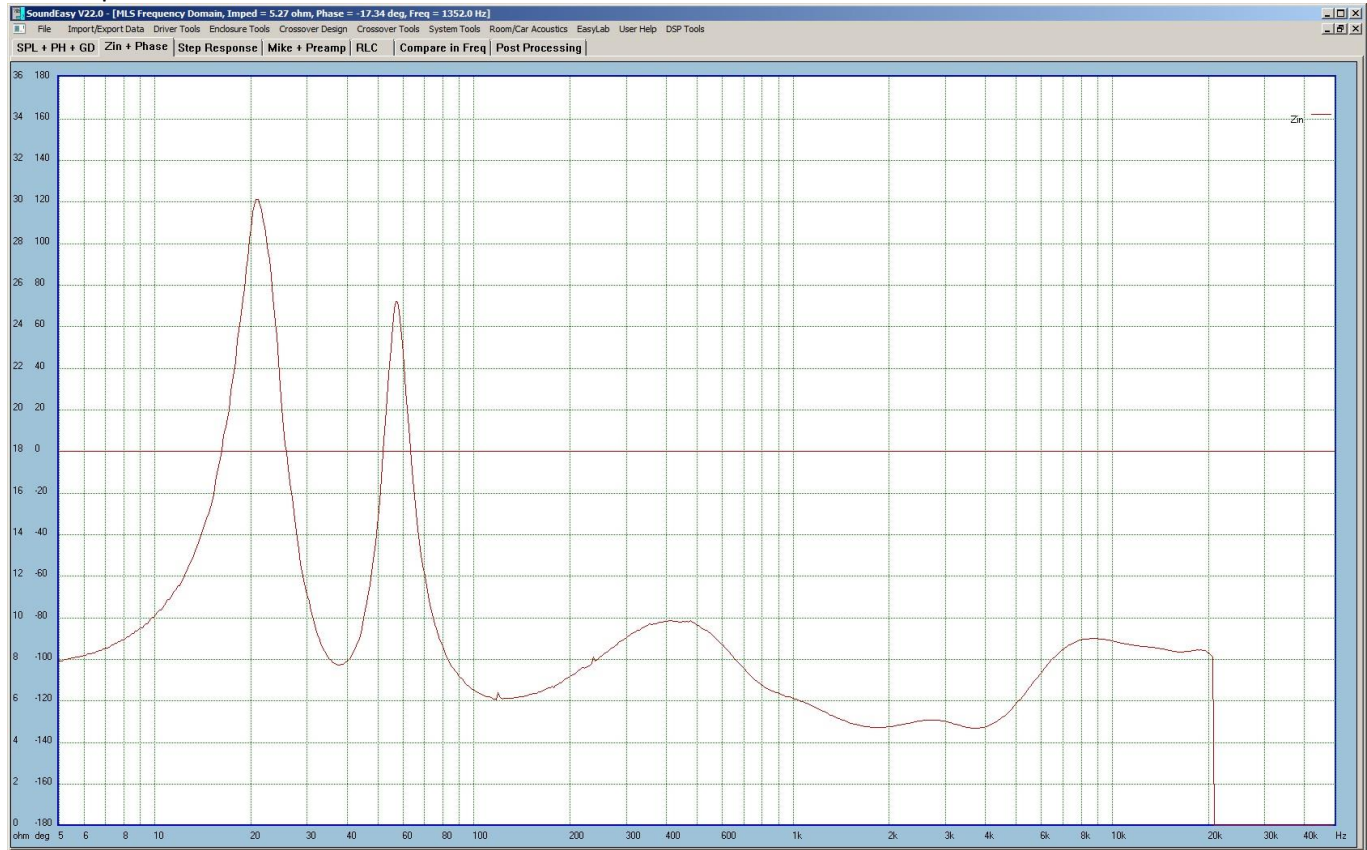
The crossovers were built on multiple boards fastened to the inside of the cabinet with screws.



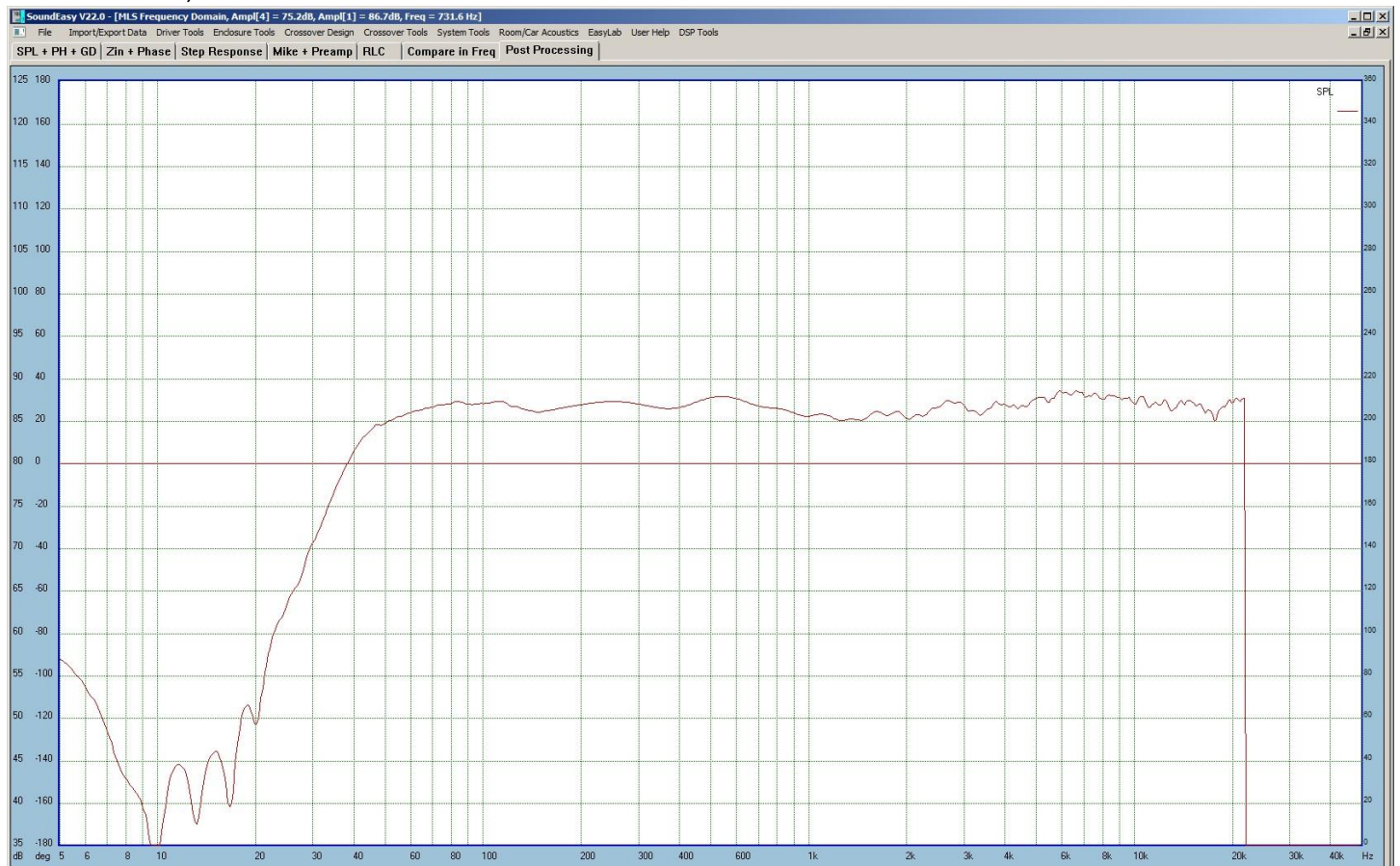
The crossover is 18db/oct with crossover points at 800 and 4K.



# Final Impedance.



# Final FR. 1M FF, Woofer NF and Port NF.



Finished with 3"x 8" port made with a piece of hardwood walnut trim and PE 3" plastic precision port. The internal box volume is .85 cu. ft. with a port tuning of 38Hz.



At DIY IA 2017. (Photo by 4thtry)



The drivers are the Dayton DSA215-8 woofer, Peerless 830985 mid and Peerless da25bg08-06 tweeter.

<https://www.parts-express.com/dayton-audio-dsa215-8-8-designer-series-aluminum-cone-woofer--295-530>

<https://www.parts-express.com/peerless-da25bg08-06-1-aluminum-dome-tweeter-6-ohm--264-1460>

<https://www.parts-express.com/peerless-by-tymphany-830985-2-1-2-full-range-woofer--264-1050>

I'm really quite pleased with how these turned out. They sound good. For those wondering about the new Peerless tweeter I think it's quite good although crossed at 4K probably isn't too much of a test for it.

Ron