Subject: Advice building bass cab
Posted by notben on Fri, 20 Aug 2010 16:28:50 GMT
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Hi folks. I'm fairly new to the forum. As someone who has built a set of Pi speakers, I thought I would come here for a little help or advice.

I have all the materials to build a 1x12 Bass guitar cabinet using the Eminence Beta 12 driver: http://eminence.com/pdf/beta-12a-2.pdf

I plan on building the smaller of the bass guitar cabinets that Eminence details in their cabinet plans pdf, its the second cabinet detailed: http://eminence.com/pdf/cab-beta-12a-2.pdf

I am looking for someone with some experience to let me know if I am on the right path with some of the details, or maybe even if someone has built a box for this driver, what did they do.

The cabinet specs list:
Vb = 1.75 cu.ft
V(total) = 1.894 cu.ft
I am assuming the Vb is the inner box dimension and the V(total) is the maximum one could use.
I am using 11 ply birch plywood which is close to .5" and I have used this site to help me reverse engineer my dimensions: http://www.bcae1.com/spboxnew2.htm
I am using the calculator that allows you to input wood thickness, driver size and then use the sliders to instantly see changes to the box volume.

What I have come up with for outer dimensions is:
16" H
18" W
13".0" D

With inner dimensions of:
15" H
17" W
12" D

Giving an internal volume of 1.795 cu. ft.

And I am going to put the two 3" ports on each lower corner. I am not sure how high from the bottom, but I figured I would center them between the driver and the corner of the baffle.

Eminence says this should give a box with a resonant frequency of 54.15hz if you use their design. I don't know how to check if my calculations are matching up.
Also, I wish I could go lower, but I don't want to build a 4cu.ft. box.

So, does anyone know if I have missed interpreted anything on the designs, or can anyone do any other calculations that may make a better sounding box?

Thanks,

Ben