Subject: Two PI depth adjustment

Posted by Tronographic on Sun, 30 Jun 2024 18:54:38 GMT

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Hey Gang!

So I'm about to glue up the outer panels of my Two-PIs I'm building... And then I see on the blueprints that "all panels are 5/8" Stock ...

Rut Roh!

I used 3/4" Baltic Birch.

The 15x22 dimensions are set at this point as my rabbets are all cut...But luckily I haven't trimmed the depth dimension yet... the panels are still about 11-7/8" deep.

What depth do I make the cabs to compensate for the panel thickness difference?

Also I will be using 5/8" poplar cleats around the inside front and back to glue in the baffles. Do I need to compensate displacement for this as well?

Also, what online speaker box volume calculators are you guys using these days?

Thanks!

Subject: Re: Two PI depth adjustment

Posted by Wayne Parham on Sun, 30 Jun 2024 22:12:55 GMT

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The difference is only 1/8", so you can "grow" the cabinet dimensions this much to keep the volume the same.

Be sure the port length is right too - Its length is from the front of the baffle to the edge of the port inside the cabinet.

Subject: Re: Two PI depth adjustment

Posted by Tronographic on Sun, 30 Jun 2024 22:47:44 GMT

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Thanks Wayne...

I used this to figure out how much to increase the depth to compensate for the thicker panels, since I already had the height and width locked in.

https://www.the12volt.com/caraudio/boxcalcs.asp#rec

Increasing the depth about a 1/2" to 15-1/2" got the volume pretty close to the same as the stock dimensions

So I ended up with about 10-5/8" deep, I had to fudge the volume of the braces and cleats... And my width actually ended up at 14-15/16" after it was all glued up. So I figured better to round up than round down...

Also, if I decide to roundover the port front say with a 1/2" roundover for aesthetics, do I measure the port length from right behind the rounded portion? Basically the straight section of the port?

Thanks!

File Attachments

1) IMG_1642 2.JPG, downloaded 49 times

Subject: Re: Two PI depth adjustment

Posted by Wayne Parham on Sun, 30 Jun 2024 23:21:21 GMT

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There might be some kind of diameter offset formula for various radius roundovers, but I've never looked for one. Without other information, I'd keep the port length as specified from baffle front to rear edge.