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Subject: Plans for trap box 15 and horn

Posted by [Taylor Webb](#) on Mon, 30 May 2005 18:01:24 GMT

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Does anyone know about a source for getting a book/plans for an efficient design using a 2" horn (JBL 2446) and a cast frame 15" driver? Possibly would add a 10" making a three way. I would prefer a trap box design with at least 15 degree angles. PS- I plan to build Bill's DR 250/300 in the future, but I have drivers for these now, and would like to use them. Thanks in advance, Taylor

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Subject: Re: Plans for trap box 15 and horn

Posted by [Wayne Parham](#) on Mon, 30 May 2005 18:41:21 GMT

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I'd suggest one of two types, either a DI matched two-way or a three-way with a simple conical midhorn. The advantage of the two-way is simplicity and the advantage of the three-way is reduced bandwidth for each driver. Either will provide uniform coverage if done right, because the two-way is DI matched and the three-way is horn loaded down to a relatively low frequency. If the woofer is a JBL 2226 or equivalent, which seems to be the popular alignment for 15" pro woofers these days, then you'll want a cabinet between 2.0ft<sup>3</sup> and 5.0ft<sup>3</sup> tuned to 40Hz. Pick the port with the Helmholtz formula below and you're set.

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Subject: Re: Plans for trap box 15 and horn

Posted by [Taylor Webb](#) on Tue, 31 May 2005 10:55:06 GMT

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Wayne: Thanks for the swift reply, and the corresponding formula. I think I will go with the simple two way, as I have both drivers. Forgive my ignorance of mathematics; what variable( constant?) does 'Ve' represent ? Taylor

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Subject: Re: Plans for trap box 15 and horn

Posted by [Wayne Parham](#) on Tue, 31 May 2005 15:14:08 GMT

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Ve is enclosure volume. I think you will be very happy with a DI matched two-way loudspeaker. They are simple and work very well, a high-quality solution. It's one of the best design configurations, in my opinion.

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Subject: Re: Plans for trap box 15 and horn  
Posted by [Taylor Webb](#) on Tue, 31 May 2005 21:24:29 GMT  
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Waynel realized during lunch today, in one of those palm to forehead moments-- V= volume. Not to hard a jump .Thanks again for the advice, and I will be building some newer boxes soon. Taylor

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