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Subject: Horn subwoofer in a car

Posted by [Murilo](#) on Sun, 01 Feb 2004 03:31:09 GMT

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Has anyone ever heard about using horned subwoofer in a car ?If yes, then please tell me about it and send me links if possible.I am interested in trying a horn in my car (in future) because of it's efficiency, accuracy (fidelity) and high power handling (resulting from low excursion).In a car with hatch back, cabin can be used to make the horn seem larger, as shown in my drawing. The air would expand gradually until it reached the front seats and the floor, but by this time it would also reach the window and continue to expand (if windows are open).The purple lines show more or less how would the car extend horn's mouth. The drawing shows a throat would be flat and wide (1 meter wide), so I should use two or more small drivers.If something is used to fill the spaces at left and right of the enclosure (above right and left car wheels) and to fill the F area, then the horn could cover just the A area, leaving the air to expand naturally (out of enclosure) through B and C areas.I have learned that low end efficiency (efficiency at lower frequency notes) is determined by enclosure size, not by driver's parameters. This means: If a driver A is more efficient than driver B, you can be sure driver A will either require a bigger enclosure or will roll off at higher frequencies (higher F3 and F10).For example, for a flat response ported enclosure  $EF / (F3^3 * VB) = \sim K$  where  $EF$  = efficiency playing in half airspace (or 1/8)  $VB$  = enclosure size  $K$  = a value that is always constant But according to horn response a bass horn can do better. This means the  $K$  value will be 2 or more times bigger.

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Subject: Re: Horn subwoofer in a car

Posted by [Wayne Parham](#) on Sun, 01 Feb 2004 13:47:21 GMT

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Good stuff, Murilo! Check out the car audio forum too, 'cause there is some discussion of horns in cars there. Have a look at the posts from Mike.e.

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Subject: I talk to mike.e at messenger every day 8-)

Posted by [Murilo](#) on Sun, 01 Feb 2004 16:30:53 GMT

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I think I am the one who inspires him about using horn in car :)

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Subject: Re: I talk to mike.e at messenger every day 8-)  
Posted by [Wayne Parham](#) on Sun, 01 Feb 2004 17:47:31 GMT  
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What do you do to keep from damaging stuff inside your car and rattling things loose? Seriously.

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Subject: 40hz ? how about 30hz  
Posted by [Mike.e](#) on Mon, 02 Feb 2004 12:48:36 GMT  
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new plansuh oh watch outTomorrow i measure the car-to see if i have to compromise and do a 35hz ,or a BIG mouthed 40hz...eg 4000cm mouthIm not sure which will fit,i THINK i have that much space with back seat down...

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