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, acuracy (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 untill 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 an 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 enclosureEF / (F3^3 * VB) = ~KwereEF = efficiency playin in half airspace (or 1/8)VB = enclosure sizeK = a value that is always constantBut according to hornresp a bass horn can do better. This means the K value will be 2 or more times bigger.
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