Subject: Yes, it's fine
Posted by Wayne Parham on Tue, 24 Sep 2002 01:12:08 GMT
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The difference between a 13" baffle and a 16" baffle is pretty small really. If the speaker with 13" baffle were suspended in mid-air, then what we would have is fresspace radiation up to 250Hz. From 250Hz up to 1kHz, the radiation pattern would more and more closely resemble that of halfspace and by 1kHz, it would be purely halfspace. So the spatial conditions alone would make it have output that rose 3dB over the two-octave region between 250Hz and 1kHz. In the case of the 16" baffle, the frequencies that mark the beginning and end of this region are 212Hz and 850Hz.But most of the time, loudspeakers are placed near a room boundary, such as the walls and floor. In this case, sound radiators are usually constrained at different frequencies. For example, if we have a speaker that has been placed on the floor and the sound source of the 250Hz to 1kHz frequency range is less than 16" off the ground, then those frequencies are bound by half-space regardless of the width of the baffle. In fact, if the baffle were wider than 16", then the system would act as quarter-space even if the cabinet is pulled away from other room boundaries, i.e. in half-space. In this case, the region would have a 6dB DI gain, rather than the expected 3dB that half-space placement offers.So all that just to say that you can mount the speakers on the 13" side or the 16" side and you can expect good performance. There will be a tiny bit of difference, but certainly nothing you can hear. And if you'll position them in a corner, where they'll act as quarter-space (radiators too far off the ground to be eighth-space) - If you'll put 'em in the corners, you'll not have an issue with baffle step anyway because the midrange/woofer will be close to the walls.