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Subject: Re: front baffle size

Posted by [Wayne Parham](#) on Mon, 23 Sep 2002 21:26:05 GMT

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"Baffle step" is caused by the baffle creating a half-space orientation at high frequencies but being too small to do that at low frequencies. It transitions to freespace in a range determined by baffle dimensions. If the speaker is located near room boundaries, then from the lowest frequencies up to 1/4 wavelength from the room boundary, the speaker is constrained in eighth-space, quarter-space or whatever the room conditions are. At vocal overtone frequencies and above, speaker drivers within the system are in half-space because room boundaries are multiple wavelengths away and only the baffle is significant. But there may be a range of frequencies in between these two points where room boundaries are too far and the baffle is too small, and for these frequencies, the radiators operate in freespace. This phenomenon is discussed in Chapter 3 of Augspurger's "JBL Professional Sound System Design Manual."