Subject: Re: A question about open-baffle dipole woofers
Posted by Wayne Parham on Thu, 08 Jul 2004 03:48:20 GMT
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That arrangement reduces second-order harmonics because asymmetries are what cause second harmonics.If there is something in the motor that causes it to have move slightly more in one direction than the other with the same absolute level input, this asymmetry causes distortion. But if two identical devices are paired this way, the "weakness" in one direction is counteracted by the "strength" of the other driver. So each half cycle has one driver that is "strong" and one that is "weak." The combined result is no net asymmetry and a reduction of second-order harmonics.Flux stabilization rings placed in the motor structure are used to help maintain flux symmetry in the presence of AC from the voice coil, so they are added for the same reason, to reduce second harmonics.