Subject: Re: Cone versus compression driver midrange
Posted by Wayne Parham on Wed, 14 Jul 2004 21:53:06 GMT
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Middle C is 260Hz, and vocalists easily sing an octave below that. So the vocal range starts pretty low, and to me, it's nice to cover the range with a single driver. To hit the low notes takes a device that's pretty large.There are several issues at play here, but after all, both compression drivers and cone drivers have electromagnetic linear motors connected to diaphragms. So for each, there's diaphragm strength, shape and weight, suspension and excursion, motor strength and magnetic symmetry. I don't know if you would consider phase plugs to be part of the comparison, but since the diaphragm shape affects phase plug shape, maybe it should be. And then there's also cost to think about.The strength of compression drivers lies mostly in their diaphragm construction. They're designed to be used under high compression, so the diaphragms are made strong. They're often built with a phase plug, so they are able to extend HF response. The strength of cone drivers is in their larger size and greater excursion. They also have more flexibility of magnet structures due to size. There are many large-format mid drivers with flux stabilization rings, and that really reduces distortion.