
Subject: building speakers using kef b139 oval drivers

Posted by [freo](#) on Tue, 13 Dec 2005 08:02:22 GMT

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Hello! I would like to build using a pair of kef b139's with a pair of good quality tweeters I have been given, do you think I would have to add a pair of mids as well? Also any ideas on the design of the enclosure would be very welcome. Regards Roger

Subject: Re: building speakers using kef b139 oval drivers

Posted by [Duke](#) on Sat, 17 Dec 2005 07:46:32 GMT

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I recall reading somewhere, roughly twenty-five years ago, that the B139 operated as a nearly perfect piston up to 800 Hz ballpark, at which point it began to have severe breakup modes. So the recommendation of the day was to cross it over no higher than 400 Hz. Unless your tweeter is a very widerange driver, you'll need a midrange unit. My first pair of homebrew speakers used B-139s in a transmission line. I built them in 1979. Later I used B-139s in sealed, vented, aperiodic, and isobarik enclosures. I liked the driver a lot, but its x-max was fairly modest by today's standards as I recall. Duke

Subject: Re: building speakers using kef b139 oval drivers

Posted by [Andy_G](#) on Fri, 06 Jan 2006 11:42:44 GMT

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I am looking at doing the 4-way using the old Kef B139, Vifa C13, Kef T15 and Foster ribbon. I got the Kef's for nothing, the Vifa at a sellout and the Foster ribbon was acquired cheaply because I felt the Kef T15 didn't have much top end. (is actually a 35mm dome with $F_s=500$, which explains the problem) Note the shape of the Vifa C13 is very similar to the old Kef B110 I've link to a prelim sketch. The reason for the height of the tweeter is that these are aimed as being my main HT speakers, and 1050cm is the mid height of my screen. (the second hand nature of the drivers will make them near impossible to sell, so I may as well design them for a specific duty for myself.) This is a prelim sketch only, so if there are any comments that might help,... thanks I have also linked to a speculative 4-way series x-o layout which might interest some of you.

<http://users.tpg.com.au/users/gradds/Revised%204-way.jpg>

<http://users.tpg.com.au/users/gradds/3+1%20series%20x-o.jpg>

Subject: PS....

Posted by [Andy_G](#) on Fri, 06 Jan 2006 11:44:53 GMT

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If your tweeter is reasonably good, you could easily go 3-way, with a medium cost 4-5" mid, cross at say 300 and 3000.

Subject: Re: building speakers using kef b139 oval drivers

Posted by [Paul C.](#) on Mon, 24 Jul 2006 18:56:26 GMT

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The KEF B139 was a favorite of transmission line builders. I have here in my hot little hands a paper on transmission lines, with the "textbook example" being a TL spkr built with a B139 and a Celestion tweeter. It has a good drawing of the cabinet, measurements, all that. Click my name above to email me, and I'll send you this pdf.
