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Subject: Re: Distortion mechanisms

Posted by [Wayne Parham](#) on Thu, 24 Feb 2005 01:33:02 GMT

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What I was referring to when I wrote that statement is specifically how voice coil heating shifts the electro-mechanical parameters of the speaker. Over excursion also changes electro-mechanical parameters, as the coil and gap relationship changes. The suspension may act differently near  $x_{max}$  too. In Klippel models, there are terms for the nonlinear parameters but T/S models just deal with small-signal values. Certain alignments are very sensitive to electro-mechanical parameters. It's like they're close to the edge, often providing maximum extension but also needing tight tolerance to prevent underdamped response. Other alignments are much more tolerant of shifts and could not become underdamped except from extreme changes which are completely out of range.

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