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Subject: Tube amp output impedance and ZMAX  
Posted by [Randy Bey](#) on Thu, 23 Aug 2001 20:55:31 GMT  
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Sorry Wayne but my pea brain can't seem to hold this in my head. My Laurel 300B amps have transformer taps for 4, 8 and 16 ohm, which I take to be choices for output impedance. I have Klipschorns, as you may remember, and this talk about ZMAX has me worried. I don't know the specs on the K33, but if the bass was a little flubby, what would be the right direction to take the tap, from 8 to 4 or from 8 to 16?

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Subject: Re: Tube amp output impedance and ZMAX  
Posted by [steve f](#) on Thu, 23 Aug 2001 23:13:36 GMT  
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Try them both. I'm sure that a high z-max will only reduce the bass output.

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Subject: Re: Tube amp output impedance and ZMAX  
Posted by [Wayne Parham](#) on Fri, 24 Aug 2001 03:46:01 GMT  
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Output impedance drops when step-down ratio is greater. Said another way, damping is higher when the step down ratio is greater. However, I'm not sure that transfer response to a speaker with high Zmax will be significantly improved when output impedance is reduced by just a small amount. Damping of the peaks would improve a little bit, but at the expense of overall efficiency. I'm not sure the tradeoff would be worth it. That said, I don't think you should worry about the Klipschorns. Horn speakers have impedance fluxuations, as all loudspeakers do, and horns do have more peaks, but they are usually smaller in amplitude than some other loudspeaker types.