
Subject: Questions on sub-woofer amps

Posted by [gumby1](#) on Thu, 07 Apr 2005 00:06:05 GMT

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Some sub-woofer amps have "Bass boost". What is the purpose of this feature? I have a couple of 240 watt plate amps without "Bass boost" and I'm considering building two 10" sub-woofers, but the designs I'm looking at use plate amps with "Bass boost" (around 5 or 6dB@25Hz). I don't know if the plate amps I have could be used in the designs I'm looking at. If they can't be used, does anyone know of some good 10" sub-woofer designs that would not require "Bass boost"? These subs will be used only for two-channel stereo, not home theater.

Subject: Re: Questions on sub-woofer amps

Posted by [gumby1](#) on Thu, 07 Apr 2005 04:15:16 GMT

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Well, after looking around on the web, I found information on how to modify my plate amps to whatever bass boost I need. I still don't know what it is or what it does, but at least I can use the amps I've got to build a wider variety of sub-woofers.

Subject: Re: Questions on sub-woofer amps

Posted by [Wayne Parham](#) on Thu, 07 Apr 2005 09:55:08 GMT

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Always seemed to me that it would be more attractive to use a speaker with deeper bass response than EQ to bump it up down low.

Subject: Re: Questions on sub-woofer amps

Posted by [GarMan](#) on Thu, 07 Apr 2005 13:02:44 GMT

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"Bass Boost" is just a marketing term for EQ. Some subwoofers may start to rolloff early, and the EQ simply increases the input signal at lower frequencies to give you deeper bass. However, while the goal of equalization is to "equalize" response (make it flat), some amps with Bass Boost may purposely introduce a hump in the lower frequencies to give a more powerful bass effect.

Subject: Re: Questions on sub-woofer amps
Posted by [Adrian Mack](#) on Thu, 28 Apr 2005 02:30:24 GMT
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Its there to artificially boost the low end response. Especially for sealed box subwoofers. If its the typical PE/Apex/Stryke style plate amp, it uses an EC SK 2nd order HP filter. Essentially its a high-Q 2nd order highpass filter. When $Q > 1.0$ it forms a filter peak which is what forms the "bass boost", or EQ. Modifying it is a matter of replacing two resistors on the preamp board, and using simple textbook formula's to choose any Q and Fc you want. It is possible to design a subwoofer which EQ is an integral part of the design to form flat response, but EQ used disappropriately always makes a bad result.
