Subject: Re: Cool.
Posted by Adrian Mack on Mon, 15 Sep 2003 06:22:16 GMT
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Hey Wayne,So it seems that the sealed box shifts resonance upward. The resonant frequency of the box/woofer system is Fo. But does this shift Fs upward too..... ? I'd assume that any ringing will occur at Fo too, where the electrical impedance peak is. If the box shifts Fs up to form box resonance Fo, then we can say that Fs=Fo in a sealed box. So fs may be 20Hz free air, fs may be shifted to say 40Hz in a sealed box. All motors are more uncontrolled near resonance. If the new Fs is 40Hz, thats pretty bad because instead of being uncontrolled at 20Hz, its now uncontrolled at 40Hz, which is much higher, and its also the sealed box resonant so that means it will be more uncontrolled and also ring at the same time more and sealed box resonance is usually in the passband too which makes it even worse. The vented cabinet has the Helmholtz resonator too, and its this frequency where any ringing is. Does the vented box shift Fs at all? If it doesn't, then thats good because it may be that neither Fb or Fs is in the passband. But if a sealed box shifts Fs upward to box resonance so that Fs=Fo, that means the motor is uncontrolled at higher freq, and the box is also making it ring here too and usually in the passband. Is this correct? Half correct?The "Frequencies of interest" post says the bass reflex cab has Fo too, I thought it was only on a sealed, unless we block the port. It says however the enclosed woofers resonant freq in a vented box is Fo, and is near Fh, which indicates that the vented box might shift Fs up to near Fh. Or something :P Maybe I'm being too picky. Thanks!Adrian