Subject: Woofer Cooling
Posted by Rajeev on Tue, 11 Oct 2005 11:17:28 GMT
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Dear Wayne,I read about the woofer cooling technique you have developed , can we use similar method for other woofers too , like this they will remain cooler and that too with increased power handling , will an alinimum finned heat sink glued to the woofer magnet help ??Rajeev

Subject: Re: Woofer Cooling
Posted by Wayne Parham on Tue, 11 Oct 2005 12:24:58 GMT
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The cooling device isn't limited to basshorns by any means. It can be installed on just about any loudspeaker to improve power handling. You can mount it to an exterior cabinet panel or you can make a bracket to support the device inside.Woofer Heat ExchangerThe thing that is most important is to have as much surface area contact as possible with the pole piece, and in many woofers, the best place to do this is through the cooling vent. Eminence woofers, for example, have a center pole piece made of steel and an aluminum tube inserted makes a much better conductor of heat. By inserting it completely, there is a large contact area between the pole piece and the cooling plug, and this allows a good interface. Heat is carried away effectively, and radiated by the attached plate.LAB12 destructive testWoofer cooling device - Test Cycle with Heat Exchanger Installed

Subject: Re: Woofer Cooling
Posted by Crazy Dave on Tue, 11 Oct 2005 18:39:20 GMT
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Hi Wayne,Would it work for a compression driver? Could you lower the low freqency cutoff with it?Just wondering!Dave

Subject: Re: Woofer Cooling
Posted by Wayne Parham on Wed, 12 Oct 2005 02:53:23 GMT
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The priniciples should work with a compresson driver, but unless its cooled with a vent, no cooling plug could be adapted. The aluminum parts to conduct, radiate and dissipate heat would have to be designed in from the start.

Subject: Re: Woofer Cooling
Posted by Rajeev on Wed, 12 Oct 2005 06:50:42 GMT
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Would the aluminium plug the air hole of the magnet ? or it has a smaller hole in the centre ??

Subject: Re: Woofer Cooling
Posted by Wayne Parham on Wed, 12 Oct 2005 09:03:20 GMT
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The cooling plug is hollow and has cross-drilled holes for airflow.

Subject: Re: Woofer Cooling
Posted by Crazy Dave on Wed, 12 Oct 2005 15:03:34 GMT
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So you would need a groud-up design. Well it was an interesting thought. The power of a 2" exit with the dispersion of a 1".Dave