Subject: 16 ohm compression drivers
Posted by bmar on Thu, 08 Aug 2002 17:13:28 GMT
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Why is it that you see a lot of systems with 16 ohm compression drivers and 8 ohm speakers for the rest of the system? does it have to do with attenuation to the compression driver.Bill

Subject: Re: 16 ohm compression drivers
Posted by Wayne Parham on Thu, 08 Aug 2002 17:39:43 GMT
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I have a suspicion that it is not really that 16 ohm compression drivers are more common in sales overall, and only appears to be from where you're looking. Maybe there have been more availble from the tent sale or something. I know that my designs use 8 ohm drivers, so from my perspective, they're more common. I get a lot more requests for 8 ohm drivers than for 16 ohm drivers. But I don't know what is most common worldwide, or if there is any reason that one market or another might prefer 16 ohm devices over 8.

Subject: bean counters rule the universe
Posted by Sam P. on Thu, 08 Aug 2002 19:26:40 GMT
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How about this explanation...16 ohm low pass crossover coils are HUGE, well twice the size of their 8 ohms counterparts anyway. Plus amps deliver power better into 8 ohms than 16. On the high pass side, crossover caps for 16 ohms drivers are half the size of what an 8 ohm driver would require. So by using an 8 ohm woofer, and 16 ohm tweeter, you invest less $$$ in passive components. Samyes, i made it up just now, but it makes sense, and MIGHT even be true:)

Subject: Re: bean counters rule the universe
Posted by bmar on Thu, 08 Aug 2002 23:59:37 GMT
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just might be true!

Subject: Re: 16 ohm compression drivers
Posted by Walt on Fri, 09 Aug 2002 06:38:25 GMT
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The reason is clear:When you use a 8 ohm compressiondriver with a sensitivity of 106dB/1w/1m and a woofer with a sensitivity of 103dB/1w/1m then you have to add resistors (attenuation) to make the efficiency of the compressiondriver also 103dB. In this case some power (equal to the power dissipated in the driver which can be up to 200W or more in PA applications) is lost in the resistors. When you use a 16ohm compressiondriver with a sensitivity of 106dB/1w/1m and a 8ohm woofer with a sensitivity of 103dB/1w/1m you don't have to add the resistors. The load on the amplifier decreases and this results in more power for the woofer and a increase in headroom.Remember that compressiondriver are build for the use in PA applications and not hifi!Best regards,Walt (De Jong Soundsystems)

Subject: Re: 16 ohm compression drivers
Posted by Tom Brennan on Fri, 09 Aug 2002 10:43:09 GMT
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Walt---Compression drivers were developed for use in motion picture theater sound and recording studios, not for public address. Theater sound is most certainly a hi-fidelity endeavor and always has been, the same goes for studio sound. Good compression drivers such as Altec, JBL and TAD can be traced directly back to the efforts of John Hilliard and Jim Lansing to improve theater and studio sound in the 1930s and 1940s.

Chicago Horn Speaker Club