
Subject: Driver Size Thoughts

Posted by [theNoid](#) on Sat, 10 Sep 2005 10:46:02 GMT

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Ok, so I'm wondering what everyone's opinion is here on how manufacturers should classify their drivers when it comes to size. Some folks feel a driver's size rating should be based upon radiating surface, others say frame measurements. In the car audio world, it's pretty simple. For the most part you have 3.5", 4", 5.25", 6.5", 8", 10", 12", 15", and 18" as the standards. These are based roughly upon frame size, not radiating surface. For the most part, it seems to me that the manufacturers of DIY drivers as well have done pretty close to the same in the past. I for one, feel frame measurement should be the standard. I say this based upon a couple of things. One, I don't feel a driver should be called a 5" driver when I need 6-1/8" of baffle to mount the thing properly. Of course this is on the extreme of things but even calling a particular driver a 4" driver when I need 5" bugs me at times. The second reason is driver spacing, which can be a pretty important thing to consider when designing a multiple driver speaker. For instance, back in the day, Advent made a venture into the car audio circles. They had what they called a 5-1/4" driver. It was called this because that was its approximate frame size. But when all the rags did their reviews they would point out that since the radiating surface is so small, they should be compared with 4" drivers. Well I said, and still do say...poppycock my man, pure poppycock. When it came down to people buying the drivers, they would base much of their buying comparison on the competition's 4" stuff. Just not fair to the competition, or the people buying the product in the end. Fact was, to mount the drivers properly as "drop-in" speakers as they were being marketed as, they needed that 5-1/4" of space. So, in all fairness to the comp and the buyer, they should have been compared to drivers in their frame-size category, in which they usually failed to "reach the bar" so to speak. So, in closing here, it is my opinion that a particular speaker driver's size rating should be based upon its frame size. Now I know there are MANY different frame sizes out there, but I think there should be a bit more stringent standard than is in place today...whaddayathunk folks? Noidster

Subject: Re: Driver Size Thoughts

Posted by [Manualblock](#) on Mon, 12 Sep 2005 15:07:31 GMT

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Absolutely. What if the frame is really wide?

Subject: Re: Driver Size Thoughts

Posted by [theNoid](#) on Mon, 12 Sep 2005 18:09:31 GMT

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Really wide as in how? Do you mean like the Tang Band driver that has a frame width of 6-1/8", a

radiating surface diameter of about 4" and is labeled as a 5" driver?Noidster

Subject: Re: Driver Size Thoughts

Posted by [Wayne Parham](#) on Tue, 13 Sep 2005 00:54:21 GMT

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Many driver manufacturers list radiating surface area, usually called Sd.

Subject: Re: Driver Size Thoughts

Posted by [Manualblock](#) on Tue, 13 Sep 2005 01:55:08 GMT

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That about sums it up.

Subject: Re: Driver Size Thoughts

Posted by [theNoid](#) on Tue, 13 Sep 2005 05:36:17 GMT

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I know many companies list Sd, and most also list the exact frame size, and other pertinent info as well. I was simply pondering that it would be nice if there were some sort of standard when it came to "naming" of the drivers. For instance, someone may want to put together a database or the likes for simple, quick look and compare things. Nothing really important here, it was simply something I have noticed and thought about at times.Noidster

Subject: Re: Driver Size Thoughts

Posted by [Wayne Parham](#) on Tue, 13 Sep 2005 06:09:29 GMT

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Yeah, I noticed it on some of the wide range drivers. Some seemed to be name based on the frame size, others on the radiator size. Some kind of in between.I'll bet the situation is really extreme for car sound woofers and other high excursion designs. As excursion limits go up, surround size does too. So once you get past that monster surround, there's a lot of meat taken out of the potential radiating area.

Subject: Re: Driver Size Thoughts
Posted by [theNoid](#) on Tue, 13 Sep 2005 08:41:40 GMT
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> I'll bet the situation is really extreme for car sound woofers > and other high excursion designs. As excursion limits go up,> surround size does too. So once you get past that monster surround,> there's a lot of meat taken out of the potential radiating area. This, and an even bigger problem is that many companies are using those fat surrounds on drivers that simply aren't needed. Thus, you end up with a low Xmax driver to begin with, then you take up much of the Sd via that big old "phat" surround. But hey, it looks kewl and regardless of what the eduactaed folks think, the buying masses base most of their decisions on looks it seems. Noidster
