Subject: T/S for Car Speakers
Posted by Wayne Parham on Sun, 26 Oct 2025 13:59:50 GMT
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This is actually a bit of a rant, so many it should be in the Dungeon.

Standard electro-mechanical values were defined in the 1970s, and were starting to be adopted by the 1980s. Work on standardization actually started before the 1970s but the point is that by the 1980s, designers started seeing loudspeaker drivers with published T/S values which helped guide their design choices. Since the 1980s, you didn't have to buy a woofer blindly and then test it to know what size cabinet it needed to be placed in.

That was fifty years ago. So why are car speakers still sold without T/S specs?

You can always buy general-purpose drivers and use them in a car. You almost have to, if you want to know what you're getting before you buy it. Because the entire market of aftermarket automobile-specific loudspeakers lacks published T/S specs.

Buying a speaker for your car is a little like buying a raw loudspeaker at Radio Shack in 1975. On the shelf were lots of boxes of drivers of various sizes, all with a pretty picture of the driver and descriptive text full of performance boasts with exciting adjectives and sales rhetoric, but no electro-mechanical specs in sight. Closest thing was an exaggerated peak power rating.

That's exactly what you see today in 2025 for all car speakers on the market. No electro-mechanical specs, just a pretty picture, lots of whiz-bang words and a power rating something like 450 watts peak. One look at the motor structure and the experienced eye knows it won't last 20 minutes at 100 watts RMS continuous. And no way to know if it would work best in the car door or mounted in the trunk.

Car guys - get with it. You all have the experience. And with the quality of sound in modern cars, there is absolutely no excuse. And no reason! You manufacturers know the specs. So publish them! Print them on the box!

I have an Impala with a trunk "as big as a whale." It needs a woofer driver with high Qts. Some old Jensen and Pioneer 6x9 speakers were designed that way, probably because a 6x9 speaker was most often mounted in the rear deck, having the rear of the cone exposed to a large trunk space.

Ironically, it seems that back in the 1970s, when T/S specs were still not being published, the early car stereo aftermarket manufacturers at least knew to make their 6x9 car speakers with high-Qts, because that worked well with this kind of acoustic loading.

But these days, car speakers are often mounted in doors or in other areas with much smaller rear chamber volume. Those need lower Qts. You essentially need at least a couple common alignments along with a handful of common sizes. Some need high Qts for use in the rear deck and some need low Qts for use in the dash or the door.

So to provide this kind of flexibility, one would think car sound manufacturers to publish the T/S specs of their woofers and midwoofers. But they don't.

Sheesh.

Subject: Re: T/S for Car Speakers
Posted by Helen on Sat, 01 Nov 2025 06:43:33 GMT
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Wow, this was really interesting to read. I’m not super deep into all the tech terms, but it honestly makes sense. I’ve bought car speakers before, and you’re right — the boxes are full of flashy words but don’t actually say anything useful. I just end up picking the one that looks nice or has good reviews, which probably isn’t the best way to do it.

It’s kind of surprising that after all these years, they still don’t share proper specs. You’d think with how advanced everything’s gotten, it’d be easier to compare and buy what actually fits your car. I guess for people like me, it just means we’re still guessing and hoping it sounds good once it’s installed.

Subject: Re: T/S for Car Speakers
Posted by Wayne Parham on Sat, 01 Nov 2025 14:01:24 GMT
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Even if they just provided recommended mounting location, that would be a help. Something like "designed for trunk mounting" or "best when mounted in door or kick panel where rear chamber space is small." That would give an indication of its basic tuning.

Might be best to do both - give T/S specs and suggested placement - because some people might not know how to interpret T/S specs but they would surely know if the speaker was made to go in a large trunk or a small kick panel.
