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Subject: Opinions needed: Aluminum or Pascalite?

Posted by [Floyd Andrews](#) on Fri, 24 Sep 2004 21:54:46 GMT

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I just bought a pair of Altec 908 (1") drivers, with Symbiotek diaphragms, for my horns and need some opinions about the "best" diaphragm for them. (I know there is no "best", but i want your opinion anyway) I've read that the Symbiotek diaphragms don't go very high in frequency, and I want to use these horns without a supertweeter. So which way should I go: aluminum (902) or pascalite (909)? Titanium? Unobtanium? What do you think?

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Subject: Re: Opinions needed: Aluminum or Pascalite?

Posted by [spkrman57](#) on Sat, 25 Sep 2004 13:34:00 GMT

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Floyd, I have 902's and use the aluminum. Great Plains audio can help you on that one. Bill (whanuschak@cox.net) is a great guy and one of the last Altec engineers working for Altec when they closed the doors. He also sells new drivers also. Hope this helps. Ron

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Subject: Re: Opinions needed: Aluminum or Pascalite?

Posted by [Russellc](#) on Sat, 25 Sep 2004 13:57:00 GMT

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Unless you have availability to NOS, I don't believe pascalite is still available. I have the 908 with symbiotic and they don't sound as awful as people say. That said, the straight aluminum is the one to go with for home use but it is no longer available either. For PA the pascalite or symbiotic. (if you can find them) Greatplains audio is the place I have had the best luck with. Bill worked for Altec and has most of the manufacturing equip from the day. Others make replacements also, but I have not tried them. Another feature of many drivers with symbiotic diaphragms that can be improved on (for home use) is under the covers. Remove them VERY carefully and look. If you only see shiny metal dome and there is a thick felt pad in the back of the cover, just replace the diaphragm and close it up. If you see a plastic looking dome and there is no felt in there, I would suggest the following. (again, for home hifi use) When you order your diaphragms from Bill, tell him you want the parts to remove the loading caps as well. The loading cap IS NOT a capacitor, it is that plastic thing covering the dome. The parts should be: 2 felts to line the back of your covers, and six short screws. When you remove the old diaphragm and the plastic thing, do not reinstall the plastic thing. The new short screws will make up the space equal to the thickness of the plastic thing you are leaving out. These plastic loading caps were used in an effort to make heavy use drivers live longer. These same use drivers were usually equipped with the symbiotic diaphragms as well. Both measures increased heavy use reliability, but hampered high frequency transients and extension. If your use is home stereo try this advice. However, if PA is your use, I would call Bill @

Greatplaines audio and ask. With the loading caps removed and the "regular" aluminum diaphragms installed, they will be basically a 902-A sonically. Hope this helps. If any is unclear, Bill can explain it better than I. Russellc

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Subject: Re: Opinions needed: Aluminum or Pascalite?  
Posted by [Manualblock](#) on Sat, 25 Sep 2004 17:42:27 GMT  
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Russellc does that info apply to 802's also if I may ask? Thanks In Advance J.R.

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Subject: Re: Opinions needed: Aluminum or Pascalite?  
Posted by [Russellc](#) on Sun, 26 Sep 2004 11:45:46 GMT  
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Yes. If it has the loading cap. I will have to open some of my 802s up it has been a long time and I don't remember if the ones I have had the loading caps or not. But I have removed them from 808s and 908s. Basically as far as the way the diaphragm mounts is identical in the 802 or 902. Three screws hold the assembly in place. Some models just have the screws going through the mount of the diaphragm, and others have this plastic thing put on top, and the screws must also go through this thing. When you remove this cap, you removed thickness that the screw would otherwise have to have gone through, and now the screws are too long. This is why you need the shorter screws. To me, the high end gains both in transient response and extension. Easy to change back. Don't forget the felt pads for the back covers. Cheers,  
Russellc

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Subject: Re: Opinions needed: Aluminum or Pascalite?  
Posted by [Russellc](#) on Sun, 26 Sep 2004 11:48:21 GMT  
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Sorry manualblock, somehow I posted above your post, "see above post"  
Russellc

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Sorry,

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Subject: Re: Opinions needed: Aluminum or Pascalite?  
Posted by [Russellc](#) on Sun, 26 Sep 2004 11:53:31 GMT  
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One other note if you are installing a new diaphragm in the 802, you will likely need a conversion kit which is also available from Great Plains. Most of the 802s use an older connector on their wires, the kit is just wires with different connectors. Bill's web site shows what you need, or just give them a call.

Russellc

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Subject: Re: Opinions needed: Aluminum or Pascalite?  
Posted by [Manualblock](#) on Sun, 26 Sep 2004 14:42:00 GMT  
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Thanks Much Russellc that's a great help. Good to know there is a knowledgeable Altec guy in the hood. One thing, the 806, I use them due to lower efficiency on the 8cu. ft. cabs so they don't need to be padded down as much. Does this apply to them also? Thanks J.R.

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Subject: Re: Opinions needed: Aluminum or Pascalite?  
Posted by [Russellc](#) on Sun, 26 Sep 2004 19:18:32 GMT  
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I have never messed with the 806. Correct me anyone, but I believe the 806 has a slightly smaller magnet assembly which gives it its lower efficiency. I think the 802/902 diaphragm fits, but may not be exactly the same as the original 806 diaphragm. Again, correct me anyone, but I believe the original diaphragms for these were somewhat lighter mass than the traditional 802/902, to compensate for the smaller magnet. Hopefully I haven't misinformed. Be very careful with these diaphragms, if I'm correct they may be unobtainium! Again, for the straight skinny call Bill @ Great Plains, he will know for sure. Do your 806's have these loading caps?

Russellc

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Subject: Re: Opinions needed: Aluminum or Pascalite?  
Posted by [Manualblock](#) on Sun, 26 Sep 2004 20:22:52 GMT  
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First you are correct, the magnet is visibly smaller. If you look into the driver there is a tangerine colored plastic ring visible. I have not yet taken them apart so I can't answer the rest of your question about the loading caps. I will most certainly check on that and report back. Thanks J.R.

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Subject: Thanks! Looks like I'll be getting aluminized!

Posted by [Floyd Andrews](#) on Sun, 26 Sep 2004 20:46:02 GMT

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Is that a word? Anyway, thanks to all, 'specially Russellc.

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Subject: Thanks, Ron.

Posted by [Floyd Andrews](#) on Sun, 26 Sep 2004 20:50:43 GMT

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Thanks for the advice. After I pay off the 908's and the new diaphragms, I'll be checking out new (or old) horns. Currently, I'm using JBL 2345's, crossed over at 2k to JBL K120 direct radiators, but the 2345's don't seem to be highly regarded by horn fans. I'm going to try lowering the crossover frequency first. After that, maybe some new horns. Do you have any recommendations?

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Subject: Re: Thanks, Ron.

Posted by [Bill Wassilak](#) on Wed, 29 Sep 2004 17:37:50 GMT

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What's wrong with the JBL 2345's I have 2-pair that I use for PA but not on my horn stereo crossing over at approx 1.2K - 1.9K. The only thing I don't like about them is there heavier than hell. But they don't ring like undamped Altec's because there heavy cast aluminum. Bill W.

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