Subject: Jensen RP103 Orientation
Posted by gfederys on Wed, 14 Jan 2009 18:54:36 GMT
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Hi Everyone, I was lucky to find and purchase a pair Jensen RP103 tweeters. They both seem to work fine. I've searched the internet and found information on them but not the proper polarity when hooking them up. With both terminals on the left side, does anyone know which is +, top or bottom? I tried listening to them and couldn't really tell, but I would like to use them properly. Thanx.

Subject: Re: Jensen RP103 Orientation
Posted by Wayne Parham on Thu, 15 Jan 2009 17:11:01 GMT
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If you live near Tulsa, bring 'em by and I'll measure them.

Subject: Re: Jensen RP103 Orientation
Posted by gfederys on Thu, 15 Jan 2009 18:34:06 GMT
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If you're talking about the "Tulsa" gas station that used to be on the corner, they closed years ago. If you're talking "OK", maybe during the next land rush. But seriously folks, is this something an amateur could do by fashioning crude tools? I do own a good voltmeter. I also have some audio friends that might have scopes and such. I'm just not sure how to proceed. Unfortunately I'm buried under a lot of snow in MI. Thanx Wayne.

Subject: Re: Jensen RP103 Orientation
Posted by Wayne Parham on Fri, 16 Jan 2009 05:44:11 GMT
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If you can see or feel the diaphragm, you can possibly tell what direction it is moving when a small voltage is applied. You can connect a 1.5v battery across the terminals and see what direction the diaphragm moves. This is simple on cone or dome tweeters, but not so easy on compression drivers and horns. In that case, you need acoustic measurement equipment.

Subject: Re: Jensen RP103 Orientation
Posted by gfederys on Fri, 16 Jan 2009 14:48:26 GMT
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Thanx Wayne, I know that trick. That's how I was able to tell that the Jensen P8RL midranges were wired out of phase. (both of these drivers are in the original Heathkit SS-1 cabinets). When I looked @ horns, one was wired one way, + and -, the other one, the other way. I found some photo's of them wired inside cabinets, on the internet, but it's hard to tell because back then a lot of speakers were wired like auto speakers are. There really isn't any established color code convention. I thought someone on this forum might have had some experience with them. I can't see down the horn enough to see which way the diaphram moves to establish polarity. Because of their age, I'm really hesitant to open the diaphrams. They do look like they'd be replaceable, but I'd rather not.

Subject: Measurement gear
Posted by Wayne Parham on Fri, 16 Jan 2009 17:47:03 GMT
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In that case, you'll need to do an impulse response measurement. You'll expect to see an upward spike when a positive pulse is applied. Most acoustic measurement systems can do this, but many of them are relatively expensive. One isn't though - Speaker Workshop - and it is a very good system.For what you're wanting to do, you could probably get by with the cheapo microphone that comes supplied with the computer sound card. But it might be worth it to you to get a better microphone. The little Panasonic capsule mics don't cost much at all, and they'll work very well. You can trust the data you gather with them. You may need a microphone preamp to use them, however. Depends on the sound card, some will work without the preamp.You'll probably want something to hold the microphone capsule. You can make a great little boom for it using a piece of plastic tube that's normally used as the supply line for toilets. They're available at any hardware store and the mic capsule press fits nicely in the end. The wire can be run through the tube and that makes a nice clean boom mic.This may be a little more ambitious than what you wanted just to find the polarity of your tweeters. But once you're setup and running, you can do a lot more with it. It's a fully functional acoustic measurement system that you can use to help build new speakers, design crossovers or setup your sound system in your home.