
Subject: JBL 2035HPL T/S parameters

Posted by [spkrman57](#) on Thu, 29 Jan 2009 23:11:43 GMT

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JBL 2035HPL T/S parameters A pair of never used 2035's found their way into my home. They are not broke in, but I decided to throw them on the WT2 to get some quick specs: RevC-----3.9 ohms-----3.9 ohms Fs-----48.7 hz-----51.9 hz Qes-----.36-----4 Qms-----3.28-----3.34 Qts-----.32-----3.5 Zmax-----39.8 ohms-----36.9 ohms Le-----.298 mH-----.3 mH Sorry for the dashes, if I don't the columns don't line up right. I just thought if anyone had a pair from the tent sale years ago and wondered what to do with them! Regards, Ron

Subject: Re: JBL 2035HPL T/S parameters

Posted by [Wayne Parham](#) on Fri, 30 Jan 2009 17:21:03 GMT

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Lots of people used those as substitutes for 2226 drivers back in the tent sale days. No shorting ring but otherwise pretty good sound. Kind of like an Eminence Omega 15. JBL 2035 info in the archives

Subject: Re: JBL 2035HPL T/S parameters

Posted by [spkrman57](#) on Thu, 28 May 2009 15:30:02 GMT

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Just thought I would report that I have installed these drivers in 3 cu ft cabs tuned to 41hz and they play rather nicely.

Crossover is 4-Pi original (single coil on LF driver) which I have increased to 3.6mH to mesh well with my EV DH1-A 2" compression drivers on 350hz Edgar salad bowl tractix horns.

I used 18db att/EQ (12.5 ohm and 56 ohm - .33 ufd cap) I also had to add a damping resistor of 33 ohms across the EV comp driver to tame the titanium diaphragm.

The speakers are powered by 300B triode amp @ 8 wpc.

I would attach pics of my system, but I've been unable to find out how to post them from my pc(???)

Regards, Ron

Subject: Re: JBL 2035HPL T/S parameters
Posted by [Wayne Parham](#) on Thu, 28 May 2009 17:45:59 GMT
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One of these days, build one of the crossovers with the third-order low-pass and see what you think. I like the old crossovers - they do a fine job - but the new ones are a smidge better, definitely make it worthwhile. Smoooooth as silk, nice clean forward lobe.

To attach images, you can either insert an image link (with the icons above the messagebox) or you can upload as an attachment (with the attachment control below). Actually, I'm not seeing the little attachment control right now so I'll have to look into that, see if there's a setting I've missed somewhere. You should be able to browse your computer to find a file and upload it.

Subject: Re: JBL 2035HPL T/S parameters
Posted by [spkrman57](#) on Thu, 28 May 2009 18:06:22 GMT
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I hear you Wayne about your latest and best crossovers. I just happen to change my LF drivers so often I would go broke buying enough coils to use for the different variety/flavor of 15" drivers in my collection.

I have so far utilized in my 4 pi speaker systems the following 15" JBL drivers:

2226H, 2226J, 2225H, 2225H recone in E130 core/frame and currently the 2035H.

I also have used the Carvin 15" (PC-15 I think) and it's not too bad for a economy minded system, just lacks a little on the bottom end LF response. I also found the 2225H to be a little light on the LF response in my 3 cu ft cabs.

I also tried JBL 2240H 18" with 800hz crossover in a 3.8 cu ft cab tuned to 47hz (Drew Daniels) which turned out to be less excited than I thought it would.

I have yet to try out my JBL E145-8 drivers, but I'm thinking the E145-8 and 2225H will work out best in horn-loaded conditions.

If I keep the 2035H in these cabinets long enough, I'll get the necessary parts to build the latest crossovers.

With using a single coil and having a number of coils around here to swap out I can voice by ear to give me the best response to suit my hearing.

Nice to talk to you again Wayne!!!

Can't wait until I can post pics from my pc as I don't use a website to host my pics.

Regards, Ron

The forum is now enabled for attachments.

Do a browse, then upload file. If you also click "Insert image into message body" it automatically adds the IMG tags in the message to link the image. That's pretty groovy. I assume if you don't do that last step, it makes a link for the reader to click on to get the attachment.

(I put the image tags all the way down at the bottom of this message, but you can put them anywhere you want.)

Get this: I'm a computer guy, but I've noticed my luck with computers is terrible. I always have to work for it. When I went to learn how to add the attachments, I found you have to go into each and every forum in the admin page and set the number of allowed attachments and max size.

So I figured it would be smart to run a backup before mucking around with the database. I did, and it died in the middle (because the stupid hosting company decided to work on the DB server at that very moment). Worse than that, it locked the database in an unusual way (not the typical, standard lock) and I spent hours, damn near all night trying to find out why. Sheesh!

I think I'll get a service contract on this forum software. When I was a younger single guy, all nighters weren't any big deal. But now, working long hours all week and having 'lil Eddie Munster running around at home, it's probably a good idea to have a support crew available. I just can't do it 24/7.

Hey, one more thing about this new software. I've noticed a LOT of people are having trouble logging in. I think most people are trying to use their old password and getting frustrated when it doesn't work. The logs show some people trying to login several times and being refused because of their password.

I've posted a sticky note at the top of each forum, and sent out E-Mails to everyone that's posted on ART. But some people posted without an E-Mail address, so naturally they wouldn't get the note. Even if people posted anonymously, with no password, a login was created for them on this system using their old moniker. If they want to use it, they'll have to start using a password on this system.

I know you know this, just by the mere fact you've posted here in the new system. But evidently there are many people that haven't seen the messages. So whenever you get the chance, pass the word please. I hate to see people try and login, but can't. The default password is art, pass the word.

Subject: Re: JBL 2035HPL T/S parameters
Posted by [spkrman57](#) on Sun, 31 May 2009 16:02:21 GMT
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Wayne,

Due to financial constraints I have purchased the parts for the new crossover, however I'm forced to use a coil of .7 mH instead of .5 mH on the LF section until I can afford to buy the proper coil value(money's tight right now!).

How badly will this affect the overall response?

Regards, Ron

File Attachments

1) [2225H left.JPG](#), downloaded 535 times

Subject: Re: JBL 2035HPL T/S parameters
Posted by [Wayne Parham](#) on Sun, 31 May 2009 16:50:06 GMT
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It's hard to say exactly without setting up a measurement to see. But I suspect it will shift the forward lobe, and modify the on-axis response (as well as the response through the pattern).

I did exactly this kind of thing when I first optimized the crossover. I found small shifts of certain values made a difference. An example is the values of L1 and C2, which were originally 0.6mH and 8.2uF. A small shift made almost no difference in the tweeter's response alone, but when combined with the woofer, it was noticeable.

If you take the new crossover and start fudging values, you'll definitely change it for the worse. I tinkered with each value, finding optimum results with standard value parts. I knew the topology was right simply because it put me in the ballpark, so tuning values was just an exercise of manipulating phase, setting the interaction between drivers and ultimately the position of the forward lobe.

There were a few parts I remember moving back and forth in value, looking at the difference it caused. Increasing C2 to 7.5uF is OK, as it hasn't shifted too far. I think 8.2uF is better, but

7.5uF isn't too bad. Going to the original value of 6.8uF is too far though. It degrades the quality of response in the pattern, making it less smooth.

I tried this because I had hoped to retain as many of the old values as possible, for the sake of DIY'ers having an easy and inexpensive upgrade path. I only remember that one because it was one that I worked with a while, thinking I could keep the tweeter circuit exactly the same. I could have, but there was a definite improvement by changing both L1 and C2.

The reason for the shifts is completely due to the phase of the tweeter and the way it interacted with the woofer. It slightly shifted the forward lobe. The difference in the tweeter response alone was very, very small but the difference in the response of the loudspeaker system was a little more noticeable.

It isn't night and day, more like dusk and day. The old crossover was pretty good but the new is better. You could tell a difference, subtle but noticeable.

So that brings me to your question. I don't know exactly what the results of changing coil L3 would be, I don't know how much shift will result or how audible it will be. I do know that I set that value for its optimum though. I'd say it's probably not huge, maybe not even audible (if you're lucky). But I do know that the stock value is better because I spent so much time moving each value in the circuit back and forth and seeing what values worked best.
