Subject: JBL 4648A with SET's?
Posted by jlharden on Wed, 04 Dec 2002 12:07:50 GMT
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You guys have me thinking again. The 2226J woofer is reported to be working well in a number of SET based systems. Has anyone tried the 4648A cabs off the the little amps? We'd gain our 3db(or is it 6?...depends on who you ask.) Would having the woofers paralleled also double the impedence at resonance? Seems it might...Can't win at this game!!! Some days I think I should just build a push pull EL34 amp!

Subject: Re: JBL 4648A with SET's?
Posted by BillEpstein on Wed, 04 Dec 2002 13:14:27 GMT
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The 4648A has a total impedance of 8 ohms which kinda defeats the purpose. Plus it's a bass cabinet. So, while the SET's can do a job, it's better to try that EL-34 or maybe the Bedini 200/200 on Audiogon on the bottom and use the SET for the Martinelli Horns you lay on the top.

Subject: Re: JBL 4648A with SET's?
Posted by jlharden on Wed, 04 Dec 2002 14:56:32 GMT
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Hi Till, I know the 4648 is a bass cabinet. I would be crossing over to the hf horn at 800 HZ. My point is that the dual woofer cabinet nets a good gain in system sensitivity which is a major plus when we're dealing with 3.5 watts. My concern is that that's a whole lot of speaker motor for a little triode to control. I know there's many of these 4648A enclosures around and wondered if anyone had tried running a pair of the 2226J's per channel rather than a single. Building up a dual 15" Pro Pi 4 in the Pialigned 3.9 cu. ft. enclosure would be one bad looking "little" cabinet, wouldn't it? That's where my system was at 1 year ago when I put all these 2226J woofers aside due to a gut feeling that they weren't going to sing with the set. Recent posts have indicated otherwise, at least in a single woofer cabinet. Who's got a 4648 with 16 ohm woofers and a Paramour? I think for some preliminary testing that might work. Perhaps one could tell pretty quickly if the amp "works" or if it rolls off everything and is "dynamically challenged". Hoping for some good feedback.
Take care! Jerrod

Subject: Re: JBL 4648A with SET's?
Posted by Wayne Parham on Wed, 04 Dec 2002 18:23:06 GMT
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A pair of 2226J's in parallel should act electrically very much like a single 2226H. The issue will be that peak at resonance, which is in parallel too, but it is a tank circuit that is paralleled, not a resistive load. Still, in many ways, the pair of 2226J's will act like a 2226H except efficiency is greater and cutoff is lower.

Subject: Re: JBL 4648A with SET's?
Posted by mikebake on Wed, 04 Dec 2002 19:46:54 GMT
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Hmmm, well, I'm in favor of trying funky stuff to see if it works. My first reaction here was a)don't do itb)it's crazyc)you need more powerd)wrong application of the 4648Ae)too high of a x-over pointf)JBL would laughg)then again, maybe noth)WHY do this?So anyway, if I was faced with all this it probably pretty well guarantees that I would try it.....just for the hell of it..and if it worked and sounded good, it would be all the more amusing!

Subject: Re: JBL 4648A with SET's?
Posted by jlharden on Thu, 05 Dec 2002 00:42:13 GMT
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Hi Wayne!If I recall the Zmax of the 2226H was around 55 ohms, assuming two 2226J's are electrically very similar, the impedance at resonance shouldn't be an issue. The increased sensitivity is always a plus. I don't understand how two drivers offer greater extension than one though. I thought the actual response would be the same but a bit more efficient accross the bandwidth. J

Subject: Re: JBL 4648A with SET's?
Posted by jlharden on Thu, 05 Dec 2002 00:48:58 GMT
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HA! Thanks Mike!I hadn't actually thought it that outrageous until reading your post. Problem is I have this extra set of woofers and need to do something with them. Have any Altec 811B's and

902's sitting around you want to trade for a pair of 2226J woofers? I'll have to see what develops, I can either run a single 2226 in a corner cabinet or run a pair in a reflex cabinet. Sensitivity is the same either way.

Subject: Tube friendly JBL's
Posted by Wayne Parham on Thu, 05 Dec 2002 04:28:11 GMT
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I know that you've been through the archives for information on the subject, and have participated on many of the threads therein. But in order to make it easy for others interested in this issue, I suggest that the collection of posts about "tube friendly" speakers on this forum yields a lot of useful information.As an aside, you'll notice that I used to consider the Professional Series offerings to be "tube friendly" until experience showed that their performance on SET amps was marginal in some cases. So maybe the 2226's work well for some people but not for others, as one might expect from its moderately high Zmax. It isn't terribly high, but isn't low either. It probably works well on some amplifier configurations and not on others.Also, some very interesting articles on the technical issues surrounding interfaces between electrodynamic speakers and triodes have been written by Steve Bench and by Norman Koren. I suggest not only the articles directed by these links, but also the others at each authors' sites.About how two drivers will interact, at low frequencies, they will combine and even act as acoustic mirrors to one another. It's like having them up against a room boundary in the way they reinforce one another. But as frequency rises, there comes a point where the two begin to form nulls in the room. The pattern looks like dual slit diffraction experiments, with hot spots and dead spots.

Subject: Re: Tube friendly JBL's; Only In Ohio
Posted by BillEpstein on Thu, 05 Dec 2002 08:27:00 GMT
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There are only a few places in the world where 2A3 SET's will drive JBL's and Ohio is one of them. So we have that going for us.Some other's are the empty diamond pipe's below the Witwatersrand, the caves beneath Eniwetok and the Mine's of Moria under the Dimrill Stair. But beware the Balrog!

http://merrypranks.com

Subject: Re: Tube friendly JBL's
Posted by mikebake on Thu, 05 Dec 2002 11:31:01 GMT
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Yes, I'd forgotten that as well, the comb filtering that would happen if you ran them both up high. JBL, when using two 15's i.e. JBL 4435 Studio Monitor, has one woofer just working from 100 hz on down. That is what you should do.....MBB

Subject: dual 15's
Posted by Sam P. on Thu, 05 Dec 2002 11:39:16 GMT
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as in the JBL 4648a-8 systems have a response notch around 820 Hz. that is shown on the jbl data sheets. The same "notch" is also shown on their 4638 system data, using a pair of 2035H's. Can't cheat physics. JBL network schematics for dual woofer systems often use a LP inductor value of about twice the "upper" woofer one for the "lower" woofer, "to promote a smoother response" in the xover region. You might try running the upper woofer "fullrange" or pseudo-1st up to 1.6kHz., and "choke" the lower woofer around 800Hz. Sam

Subject: 4648a-8 z peaks
Posted by Sam P. on Thu, 05 Dec 2002 15:30:26 GMT
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I measured a pair of these systems using Weems method. The Fl was 29Hz./24.0 ohms and Fh was 70Hz./29.1 ohms for both. Fs was at 40Hz./6.0 ohms, which is where JBL has them tuned. Sam

Subject: Re: 4648a-8 z peaks
Posted by jlharden on Thu, 05 Dec 2002 16:27:47 GMT
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Thanks for the data Sam. If I'm interpreting the data correctly that sounds very low. That was measuring one 4648a-8 ohm cabinet?

Subject: yes,
Posted by Sam P. on Thu, 05 Dec 2002 19:13:18 GMT
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each "nominal 8 ohm z" 4648a-8 contained a pair of 2226J's. I tested two separate systems, from the amp ends of the speaker wire. BTW, a pair of 16 ohm resistors in PARALLEL will measure 8 ohms, so these measurements are pretty normal. For all intents and purposes, the amp is "seeing" the same load as a single 2226H when it's driving a 4648a-8 system containing a pair of 2226J's. The MAIN reason I'm running the dual 2226J's is ECONOMIC. But it still takes the pair of them per side to do the work of a single 2035H or 2226H. There is no inherant "benefit" running dual 16 ohm drivers vs. a single 8 ohm one in this specific case. UNLESS 1200 watt power handling capability is needed:) Dual woofer DOWNSIDE is the larger enclosure needed, the extra weight involved, the "notch" at 820Hz. I'm not sure about what a SET will do with the back emf...burp it back into the HF driver like a chirping piezo?:(Dual woofer UPSIDE...hmmm...looks cool? Positions the HF horn at a GREAT height relative to the listener. Oh yeah, and the "power response" matches that of a 90x40 horn at 800Hz. Whatever that means:) Sam

Subject: Re: dual 15's
Posted by jlharden on Fri, 06 Dec 2002 16:57:04 GMT
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Hi Sam, This approach sounds logical. I know you've played with the 4648's a bit. Does a inducter value of 1.4 mh for the upper woofer and 2.4 mh for the lower woofer sound about right? Do you still have your 4648's running with Altec horns? What's your long term impression of the combination? Thanks! Jerrod