
Subject: assistance designing live-sound setup for band
Posted by [Mike Lemke](#) on Wed, 06 Jun 2007 03:41:42 GMT
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Hi all - I have a few questions about setting up a system for live sound. I'll give you as much background info as I can.1 - There are three possible scenarios I would like to use this system for; a) practice in basement, b) small to midsize gigs in about max 25' X 40' rooms, and c) playing outdoor parties for no more than a couple hundred people.2 - Depending on the gig, we are either playing heavy metal to classic rock, or more psychedelic stuff like pink floyd with lots of keyboards and acoustic work.3 - The only thing set in stone is the power mixer; I have a behringer pmp3000 (215/450 watts rms per channel at 8/4 ohms, 900 watts rms bridged). I do not want to buy additional power amps if I don't have to.4 - I mainly want to run the whole drumset, bass guitar, keys (when used), and vocals through this unit. For any of the above mentioned scenarios, the guitars are loud enough on their own. We actually overpower the drums sometimes, so yes I do want to have the ability to mic amplify the drums. I can always turn them down if they are too loud (no really...I'll turn them down...)5 - I am intrigued by the Titan 48 and DRxx combo's by BFM, because of their small size. However, I want to be sure I end up with a configuration that thumps your chest with the kick drum and bass guitar that rattles your teeth, as well as beautiful clear mids and highs. And if possible, the hope diamond for a quarter.6 - I love the challenge of building these, am handy enough with woodworking and can at a minimum solder repairs to guitar electronics. With all that, I plan to build these myself once I decide on the right configuration.7 - I'd most like to end up with a simple set of subs and mains for the audience, and a small set of monitors for the band.Q1 - based on the above, are the T48 and DR200 the best combination for the audience, with perhaps the BFM monitors for the band? Do you recommend another setup with better characteristics and performance?Q2 - Given my mixer and what I'd like to achieve, is the 450watts/channel enough power? This is another reason the BFM combos looked so appealing, they seem to have such low wattage requirements for apparently great performance.Q3 - If so, how in the heck do I hook that up? If the mains and subs run out of output A, and the monitors go from output B, how do I wire all the speakers from output A together and likewise for the monitors?My guess is for Output A, I wire sub1 to main1, and parallel connect that to sub2 and main2 as an 8 ohm load? For Output B I wire monitor1 and monitor2 together in parallel as a second 8 ohm load. Q4 - Does that make sense, or am I asking for smoke from somewhere?My other guess was I would run the mains through A and the monitors through B, and be forced to get a single amp for the Sub through the mono line level out of the mixer.Q5 - If I do the latter guess, will a single sub cabinet produce the kind of cave your chest in bass drum I am looking for?Q6 - I have been reading on this board, and it sounds like regardless of what setup I use I need an active crossover - however, do I need one for each cabinet, one for each output, or one for everything?I know this is a lot of info, but I am trying to save you time by giving as much as possible up front and asking all the questions I can think of right away. I'm terribly sorry if I broke some sort of posting etiquette - I'm fairly new at message boards.Thanks in advance for all your help...Mike

Subject: Re: assistance designing live-sound setup for band
Posted by [Bill Wassilak](#) on Wed, 06 Jun 2007 16:28:04 GMT

Q1: I would go with a T48 DR250 combo rather than the DR200, because you can cross the T48 at 100HZ and the DR250 would reach down that low. Where as the DR200 won't.Q2: For the basement gigs and small to midsize rooms, the 25x40 size your talking about, 900 watts total should be ok, but that's using both A+B outputs, but 900 watts won't cut it outdoors.Q3: The question here is how low an impedance can you drive out of each output?Q4: If you can't drive 2 ohm's out of the mixer your maybe asking for smoke out of output A. Output B would be fine because that's a 4 ohm load with 2 monitors. The second part of that question wouldn't work either because the mono output just ties A+B output together.Q5: Nope not from a single cabinet. Folded horns it's all about throat area,horn length and especially mouth area.Q6: You only need 1 active x-over for everything.You didn't break any rules of the board, ask away that's why were here, to help out.HTHBill W.

Subject: Re: assistance designing live-sound setup for band
Posted by [Mike Lemke](#) on Wed, 06 Jun 2007 19:23:00 GMT
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Thanks for the speedy reply Bill. Here's my thoughts...Q1 - gotchaQ2 - gotchaQ3 - 4 ohm minimum loadQ4 - can I combine 16 ohm drivers instead of 8 ohm to come out ok? Is it better to run at 4 or 8 ohms?Q5 - ...meaning 2 subs have twice as much mouth opening and as such, twice as much bass (chest caving levels!), correct?Q6 - gotchaOK - can you recommend good places to buy the parts (other than ebay)?Lastly - I didn't mean to turn this into a BFM only topic: those were just the ones that seemed offer the best bang/buck. Is there any other system that's comparable, ie Bassmaxx or Pi?thanks again

Subject: Re: assistance designing live-sound setup for band
Posted by [Bill Wassilak](#) on Thu, 07 Jun 2007 16:26:10 GMT
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::Q3 - If so, how in the heck do I hook that up? If the mains and subs run out of output A, and the monitors go from output B, how do I wire all the speakers from output A together and likewise for the monitors?My guess is for Output A, I wire sub1 to main1, and parallel connect that to sub2 and main2 as an 8 ohm load? For Output B I wire monitor1 and monitor2 together in parallel as a second 8 ohm load.::Q3 - 4 ohm minimum load You might want to chek on BFM form since you'll be using the passive x-overs it might present an 8 ohm load to the amp then you could parrallel the left and righ mains for 4 ohms.::Q4 - can I combine 16 ohm drivers instead of 8 ohm to come out ok? Is it better to run at 4 or 8 ohms?Not really, remember you only got 400w to work with, but I would try to run 4 ohms total per channel in your case since that way you will get the most power out of the mixer.::Q5 - ...meaning 2 subs have twice as much mouth opening and as such, twice as much bass (chest caving levels!), correct? Nope, That just means that the roll off will be a little

lower in frequency than a single cabinet but with a higher SPL. I usually use Parts-Express, or go through Wayne at Pi speakers to get my componets. Don't worry about turning this into BFM topic, I use 4 of his T-36 slims but I don't have the recommended drivers in them, and there doing just OK barely. That's going to be 1 of my next major purchases, to put the correct drivers in. Bassmaxx and the Pi 12's are both very good speakers you could get the plans to the pi12 but it's huge and heavy 45x45x28. If you bought both of these already assembled you're looking at \$2,000+ a cabinet.
