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Subject: Question for Wayne or others: bi-amping with stock Eminence crossover?  
Posted by [Garland](#) on Wed, 18 Dec 2002 21:37:35 GMT

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Hi Guys,As I wait to build an active crossover for my Theater 4's, I was wondering if it was possible to modify the Eminence/Pi crossover to allow biamping? If so, could someone please describe what would be required? Thanks!GarlandP.S. What got me thinking along these lines is the great bass I've been getting with the 14W per ch. Heathkit. The highs aren't as good as with the Paramours so I'm thinking they might make a great combo in a bi-amped system! The Heath AA-111 is really a fast amp compared to my Paramours so I'm thinking the Paramours might like to free from having to do the Bass thing!

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Subject: Bi-amp connections

Posted by [Wayne Parham](#) on Wed, 18 Dec 2002 22:34:09 GMT

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To provide an option to bi-amp your speakers, I would recommend having two sets of inputs and the ability to disconnect the crossover when the bi-amp inputs are used. This can be provided with internal jumpers, a switch on the cabinet, or connectors having normally open interruption capability. But what you want to do is to have the amps connected directly to the speaker motors when you bi-amp, and the passive crossovers should be electrically disconnected from the circuit.One nice way to do this is to have quarter-inch jacks that wire directly to each motor, and when they are used, they interrupt the passive circuit.

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Subject: Re: Bi-amp connections

Posted by [Garland](#) on Thu, 19 Dec 2002 00:14:07 GMT

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Thanks for the info Wayne, I guess my main question was can I passively biamp the Theater 4's using the Pi crossover and two stereo amps until I get the active crossover up and running? Can the Hi and Lo circuits in the Pi/ Eminence crossover be separated?G.

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Subject: Re: Bi-amp connections

Posted by [Wayne Parham](#) on Thu, 19 Dec 2002 02:02:25 GMT

Ah, I see what you mean now. Yes, you can separate the circuits and still use the existing components. Obviously, you'll want to put a crossover ahead of the amps as soon as possible, but in the mean time, what you have will work just fine. What you'll do is to separate the inputs of your low-pass and high-pass filters. Right now, they're simply connected together, so you'll disconnect them. Then, connect the output of your bass amp to the input of the passive network's low-pass filter, and connect its output to your woofer. Same with the tweeter circuit, connect the output of the tweeter amp to the high-pass input, and then connect its output to the tweeter. Someday soon, you'll want to implement this filter ahead of the amps and then just remove the high-current network altogether. I'd still suggest that you do something that allows your speakers to do "dual-duty" because then you can connect the speakers to more varieties of amplifiers. I'll have an implementation for this filter using tube amps very soon, so that might be attractive for you to use.

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**Subject: Another question for Wayne:**  
Posted by [Garland](#) on Thu, 19 Dec 2002 15:19:33 GMT  
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Can you give us an estimate on when you might have the specs worked out on the Active crossover? I'm in the market now and was going to mess around with Gary Kaufman's boards but if you are going to offer us a kit or specifications specific to Pi speakers in the near future I'll wait. And, like the others, if you want Beta testers I'll gladly be a guinea pig (and pay for the parts as well)!Garland

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**Subject: Re: Another question for Wayne:**  
Posted by [Wayne Parham](#) on Thu, 19 Dec 2002 15:53:48 GMT  
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Go ahead and get Kaufman's PCB and you can add the filter components to that. Steve Bench has indicated that he thinks there are enough plate-through holes to install compensation components. With the holidays, I've stopped messing around with anything except filling orders and providing support. But I expect to have analysis of the active crossover finished by the first of the year.

Subject: Re: Question for Wayne or others: bi-amping with stock Eminence crossover?

Posted by [Scholl](#) on Tue, 24 Dec 2002 11:13:13 GMT

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Replace the 7199 with a 6H30, reduce NFB to 2db or no NFB. The heathkit will have tweeter shredding highs. Mine can do 20us pulses with a square top! In fact it has me looking for new tweeters, it's too revealing. Also, if you don't want such a drastic change try adjusting the capacitor around the feedback loop and you might have a simple low pass filter installed after the first 7199 stage. Some folks prefer the low pass filters and think they are a good idea but they do roll the amp off just above 20khz but in a nice steady slope. Without the filters output is good to over 50khz. I have some resistors on order to make some fine adjustments to the 6H30 circuits and when I do that I can get you exact measurements but this amp can do full out put from 20hz to about 50khz with NO visual distortion and about 1.5% measured distortion at 1000hz. It's a great little chassis.

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