Subject: Minor MG3.6R Crossover Upgrade
Posted by FredT on Sat, 02 Oct 2004 22:48:55 GMT
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I bought the 3.6's from another member of my audio club Wednesday nite. Thursday I checked out the crossovers and identified the parts that could be enhanced quickly and with no surgery on the speakers themselves. So this first attack included only those parts I knew I could fit into the external crossover boxes. I ordered them from North Creek Thursday; they arrived this afternoon and I installed them. The changes include 1)bypassing the woofer shunt caps with 1uF Northcreek Harmony caps, and 2) removing one of the eight 25uF mylar mid/tweet caps and replacing it with a cascade consisting of 15 and 6uF Northcreek Zen caps and a single 1uF Harmony cap.
Pictures

Subject: Re: Minor MG3.6R Crossover Upgrade
Posted by Wayne Parham on Sun, 03 Oct 2004 08:09:35 GMT
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Hi Fred,Good call on the crossovers. The coils look fine, but I can see why you'd want to swap or ay least bypass those electrolytics.Stock MG3.6R CrossoverModified MG3.6R CrossoverHow does it sound after your upgrades?Wayne

Subject: Re: Minor MG3.6R Crossover Upgrade
Posted by FredT on Sun, 03 Oct 2004 09:18:06 GMT
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Thanks. I had upgraded the crossovers on my Maggie 1.6's with Northcreek 12 ga air core inductors and replaced all the Solen caps with Northcreek Zens topped off with 1mF and 0.1mF Crescendo film and foil caps. The results were spectacular - the bass tightened up and became stronger, and most importantly a slight but noticeable hash in the treble disappeared. The 3.6 is a three way and the crossover is quite a bit more complicated. Replacing 5mF and 2.2mF iron core inductors with 10 or 12ga air cores would be expensive. Additionally, the 3.6 has capacitor values of 200 and 100, plus a couple of 50's. So I will just bypass these with higher quality caps instead of replacing them entirely. The value of the final cap in the tweeter signal path is only 17mF. This one is critical to the sound of the tweeter, which handles everything above 1,700hz, so I plan to replace this stack of Solens with a 10mF and a 6mF zen plus a 1mF and a 0.1mF Crescendo like I did with the 1.6.The tweeter caps inside the speaker under the sock, so first I have to figure out how to get into Maggie's soft undergarments without being accused of harassment.

Subject: Re: Minor MG3.6R Crossover Upgrade
Posted by Wayne Parham on Sun, 03 Oct 2004 10:01:07 GMT
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"first I have to figure out how to get into Maggie's soft undergarments without being accused of harassment."

Subject: Re: Minor MG3.6R Crossover Upgrade
Posted by footsurg on Fri, 12 Nov 2004 16:57:29 GMT
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Fred, Can you explain in a detailed manner what you did to upgrade your 1.6 QR's?Mark

Subject: MG1.6QR Crossover Upgrade
Posted by FredT on Fri, 12 Nov 2004 19:47:15 GMT
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The 1.6 crossover is very simple compard to the 3.6. You can find a schematic at http://www.integracoustics.com/MUG/MUG/tweaks/mag16.jpgThe tweeter section is a first order consisting only of a stack of Solen caps, which I replaced with a stack of Northcreeks. Total value is 22uF, which I achieved by combining the following: 15, 6, 1 (Crescendo film and foil cap) and 0.1 (also a crescendo). The woofer circuit is second order using a 3.5mH 19 ga iron core inductor and a 25uF shunt capacitor. I took the 22uF Solen stack from the tweeter circuit and added a 3uF multicap to make the required 25uF. I replaced the stock inductor with a Northcreek 12 ga 3.5mH air core inductor. The upgrade parts will not fit in the cutout where the stock crossover is installed, so I enclosed the parts in a 3X6X8" plastic box from Radio Shack which I attached to the back of the speaker where the original crossover was located.
MG 1.6 Crossover Schematic

Subject: Consider an active crossover
Posted by rnhood on Fri, 28 Jan 2005 23:58:15 GMT
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it will take the Maggie to another level. Of course you will need 4 amps. But heck, you didn't expect the life of an audiophile to be easy did you?
Sorry it's in German.....but you can email and he is fluent in English