

## WEET WMH Aluminum Foil Capacitor in Upgrading the Crossovers Replacing Metallized Polypropylene and Polyester Capacitors

### WEET SAMPLES :

WMH Pure Aluminum Foil and Film Audio Capacitors, 1.0uF 100V, 3.3uF 100V , 3.9uF 100V, 4.7uF 100V

<https://www.musicaps.com/Uploads/PDF/WEET-WMH-Pure-Aluminum-Foil-and-Film-Audio-Capacitors.pdf>

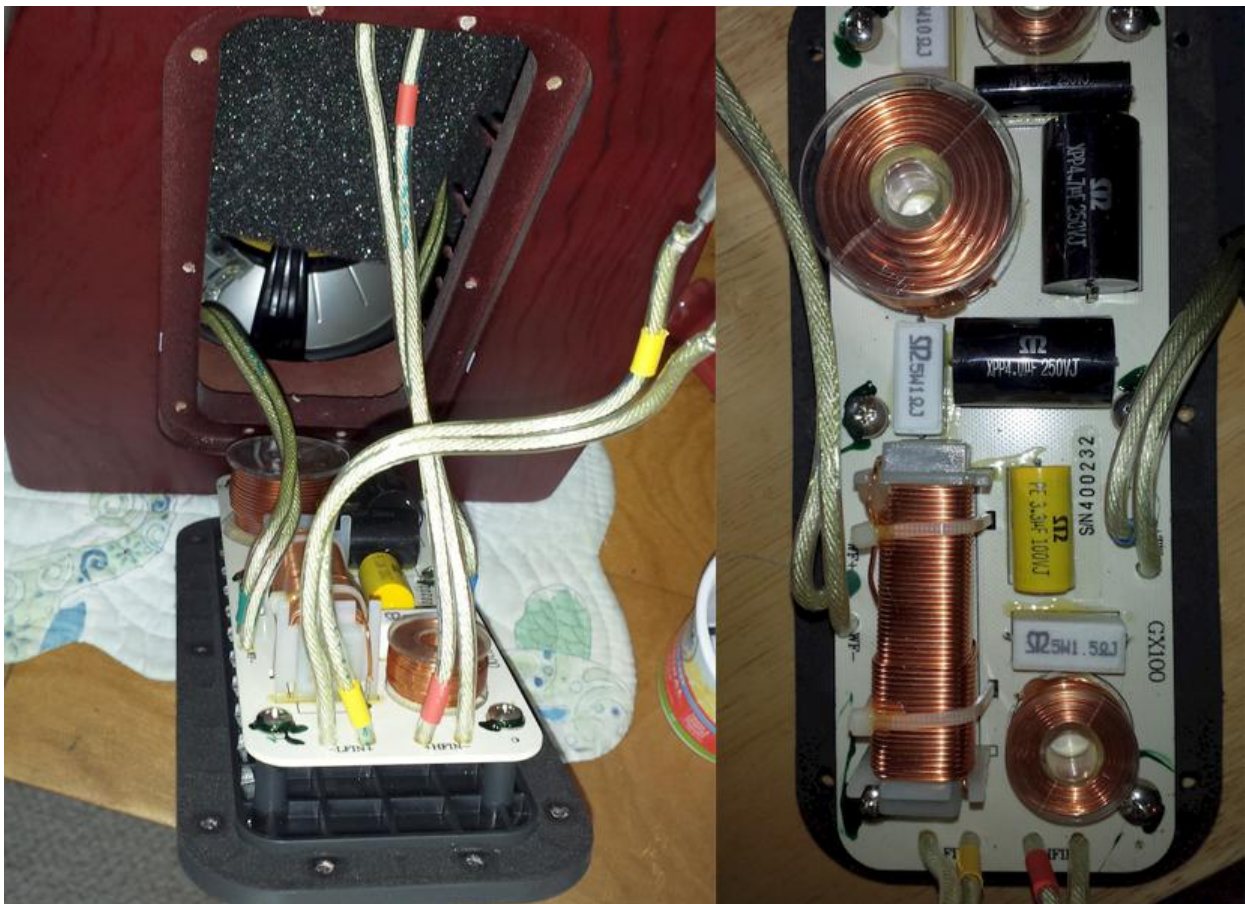
**APPLICATION:** Today's project is upgrading the crossovers in my Monitor Audio Gold 100 speakers



## TESTING RESULT:

Today's project is upgrading the crossovers in my Monitor Audio Gold 100 speakers. I've wanted to do it right for a long time, and now is that time. Replacing the 4 capacitors, 3 resistors, and one coil. The new capacitors are WEET WMH aluminum foil and polypropylene capacitors, replacing what were originally three Bennic-type metallized polypropylene, and one polyester capacitors. All the cement resistors are replaced with Mills MRA12 wirewound, and the woofer iron-core inductor replaced with a much heavier gauge air core with about the same resistance. Three of the capacitors and one resistor are relocated to the bottom of the PC board since there isn't room on top...

My old crossover showing mounting on bottom of cabinet...



I stripped all the parts off the board except for two of the inductors, and then relocated one inductor, changed the other iron core inductor to air core, and replaced all the resistors and capacitors, so didn't save much by using the old board...







First impression is very good, some delicate shimmer in the cymbals comes through that wasn't obviously missing before, the sound seems better integrated overall, I only have one speaker upgraded right now so that I can compare old to new, and letting the new one get a little play time, then I'll more seriously compare, and if all seems OK, do the other one. So maybe a couple days before I finish both.

Capacitors are kind of a complex subject, but even moreso in speaker crossover applications. Probably too big a subject to get into here, you have to look at them as more an electro-mechanical element, and there is solid engineering behind many of the better audio capacitors. But the better foil ones can get expensive fast, so probably not a good upgrade for common speakers. My speakers are a little above "common", but kind of borderline in deciding if the upgrade cost is worth it. I'm really attached to their sound at this point, so that puts it over the line for me, and worth the upgrade, though cost would've been too much had I not gone with the WEET capacitors. The ones I used are the WMH series, which are aluminum foil and polypropylene film capacitors, and made to compete directly with the highly regarded Jantzen Audio Alumen Z 100V capacitor, almost the exact same dimensions, but at a much lower cost. Jantzen Audio is in Denmark, though I think production is in Poland. In any case, they are EU products and have gotten very expensive in recent times, especially at places in the US like Parts Express you mentioned. The WEET caps aren't available through distributors yet so I went through their sales team in China to get the ones I needed.

I'll followup when both speakers are done and settled in, but sounding pretty good, been playing the Melanie De Biasio Blackened Cities over and over, love this record, can listen all day ...

I moved both speakers next to each other in the center, and then mixed one of my favorite songs from the Melanie De Biasio No Deal album down to mono, then played the file and set balance to either left (upgraded) or right (original), and the differences were pretty big.

The left side sounds more like it is in stereo, more depth with natural ambient cues, more height sensation, instruments and vocals in their own space, whereas the right is a flatter sound, everything gets a little bunched up, it's a lot more obvious that only a single speaker is playing.

Gonna do the other speaker now, very much an improvement, don't really hear any downsides. Overall tonal balance seems about the same, just a more open and inviting sound with the changes. Pretty happy with the results.

I've made a few crossovers in the past, though not with capacitors of this quality, generally just with decent sounding metallized polypropylene types, and maybe something more special on the tweeter. I just checked the current pricing of Jantzen Audio Alumen Z-Caps at Parts-Express, which should be a close equivalent to the WEET WMH caps I used, and the price is about \$600 to do the pair of speakers, and that's without shipping and tax. They've gone up a lot in recent times, when I checked pricing in the past I could almost justify the cost, but that would be way too much now to dump into these speakers. The WEET caps were \$146 total, and then another \$60 to FedEx them from China, so that made it worthwhile. Add six Mills resistors and a couple big gauge air core inductors, and all set for under \$300 upgrade cost.

For a large manufacturer, I can understand not wanting to put much extra money in the crossover, it's hidden and most people don't appreciate how much difference it can make using better quality parts. But some manufacturers don't even use better parts on their very expensive top models, sometimes I wonder if they have evaluated the difference between crossover components, or just assume that it couldn't make much difference. I know we tend to exaggerate differences between components, we all have our own audio priorities and value some aspects of the sound differently, but like you said, it does leave a lot of performance on the drawing board when you don't optimize the crossover components.

--- From Dave Ingels - USA

### **ABOUT WEET AUDIO CAPACITORS:**

WEE Technology Company Limited is specialized in manufacturing MKP film and aluminium/copper foil audio capacitors for more than 20 years history. WEET adopt the key techniques from Taiwan factories and the main material are all imported from Japan and European countries. WEET pursuit the highest level in crossover audio circuit and we believe WEET is ready to compete with overseas brands. You deserve to have the best quality audio capacitors.

Check more products about WEET on [www.weetcap.com](http://www.weetcap.com), [www.musicaps.com](http://www.musicaps.com)



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