Subject: When to Recap?

Posted by Adveser on Tue, 15 Mar 2011 00:10:14 GMT

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As some of the regulars may be aware of, I have a 20 year old pair of loudspeakers.

After doing some reading and discovering my past belief that capacitors last "for life" is somewhat incorrect and that they lose 50% of their ability. (I think the wiki page is referring to it's tolerance) I have started to worry that it is time to recap the crossover network.

I have a couple questions if anyone knows the answers:

- 1. Do I have to recap speaker crossovers every decade or so or on a timeframe?
- 2. Is the "condition" of the capacitor relevant to a speaker crossover and the performance of the speaker?
- 3. Is the cap's performance dependent upon the amount of current going through it? I ask because I have 240watt speakers and an amp that is operating at no more than 25watts. It would hardly be worth it if I am not driving the speakers anywhere close to their limits if that is the only time it would matter.

I know a lot of you know a lot about crossovers. I don't know much more than how they work. Personally I am only concerned with the caps operating as intended and am not really interested in upgrading to better quality components. I may upgrade to a "precision cap" if such thing exists, but I was advised by my college prof. not to buy the hype regarding gold caps and that sort of thing.

Subject: Re: When to Recap?

Posted by Wayne Parham on Tue, 15 Mar 2011 14:25:21 GMT

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Electrolytics are the worst about getting lossy with time, especially when stored and not used often. They were common in crossovers made before the 1990s. And since they aren't very good anyway, there's another reason to update the caps. You'll fix the leaky ones and can replace them with much better poly caps too. Kill two birds with one stone.

The Sound of Capacitors

Subject: Re: When to Recap?

Posted by Adveser on Wed, 16 Mar 2011 02:31:03 GMT

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That's all I need to know then. Electrolytic caps suck and mine has them. Mine aren't leaking at all, but their age is a problem.

Thanks Wayne. looks like that is the next step in making my stereo sound better. It's a cheap fix too.

Subject: Re: When to Recap?

Posted by Wayne Parham on Wed, 16 Mar 2011 15:12:02 GMT

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I don't mean leaking physically - I mean electrically "leaky" which is really that they become more resistive and less capacitive. You'll find them less able to hold a charge after they've been sitting for a long time. After a while, they're pretty much just an open circuit.

There are plenty of poly caps out there that are very reasonably priced, by the way. Solens and Erse make good caps that don't cost a lot. Jantzen has some that aren't too expensive too. Of course, there are lots of boutique caps out there as well, the Mundorfs, Auricaps, etc. Some are kind of in between cost-wise, like Kimber Kaps.

Subject: Re: When to Recap?

Posted by AudioFred on Tue, 22 Mar 2011 01:53:43 GMT

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Replacing the electrolytics on vintage speakers will almost always improve the sound. Like Wayne said, you don't need to use botique caps. I've found Dayton caps from Parts Express are very attractively priced, and they sound about as good as Solens or Jantzens. The poly caps will be quite a bit larger than the equivalent value electrolytics and may not fit in the same space on the circuit board, so you may have to attach them with short lengths of insulated wire and secure them with wire ties.

http://www.parts-express.com/dayton-metallized-capacitors.cfm