
Subject: Power caps

Posted by [DocWaxham](#) on Fri, 30 Apr 2021 17:54:46 GMT

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What should the spread be between the two? I have 3 pairs all from different amps and the two close together are 4900uf and 5000uf from different amps. Others I have are not that close. The first K200 I replaced them with some Nichicon 6800uf. Just wandering if I should replace these as well. Thanks

Subject: Re: Power caps

Posted by [DeadKoby](#) on Fri, 30 Apr 2021 20:35:22 GMT

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I don't think I understand your question well. I've re-done a bunch of K200's... If the caps aren't causing issue, I usually leave them be. On a BASS amp, you can tell they are getting weak... big notes cause distortion and a dimmed power light. On the bass amps up to 10Kuf is ok.

Subject: Re: Power caps

Posted by [DocWaxham](#) on Sat, 01 May 2021 15:06:09 GMT

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I guess I did not word it well. I was just wanting to know the tolerances between the two. Could it be 10% or 20% plus or minus. Thanks

Subject: Re: Power caps

Posted by [stevem](#) on Sun, 02 May 2021 10:35:54 GMT

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The stock uf value is 4500.

Up rating the power supply rail filters from the stock value will help out some when playing loud, or Bass thru them above a certain volume level, although this is only beneficial on fast played notes, long loud sustained sounds above a certain volume level just plain call for a power transformer with more reserved current capacity then the stock one has, and this is certainly true if your trying to play a 5 string Bass thru the amp loud!

Kustom back then was one of two amp manufactures that I know of who made guitar amps that used the big and expensive can type caps that are called computer grade.

Most of the vintage Kustom amps run on both positive and a negative 40 volts, the power supply caps where rated for only 50 volts which helps them to stay "formed".

This is a term meaning that the insulation formula/ process within them stays active and they not only maintain there uf rating, but they don't Internally dry out.

Once the inside of a electrolytic cap starts to dry out a small short gets developed and this is the beginning of the amp starting to hum since the AC filtering ability of the cap is going south! The next step in the decline is more and more of the cap becomes shorted and the amp then starts to blow fuses.

In terms of your overall question I would not go less on the uf rating and I would not go much more then a doubling of the stock 4500 uf rating , and here's why.

When you power up the amp these filter caps crate a load on the power supply diodes and the power transformer itself.

This means the more uf valve you have above stock the greater the start up current load will be placed on the diodes and the power transformer .

In time with enough turn on's and turn off's the power transformer will fatigue possibly fail!

The best way to keep any electrolytic type caps within a amp formed (in good condition) is to turn the amp on once every 3 Months for maybe 45 minutes,or in the case of many of these 50 year old still with there original filter caps , turn them on once a Month, and you do not even need to play thru them, just power them on.

Also I would not replace these two main rail 50 volt rated filters with anything over 75 volt rated filters!

Doing so means the filters maybe initially or after a while Will not fully form and the uf rating stated on the filter will not be achieved.

In other words even thought your filters may say 10,000 uf on them, in time if you where to test them out for there uf rating you would only see 8,000 uf.

Subject: Re: Power caps

Posted by [chicagobill](#) on Sun, 02 May 2021 18:23:25 GMT

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All good advice Steve.

But I think that what he wanted to know was if he could use two different values for the power supply caps, like one 4500uF and one 5000uF.

In my opinion both caps should be the same value and voltage rating. Even better is that they are both the same manufacturer and the same age. If this is a amp that you plan to keep, then the investment in two new caps is not that much. And a set of new "Snap-In" type caps is really cheap.

Is there a reason that you need to replace the original caps?

Subject: Re: Power caps

Posted by [steven](#) on Sun, 02 May 2021 20:40:20 GMT

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I kinda skipped that I guess, lol!

Ok, so there is a tolerance in regards to the uf rating on these types of filter caps and many times it's like minus 10 to plus 20%.

This means that if you had the kind of tester to look at a caps uf value that it is possible to have a cap labeled for 4800 uf and another labeled for 5200 uf both test out the same.

I would want both of my filters to be within 10%.
