Subject: K 100 8

Posted by FeltonPruett on Sat, 22 Sep 2018 08:29:57 GMT

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I came across a '69 K100 8 on Craigslist. YA! My first amp in junior high. It works OK for it's age, the only thing I've found so far is a volume drop when the Trem-Vib (which works) is turned on and when the intensity is turned to 5 o'clock there's more treble. The other thing is when the normal channel is dimed it distorts horribly. A wretched, garbled robot death noise from hell. I'm planning on changing out a lot of capacitors and I've done cap jobs on tube amps... why so many electrolytic caps? I've never seen anything like it. At least it looks fairly easy to work on. Any tips, suggestions or advice on this amp much appreciated.

Subject: Re: K 100 8

Posted by stevem on Sat, 22 Sep 2018 10:23:53 GMT

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Hello and welcome!

Yes, a bunch more secondary power supply caps and uncoupling caps in a SS amp as compared to a tube!

I would make a list and replace all the electrolytics that are on the 1400 and the 1500 preamp boards since your in there anyway as your taking well less then 20 bucks worth of parts even if you go with top shelf parts!

While you are working on the normal channel I would also replace the first 2 transistors off of the input jack, as one of these could be your issue and if nothing else new current type transistors have a lower noise floor!

Note that on these amps one input jack is briter sounding then the other, not lower gain like the number 2 input as on tube type Fenders and others!

Also note that the 2N5033 transistors on the 1500 board are FET type transistors, not the common bipolar type.

These two boards run off of a positive and negative 8 volt power supply rail that is regulated. The negative 8 volt rail tracks off of the positive, so if both rails are reading over 8.750 volts there is a issue.

Be very carful with the metal case diode that is held in the clip on the heat sink between the two output transistors as its leads are prone to breaking off at the body if they get moved around too much.

Keep us informed on how it goes.

Subject: Re: K 100 8

Posted by chicagobill on Sat, 22 Sep 2018 16:54:22 GMT

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Welcome!

There are more electrolytic caps in a solid state amp, because the circuit impedances are lower and all of the coupling caps have to have higher values than those in a tube amp. Typical tube amp coupling cap is less than 0.1uF, which would never be an electrolytic.

Again, welcome!

Subject: Re: K 100 8

Posted by FeltonPruett on Mon, 24 Sep 2018 05:53:30 GMT

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Great info, thanks. Starting in on the parts list now. I'll let you know how it goes.

Subject: Re: K 100 8

Posted by FeltonPruett on Sat, 29 Sep 2018 08:28:44 GMT

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Man, I'm already stuck. The caps on this thing have me confused. Really low value electrolytic caps like 33-15, 33pF 15 V am I reading that right? What happens if I put a regular ceramic non polarized in there? Common sense tells me not to do that, what's up with this thing?

Subject: Re: K 100 8

Posted by stevem on Sat, 29 Sep 2018 10:10:47 GMT

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The caps you should be concerned with on that board, or any circuit board in the amp are shown in the schematic on this site as having a + and - at each end of it because they are polarized, and these caps are rated in uf, not pf.

These days we have new electrolytics you can buy that are non polarized which will make your repair work easier .

Subject: Re: K 100 8

Posted by FeltonPruett on Mon, 01 Oct 2018 01:14:48 GMT

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OK. So the caps I'm looking at on the boards that say 10, 33, 1 are uF. I can't find some of the lower values like for instance .033 uF in an electrolytic but I'm seeing articles that say MLCC's can

replace electrolytic caps. Does anyone have experience with that? Thanks.

Subject: Re: K 100 8

Posted by stevem on Mon, 01 Oct 2018 11:33:07 GMT

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These are the main caps I would be concerned with at first on PC1500

C1501, 100uf/ 25 V C1503, 33uf/ 25V C1506 100uf/25v

C1507 33uf/25v

C1510 1.0uf 25v

C1531 33uf/25v

C1532 100uf/25v

C1533 10uf/25v

C1542 10uf/35v

C1522 10uf/25v

Subject: Re: K 100 8

Posted by FeltonPruett on Wed, 03 Oct 2018 05:38:52 GMT

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I'm a newbie at transistor amps, they seem a little more complicated to work on than I thought. Great place to start, thanks!

Subject: Re: K 100 8

Posted by stevem on Thu, 04 Oct 2018 10:09:16 GMT

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The early kustom amps before the B series atleast in terms of the preamp sections are much more tube like with there single rail (positive and ground) power supplies.

Early solid state Sunn , Accostic and many many others where the same way , even including the output stage in many of them!