Subject: K200B-6
Posted by aeroboy47 on Mon, 16 Sep 2019 15:08:19 GMT
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Amp makes loud pop when powered on. Other than that it works fine. Have checked numerous voltages and all are good according to schematic. If anyone has had a similar problem corrected, I would love to hear about it.

Subject: Re: K200B-6
Posted by stevem on Tue, 17 Sep 2019 10:06:39 GMT
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Hello!
The number 1 main reason for the loud pop instead of the normal thump that the amp should make is due to the two big can type 4500 / 50 volt power supply rail filters needing to be replaced..
A secondary reason could be the many smaller electrolytic type caps on the other circuit boards that the amp has.

To nail down where the issue is coming from you can do this check out.

The blue wires from each front mounted PC board carry the audio signal to the amps rear wall mounted PC703 board.

If you cut open each blue wire one at a time and then power on the amp again to can then confirm if it's either of these two boards that are making the loud pop .

These wires can the easily be soldered back together and insulated.

Subject: Re: K200B-6
Posted by aeroboy47 on Tue, 17 Sep 2019 20:40:12 GMT
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Thanks. I will try your suggestion. I have also found that one of the output transistors has nearly the same resistance (12k/13k)between the base and emitter.

Subject: Re: K200B-6
Posted by stevem on Wed, 18 Sep 2019 10:37:37 GMT
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Well that may be leaking D.C. Voltage and making for that bang at power up.

For all of the well less then bucks that these 2N3055 output Transistors cost each to day I would get a pair of them like the NTE131MP and install a new one on each side of the amps thermal cut

off switch that sits between them and see if that clears up the issue, as., there far cheaper then new computer grade main can filters !

This will help to keep the output stage balanced for lower distortion and low output hum levels.

Subject: Re: K200B-6
Posted by aeroboy47 on Wed, 18 Sep 2019 15:16:41 GMT
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I'm going to replace all four of these output transistors. Resistance readings are not exactly what I would expect from any of them. I'll let you know if this corrects the problem. Thanks for the input.

Subject: Re: K200B-6
Posted by stevem on Wed, 18 Sep 2019 16:01:47 GMT
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Are they all original RCA 36892 Transistors?

Subject: Re: K200B-6
Posted by aeroboy47 on Thu, 19 Sep 2019 17:25:42 GMT
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Yes, they are all the original ones

Subject: Re: K200B-6
Posted by rodak on Thu, 26 Sep 2019 20:08:15 GMT
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Do the 2N3055s need to be "matched" in any way, or is that non-critical?

Subject: Re: K200B-6
Posted by stevem on Fri, 27 Sep 2019 09:43:54 GMT
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Ideally they should all be matched pretty close as that will allow the lowest amount of D.C. Voltage offset (hum at idle) and the highest level of clean output wattage before clipping/ distortion.

Subject: Re: K200B-6
Posted by rodak on Mon, 10 Feb 2020 20:49:46 GMT
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(Catching up on my reading here)

Steve, how do you go about matching a pair of 2N3055s for he output stage?

Subject: Re: K200B-6
Posted by stevem on Tue, 11 Feb 2020 13:58:01 GMT
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3 ways to go about this without a Transistors matching / testing rig.
1) get a fist full of 2n3055 Transistors and install them one at a time while measuring and noting the D.C. Voltage on the speaker jack with no speaker hooked up .

The lowest D.C. Voltage seen will be a decent combination of matched Transistors.

The other way is to just buy 2 matched pairs of NTE130MP Transistors .

The 3rd way is that some folks offer a matching srervice that you can find online.

Subject: Re: K200B-6
Posted by rodak on Tue, 11 Feb 2020 15:36:41 GMT
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Thanks, Steve. I think I actually have a matching rig I built a long time ago to test/match some power transistors in my Krossroad 500 head. I'll have to dig that out and post the schematic here to see if that's what you're talking about. Or do you have a link to a suitable rig I could compare it to?

Subject: Re: K200B-6
Posted by stevem on Wed, 12 Feb 2020 10:54:34 GMT
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If you've made a rig that can do matching for the 500 then your set !