Subject: K150-1 Hum No Audio

Posted by TelesnTubes on Tue, 18 Jan 2022 21:27:58 GMT

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Hello

I am new here. Thanks for sharing so much info on Kustom amps. I am a tube amp guy trying to navigate my fist solid state amp repair. It is a Kustom 150-1 head. Amp is not passing audio and has an audible hum thru my 80hm test speaker. I have removed the signal input wiring harness plug to see if the problem is in the pre amp or power section. There was no change. So I suspect an issue in the PC5033 power amp board. I have 46 +/- VDC on the big filter caps and 12 +/- on the terminal block and wiring to the preamp boards. I also read 15 VDC on the speaker jack - my experience with tube amps tells me there should not be DC on the speaker output and maybe there is a coupling capacitor that is bad.

I have not started measuring/testing components or voltage at each component yet. I wanted to see if I am on the right track or should I start elsewhere? I also have a question about the correct value for C4. The schematic says 33uf. I wonder if the decimal point is missing and if the correct value is .33uf or 3.3uf. I can't see the code on the capacitor. I have found most of the transistors online except for the 40408/nte190. What is an equivalent for this transistor. I also see the IC and suggested nte725 replacement are obsolete. Any suggestions if these need to be replaced? I hope the issue is contained to the PC5033 board.

Thanks!

Subject: Re: K150-1 Hum No Audio

Posted by stevem on Tue, 18 Jan 2022 22:13:12 GMT

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Hello and welcome!

Well the good news is that since your amp is not blowing its 3 amp then you likely do not have a blown output transistor, but one of them could be leaky.

The key here With the dc voltage you are measuring is if It's a negative or positive voltage as that will tell you what side of the power supply rail the issue is in.

The cap you question is a 33 uf.

Just as a matter of course and due to age I would start off by replacing all of the electro type caps on that 5033 board, C3, C4, c7 and c8.

Transistor 40408 is a NPN type and can be replaced by a NTE 128 or equivalent.

When you remove that board from the chassis be very ultra careful with the leads on the RCA brand bias temp diode mounted inbetween the two 3055 output transistors, they are fragile!

Also do not power up the amp without the 5033 boards connector plugged in other wise you will

harm some semiconductors and blow the fuse.

You can use the model jack to pull signal off off the preamp section to see if that is working. That jack is blocked from dc voltage by c2, so you should not read any dc on it unless it's coming down from I bad Transistor or IC in the preamp section.

Subject: Re: K150-1 Hum No Audio

Posted by TelesnTubes on Tue, 18 Jan 2022 23:24:18 GMT

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That's a great start - thanks! If it were a tube amp, I would be done already LOL

Subject: Re: K150-1 Hum No Audio

Posted by stevem on Wed, 19 Jan 2022 00:19:33 GMT

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Yes, it's far easier to to stuff in a known good PI tube and set of 6550's once the bias is checked and see if it fly's again!

Note, you will have to make 3 more post for me to approve before your post will just go up to the site.