Subject: K100 Bass amp HUM help
Posted by cjm133 on Sat, 12 Mar 2005 00:43:00 GMT
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I recently got a kustom Bass amp Model 2-15K-1. I think it is a K100 but I'm not 100% positive. When I turn the amp on all I get is hum, no hiss or audio signal. I replaced the filter caps (wired correctly) but I still get the hum, with no audio signal. I did notice there appears to be some DC voltage on the main 1/4 inch outputs as I get a spark(and POP) when I plug in the speaker cable. Both fuses are ok and have not popped yet. My rectifier is putting out 39 and 36 volts dc. Does anyone have any suggestions or other places I can check.
Thanks,
Chris

Subject: Re: K100 Bass amp HUM help
Posted by stevem on Mon, 21 Mar 2005 13:34:17 GMT
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DC voltage on the output jack means driver/ output stage problems more than likly.

Subject: Re: K100 Bass amp HUM help
Posted by cjm133 on Fri, 25 Mar 2005 23:47:01 GMT
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Stevem thanks for your reply. Do you know what the replacement transistor is for the driver transistors(with the Square heat sink)? Thanks

Subject: Re: K100 Bass amp HUM help
Posted by stevem on Mon, 28 Mar 2005 17:57:52 GMT
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I do not have the info with me today. I will post the transistor numbers on tuesday.

Subject: Re: K100 Bass amp HUM help
Posted by cjm133 on Mon, 28 Mar 2005 23:13:09 GMT
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Thanks Stevem, That would be great. I replaced the output transistors (all 5) with the 2n3055, but unfortunately nothing has changed. Still have hum and 24VDC on the speaker outs.

Subject: Re: K100 Bass amp HUM help

Posted by stevem on Tue, 29 Mar 2005 13:38:54 GMT
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Well, I got to tell you. If you have a model with 5 output transistors, then I have no clue what model it is eitheir!Their for I do not know if this info will help you, but here it is any way.The transistors of the metal case type that would normaly be in a vintage kustom are 38736,38737,38735. these are the original RCA numbers. The last 2 numbers cross to a NTE-128, the first one crosses to a NTE -129. Does this amp have a plexiglass front panel and a perferated steel grill on the back?

Subject: Re: K100 Bass amp HUM help
Posted by stevem on Tue, 29 Mar 2005 13:41:52 GMT
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When you replace the originals you will also have to get add on heat sinks for a TO-5 TYPE transistor, since none of the new ones will come with that boxed type heat sink.

Subject: Re: K100 Bass amp HUM help
Posted by cjm133 on Tue, 29 Mar 2005 18:20:19 GMT
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Thanks for the part numbers. The amp actually has 4 output transistors with 4 drivers. However there is one more 2n3055 that is attached to a small board Ross PC 602.

The Output board is a Ross PC 702 and my preamp boards are PC 102. It is a metal face with the 2 pop out fuses on the front, No perferated steel grill on the back (solid chasis). Two channels, 4 knobs on each channel, Bright, treble, bass, volume. From what I've read on the other post it seems to be similar to the Bass K200s(maybe?).

Do you know if the driver Transistors are 2 NPN and 2 PNP or are they all NPN. I can meter what I got in the amp, but I just wanted to see what was typical. Thanks again for your help. Chris

Subject: Re: K100 Bass amp HUM help
Posted by stevem on Tue, 29 Mar 2005 21:56:00 GMT
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This is a frankinstein/early 200 head.their should be 6 of those 2n3055/ TO3 type transistors, 1 in the powersupply, 1 is the driver that feeds the driver transformer.their are 4 other ones inthe driver end, 3 npn , 1 pnp.they are 2n3567,2n3638,2n3565.I have a schematic for this head if you need it?

Subject: Re: K100 Bass amp HUM help
Posted by stevem on Tue, 29 Mar 2005 22:43:09 GMT
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Sorry, but it just hit me. since this amp has that transformer in the driver stage used as a phase splitter, that DC voltage you are seeing can not pass from the driver stage thru that transformer. so you only have the 4 output transistors after that to be bad, or that transformer may be shorted, which is a long shot! Also that amp should have the steel protection on the back, other wise metal objects can short across the case of any of those outputs to ground and blow the fuse. you should at least get plastic TO3 covers for those outputs.

Subject: Re: K100 Bass amp HUM help
Posted by cjm133 on Wed, 30 Mar 2005 04:48:48 GMT
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Stevem thanks for those parts numbers. Good news. The hum was cause by a bad driver. I'm finally getting audio and no DC on the main outs. My output section had 2 NTE128 and 2 NTE129 for the drivers. One driver did show up Bad.

Funny thing was I getting distortion at about half volume, (sort of like a mild stomp box distortion,tube screamerish), That would have been ok for guitar but.... this is for a bass rig. It also hummed a bit. I put back in my old output transistors (these were also fairly new because they were not RCAs). After I did that I got alot more clean volume out of the amp. At the moment.... it's loud and tight which is how it should be. So I guess the 2n3055 I got from radio shack were no good. I know I read one of your post where you suggested the matched pair of output transistor.My guess is the ones I had before were somewhat matched because the volume, distortion and the hum got better.

Oh... also this amp does not have an output transformer. Only a power transformer, that's it. The mains attach to a speaker 5 amp pop out fuse and then on to the output board.

Well.... Thank again from your help, I'll try and get some TO-3 covers as that was good to point out.

Subject: Re: K100 Bass amp HUM help
Posted by stevem on Wed, 30 Mar 2005 12:36:51 GMT
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Its not a output transformer. the early heads with the outputs mounted on the back panel, used a transformer as a phase splitter in the driver section, where as the latter heads use tranisistors.These early heads have no output circuit protection as do the latter heads, its all up to that fast acting speaker fuse on the front panel, so make sure you have the right rated fuse in it. Or better yet if you do need the amps max wattage put in a little lighter fuse. These amsp also have 2 paper cased electrolyic caps on 2 different boards. The 2 of them should get replaced with out question.