
Subject: K100-1 No output

Posted by [BC](#) on Tue, 07 Jan 2014 18:58:29 GMT

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The title says most of it. Power light is on. No sound from either channel. Looked at the board and nothing shows burned or exploded. Tested on a known good cabinet with known good cables. Since it is common to both channels is the finger pointing to output transistors? What should I check next? BC

Subject: Re: K100-1 No output

Posted by [chicagobill](#) on Wed, 08 Jan 2014 05:23:36 GMT

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If the output transistors were shorted, the amp would blow fuses. If they are open it could stop working and still light up, but that would be an odd failure.

Check the internal wiring going to the speaker jack and your speaker cable as well.

Do you have a voltmeter? If you do, test the voltages across the two main filter caps.

Subject: Re: K100-1 No output

Posted by [BC](#) on Wed, 08 Jan 2014 05:31:20 GMT

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Wiring to the jack looks fine.(no visible problems) Plug the cable into another head and everything is fine. I will check the voltages. A blown fuse would take the pilot light out would it not? Thanks!

Subject: Re: K100-1 No output

Posted by [BC](#) on Wed, 08 Jan 2014 05:51:34 GMT

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I have zero voltage at the filter caps. If I follow the red and green leads back to the bridge rectifier I get 68 volts.

Subject: Re: K100-1 No output

Posted by [chicagobill](#) on Wed, 08 Jan 2014 07:11:14 GMT

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The 68 volts is right, + and -34 volts to each cap. The ground connection to the caps or to the transformer may be loose.

Subject: Re: K100-1 No output
Posted by [BC](#) on Wed, 08 Jan 2014 13:48:55 GMT
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I tightened all the screws on top of the filter caps....all moved a little but none were loose. Checked the voltage....still nothing (Checking DC) at the caps but, the red and green on the rectifier are now showing 150V AC. I did notice that the transformer is not tight in the amplifier case. It is riveted to the bottom and not tight. The rivets look like the factory mounts.

Subject: Re: K100-1 No output
Posted by [chicagobill](#) on Wed, 08 Jan 2014 17:44:25 GMT
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The transformers were pop-riveted in place, so that is correct. Unless the transformer is very loose, I wouldn't worry about it.

The changes to the readings that you are getting seems like a reading error. Try setting the meter to read dc volts, then connect the black lead to the chassis and then touch the red lead to the red and green wires at the filter caps and at the rectifier.

Subject: Re: K100-1 No output
Posted by [BC](#) on Wed, 08 Jan 2014 18:25:44 GMT
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Good Suggestion! Black lead on the chassis....green lead reads -34 DC on both the rectifier and at the capacitor. Red lead reads +34 DC on both the rectifier and at the capacitor.

Subject: Re: K100-1 No output
Posted by [chicagobill](#) on Wed, 08 Jan 2014 20:31:42 GMT
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That's a good sign, the power supply is working.

Can you hear anything from the speaker? Hiss? Hum? If you turn any of the controls do you hear anything at all?

Subject: Re: K100-1 No output
Posted by [BC](#) on Thu, 09 Jan 2014 03:58:47 GMT
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There is a very low volume hum or hiss. There is no change in volume or tone by operating any of the controls on either channel or, by anything connected to the input jacks.

Subject: Re: K100-1 No output
Posted by [stevem](#) on Thu, 09 Jan 2014 14:16:36 GMT
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Is this a amp of yours one that just went south, or a amp that you picked up dead?
If you find cap C137 in front of Q118 on the schematic, touch the non grounded side of the cap with your finger(use a screwdriver for more length if needed) you should hear a low volume buzz out the speaker which will tell you that the output stage is working.
There is no voltage there so you will not get a shock, but be care full to not short the screw driver if used to other wires or lead.
Q107 may have popped which will stop any audio from either working preamp from getting to the output stage.

Subject: Re: K100-1 No output
Posted by [BC](#) on Fri, 10 Jan 2014 04:04:46 GMT
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Hello Steve

This is an amp I bought years ago from JC. Number two son was using it for church band on a 1x15 CTS cabinet. I asked him tonight if he remembered how it failed and he said it suddenly buzzed loudly for several seconds and then went dead.

There is a slight hum buzz when the amp is on. The sound does not change when I touch the leg on the cap.

Subject: Re: K100-1 No output
Posted by [stevem](#) on Fri, 10 Jan 2014 13:25:25 GMT
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So your driver and or output stage is not a happy camper!
Find the two big 5watt rectangular resistors, factory ones may be tan or white in color and then check the resistance across them.
They should read very low, below 2 ohms.
If they check higher then they are open and one or both of the output transistors are atleast bad and may be one or both of the driver transistors also.
Also if a output has gone bad the fuse should have blown, I would check that and confirm that it has not been replaced with a improper value fuse as part of the first repair you make to the amp after check out!

Subject: Re: K100-1 No output
Posted by [BC](#) on Sat, 11 Jan 2014 05:19:18 GMT
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Had a hard time finding the resistors until I opened another 100 amp and I saw them right away. The resistors in the "sick" amp are green and tubular.....even hollow inside...so I suppose they have been previously replaced. The values are 3.2 and 3.4 on the resistors. The fuse is 125V 3A and checks good with a meter as well as visual.

Subject: Re: K100-1 No output
Posted by [stevem](#) on Sat, 11 Jan 2014 14:48:43 GMT
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Those two resistors should be 1 ohm 1 percent, not that the valves that they are (around 3 ohms) will stop the amp from working, but I would replace them once the main problem you have has been delt with non the less.

Since the amp has been worked on and just suddenly cut out with out blowing a fuse, I would suggest that you drop that whole main board off of the front of the amp and look for bad soilder connections and or broken circuit board traces around where the repair work has been done. Many times the board connection on the biggest orange caps goes bad due to vibration, so check these also.

when removing the board clean off and mark where the yellow and blue wires face on the connectors for the output transistors and be VERY CAREFULL with the leads on the bias diode in the hold down clip in the center of the outputs.

when re-installing that diode in the clip make dam sure its gripped good and that the leads do not touch that clip.

I alway apply a dab of silcone glue / sealer to the leads at the diode end and each end on the board, as these leads are quite brittle and snap off easy.

Subject: Re: K100-1 No output
Posted by [chicagobill](#) on Mon, 13 Jan 2014 02:21:51 GMT
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The high reading of the 1 ohm resistors could be the added resistance of the meter leads. When you touch the two leads together directly what reading do you get?

The next step would be to start testing voltages in the power amp and compare them to the voltages on the schematic. Just be careful when working on the pc board.

Subject: Re: K100-1 No output
Posted by [stevem](#) on Mon, 13 Jan 2014 13:28:42 GMT
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Sorry, I mis-typed, I ment to post that even if the resistors where indeed 3 ohms, that would NOT stop the output stage from working.
