## Subject: 3 prong cord and Hiss questions

Posted by chip filbry on Mon, 13 Feb 2012 23:05:33 GMT

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I am back with a Kustom K-100. Started in 1979 with a gold K-100 piggyback and now have gotten a Cascade K-100. I want to change to a 3 prong cord, but here is my question. I have seen pictures with the orange cap on and without.

1. Does the orange cap need to be removed when installing a 3 prong cord?

I notice some hiss when amp is on and have this question.

2. Would using a heat gun "warm up" caps and reduce some hiss?

thanks for your reply

Subject: Re: 3 prong cord and Hiss questions

Posted by chicagobill on Tue, 14 Feb 2012 04:02:31 GMT

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Welcome to the place.

If the three wire cord is correctly installed the cap can remain in the amp if you want. Some people remove it, but it would only cause a problem if it were ever to short. If it shorts out, one side of the line would be connected to the metal chassis. If this were to happen the chassis which is connected to ground should blow the power fuse.

As for the hiss there are many causes of this and heating parts may or may not help. How bad is the hiss compared to the other Kustom amp that you have?

Subject: Re: 3 prong cord and Hiss questions

Posted by chip filbry on Tue, 14 Feb 2012 04:17:34 GMT

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Thanks for the tip on the cap. I will just put white w white and blk to blk. Attach green to chassis and leave cap there. Is there a specific store/mfg that is preferred to get the 3 prong cord?

As far as the hiss goes, If amp is miked and there is quiet time between songs or during song, it could be picked up in the house. Would replacing the caps/resisters be the way to go?

Subject: Re: 3 prong cord and Hiss questions

Posted by stevem on Tue, 14 Feb 2012 11:51:38 GMT

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Antique electronics has some nice long power cords but you have to match the gauge of the cable to fit the amps strain releaf.

They carry a nice fat 12 ga one, but to use it you have to shave open the strain releaf and slice some of the outer insulation off of the jacket of the new cord.

Hiss wise the first thing to do is track down which part of the amp its coming from.

This is easy to do in the combo K100 heads due to their seperate preamps and driver/output board.

If you unsolder the two blue wires at the driver board and then power the amp up and still have the hiss then its coming from that board, as the blue wires carry the audio output signal from the preamps to the driver.

If this does not prove out than reconnect each blue wire one at a time, and when the hiss returns you have found the hissy board.

In regards to fixing it, the first thing I do to any preamp board is replace the first 3 transistors regardless if the amp is hissy or not, as any hiss made there is amplifide hundreds of times more by latter preamp gain stages.

90% of the time this gets things right for all of less than a bucks worth of parts!

If not the only other way to track down the hiss other than thru the use of a O-scope is to just shot gun all the transistors and go with new ones.

The good thing about new transistors is more gain with far less hiss than normal!

Also many of the original Tantalum caps may be suspect too!

As these age they change in value, and they can go up or down in value when they do.

If they go up in there uf value and are use in the circuit as bypass caps they can make a transistor produce far more gain and hence more hiss.

The two large can type filters mounted on the chassis will not be part of a hiss problem, so leave them be if the amp has no bad 120 hz hum at idle.

Subject: Re: 3 prong cord and Hiss questions

Posted by chip filbry on Thu, 01 Mar 2012 23:57:27 GMT

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Can you tell me what transistors to buy and where? A couple of you have mentioned to at least replace the first 3 transistors. Does anyone have a schematic on the K-100-1, or at least email me a copy of goodies I need to replace/check. I have so far replaced the 2 prong to a 3 prong and used a variac to bring voltage up.

thanks for any help you can give. chip (Tom Anderson Guitarworks)

Subject: Re: 3 prong cord and Hiss questions

Posted by conductortom on Fri, 02 Mar 2012 20:31:22 GMT

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For some kustom schematics you can find them at schematics.number26.org & music-electronics-forum.com

Subject: Re: 3 prong cord and Hiss questions

Posted by stevem on Sat, 03 Mar 2012 16:24:45 GMT

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Most Radio shack stores carry 2N3904 and 2N3906 transistors that will replace 95% of all the transistors found in Kustom preamp sections.

If you order them the a company like Mouser, or Newark 1 the cost will be about half.

Subject: Re: 3 prong cord and Hiss questions

Posted by chip filbry on Sat, 03 Mar 2012 19:20:36 GMT

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Thanks. I will take to shop and get started. Could only find schematic for K100-2 and not the K100-1. Can I use this?

Subject: Re: 3 prong cord and Hiss questions

Posted by stevem on Sun, 04 Mar 2012 18:02:04 GMT

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I would have to compair both schematics, but off the top of my head I think that the first 3 gain stages on each of your channels would be the same as on the -2 model head. By this I mean at least in regards to the transistors used.

The driver and output stage would be the same after all the effects stuff with out question, and some times the input gain stage transistor at the driver is the noise maker of the bunch!

Note that before you pull the circuit board off of the front to panel to work on it, there is a metal cased diode held in a clip inbetween the two output transistors on the C channel mounting bar on the floor of the amp.

This doiode must be pulled from the clip with care, as its leads can snap off quite easy.

In fact I would first put a dab of silicone sealer over the leads at the diode and let it cure before doing anything as far as moving the board back from the front panel.

The blob of sealer will greatly aid in keeping the diodes leads from bending and snapping.

Also note the triangular black slip on connector on each output transistor, these must go back on the same way, so note which side the yellow and blue wires where at.