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Subject: Reducing the high frequency hiss on Frankie heads

Posted by [chicagobill](#) on Fri, 01 May 2020 02:53:46 GMT

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I love the sound of the original K200 Frankie heads. That being said, most of them have a lot of high frequency hiss that gets really bad when you turn up the treble control.

In looking at the circuit design, the treble control on these amps is different than that in most other amps. The treble pot is a dual unit control (two pots controlled by one shaft). One unit acts like a typical boost and cut control that lowers or raises the amount of high frequencies in the signal mix. The second unit works very much like a treble boost switch. When the control is turned all the way up, the second pot boosts the treble very much like a treble boost switch would.

After fixing quite a few of these heads through the years, I discovered that you can reduce the overall preamp hiss in these amps by replacing three resistors in the treble boost control circuit. These are the resistors that connect to the second pot on the treble control. If you look at the schematic these resistors are numbers R107, R108 and R109 on the first channel and R129, R130 and R131 on the second channel.

The original resistors are carbon composition types and are very noisy in this circuit. If you replace these resistors with modern carbon film resistors, you should see a reduction in the amount of hiss that you hear when you turn up the treble control. The values for the resistors are 1.5k ohms for R107 and R108 and 100 ohms for R109.

To find these resistors on the pc board, just follow the wires from the back of the treble pot (the unit with two wires) and they will directly connect to these resistors.

If anyone here tries this, please let me know if it works for you. I've been doing this mod for a few years now and have found it to be very helpful. Good luck!

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Subject: Re: Reducing the high frequency hiss on Frankie heads

Posted by [steven](#) on Fri, 01 May 2020 15:05:14 GMT

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Thanks for the info Bill, and its interesting that such low ohmage resistors can do that! It shows you how and moisture intrusion over time gets to Carbon type resistors since usually it's values above 10K ohms that will do that, and certainly a 1/2 watt resistor rated at 300 volts peak is not stressed out running at under 50 volts!

And new metal film types from China are no guarantee either since the company I work for as some of its products makes a line of tube Mic's and I have had more then a few new Mic's with a hiss / ocean noise issue the stemmed from a metal resistor being defective.

Thanks again!

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