
Subject: Early Kustom 200

Posted by [Breakersbass](#) on Fri, 23 Oct 2015 12:54:40 GMT

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I hope i am in the right section. I need advice on troubleshooting an old Kustom 200 with a weak signal. Signal is clean but weak. When I turn up the volume control the signal gets weaker. Any advice appreciated

Subject: Re: Early Kustom 200

Posted by [chicagobill](#) on Fri, 23 Oct 2015 16:27:56 GMT

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Exactly which model are you trying to fix? If you look at the back panel, there may be a id tag with a full model number on it. That will help us know the circuit that you have.

If there is no id tag, then describe the amp, number of channels, FX, etc. and that may help.

Subject: Re: Early Kustom 200

Posted by [Breakersbass](#) on Fri, 23 Oct 2015 17:02:23 GMT

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thanks
K200A-2

Subject: Re: Early Kustom 200

Posted by [chicagobill](#) on Fri, 23 Oct 2015 17:47:04 GMT

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Okay, two channels, one plain and one with Reverb and Vibrato/Trem.

Does this happen in both channels or just one? If one, which one?

The preamp boards in this amp should be PC102s. The volume control is part of the first input stage. There are two transistors in the input circuit, one an NPN and the other a PNP.

The volume control does two things in this circuit. When it is turned down (CCW) it grounds out the signal coming from the output of the stage while at the same time decreasing the gain of the circuit. When it is turned up (CW) the output of the stage is ungrounded and the gain of the stage is increased by reducing the resistance of the emitter circuit of the first transistor.

If the volume decreases as you turn up the volume control, I would suggest checking the two input transistors and the two electrolytic caps that connect the two transistors to the volume control (maybe 25uF caps).

If you turn up the tone controls do you hear a change in the hiss/noise coming from the speaker?

Subject: Re: Early Kustom 200

Posted by [Breakersbass](#) on Fri, 23 Oct 2015 19:12:24 GMT

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Yes it happens in both channels. Regarding the board you are talking about, is this board on the left side where the reverb speed etc are.. There is a board stacked behind the reverb control pots. Is this the board I should be looking at. Also can you provide me a cross for the 2 transistors you referred to or are the originals available?

thank you so much for the help.

AlanK

Subject: Re: Early Kustom 200

Posted by [chicagobill](#) on Fri, 23 Oct 2015 19:51:07 GMT

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Ah, more information.

If it happens to both channels, then the problem is either in both preamp boards or somewhere else in the amp like the power amp.

If you look at the back of the amp just above the foot switch jack, there is an RCA jack. This is meant to be used as an output to another power amp or to a recording desk, etc., but we can use it as an input to the power amp.

If you have a MP3 player or some other signal source that can be connected to the amp by this RCA jack, then connect it and turn on the head. It should play loud and strong through the speakers. If it does play loud, then the power amp is working well and the problem is somewhere else.

As for the preamp boards, there should be two of them, one on the left of the input jacks and one to the right. They are single level boards and will have the volume, bass, treble and bright switch controls mounted to them. The stacked boards are the PC303A and PC303B boards that control the reverb and trem/vibrato.

Do you have a voltmeter and do you know how to use it?

Subject: Re: Early Kustom 200

Posted by [Breakersbass](#) on Fri, 23 Oct 2015 22:17:45 GMT

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Yes I have meter and know how to use it. I will try the RCA jack to find out if the Amp stage is ok.I

will get to that tonight and send you a response.
Thanks

Subject: Re: Early Kustom 200
Posted by [stevem](#) on Sat, 24 Oct 2015 10:34:08 GMT
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Also confirm that the DC voltage coming into each preamp board on its Red wire is at least 23 volts.

Subject: Re: Early Kustom 200
Posted by [Breakersbass](#) on Sat, 24 Oct 2015 13:38:15 GMT
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Ok the 24 volts dc is there both channels. Power amp is working too. Just tried it again and still decreased volume and decreases as I turn it up.

Subject: Re: Early Kustom 200
Posted by [chicagobill](#) on Sun, 25 Oct 2015 17:15:00 GMT
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If your meter has a diode function, static test the transistors on the right (Non FX) preamp board. If your meter has a capacitance function, test all of the electrolytic caps on the board as well.

If everything passes static testing, then you will need to start reading voltages on the preamp board. The schematic lists voltages for all of the transistor pins. Read yours and compare them to the schematic.

Subject: Re: Early Kustom 200
Posted by [Breakersbass](#) on Sun, 25 Oct 2015 18:15:58 GMT
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Thanks Bill,
What I have done is replaced all the caps on one board so far. I did find 2 shorted transistors static method. One on each pre amp board. All others check good as far as junctions. What is your opinion using ECG replacement. My experience is I will not use at the output section but drivers maybe?? Someone replaced one transistor with an ECG and it tests good static wise.

What I need are 2 2N4249 or one that will cross.
Alan

Subject: Re: Early Kustom 200
Posted by [chicagobill](#) on Sun, 25 Oct 2015 20:42:08 GMT
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I don't have any problems with replacement lines like ECG or NTE other than the fact that they cost 10x's the price of a normal part.

Almost any PNP transistor will work in the preamps, 2N3906, 2N4402, etc.
