
Subject: repairing k150-8 plexi
Posted by [natedriver](#) on Sat, 28 Nov 2015 15:13:44 GMT
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I have a k150-8 plexi head that is blowing fuses. I built a bulb limiter. I am getting 55v and -55v off the filter caps. the schematic for board 5032 shows 39.5v and -39.5v.
Am I missing something here? Any help would be appreciated before I move forward with trouble shooting the power amp board thanks. Nate

Subject: Re: repairing k150-8 plexi
Posted by [chicagobill](#) on Sat, 28 Nov 2015 17:19:56 GMT
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The power supply is normally somewhere around +&- 40vdc, so with a light bulb limiter it should be less than that. The 55 volts that you are getting is much higher than expected.

What is the line voltage coming in from the wall? Is the power transformer original to the amp?

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Sat, 28 Nov 2015 17:53:56 GMT
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120 ac out of wall. transformer looks original. I have another k150-8 plexi thats a parts amp. I get roughly the same voltages from that power supply as well.

Subject: Re: repairing k150-8 plexi
Posted by [chicagobill](#) on Sun, 29 Nov 2015 02:33:09 GMT
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Is the power supply disconnected from the rest of the amp? Is your meter accurate?

It really doesn't make that much of a difference, if the voltage are high, they're high.

Subject: Re: repairing k150-8 plexi
Posted by [steven](#) on Sun, 29 Nov 2015 12:29:03 GMT
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Your DC voltages will be high once parts of the output stage blow open , the high voltage is due to the circuit not pulling the current is should .

It's time to start pulling the two output transistors on the heat sink strip and checking them and performing a resistance check on the two 5 watt ceramic box resistors.

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Sun, 29 Nov 2015 14:49:42 GMT
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With bulb limiter 60w bulb installed, reading off filter caps with power amp disconnected I am getting readings of

48.7 acv off of bridge rectifier
58.7 dcv off of filter cap
-58.7 dcv off of filter cap

these are this mornings readings.

I will check the output transistors and the 5w resistors next

thanks for the responses they been very helpful.

Nate

Subject: Re: repairing k150-8 plexi
Posted by [steven](#) on Sun, 29 Nov 2015 16:03:57 GMT
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Now your posted voltages in regards to the negative and positive rail supply are near 4 volts higher than what you first posted at 55 volts!

Is your meter messed up, how does it read a new 9 volt battery ?

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Sun, 29 Nov 2015 16:22:08 GMT
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Readings just now with new battery in meter.

120.9 acv out of wall
118.2 acv out of bulb meter
58.3 dcv out of cap
-58.3 dcv out of cap

Nate

Subject: Re: repairing k150-8 plexi
Posted by [steven](#) on Sun, 29 Nov 2015 16:56:03 GMT
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What are you reading ac voltage wise coming out of the power transformers two purple wires, this voltage is taken across the purple wires, not one at a time to ground.

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Sun, 29 Nov 2015 17:14:34 GMT
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the wires coming out of the main transformer are yellow with black stripe. readings across the wires is 91.4 acv

Nate

Subject: Re: repairing k150-8 plexi
Posted by [chicagobill](#) on Sun, 29 Nov 2015 19:11:28 GMT
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Is the large filter choke in the amp?

Subject: Re: repairing k150-8 plexi
Posted by [steven](#) on Sun, 29 Nov 2015 19:22:08 GMT
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A second but smaller transformer is what Bill is asking about.

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Sun, 29 Nov 2015 19:27:05 GMT
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Yes there is a small transformer in the amp.

Nate

Subject: Re: repairing k150-8 plexi
Posted by [steven](#) on Mon, 30 Nov 2015 11:30:48 GMT
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There is something not right with your readings your posting up.
I opened up my k150 and then took readings at the input to the diode bridge I had 95.6 volts ac, and you had 48.7, this sounds to me like your where measuring each ac output leg of the power transformer to ground, not across both legs?

On my amp when I measured those legs to ground, then I got a reading of 48.3 volts ac. Your high DC voltage readings across each main filter should make for high ac voltage readings also as you check back from the DC portion of the power supply to the power transformer.

Your DC voltage readings on the filters are some 16 volts too high, mine with the amp working at idle are 41.9 and 41.7 on the negative rail .

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Mon, 30 Nov 2015 12:32:08 GMT
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Thanks for getting those readings! The readings across the diode bridge 91.4 acv. Are my dc voltages too high because the filter caps are not connected to the power amp circuit board?

Nate

Subject: Re: repairing k150-8 plexi
Posted by [stevern](#) on Mon, 30 Nov 2015 13:13:27 GMT
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Oh crap yeah!
You never posted up that you had the power amp section disconnected, or I missed it, so yes, your power supply is golden and the issue with popping fuses is in the driver / output stage!

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Mon, 30 Nov 2015 13:32:17 GMT
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Awesome! Thanks for the help i will start trouble shooting the output transistors and the driver transistors.

Thanks again
Nate

Subject: Re: repairing k150-8 plexi
Posted by [natedriver](#) on Mon, 04 Jan 2016 18:50:38 GMT
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I replaced the driver transistors. The bulb limiter is barely glowing with a 60 watt light bulb. I am getting about 37.5 volts going in to the power amp board positive and negative..I am getting around plus and negative 20 volts dc on both wires going into the pre amp. Any ideas where to

start? I tested the output transistors they are fine. I will be able to work on the amp later this evening and will be able to give more accurate voltage readings if requested. Was wondering if anyone had any ideas. Thanks in advance.

Nate

Subject: Re: repairing k150-8 plexi
Posted by [chicagobill](#) on Mon, 04 Jan 2016 20:00:36 GMT
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The preamp supplies are supposed to be plus and minus 8 volts, so you have a problem with the positive 8 volt regulator circuit.

Test transistors Q9-11-12-13 on PC5032, as well as diode CR10. While you are there you can also check the resistors and caps in the same circuit.
