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Subject: troubleshooting continued.  
Posted by [Manualblock](#) on Thu, 10 Mar 2005 21:52:19 GMT  
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So the LED's one side is very bright and steady independent of the volume pot; the other side is of lower intensity and will adjust with rotation of the pot. I backed off on the R3 variable to no avail, same thing even backed down all the way. Any thought's?

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Subject: Current between ground and plate?  
Posted by [colinhester](#) on Thu, 10 Mar 2005 22:05:28 GMT  
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Are you able to adjust to 15mA with R3? Do you see any variance in current with R3?.....Colin

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Subject: Re: troubleshooting continued.  
Posted by [PakProtector](#) on Thu, 10 Mar 2005 22:26:05 GMT  
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this is a new one for me...but then a lot of them are. I would first suggest you check resistances cold and compare between the two. I would suggest there is trouble with the side that has variable LED brightness. The volume knob thing is quite weird IMO. Confirm your pin connections, sometimes mirror image/dyslexia-like symptoms have bitten me on the back side. Check ground to grid, ground to cathode, check that grid-ground resistance is dependant on volume position, and check input jack-ground DCR. If you get something unexpected, post your findings. Some ballpark, input jack-ground ~100kOhm grid-ground 0 at minimum volume, 100k at max. regards, Douglas

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Subject: Re: troubleshooting continued.  
Posted by [Manualblock](#) on Fri, 11 Mar 2005 00:27:02 GMT  
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Sounds good; so the LED's should all be the same brightness? Also when the volume pot is all the way off one side shuts down. I am using the RS pot.

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Subject: Re: Current between ground and plate?

Posted by [Manualblock](#) on Fri, 11 Mar 2005 00:33:13 GMT

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I don't know how to check current.

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Subject: that's the funny part...

Posted by [PakProtector](#) on Fri, 11 Mar 2005 00:50:14 GMT

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I can't escape the idea that you have incorrectly hooked something up. That just shouldn't happen. Not even close, no way, no how...I am going to be quite curious to hear what you finally discover the problem is. I wish we were neighbors, this whole thing would've been settled over a diet Dr.Pepper before it even happened...regards,Douglasone more thing. Try and get somebody else to look at what you have done, it would appear that the 'bliders' are on, which makes it very hard to proof your own work. Please don't take offense at my bluntness, I mean no slight. Print out the basing diagrams and perhaps the teaching of the student inspector will illuminate the problem.

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Subject: Measuring current

Posted by [colinhester](#) on Fri, 11 Mar 2005 00:50:51 GMT

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Hook the black lead on your meter to ground using safety hook. Safety hook the red lead to pen 1 of 5687 and turn on amp. Let warm up and check current DCA. Adjusting R3 should vary the current and set to 15mA DC (remember 10mA will stop your heart, so please be safe.) When the leads are in place, the LEDs will go out. Repeat between pens 1 and 9.Don't go poking around on the CCS with the probe while it's on. Don't ask.Give me a call later if you want. We can go through Damir's schematic and compare construction and voltages. I'll be up until 1 or 2...Colin  
<http://audioroundtable.com/GroupBuild/messages/424.html>

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Subject: Re: Measuring current

Posted by [PakProtector](#) on Fri, 11 Mar 2005 03:20:21 GMT

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did it eat into your stock of spares?I would re-word a bit. Don't check between pins one and nine, repeat the measurement procedure for pins one and nine ( the anodes ).If you attach negative lead to the cathode( pin 3 for pin 1 anode , and pin 6 fo the pin 9 anode ) or to of the LED string, you can measure current w/o extinguishing the LED's. Not exactly remomended, as there is less

room than the ground terminal offers.Thanks again Colin for teaching me that cool trick.regards,Dogulas

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Subject: 198DCV from B+ to B- for Guinevere  
Posted by [colinhester](#) on Fri, 11 Mar 2005 03:31:38 GMT  
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I measured between the PS cap terminals tonight and got 198DCV. You said you were getting close to 300DCV. Correct? I confirmed I have the blue w/red strip hooked up to the rectifier. What choke are you using? I went with the 193C. Did you get the LED dimming problem sorted out? If you went with the Belden cable, be sure only one end of the connection is grounded. It sounds like your losing current to the ground. Look for nicks or cuts in the cables's wrap. Also, test continuity between the signal path and ground, there should be none.PLEASE give me a call.....Colin

<http://audioroundtable.com/GroupBuild/messages/934.html>

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Subject: How much difference?  
Posted by [colinhester](#) on Fri, 11 Mar 2005 14:48:18 GMT  
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How much of a difference do you see in R3 by varying current with a 9V, with CCS out of the circuit, versus measuring actual in situ current. Just curious.....Colin

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Subject: Re: How much difference?  
Posted by [PakProtector](#) on Fri, 11 Mar 2005 15:01:32 GMT  
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an amount comparable to the resolution of the meter. basically not at all. The 9V is enough headroom for the circuit to regulate.regards,Douglas

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Subject: Re: 198DCV from B+ to B- for Guinevere  
Posted by [Manualblock](#) on Fri, 11 Mar 2005 15:19:42 GMT  
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Will do thanks C.

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Subject: Re: that's the funny part...  
Posted by [Manualblock](#) on Fri, 11 Mar 2005 15:20:56 GMT  
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No problem; you are probably right something is amiss. I will hunt it down and terminate with extreme prejudice.

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Subject: Re: that's the funny part...  
Posted by [PakProtector](#) on Fri, 11 Mar 2005 15:36:05 GMT  
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it does not have to be an overt maistake either. Be thorough, and methodical, and it will probably quickly come to light.regards,Douglas

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Subject: Re: that's the funny part...  
Posted by [Manualblock](#) on Fri, 11 Mar 2005 17:42:51 GMT  
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does a bad ground from pot to ground buss count as a venal sin or a mortal sin? Hunted that sucker down and now things look pretty good.Entering the making sound phase.

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