Subject: Carbon comp vs carbon as grid stoppers
Posted by colinhester on Wed, 09 Mar 2005 06:09:21 GMT
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I still have a little noise in one channel, and I'm having a bitch of a time tracking it down. I used carbon film resistors as grid stoppers. I was looking back through some posts and it was recommend that carbon comps be used. Should I have used carbons comps in this application? If I used the wrong type of resistor, could this account for the noise?.....Colin

Subject: Re: Carbon comp vs carbon as grid stoppers
Posted by PakProtector on Wed, 09 Mar 2005 10:34:10 GMT
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I have built with both, and forty2wo(I think) built w/o. It is supposed to be an electrical shock absorber, putting in electrical springs(capacitance and inductance) can't be good, but I don't think there is much risk here.What kind of noise? is it like a dog barking or a car driving by? or is it completely random...what pitch/character?Actually on noise, the CC has the higher likleyhood of producing noise IMO. There are more than a few silly things to go wrong here. My local project just suffered a real head-scratcher. Used the 100k, stereo Alps from Radio-Shack. Got a ~6 dB difference in channels after a bit. Turns out the open construction of the device probably allowed in some conductive debris and it shorted itself from end to end, yet left the wiper still functioning. Input jack to ground measurement of Ohms showed ~100k for the god side and 1k for the other. It was not the first thing we looked at either....I wish I could have spent the weekend with each one of you in turn as we Ironed out some bugs. I think I have learned more than you guys doing the building. I wish I were as good at remote diagnosis as my heros, Click and Clack.regards,Douglas

Subject: Re: Carbon comp vs carbon as grid stoppers
Posted by Manualblock on Wed, 09 Mar 2005 14:08:14 GMT
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You know I have that volume control and the resistance measurements were off by 100% from one side to the other. I have read the replies with help but it is 12 deg. here and too cold to work on fine stuff. I really don't mind troubleshooting, I believe you learn more that way than any other method.I love the names that click and clack give the help;Heywood YabuzzoffTheir cheuffeur is Russian; Peikup AndropovThe butler; Mahatma koat.

Subject: Noise

Posted by colinhester on Wed, 09 Mar 2005 14:52:11 GMT
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The noise is coming only from one channel. The best way to describe it is that it sounds like radio static. The volume of the static tracks with the volume knob itself. As the volume is turned up, the staic level increases. This happens until full volume, except here the static suddenly goes away. Another thing, at half volume if I wiggle the wires the only thing that affects the noise level is the wire connecting the voulume pot and the grid resistor. This is why I suspected the grid resistor. But as I type this I'm thinking of a comment John S. made earlier: I may have a bad volume pot. I think I'll stop by RS and pick up a new one and see what happens.....Colin

Subject: Re: Noise
Posted by GarMan on Wed, 09 Mar 2005 16:06:06 GMT
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Colin,Does the noise increase or descrease with you touch the pot? I've found that the body of the pot needs to be grounded in many cases.gar.

Subject: Noise increases
Posted by colinhester on Wed, 09 Mar 2005 16:43:57 GMT
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Do you ground the pot's body to the signal ground or chassis? What's reaaaallllly buging me is that the "white" noise that tracks with the volume is coming from one channel only. I either have a bad volume pot, bad resistor, bad tube socket or bad tube. And since the noise disappears at full volume, it's starting to sound like a volume pot with a bad ground connection. Hopefully I just need to ground as you suggested and all will be fine....ColinGarMan, Thanks for suggesting that the top chassis should be without ugly little screw heads poking out. It cost me a bit of time to rearrange the layout, but the end result was well worth it. I should have pictures up tonight.....

Subject: Re: Noise
Posted by Forty2wo on Wed, 09 Mar 2005 19:58:40 GMT
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As a professional service Engineer, I well know how dificult it can be to to track down the source of a problem. It can be a real bitch to find something you can hang your hat on. You have to trust your instincts.So far you have found two separate indacations of a bad vol pot. In my mind, it's out

of there. Maybe it's just a bad solder joint but for five bucks, it's not worth it. While your at it replace the grid resitors. you'll feel better...John

Subject: Re: Noise increases
Posted by Wayne Parham on Wed, 09 Mar 2005 20:01:58 GMT
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Maybe swap the potentiometer sides to check and see if the problem follows.

Subject: Re: Noise increases
Posted by GarMan on Thu, 10 Mar 2005 19:41:32 GMT
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I usually ground the pot body to signal ground if it's generating a hum.Nice job on the clean top plate. I'm putting together a tube phono stage right now and I'm taking the most difficult route possible to keep my top plate clean. Couldn't avoid putting over a dozen screws through the top plate to attach various solder strips and vector boards. To keep the top plate clean, I countersunk flat head screws, lock-tite the bottom, Bondo'ed the holes on top, sand down, primed and paint. More difficult than it should have been, but if anyone wants bodywork done on their car, I have the skills now.Gar.

Subject: Erector Set
Posted by colinhester on Thu, 10 Mar 2005 20:45:51 GMT
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I was lucky enough to be able to put these L-bracket supports (PHP, 16 x 1/2 x 1/2, item number 20802) under the Tx's and choke for support. It was held in place by the screws that would normally be used, so no extra holes to drill. These brackets are available from Home Depot for around $2. The holes are spaced 1/2" OC alternating between large and small openings. If one were to make a 6" x 6" square out of these and set them off the top plate by using washers, one could have 96 mounting holes and only need 4 screws to secure it to the top plate. This is what I mounted the CCS and heater PS on.....Colin