Subject: How to test caps
Posted by kustomhead on Fri, 03 Jan 2014 00:17:47 GMT
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When plugging a guitar cord into the both hi and low inputs on the left channel there's a loud distorted pop/noise as it first makes contact with the tip post on the jack. Also when I click on my boost pedal it makes a loud pop. The right channel works fine, no pop at input or with the boost pedal. How do you test caps on the preamp board, or do you just replace them all? Are they usually the culprit?

Subject: Re: How to test caps
Posted by chicagobill on Fri, 03 Jan 2014 17:06:03 GMT
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I thought that we had already worked on this problem. Is there a dc voltage on the input jacks? If there is, then the input cap is leaking the voltage from the circuit onto the input jacks. Then when you plug into the amp, the voltage is shorted to ground through the guitar or pedal causing the noise.

If there is no dc voltage across the input jack, then the problem is elswhere.

Subject: Re: How to test caps
Posted by kustomhead on Fri, 03 Jan 2014 18:20:35 GMT
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With guitar cord plugged in without guitar (just cord) there is 9.2 DC voltage from low input tip to ground. There is 0.4 from tip of output jack to ground with speaker cord plugged in. With guitar plugged in on other end there's 0.00 DC at input and .44 at the output jack. The high input on the left channel has the pop when plugging in but not the boost pedal pop. That's what has me perplexed. It seems to work fine in all other respects. There's less static when turning guitar volume in left channel. Right channel works with no problems. That means trouble is in left channel board?

Subject: Re: How to test caps
Posted by chicagobill on Fri, 03 Jan 2014 21:55:02 GMT
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kustomhead wrote on Fri, 03 January 2014 12:20With guitar cord plugged in without guitar (just cord) there is 9.2 DC voltage from low input tip to ground. There is 0.4 from tip of output jack to ground with speaker cord plugged in. With guitar plugged in on other end there's 0.00 DC at input and .44 at the output jack.
Just focus on the left channel input jacks. The voltage on the output jack is something entirely different.

There is an electrolytic cap at the input of the preamp circuit. This cap is bad and it must be replaced. Follow the wire from the input jacks to the preamp board. Then follow the copper trace on the pc board that it connects to and it will lead to the input cap.

The reason that the voltage goes away when you plug in a guitar is that the volume control in the guitar shorts the voltage to ground.

Subject: Re: How to test caps
Posted by kustomhead on Sat, 04 Jan 2014 08:51:31 GMT
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Is it the 25 mfd white Mallory? I have the PC102 board we are talking about out of the chassis while I'm working on it. Someone before me spliced the blue and red wires going to the power board. I was wanting to play through the right channel with the left preamp board out and I ran the red from the right over and the blue wires from each channel go across to their own resistor. Do you need to splice the blue wires together before going into power amp to do this? I have the right channel blue wire going in with the left channel blue rolled up not attached to anything. There's a loud buzz when I turn on the amp this way.

Subject: Re: How to test caps
Posted by chicagobill on Sat, 04 Jan 2014 18:25:59 GMT
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The schematic shows a 10uF cap at the input. I pulled out my chassis and it is a 10uF tantalum cap. Mine is orange and looks dipped like a raisinet.

I don't understand anything about the wires that you are talking about, but if the amp is humming, there is something wrong. Please explain in more detail.

It seems to me that you really should get some help with this, before you do some damage to yourself or to the amp. Do you have a friend that is a bit more experienced? I'm trying to help you, but unless you understand what I am saying to you and I understand what you are saying to me, it will be difficult to get your amp fixed.

Subject: Re: How to test caps
Posted by kustomhead on Sat, 04 Jan 2014 18:51:07 GMT
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My amp is a K200A-1 not a "B" Mine has a white Mallory 25 mfd cap there and I've already replaced it with no change. I'm going to get a more sophisticated meter to check caps and resistors etc.

Subject: Re: How to test caps
Posted by chicagobill on Sun, 05 Jan 2014 06:47:46 GMT
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I know that your amp is K200A, the amp that I have been talking to you about is the K200A. Mine is a K200A-4.

Subject: Re: How to test caps
Posted by kustomhead on Sun, 05 Jan 2014 07:24:01 GMT
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Mine is a very early A series with a 18xxx serial# It's preamp and power boards are just like my Frank head with all caps being white Mallorys. My input cap is 25 mfd white Mallory. Mine must be a transitional head. That's why I thought you were describing a B series. I've never seen another "A" like this. Sorry about the mix-up. I wasn't doubting you and I really appreciate your help. I replaced the input cap with the 25 mfd because that's what was there but now I see that the other channel indeed has a 10 mfd input cap.

Subject: Re: How to test caps
Posted by stevem on Sun, 05 Jan 2014 18:38:35 GMT
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A 10 02 20 mfd cap will not make a difference in tone for guitar, or bass use as they even a 20 mfd cap will pass 40 hz which will cover the low E note on 4 string bass.
Just make sure that the replacement cap has atleast the voltage rating of the 10 mfd cap on the good channel, and also that polarity wise the new cap goes in right.

Subject: Re: How to test caps
Posted by stevem on Sun, 05 Jan 2014 18:42:23 GMT
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Your ok with the wires, you can test each blue input wire to the driver circuit by hand, touching them should make a low volume buzz out thru the speaker just like you get from a cord plugged into a input jack, but at much lower volume.
Why did you swap the red power supply wire from channel to channel, as you know the power supply was ok?

Subject: Re: How to test caps
Posted by kustomhead on Sun, 05 Jan 2014 20:22:55 GMT
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I just ran the red from the right channel directly to the power board as it goes to the left preamp

and then to the power side so I could play through it while the left pc board was out.

Subject: Re: How to test caps
Posted by kustomhead on Sun, 05 Jan 2014 23:05:44 GMT
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I put the left PC 102 board back in. I've replaced the input cap with a good 10 mfd and it still pops. Another thing that's going on is there is am radio chatter coming in way more than normal and when I touch the red wire that goes from the low input jack to the input on the left channel preamp board input it buzzes and the radio signal gets louder. It seems like a grounding problem. Like the input jack isn't grounded right.

Subject: Re: How to test caps
Posted by kustomhead on Mon, 06 Jan 2014 04:57:42 GMT
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I checked the bulb because the ground resistor was hot and causing buzzing and other havoc when I put touched my meter to the input jacks. It was a 12 volt. I see on the forum it needs a 28 volt bulb. That could have been part of problems I described in the previous post above. Can I safely run the amp without a light bulb until I get the right one?

Subject: Re: How to test caps
Posted by kustomhead on Wed, 08 Jan 2014 04:29:46 GMT
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I have the amp back together and it idles quiet and is working good except for an intermittent low buzz and volume drop that can be stopped by touching the input jack or even the RCA transistors on the power board. Then it will go back to normal.

Subject: Re: How to test caps
Posted by stevem on Wed, 08 Jan 2014 13:10:46 GMT
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Will it also make this intermittent buzz when nothing in plugged in a input jack?

Subject: Re: How to test caps
Posted by kustomhead on Wed, 08 Jan 2014 16:49:17 GMT
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I'll check that. Question: does a NTE 128 transistor cross reference with the RCA 40406's on the

power board? I read that a 2N5087 through Mouser will match. Any thoughts on this?