Subject: PC-1500

Posted by cassent5150 on Sat, 26 Feb 2011 21:18:52 GMT

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OK, I dont get it !! What good is a schematic if it wont tell you the values of the components. I have a good clear copy of this PC-1500 and would love to recap the thing, but C1501 with a 100 under it isn't enough information. "100 uf" I don't think so!! Well maybe 100 volt, yea thats about right but what the heck is the uf. Am I missing something here? I cant even get it from these caps. I dont know the secret code apparently! These are like orange drop but black with a yellow dot on top and 2 marks of uncertain colors on one side and a white dot on one of the legs. CAN SOMEONE EDUCATE ME ON THIS. PLEEEEEEASE!!!! THANKS IN ADVANCE STEVE C

Subject: Re: PC-1500

Posted by pleat on Sat, 26 Feb 2011 21:37:36 GMT

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At the bottom of the schematic it states all Capacitors are in Microfarads unless noted. I'm not a tech but I would assume it is a 100MF electrolitic cap. pleat

Subject: Re: PC-1500

Posted by cassent5150 on Sat, 26 Feb 2011 23:34:40 GMT

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Your probably right, the next questions are then is, "What voltage" and what is the secret code for the caps in this board. I know the yellow blot of paint on the top means something along with the colored marks across the face and the white dot on the leg. I skipped through all that and pulled the chassis out of my K100C-8 and took a look at the PC-1500 in it and lucky for me it has orange drop caps with the values right on the cap where they're supposed to be. using it as my pattern I recapped just the small tantalums and now I have signal passing through the channel only when the reverb is turned on so now I have to hunt down the JFET problem. The signal falls off as you turn the volume up for some reason also. Steve C

Subject: Re: PC-1500

Posted by pleat on Sun, 27 Feb 2011 00:20:45 GMT

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I'm not a tech, but looking at the schematic, it shows a 8 volt circuit so I guess anything over 10 volts would work. That is one of the things that when repairing a 40 year old amp, you never know who has been in there before you got the amp or what components may have been changed out. pleat

Subject: Re: PC-1500

Posted by cassent5150 on Sun, 27 Feb 2011 03:17:48 GMT

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Yea, I'm probably one of those guys the techs shake there heads at. At least if I change something I try to swap with the same value and if not in most cases I grap a sharpie and write on the board the correct value and direction for the next guy. If you come across a board like that its probably one I worked on. It wasn't that long ago I worked on a 1500 with a JFET problem and as I remember it was the first attempt. I got it pinned wrong and smoke the board. The only thing wrong with that board was, I lost the signal when I turned the intensity (Trem/vibe) off, until I went to jack'in with it thinking I new what I was doing. I sure had a rebuild job to do after that little mistake!!! I sold that amp to a friend, (The one that wanted me to gut it and load the K200B power section into it), I sold him a K200B-1 and he lost intrest in the K100C-8 and sold it back to me for like half of what he paid me. I kept it for a while and another friend came and heard it at a gig last weekend fell in love with the sound of it so I sold it to him and it still works great. I think I'll take my time with this one and pay more attention to the not so little details. Still don't know the secret code for these little black tantalums yet. You got any ideas on that? Thanks Steve C

Subject: Re: PC-1500

Posted by cassent5150 on Sun, 27 Feb 2011 17:27:42 GMT

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OK, I got it kick'in @#\$#! Man, this baby is clean clean CLEAN!! I replaced all the small tantalums with new electrolytic type and replaced all the 2N35677 NPN small signal transistors with Low Noise High Gain 2N5089. This baby is quiet as a mouse till you hit a string and she ROARS LIKE A LION!! Those four CTS tens in this K150-8 will cut glass. I pulled off a little JIMMY HENDRIX LITTLE WING on this thing and she'll blues you out of the room. Hammered out some Mongomery Gentry Hill Billy Shoes and it sounds sweet. I think I got me a new favorite. I was chilling on some Crimson and Clover and Unchained Melody and the trem/vibe is not so good. I may have to go back with the 2N35677's in that section. Thanks for the help guys. Still want to know the secret code for those Black tantalums if anyone knows!!! Black with yellow blot on top colored lines across the front and white dot on one of the legs. I know I'll have to deal with those again and really would like to know how to understand the valuing system on them. Thanks again. Steve C

Subject: Re: PC-1500

Posted by conductortom on Sun, 27 Feb 2011 18:41:11 GMT

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Saved another kustom, Steve. Cool.

Subject: Re: PC-1500

Posted by cassent5150 on Sun, 27 Feb 2011 20:08:37 GMT

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On the for sale web board theres a K150-8 for sale. Last posting today Feb 27. Can you guess who bought it? Thats the new toy I'm working on. I met him Friday with my 18 wheeler, gave him 2 bills and trucked that thing home. I just put the 2N35677's back in the Trem/Vibe and we good to go on that problem. Mental note: "2N5089 may be High Gain Low Noise, but will throw the whole osilation thing off in the Trem/Vibe section". I love what the 2N5089's do for that hiss though. You cant even tell the things on, its so quiet. Steve C

Subject: Re: PC-1500

Posted by chicagobill on Mon, 28 Feb 2011 18:18:48 GMT

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Google search tantalum capacitor color codes and there will be a few sites that will explain the color coding. The caps are tantalum, so the coding is a little different from other cap color codes, and having a picture of the colors will be easier for you than if I try to explain it in words.

There will be three number colors and a tolerance code color and a voltage code color. The numbers are the capacitance in picofarads.

Subject: Re: PC-1500

Posted by stevem on Tue, 01 Mar 2011 00:01:24 GMT

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To clear up some of your cap question at least in regards to SS amps, note this down. You can always install a higher voltage rated cap than what came out of the circiut, if you do not know what voltage a cap is it will never need to be rated higher than the volatge of the main two power supply filters.

Also in regards to electrolitic type caps, if you double a replacements voltage it will live twice as long as the original one did!

Subject: Re: PC-1500

Posted by cassent5150 on Tue, 01 Mar 2011 05:51:00 GMT

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I've heard of picofarads, is that 100,000th of a farad? (1 farad = 100,000 picofarad)

Thanks Steve C

Subject: Re: PC-1500

Posted by cassent5150 on Tue, 01 Mar 2011 05:53:08 GMT

That would be understandable and I like the idea of longer lasting!! Thanks to you guys for helping me understand some of this stuff that baffles me sometimes. Steve C

Subject: Re: PC-1500

Posted by chicagobill on Tue, 01 Mar 2011 16:53:42 GMT

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I don't think that I've ever seen any real data regarding the use of an electrolytic cap at half rated voltage lasting twice as long as one used at full working voltage.

SteveM, is this for real or is this an opinion?

Subject: Re: PC-1500

Posted by stevem on Sat, 05 Mar 2011 18:45:45 GMT

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Bill. I think you may have misread, or I was not clear enough on what I posted.

So for example, replacing a 50 rated electrolitic cap with one of twice that rating will extend the caps usefull live by a factor of 2.

As you go up higher in voltage, like one you hit the 250 volt range (like in tube amps) this is really a factor in a given caps life, and this is really for of a factor in regards to Electrolitic caps only.