Subject: bass preamp and 6418 pentode
Posted by basstub on Thu, 21 Jul 2005 04:10:24 GMT
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Hi AllWhile Ive been in Electronics for quite some time, its not as long as valves Sad ie I missed that period of electronics.So to fix this and also to build a bass guitar valve preamp. Id like to get some warm fuzz 2nd harmonic and compression distortion. I started looking around.I came across two kits available to me here. I figured best start with someone elses ideas b4 branching out on my own.http://oatleyelectronics.com/kits/Notes/k188a.jpgThis one is using a very cheap low voltage Pentode type tube called a 6418http://www.mif.pg.gda.pl/homepages/frank/sheets/127/6/6418.pdfHowever either they havent got it right or Im not learning/understanding as much as Id hoped.I couldnt find too many sites that specificaly explained this type of pentode.ie Pentodes i found seemed to have other connections available.Cathode for eg.Anyway I came to the conclusion..and please help here.The Pentode isnt really much good for preamp as its better suited to driver stage. The circuit they provided seems more of an intermeadiate stage?I was getting a measly gain of only 2.5 from their circuit.I pretty much had to put 2vpp into the sucker to get my soft clipping effect that i wanted (@ an output of 5v)Not too many guitars give 2vpp out SadSo where to from here.I can easily put an attenuator on the output to drop it back to line levels (which is what my SS amp wants to see)I guess I can put a SS opamp type pre-preamp Smile to get the guitar level up to the 2v needed to start to drive this tube into overload.ORam i really off the rails here?can we tweak the pentode circuit a bit better?I do have a 12AX7 circuit that Im also playing with. Its much more noted on the net for this use. It is bigger, and more complicated to power etc so I would like to pursue the above 6418 a little more b4 shifting to the AX.Help much appreciated

Subject: Re: bass preamp and 6418 pentode
Posted by Forty2wo on Thu, 21 Jul 2005 23:04:16 GMT
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You are useing the "a"conection right?try reduceing r4 to reduce the bias or lowering the b+(36v)

Subject: Re: bass preamp and 6418 pentode
Posted by basstub on Fri, 22 Jul 2005 00:34:17 GMT
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Thanks 42. Yes im using the A connection. and I was begining to think that the pin 3 or 5 is the cathode. It somehow interlinked with the filament?I wasnt sure which one R4 or R3 to play with but will have a play in this area.Since my post I have been playing with a standard 12AX7 and this has lead me to understanding a lot more about how the tubes work.the 6418 is a weird thing and no doubt not the best place to begin the newbie curve

Subject: Re: bass preamp and 6418 pentode
Posted by Forty2wo on Fri, 22 Jul 2005 02:37:55 GMT
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>I was begining to think that the pin 3 or 5 is the cathode. Yes they are, the heater and cathode are one and the same. Known as "Directly heated". Most offen seen in triodes, but here you go.The (I think #5) was the side connected to ground, that is the one to play with. Maybe connect a big 500K or more, pot across it and see what happens. Unlike most of us over here, you are trying to make your amp sound "worse" but hey...Poke around the web, there are a lot of guitar guys out there, looking for the same thing you are...Good luck...John

Subject: Re: bass preamp and 6418 pentode
Posted by basstub on Fri, 22 Jul 2005 04:48:20 GMT
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Im pretty sure I have to change both resistors. If I add 100r to the pin 3 then i must subtract 100 from the other side. This is because any change effects the filament current. In order to maintain the voltage across the filament @ 1.2v (so it still produces electrons)I must move both. As it is, pin 3 is at around 1v. By changing both resistors I may be able to move this point around but as yet Im not sure what efect that will have. the 6418 really isnt a good one to play with:)we learn thanks