Subject: 5V CT rectifier hookup - help
Posted by colinhester on Fri, 25 Feb 2005 17:58:27 GMT
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The Heyboer Tx we have has a 5V CT for the rectifier's heater. When hooking this up, is it one leg of the 5V and the CT (ie 5-0 of the 5-0-5 winding)? The second leg is not used, correct?.....Colin

Subject: Re: 5V CT rectifier hookup - help
Posted by Manualblock on Fri, 25 Feb 2005 18:56:59 GMT
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Good thing you asked because I thought the CT goes to ground and each leg goes to one side of the filament for the 6CA4. Maybe we can conference call Douglas; losing Damir was a blow, it was good to have two people to ask in case one was busy.My question is how did you wire up the AC primary of the seperate RS filament transformer? Did you take two seperate lines from the IEC? One for the power trans and one for the RS trans?

Subject: Re: 5V CT rectifier hookup - help
Posted by cheetah on Fri, 25 Feb 2005 19:18:32 GMT
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For rectifier heaters, the center tap is connected to the LC power supply filter. The ends of the transformer connect to the filament pins.Joe

Subject: Re: 5V CT rectifier hookup - help
Posted by colinhester on Fri, 25 Feb 2005 19:44:14 GMT
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So, both center taps, one from the HV and one from the 5V, are both connected to the (-) of the capacitor. Correct?.....Colin

Subject: Re: 5V CT rectifier hookup - help
Posted by Forty2wo on Fri, 25 Feb 2005 19:47:09 GMT

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The 2 yellow are for the rectfier heater. for now don't hook the CT(Y/W) to anything. for a normal full wave rectfier you do not need to ct the heater. Let me know what rectifer you are useing as as to what pin to take power from.I am working day and night at the mines. I am sure Douglas will answer if I can't get back to you...JohnPS. I did get the CCS wired up will try to post a pic when I can

Subject: Re: 5V CT rectifier hookup - help
Posted by cheetah on Fri, 25 Feb 2005 20:14:23 GMT
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Heater center tap tp cap (+), HV center tap to cap (-).Joe

Subject: Re: 5V CT rectifier hookup - help
Posted by cheetah on Fri, 25 Feb 2005 20:28:06 GMT
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Looked at several schematics.If using a indirectly heated rectifier (5AR4), you can either tie the heater center tap to the cathode which is connected to the (+) side of the filter. OR, you can omit the center tap connection all together. I've seen both in some highly respected designs.If using a rectifier like GZ34 where the cathode is tied to the heater internally, or a indirectly heated retifier, then the (+) side of the power supply filter is fed from the heater center tap.Joe

Subject: Re: 5V CT rectifier hookup - help
Posted by Manualblock on Fri, 25 Feb 2005 21:38:07 GMT
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Thats confusing since it doesn't match the schematic. Acording to Douglas, the full wave rec has the ct grounded.

Subject: Re: 5V CT rectifier hookup - help
Posted by PakProtector on Fri, 25 Feb 2005 23:10:36 GMT
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Hey-Hey!!!,Been out salvaging some old broadcast stuff. Heavy and bulky...On to your question. You can either hook the choke input leg up to the CT or you can leave it be(disconnected, but insulated and secured) and hook the choke up directly to the cathodes of the rectifier.See Damir's drawing for the 5V (5V4, 5AR4, 5R4...)and 6CA4 9-pin connections. If you stillhave questions, I'll be about.regards,Douglas

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Subject: 2.5-0-2.5...
Posted by PakProtector on Fri, 25 Feb 2005 23:11:52 GMT
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This is how the 5 V winding is CT. The 6.3 goes 3.15-0-3.15. Tap in the center.regards,Dogulas

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Subject: Damir's schematic is correct.
Posted by Forty2wo on Sat, 26 Feb 2005 00:36:58 GMT
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DO NOT connect the The heater CT to ground High voltage CT (blue/red) does go to ground.the confusion is with the heater winding. both the 5V (yellow) and 6V (green) are CT. We do not need to use this but it can be done. the idea is with most rectifers the whole heater winding is at your high voltage. we need to tap off it to the rest of the power supply this can be done at one end or the middle (CT)For our supply, just use the end and tape off the CT. for example for a 5AR4, 5U4, 5R4, 5V3, 5V4, OR 5Y3 The heater in this case the 2 yellow go to pin 2 and 8 the high voltage (Blue 340VAC I think) go to pins 4 and 6 the high voltage CT (blue/red) to ground (cap Neg) and we tap pin 8 for our high voltage to the choke we use pin 8 rather than 2 because if the above rectifers have a seprate cathode it is internaly connected to pin 8...John

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Subject: Re: Damir's schematic is correct.
Posted by colinhester on Sat, 26 Feb 2005 00:43:30 GMT
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Damir's schematics rock. That's for pointing out the CT. I thought that was going to be an easy question, but was more confused than ever.I'm using a 6V4 as the rectifier and I hope the schematic below is correct. 1&7 are HV; 3 is choke tap; 4&5 are 5V heater.....Colin
http://audioroundtable.com/GroupBuild/messages/210.html

Subject: Re: Damir's schematic is correct./also 6CA4
Posted by Manualblock on Sat, 26 Feb 2005 01:16:21 GMT
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I think 6V4 and 6CA4 are the same right?

Subject: Re: Damir's schematic is correct./also 6CA4
Posted by Forty2wo on Sat, 26 Feb 2005 01:43:10 GMT
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Yes they have the same pin out and yes you are correct...John

Subject: 'scuse me....
Posted by PakProtector on Sat, 26 Feb 2005 03:35:38 GMT
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I do must strongly recommend using the lowest set of HV taps, the nominal 250 V ones. It can easily be switched later whe there is only one thing worry about.Let's stay a bit more conservative please for the first go 'round.regards,Douglas

Subject: Re: 5V CT rectifier hookup - help
Posted by PakProtector on Sat, 26 Feb 2005 03:41:00 GMT
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Hey-hey!!!,the 5AR4 has the cathodes tied together and attached to pin 8. One leg o f the choke goes to this pin(if you're using a 5V4/5AR4 or any of this pin 5V IDH rectifiers).In this case the CT just gets taped off and secured.The 6CA4 has its heater isolated from the cathode and the CT is an 'extra' part. Again secure, and tape it off.regards,Dogulas

Subject: Re: 'scuse me....
Posted by Forty2wo on Sat, 26 Feb 2005 15:20:20 GMT
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That would be the blue thengoing to try to repost my pic as well...John