Subject: Fiament choke and filter scheme???
Posted by Norris Wilson on Thu, 03 Aug 2006 15:49:39 GMT
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Hi everyone,An uneducated question here.I am looking for advice from people who have had some experience with filament choke and filtering schemes for an amplifier front end or phono-pre use.I am looking for a good filtering scheme to reduce the ripple and to prevent negligible problems associated with such a filter.My question is based on a single stage AC heated 6SL7 in the front end of a P-P monoblock amplifier. The filment would be supplied by a seprate transformer per stage.Would it be best to use a LCLCRC filter in one leg of the filament supply, with small hash chokes of 250uH, 20uF film caps AEON, and a variable resistor of small value? Or, use an LCLC in a common mode scheme with above chokes and capacitors?I am afraid that a large filter capacitor with a high ESR rating would cause some problems with high frequency noise and charging-timing issues.Any comments, or opinions about filament schemes are most welcome.ThanksNorris Wilson

Subject: Re: Filament choke and filter scheme???
Posted by Damir on Thu, 03 Aug 2006 18:40:22 GMT
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My experience - in my PPP monoblocs both power tubes and a driver heaters are powered with 6,3V AC. With proper bias adjustment (PP cancelation) there`s no hum in the speakers I can hear - period. It requires proper (star) grounding, and (twisted) heater wiring layout, of course. Preserve the same phase (heater wire) for both PP tubes pins 2, and another phase (wire) for both tubes pins 7 (assuming "normal" octal power tubes - 6L6, EL34, KT88..., but the principle is the same).Easiest with different heater wire colors, for example - pink and yellow... IMO - only if you can`t get low enough hum with AC (I doubt it), try DC heating...IMO, IME, YMMV, and all of that...

Subject: Re: Filament choke and filter scheme???
Posted by Norris Wilson on Fri, 04 Aug 2006 15:33:10 GMT
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Hi Damir,I said this was an uneducated question, maybe a little silly too.It came to my attention that I proposed a filter for DC components.Do you have any suggestios that would filter an AC filament supply? Possibly the use of hash chokes in both legs of the heater supply?Any suggestions of the type of filter, or text reference would be most helpful.Norris

Subject: Re: Filament choke and filter scheme???
Posted by Damir on Fri, 04 Aug 2006 16:09:24 GMT
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Hmm, I`ll probably use a separate filament PT with electrostatic shield between primary and secondary, and commercial mains filter before it. Then (for DC) Shottky bridge (diodes bypassed with caps), low value R, then CLC - for high-current supply. For lower current and IDHT, IC series voltage regulator.For DHT, probably I`ll try voltage reg. + CCS, or so, but I didn`t try this so far.There`re some examples in "Valve Amplifiers" by M. Jones...

Subject: Re: Filament choke and filter scheme???
Posted by Norris Wilson on Fri, 04 Aug 2006 18:59:44 GMT
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OK,Thanks Damir for your help. I will check into your suggestions.Norris