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Subject: Who?

Posted by [Manualblock](#) on Fri, 21 Jan 2005 01:44:54 GMT

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I think we may be the only two so far; at least I haven't heard of any others and even if Wayne decides to build it is still only three; is that accurate?. I may order and eat the 12\$ What is the concenses out there? Also the choke is 75\$ pretty steep but what I would ask is how flexible is this piece of iron; does it have multiple use advantages? Thanks J.R. Also anyway can we get one certain schematic as a whole in one peice by any chance, again thanks.

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Subject: Who's on first

Posted by [colinhester](#) on Fri, 21 Jan 2005 02:06:11 GMT

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Yeah, we're looking right at \$150 for two hunks of iron. I think I got the signal path straight in my head. I'm still fuzzy on the PS. Are there going to be three tubes, two diodes and one rectifier? I think the rest of the B+ PS is the tranny, choke and cap.I'm going to order some shielded 2-conductor wire w/drain (Belden 8450). This is what Doc used in the new SEX kit. Want me to pick some up for you? No problem to throw it in the mail your way.....Colin  
<http://www.weisd.com/store2/BEL8450%20010U1000B.html>

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Subject: What's on second

Posted by [PakProtector](#) on Fri, 21 Jan 2005 02:27:06 GMT

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The PS choke is a bit on the expensive side. If we stick to a max of 20 mA load the Hammond 30 Hy/40 mA choke shold do fine. I got the big one because I want to run 40-50 mA and need a bigger choke. Don't feel it is absolutely rquired...matter of fact I have heard 5687 sound good from a few mA on up. We do need to hit critical current for the choke input PS filter, so 7 mA per valve is probably a reasonable min. I wanted to get away from such a small window. Using the choke in a L-C filter reequires de-rating its maximum current, 40 mA to ~25 seems reasonable.The PS with the custom power Iron will use two diodes. I suggested using the 6CA4 which is a pair of diodes in the same envelope, sharing a cathode( which we'd tie together anyway ), and a 6.3vac/1A heater for its indirectly heated cathode. The high voltage winding will have its center tap grounded( probably best to attach directly to the capacitor, and do a single ground point, a.k.a. star grounding.This site keeps comming up when I search for a drawing. V1 and V2 can be a single valve( GZ34/5AR4 or 6CA4 ), or as drawn if you decide to use damper diodes, which come one diode to an envelope. The resistive load is of course substituted for our amplifier section.regards,Douglas

[http://www.tpub.com/content/neets/14178/css/14178\\_138.htm](http://www.tpub.com/content/neets/14178/css/14178_138.htm)

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Subject: Re: What's on second  
Posted by [colinhester](#) on Fri, 21 Jan 2005 03:02:49 GMT  
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I understand now. Thanks again so much for your effort.....Colin

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Subject: Hammond Choke  
Posted by [colinhester](#) on Fri, 21 Jan 2005 03:57:35 GMT  
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Found this at angela.com: 157G 30H, 40ma, 595 ohms, 400VDC. EACH \$16. Is this OK to go with? It'll save about \$60....Colin

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Subject: Re: Who?  
Posted by [Wayne Parham](#) on Fri, 21 Jan 2005 04:42:40 GMT  
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I'm in, just busy. I've a handful of projects going right now.

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Subject: that's the one...  
Posted by [PakProtector](#) on Fri, 21 Jan 2005 12:20:50 GMT  
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That will do nicely, and is the original I had in mind. Just remember, I like big Iron, and if I can use it laer, I may get something even more expensive. There are probably other appropriate chokes out there, I have not found detailed specs on them or gone looking very hard to find them. With very few wxceptions everything in the parts list has multiple supliers of acceptable parts.regards,Douglas

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Subject: Re: Who's on first  
Posted by [Manualblock](#) on Fri, 21 Jan 2005 13:02:48 GMT  
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Well yeah; that would be great. Whatever length you go with and I will reimburse accordingly. I am pretty sure there is only one rec tube. At the risk of being wrong that tube is a dual rec tube. I will e-mail the address; Thanks J.R.

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Subject: also...more L options  
Posted by [PakProtector](#) on Fri, 21 Jan 2005 16:20:47 GMT  
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the 20 Hy/100 mA 193C might be an option for builders using a shunt regulated PS. It is a nice looking item, and its critical current is well within those required with VR tube designs. Actually, according to the PSUD sims I just ran, critical current seems to be a bit over 12 mA for a 250V input, so this may be a better place to start than the 157G. Note as input voltage goes up, so does critical current. regards, Douglas

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Subject: Re: also...more L options  
Posted by [colinhester](#) on Fri, 21 Jan 2005 18:38:29 GMT  
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The 193C it is. From Angela.com: 193C 20H, 100ma, 181 ohms, 600VDC. EACH \$25

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Subject: Re: also...more L options  
Posted by [Damir](#) on Fri, 21 Jan 2005 18:54:55 GMT  
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I'd do it "right" - use 150mA choke (then - if needed - we can use the full current capacity of the PT) and power resistor (say, 12k/10W) parallel to cap to draw the critical current. What you think?

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Subject: Re: also...more L options  
Posted by [PakProtector](#) on Fri, 21 Jan 2005 19:02:14 GMT  
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Don't forget Handmade Electronics, in PA. they \*MIGHT\* have better prices on some of the hammond Iron. I get my orders from him the next day with UPS ground shipments, which is a benefit not to be ignored( not to mention he's treated me well ). regards, Douglas

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Subject: Re: also...more L options

Posted by [PakProtector](#) on Fri, 21 Jan 2005 19:14:18 GMT

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Hey-Hey!!!,I would rather just get adequate L. For 20 Hy and 250 volts input, this works out to about 10 mA of load. keeping the current lower will reduce radiation, which is a reasonable goal. The IDH rectifier will allow the rest of the cathodes to get warm enough before it starts conducting so a load will be presented to the filter.A resistor to draw an additional 4-6 mA would be useful perhaps as a safety feature. It will draw about half critical current, and keep voltage from going all the way to  $\sqrt{2} \times \text{RMS}$ . Perhaps 25-30kOhms...regards,Douglas

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Subject: PSUDii say-eth...

Posted by [PakProtector](#) on Sat, 22 Jan 2005 01:27:47 GMT

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Hey-Hey!!!,On the resistor to force a critical curent load. I went in playing with PSUDii and a resistive load. 250 volts in, 20 Hy and fiddled with resistor values. I got up to 45kOhm and did not cross 300 volts on a long term basis, and figured it was plenty to keep things in check, and from behaving like a cap input supply. $V^2$  over R at 300 volts shows dissipated power to be 2 watts on a 45k resistor. A 5W ought to run cool enough. 5 9k1 1/2 watt will also work if you feel like experimenting. Since B+ is ~200, continious dissipation will be less than a watt for a 45k resistor.regards,Douglas

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