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Subject: Homebrew amp schematics

Posted by [Wayne Parham](#) on Sun, 12 Dec 2004 12:58:48 GMT

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Here are some schematics for SET amps using 45, 2A3 and 300B tubes: Simple 45/2A3 Welborne Labs 2A3 Moondog Monoblock 2A3 Single-Ended SRPP Loftin-White Ray Koonce's Simple 45/2A3 amp Ray Koonce's Single-Ended 2A3 amp Ray Koonce's Single-Ended 300B amp Here's a push-pull 2A3 amp: Push-Pull 2A3 Stereo Amp

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Subject: Re: Homebrew amp schematics

Posted by [Manualblock](#) on Sun, 12 Dec 2004 14:07:47 GMT

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Bob Daneliek who designed the last 2a3 you named and that is his site also has a really easy and cheap SE pre-amp build write up using 5687 tubes. There are numerous links to his site from builders who have done that pre-amp and many claim it is a giant killer.

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Subject: Re: Homebrew amp schematics

Posted by [Thermionic](#) on Sun, 12 Dec 2004 17:56:52 GMT

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I haven't seen the schematic you referred to, much less heard it. But, from my own personal piddling around with stuff, I can testify that 5687s sound killer! IMO, they are definitely better than the benchmark 6922. Thermionic

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Subject: Re: Homebrew amp schematics

Posted by [colinhester](#) on Sun, 12 Dec 2004 20:55:24 GMT

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Got a link to the 5687 pre? Would this be a good first group project?....Colin

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Subject: Re: Homebrew amp schematics

Posted by [Manualblock](#) on Sun, 12 Dec 2004 21:05:30 GMT

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Well it is fairly easy schematic. The pre-amp transformer and the enclosure would be most of the cost. If you are interested then let me know.

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Subject: Re: Homebrew amp schematics

Posted by [colinhester](#) on Sun, 12 Dec 2004 21:23:31 GMT

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Yes, Please post link to the schematic!! As far as cost, let's just assume a fixed cost for enclosure - say, \$5. This is low, but the circuit will work even if strapped to a 2x4. The transformer is a different concern, especially for tube-based projects. Let me see the schematic and do a cost estimate on it. If you have time, please do the same, and we'll compare numbers. I was really hoping a tube preamp would be the first project; so, you can imagine I was excited to see your post. Preamps are pretty easy to build, and a circuit analysis should be straight forward (he says that now.)

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Subject: Re: Homebrew amp schematics

Posted by [Manualblock](#) on Mon, 13 Dec 2004 00:17:58 GMT

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The website originates from Bob's site; the last link in Wayne's post. The group of builders is the JELabs site. He also has a nice 2a3 SE amp that uses the cheapo Hammond output transformer. It sells for 30\$. Don't tell anyone but I think buying Foreplay boxes is one idea. I think he gets 35\$ for them. 5687 tubes are on sale at Angelas for 3\$ ea. and the sockets go for 2.50\$. The trans should be about 35\$ the rest of the parts I guesstimate at 50\$ Should put us at about 125\$ Oh yeah 2.87\$ for the 2x4. Check out JELabs and grab the circuit and let me know. No reason this can't be done with a minimum of fuss. Only thing is, on the JELabs site there are so many pics. it is almost too easy.

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Subject: Re: Homebrew amp schematics

Posted by [colinhester](#) on Mon, 13 Dec 2004 17:17:58 GMT

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Is this it?.....Colin

<http://members.myactv.net/~je2a3/JELsc-linepre1.jpg>

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Subject: Re: Homebrew amp schematics  
Posted by [Manualblock](#) on Mon, 13 Dec 2004 18:58:35 GMT  
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The site is DIYParadise.com. Once you get on there look for the 5687 based tube DIY pre-amp. You will see what I mean, they spell it out pretty thoroughly. Actually the 125\$ price point; now that I look at it seems a little high. More like 80-90\$. There are many people who have built both the pre-amp and amp. The amp uses the same tube as an output tube and people build it SE or Push-Pull. On the site they compare it to a Foreplay.

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Subject: Re: Homebrew amp schematics  
Posted by [colinhester](#) on Mon, 13 Dec 2004 20:00:21 GMT  
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Bingo. Looks like the perfect place to start!!!! We still need to let Wayne know what we're up to, if you have not already done so. When and where (forum?) do you want to do the first post?....Colin  
<http://diyparadise.com/simplepreamp.html>

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Subject: Re: Homebrew amp schematics  
Posted by [Manualblock](#) on Mon, 13 Dec 2004 21:06:25 GMT  
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We will need photo's of the build process. The owners of the site from DIY will allow a build for personal use only. None of the parts will impact anyone on ART in terms of revenue. First decisions are whether to follow the parts list on the site and if not what changes to make. Next a chassis. That should be a good start. I will say that Angela has the best prices on these tubes and a good set of chinese made ceramic 9-pin sockets. I already have some of these tubes and sockets. Keep me informed as to how you want to start; J.R. The explanation of exactly what and why the circuit is doing would also be nice.

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Subject: Re: Homebrew amp schematics  
Posted by [Wayne Parham](#) on Tue, 14 Dec 2004 05:19:48 GMT  
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It looks to me like this is well within the rules of the website; It's just the kind of thing AudioRoundTable.com is here for. So I'm watchin', not because I'm a moderator but because it's interesting!

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Subject: Re: Homebrew amp schematics  
Posted by [Wayne Parham](#) on Tue, 14 Dec 2004 05:25:41 GMT  
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I'll try to find a chassis. It seems to me like one of those metal boxes like sold at electronics houses would work just fine. Might be nice to have a "standard," and maybe we could even arrange quantity discounts that way. My first thought is that it would be good to have the socket holes punched, but the more I think about it, the more I think that it isn't necessary; One can drill holes this size. I'd like to see chrome plated chassis though, or maybe painted with a powder coat or other attractive finish.

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Subject: Re: Homebrew amp schematics  
Posted by [Manualblock](#) on Tue, 14 Dec 2004 12:28:34 GMT  
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We need to try Par-metal, they have nice looking box's for good prices and they sell small quantity. They will also finish it in one of three styles. If you mark clearly the template on the surface of the chassis a competent metal shop would probably drill it for you for a couple bucks. For those who don't have access to a shop. I bought a small set of chassis punches for 50\$ a while ago and they are very handy.

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Subject: Re: Homebrew amp schematics  
Posted by [Wayne Parham](#) on Wed, 15 Dec 2004 04:11:54 GMT  
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Sounds like a great idea!

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Subject: alright, here we go estimating...  
Posted by [PakProtector](#) on Sun, 19 Dec 2004 13:01:02 GMT  
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We'll need a PT, Hammond 261G6 is what I used for my 5687. ~\$30 Filament supply, 12.6 V TX from RadioShack ~\$13, + caps and LM317 ~\$6 One 5687 and socket. ~\$15 Output coupling caps, \$7 for ASC oilers at Allied. One 6CA4, socket and two 1N4007 for a full bridge, ~\$15. Hammond 30hy/40 mA choke and 2-400 uF 400V cap, ~\$25. Mosfets and heatsinks and resistors for a Pimm-style CCS ( output from his 'mu' output ), ~\$15. Choke input supply, CCS loads and 5687 amp. for less gain, try 12B4's. Looks like ~\$140 by the time you get everything. It will kick some

serious can, I guarantee (with Justin Wilson cadence )!regards,Douglas!

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Subject: Re: alright, here we go estimating...

Posted by [colinhester](#) on Sun, 19 Dec 2004 16:13:17 GMT

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Thanks for the information. I need to sit down and digest it. Manualbloc estimated around \$125 for the cost; so, I'm very glad to see you two are very close in cost. I'm also glad it will "kick some serious can." I've built a few kits (all from Bottlehead) but the idea of going from schematics to a functioning piece of equipment is really exciting for me. All the help I can get in understanding design vs function is greatly appreciated, and, again, I thank you for your help....Regards, ColinPS. I'm going to try to get the powers that be to start a new forum for group build projects. Not only for this preamp, but hopefully this is just one project of many.

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Subject: Group Build Forum

Posted by [admin](#) on Tue, 21 Dec 2004 15:09:31 GMT

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"I'm going to try to get the powers that be to start a new forum for group build projects. Not only for this preamp, but hopefully this is just one project of many."Good idea. You got it.  
Group Build Forum

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