Subject: schematic
Posted by Manualblock on Fri, 04 Feb 2005 23:33:06 GMT
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There was an article in AudioeXpress describing a nice 211 SE design with Mercury rec tubes. I have been following the build up of that design and it appears it has reaped quite a reputation. Nothing like the big bore triodes. Anyone have experience with these tubes?

Subject: Re: schematic
Posted by Wayne Parham on Sat, 05 Feb 2005 14:20:46 GMT
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Maybe that one would be good for a group build?

Subject: Re: schematic
Posted by Manualblock on Sun, 06 Feb 2005 15:32:22 GMT
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It Certainly would make me happy! However it require's very high plate voltages; difficult to wind transformers and expensive tubes and passive parts. Might not fly with the regular crowd. Unless you are interested???

Subject: Re: schematic
Posted by Wayne Parham on Sun, 06 Feb 2005 15:50:22 GMT
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How expensive? I mean, we didn't slouch on the power supply transformer for Guinevere, and it wasn't too bad. How much do you think we are talking about for the parts for this mercury rectified SE 2A3?

Subject: Re: schematic
Posted by Manualblock on Sun, 06 Feb 2005 18:49:40 GMT
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Well I would assume the 2a3 trans would be fairly inexpensive but for a 211 with 1100v on the plate might get pricey. The guys who built this went for about 800$ for the handwound power and opt's. Then 866 merc tubes and 211's as well as oil caps etc. the total came in at around 1k.Then you like real nice chassis so add 150$ to that.

Subject: Re: schematic
Posted by Wayne Parham on Sun, 06 Feb 2005 19:44:02 GMT
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Gotcha. So about twice the cost of Paramours, yes? I wonder what Heyboer might charge for these transformers. If we're lucky, maybe they already have what we need in their inventory. You think there's any chance of that?

Subject: OPTs
Posted by Damir on Sun, 06 Feb 2005 21:16:27 GMT
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For 845/211/GM70, etc. project, you can consider the new "Lundahl" LL1688 OPT. From "K&K Audio", price is $275, not too bad.And for 2A3 & 300B projects, 1664 serie (with 50mA,60mA,80mA,100mA DC current) is nice. They are 3k:8 Ohms only, price is $125.The only drawback with "Lundahl" OPTs is that they are "naked and ugly" - for under-chasis montage, or buy some separate cover?I have 1664/80mA OPTs, some experiments are on their way...

Subject: Re: OPTs
Posted by Wayne Parham on Sun, 06 Feb 2005 21:30:31 GMT
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Not bad at all. What do you think about a PS transformer?

Subject: Re: OPTs
Posted by Damir on Mon, 07 Feb 2005 11:39:28 GMT
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Huh, I used just Plitron/Amplimo toroids (excellent, but high price) and local custom - made toroids (cheap, but not that good). No experience with other brands, but for the 2A3 project, I`ll work it out somehow (Hammond?)...

Subject: Re: OPTs
Posted by Manualblock on Mon, 07 Feb 2005 13:15:17 GMT
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Superbowl; good game for a change. I can try and post a link to the schematic for the 211 triode amp, it sounds nice with those Lundhal Iron and less expensive than any handwound. I f I could put the 211 amp together that is my dream amp, 20watts of SE triode power.

Subject: 211 SE
Posted by Wayne Parham on Mon, 07 Feb 2005 15:11:24 GMT
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Oh, yeah, that's definitely gonna be great!

Subject: How about an 813?
Posted by PakProtector on Wed, 09 Feb 2005 02:53:10 GMT
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We'd need a slightly special OPT, for running E-Linear, say 20 and 30% taps on the plate winding. Pentode input valve, rigged as a pentode with a super g2 supply, say a 12BY7 for the 813, or a faux pentode made from a pair of 5687 sections (a.k.a. cascode).Say 700V B+, 6k/120 mA OPT and we're off to the races.an 850-0-850@ 200 mA, 10 amps of 2.5 volts for the pair of 866's plus 10v/5A for the 813 filament and we're off to the races. don't forget about a good PS choke and some 440vac motor-runs.regards,Douglas

Subject: Re: How about an 813?
Posted by Manualblock on Wed, 09 Feb 2005 13:28:05 GMT
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That sounds good; from my point of view; As a layperson budding amp builder I have no opinion concerning particular tube types, only because I have heard only a small fraction of the possibilities available. If in your experimentation which from what I can see is pretty vast; you have experience with a good circuit that you like that uses inexpensive alternatives to the high priced triode kings it by definition sounds good to me.What you describe above seems logical and doable and the parts are reasonable. So what could be any possible drawback to a suggestion such as that. I only post this rant so you can see the thought process of a novice builder. So; would I like to build a really good sounding amp with reasonably priced tubes and transformers that will work well with Guinevere; sure thing.The most obvious question a novice would ask is why are certain tubes more popular than others. And what motivated you to prefer this circuit? Whats your thoughts on that?

Subject: Re: How about an 813?
Posted by PakProtector on Wed, 09 Feb 2005 13:42:25 GMT
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I have some concerns about SE. The E-Linear circuit was developed *ABOUT* in parallel(and from the same inspiration) for SE by a guy named Peter Millet.Plate-to-grid NFB and power supply simplification are some of the benefits. The 813 has a comparable plate rating to the other TX triodes mentioned, and will make more power when run U-L or as a pentode.It has an anode cap which has historically been a bit intimidating to DIY-ers. I put a hot link to Pete's site. THere is a PDF download on the E-Linear amp(among others). Enjoy!regards,Douglas
Pete's site

Subject: Re: schematic
Posted by GarMan on Wed, 09 Feb 2005 16:02:50 GMT
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I was obsessed with the idea of a 211 SET earlier this year too. But when I started putting together a bill of material, it became pretty expensive. The tubes themselves are not outragous. Chinese tubes are about $50 each while GE NOS are $150. However, most of the schematics I found require an OPT of 10K primary, and even a reasonably priced OPT like James cost $300 each.Cost issues aside, a 211 SET project should only be attempted by experienced builders. While voltages from preamps and pentode amps have a good chance of killing you, the 1000+ volts from a 211 amp is guaranteed to fry you on the spot. Also, the high voltage requires extra attention to insulation, as electrical arcs can be a problem.All said, I'd love to see someone on this board complete a project like this and share the building and listening experience. I've read one or two articles about 211 projects, but didn't enjoy the esoteric and elitist tone it takes. Much prefer the down-to-earth attitude that this board has.Gar.

Subject: SE opt's
Posted by PakProtector on Wed, 09 Feb 2005 23:11:11 GMT
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Considering the standard applied to PP transformers with regard to a-a impedance and primary inductance, it amazes me how easy this is to sidestep for high Z SE.It is bad enough gettig primary L w/o an air gap, let alone one to allow 130-140 mA of idle current.Put a U-L rigged 813 at ~700 volts and load it with a 5k:8 OPT and it will have a chance. 2Pi*20cps*L to equal more than 7k is not too bad. 50-60 Hy will be adequate.I think I'll stay PP, 10k:8 is *EASY* and inexpensive(and I like PP better anyway so far). I'm thinking a little cathode feedback from a tertiary winding, a bit of plate-to-grid with the E-Linear driver, and I'll be in good shape.I can take a core with ~5 square inches of good Iron and get good 20-20 performance out of it to more than 60 watts. Been looking for an excuse to try the new amorphous C-Core. Probably best to R&D with M6 in the early stages.too many cool things to do, that's for sure. The 813 ought to be good practice for a PP amp running TX pentodes at 350W/plate dissipation...regards,Douglas

Subject: Re: SE opt's
Posted by Manualblock on Thu, 10 Feb 2005 16:10:46 GMT
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I offer that I agree with both posts. The 211 is dangerous and expensive and in my humble experience both SE and PP sound excellent dependent upon the quality of the build. With that big of a triode the power issue is mitigated since you get 20 watts out of a 211. Having owned SE and PP I now listen to my EL-84 PP amp so I guess that is what I like.