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Subject: Headphone Amplifier

Posted by [gofar99](#) on Tue, 30 Oct 2012 01:51:32 GMT

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Hi Everyone, I just finished up a tube based headphone amplifier. The project was sent to diyaudioprojects.com for posting when Gio gets it massaged for use there. (allow a few days please). Anyhow the amplifier part is simple but the power supply a little more complicated. An easy and fairly cheap (probably under \$150 if you are frugal) project that has really nice sound. Very quiet, full range and can drive nearly any phones. Best matches are with 32 to 300 ohms. Others may work ok depending on their sensitivity and impedance. The schematic is attached. The power transformer is about \$15 from Edcor and the outputs are about \$18.

#### File Attachments

- 1) [Headphone Amp October 29, 2012.PNG](#), downloaded 8704 times
  - 2) [IMG\\_0357B.jpg](#), downloaded 8690 times
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Subject: Re: Headphone Amplifier

Posted by [Wayne Parham](#) on Tue, 30 Oct 2012 03:36:00 GMT

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Really nice looking, Bruce. Thanks for posting it here!

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Subject: Re: Headphone Amplifier

Posted by [gofar99](#) on Tue, 30 Oct 2012 03:39:03 GMT

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hi Wayne, Thanks for the kind words. The full project covers how to build the amplifier and some considerations that might not be obvious from the schematic. Is there a place that such projects can be posted. Even though this is a short one, it is about 5 pages long.

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Subject: Re: Headphone Amplifier

Posted by [Wayne Parham](#) on Tue, 30 Oct 2012 13:06:18 GMT

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There is such a place. Let's put it in the group build forum!

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Subject: Re: Headphone Amplifier  
Posted by [gofar99](#) on Fri, 02 Nov 2012 03:43:37 GMT  
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Thanks for reminding me, I had a senior moment. Just don't tell my spouse. Anyhow, this project and one for building a pair of class A valve mono blocks using EL84 are in the group build section.

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Subject: Re: Headphone Amplifier  
Posted by [Azuri](#) on Fri, 30 Nov 2012 06:33:06 GMT  
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Excellent contribution. Thank you. I'm learning more these days on how to get better audio from my sources of music, and you are helping in that regard.

Just thought I'd share that.

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Subject: Re: Headphone Amplifier  
Posted by [dreamer13](#) on Tue, 01 Aug 2017 12:53:48 GMT  
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Thank you for sharing, Bruce! To my understanding, the mobile phones or iPods nowadays are already equipped with an amplifier for the earphones. I am thinking of getting a better headphone in near future for my music needs, so I wonder if I also should get amplifier like this to boost the experience.

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Subject: Re: Headphone Amplifier  
Posted by [gofar99](#) on Tue, 01 Aug 2017 20:49:29 GMT  
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Hi, Maybe. I would select the phones and try them first without an external amp. There is a fair probability they will work fine. The biggest difference between internal and external phone amps is generally the output power. Since most phones are fine with just a few milliwatts this is a good thing and an external amp is not needed. Now moving on to an external DAC and phone amp ...then there may be some benefits. Externals can have more processing power and better components so the sound can be better. To a large extent it depends on the source material. If all you have is MP3s then the external DAC will not do much. If your source is high resolution stuff then you could notice significant benefits. All my phones are various models of Sennheisers. I don't find it necessary to use an external amp or DAC with the stuff I listen to. YMMV.

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Subject: Re: Headphone Amplifier  
Posted by [mamoss](#) on Wed, 13 Sep 2017 18:56:54 GMT

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Reading this, I just wish that I had skills that match yours gofar. Too bad that I dropped Physics just after high school. Just out of curiosity, how much would this cost now?

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Subject: Re: Headphone Amplifier  
Posted by [gofar99](#) on Wed, 13 Sep 2017 22:29:22 GMT  
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Hi, The cost to build one ought to be about the same as the parts are pretty common.

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Subject: Re: Headphone Amplifier  
Posted by [Charlie82](#) on Sun, 22 Oct 2017 00:30:38 GMT  
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Thank you so much for sharing this with all of us. It's a wonderful resource. Now if only I had the skills to make this happen. Mamoss, I dropped physics too but I've been regretting it ever since.

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Subject: Re: Headphone Amplifier  
Posted by [WorkingWoman2017](#) on Fri, 10 Nov 2017 17:44:54 GMT  
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Excellent post. I had no idea that you could actually boost headphones. I really need to get busy and build something for myself like this. Great information.

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Subject: Re: Headphone Amplifier  
Posted by [GoldenOldie](#) on Tue, 14 Nov 2017 18:55:14 GMT  
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As mentioned earlier, the new phones etc., already some with a boost for the headphones. But you never know when you might need something additional.

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Subject: Re: Headphone Amplifier  
Posted by [Kitt](#) on Sun, 10 Dec 2017 21:18:49 GMT  
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I'm with you on that one, mamoss. I, too, wish I had such skills. I know it's not too late to learn but at this point I'd rather just rely on the experts to do these things for me.

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