
Subject: Sorry if this is an obvious question.....
Posted by [Mr Vinyl](#) on Wed, 02 Mar 2005 12:12:50 GMT
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Hi,I have never used headphones before but am thinking of purchasing a pair. Here's my question. If my preamp doesn't have a head phone jack, can a pair of headphones be used off of the unused output jacks? In other words my preamp has two pairs of output jacks. Can headphones be connected directly to these jacks? Are any adapters needed to do this if it's possible.Thanks for you in advance.Mr Vinyl

Subject: Re: Sorry if this is an obvious question.....
Posted by [Wayne Parham](#) on Wed, 02 Mar 2005 19:35:08 GMT
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Sure, you can do that but watch it with the volume knob.

Subject: Re: Sorry if this is an obvious question.....
Posted by [Mr Vinyl](#) on Wed, 02 Mar 2005 21:05:19 GMT
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Hi Wayne,Is there a down side to doing this? I mean, don't most preamps have two outputs? If so why buy a separate headphone amp? I would think you would get better sound coming straight off the preamp wouldn't you?ThanksMr Vinyl

Subject: Re: Sorry if this is an obvious question.....
Posted by [Wayne Parham](#) on Thu, 03 Mar 2005 08:16:07 GMT
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Preamp level outputs don't usually have the oomph. What you want is an amplifier capable of driving a relatively low impedance, since headphones are usually between 8 and 40 ohms. That's about the same as speakers. You don't need much power though.

Subject: Re: Sorry if this is an obvious question.....
Posted by [GarMan](#) on Fri, 04 Mar 2005 13:34:38 GMT

You may be able to hear through the second output, but I doubt it would sound very good. The biggest problem would be impedance mismatch. Preamps typically have output impedance of several hundred ohms (some even into the thousands) and are designed to drive amplifiers with input impedance starting from 10K. "Typical" amplifiers have input impedance of 50K or 100K. By contrast, headphones have input impedance starting as low as 16 ohms. Also, if your preamp has an output capacitor, you would experience tremendous bass roll-off with the low impedance headphones. There are a few options if you want to listen with headphones, but do not have a headphone jack built in: 1) L-Pad at output of amp. Simplest and cheapest option. This takes the output from the power amplifier, reduces the wattage through an L-Pad, and connects to the headphone. I've tried this, works okay, but sounds muffled. 2) Transformer couple either the preamp output or power amp output to the headphone so that voltage and impedance levels match. Antique Sound Lab sells a couple of units for this purpose:

<http://www.divertech.com/uhcsignature.html> <http://www.divertech.com/aqreferencetools.html> I've never tried these units, but the manufacturer says it maintains sound characteristics of the preamp or power amp it's connected to. If you like to experiment, you might be able to build your own transformer coupling unit for your preamp with a pair of Hammond 119DA. It's a high quality 600:8 audio transformer. The tube headphone amp I'm using is a basic common cathode / cathode follower design, with a pair of these transformers as output. Sounds fantastic!

<http://www.hammondmfg.com/collins.htm> 3) Build / buy a dedicated headphone amp. Even if your preamp has a headphone jack, it's usually built as an after-thought with a \$0.25 opamp. There's a lot in the market to choose from depending on the quality you're looking for, from chip-based to SS to tubes. And yes, a good headphone amp does make a big difference, provided you're using a high quality set of headphones. Even a simple opamp design like the CMOY will outperform most built-in headphone jacks. Hope this helps, Gar.