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

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