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Subject: Unity Gain Preamp

Posted by [FredT](#) on Sat, 16 Dec 2006 10:06:32 GMT

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What the audio world needs is a unity gain active preamp:) With most of the high gain amps out there, especially with high sensitivity speakers, the typical 20dB gain tube preamp is too noisy, and the volume control never gets turned above the first 1/4 of its range. A passive preamp is one solution, and I have been using one some time, but I prefer the sound of an active tube preamp over a passive. So here's what I was thinking. I can get the LS29 tube buffer already assembled from Diyclub BIZ in Hong Kong for \$40 plus \$15 air post shipping. Mated with a Goldpoint attenuator I can have the best of passive and active for about \$200 (including the required 12 volt transformer). If I want to go really first class I can order DIY's \$40 A28A preamp case and have a "high end" appearance too. Any flaws in this thinking?

LS29 Tube Buffer

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Subject: Re: Unity Gain Preamp

Posted by [Wayne Parham](#) on Sat, 16 Dec 2006 14:52:26 GMT

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I think you're exactly right. I've heard a handful of systems with passive "preamp" sections that sounded strained, and I thought they could use a buffer. I didn't take a scope to them - would have been rude to step up and say "sounds like shit, let me bring a scope" - but my guess is the

solve this.

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Subject: Re: Unity Gain Preamp

Posted by [Forty2wo](#) on Mon, 18 Dec 2006 02:34:18 GMT

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Sounds like you may be a good candidate for a transformer volume control. Or a while back Jack, of ElectraPrint published a transformer buffered unit in Audio express. Mike at MQ has something similar. I have been wanting to try this myself but for now I need just a little gain...John

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Subject: Re: Unity Gain Preamp

Posted by [bretldwig](#) on Wed, 27 Dec 2006 00:20:13 GMT

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Depending on what you are using to drive the amp with in the first place, but usually a second box and another set of cables is the wrong answer. NO preamp is usually the ultimate preamp. Generally today, 95% of people spend 95% of their time listening to CD players, universal disk players, or DACs. That unit should be capable of driving any reasonable amp and should have a volume control onboard that is easy to use. Bringing in another box is not the fix. Replace or modify one or the other.

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Subject: Re: Unity Gain Preamp  
Posted by [Wayne Parham](#) on Wed, 27 Dec 2006 16:59:18 GMT  
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In many cases, I would agree with you. In between the sources and amps you really need only a switcher; Sometimes a gain stage at the switcher is not required. Keep things as simple as possible, but no simpler. In some cases, a gain stage is required and in that case, it's a mistake to try and oversimplify. If you push a gain stage too far, it will clip and that's not good. That's where a buffer stage works beautifully.

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Subject: Re: Unity Gain Preamp  
Posted by [PakProtector](#) on Sun, 07 Jan 2007 01:03:57 GMT  
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Hey-Hey!!!, While it doesn't look like anything's wrong, you should be able to do a whole lot better for a bit less. Go +120 and -25 for your supply. Rig a pentode as the cathode follower. 6EJ7 perhaps? 6AC7? 12HL7? Resistive drop for the g2 and cap bypass to the cathode. 2-4 uF should do it. Rig a CCS for the load, and cap couple the output. The tubes are cheap, and voltages will allow easy Schottky diode rectifiers. you could buy it...but I suspect you'd rather listen to your own creation. cheers, Douglas or look in the projects folder in GroupBuild, I put a schematic there for a buffer pre...:) TX coupled and no caps in the output. The Ni-cored output TX's are -1 dB at 2 MHz!

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