

---

Subject: Will increasing the primary impedance of my output transformers hurt?

Posted by [akhilesh](#) on Thu, 20 May 2004 00:28:58 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hi everyone, I have a push pull amp, that gives out about 8 watts (the antique electronics kit using 11bm8 tubes). The output transformers on this are below average (for example they have only one 8 ohm tap), and I would like to replace them. Since I only need 2-3 watts with my speakers, I was thinking of getting transformers with a much higher primary impedance (and of course 4/8/16 taps). This should reduce power to about 2-3 watts, but won't a) my tubes last longer, and b) the distortion go down? any drawbacks (apart from loss of power?)-akhilesh

---

Subject: Re: Will increasing the primary impedance of my output transformers hurt?

Posted by [Wayne Parham](#) on Thu, 20 May 2004 04:36:37 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

The idea of any transformer is impedance matching. So the turns ratio between primary and secondary is to match output impedance with the load.

---

Subject: Re: Will increasing the primary impedance of my output transformers hurt?

Posted by [Steve](#) on Thu, 20 May 2004 18:21:02 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hi Akhilesh, Yes, an increase in primary Z will generally lower distortion, lower the output Z of the amp (increase damping factor), and the HF response might be just slightly lower, depending on the OPT. Higher order harmonics may raise their head a little, but if the design is good, this may not be a problem. If the tubes are run class A, there won't be any increase in output tube life. If the output tubes are run AB, life should be increased, but to what extent depends on the idle current, plate dissipation etc. Hope this helps.

---

Subject: Re: Will increasing the primary impedance of my output transformers hurt?

Posted by [akhilesh](#) on Thu, 20 May 2004 18:25:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Thanx Positron. That is very helpful!-akhilesh

---