
Subject: Re: Reducing amp volume

Posted by [Damir](#) on Thu, 13 Apr 2006 11:31:54 GMT

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Reduced volume can be obtained in various ways - switching output tubes to triode operation, switching off one pair of output tubes (when amp has 4 tubes), reducing anode/g2 voltages (by some kind of autotransformer, or switching trafo taps) while keeping heater voltage the same, etc. Some manufacturers have "speaker emulators/attenuator" units, but we have different opinions about safe use of them, especially with simple, resistive units. The simplest method for reducing output power is resistive attenuator. For example, your speaker cabinet is 8 Ohms (check it), and amp "gives" 50W to it. It means $20V/2,5A$ on the 8-Ohms speaker. We can connect the power resistor of 8 Ohms/25W in parallel with speaker, and another resistor of 4 Ohms / 50W in series with this combination (between the amp, and speaker + 8-Ohms resistor in parallel). Now, amp "sees" 8-Ohms load as before, but only 12,5W reaches the speaker. We dissipated 25W in 4-Ohms resistor, and another 12,5W in 8-Ohms resistor. You can build a small metal case with two jacks (one to the amp, another to the speaker) and resistors inside, connected on the chassis (heatsink).
