Subject: Re: Sovtek Mig-100, wiring question.
Posted by Damir on Tue, 07 Feb 2006 13:25:41 GMT
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I don`t know the exact numbers, but for example, let`s say that your OPT is Raa=5kOhms to 8 & 16 Ohms secondary taps. Then your impedance(Z) and turns ratios (N) are:Z1 = 5000/8 = 625 , and N1 = 625^0,5 = 25Z2 = 5000/16 = 312,5, and N2 = 312,5^0,5 = 17,68If we have one 8-Ohms speaker connected on 8-Ohms secondary tap, then output tubes "give" power to the "nominal" 5kOhms primary, say 50W - and this 50W (neglecting losses) are transferred to the 8-Ohms speaker on the secondary. The same with 16-Ohms speaker connected on the 16-Ohms tap - output tubes "see" 5k primary and the same 50W from the primary is transformed to the 16-Ohms speaker on the secondary.If we connect both speakers, 8Ohms speaker on 8-Ohms tap, and 16-Ohms speaker on the 16-Ohms tap, then we have this situation:-total power on the primary is divided between the two speakers, W=W1+W2-primary load is expressed with the formula: 1/Raa` = 1/(16*Z2) + 1/(8*Z1) , from this new Raa` = 2500 Ohms!Our primary resistance that output tubes "see" is now halved. Is this of big concern in "typical" guitar amp - the answer from the literature/experienced authors is that you can operate your amp that way if it is "properly built", and on your responsibility Many amps can "survive" this without problem, but many warned that some amps are not the good candidates for this, for example Marshalls.
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