

A Safer and Simple Way of Checking Power Transformer Output Voltage

Here is one method to check the secondary winding(s) voltage of unknown power transformers. The transformer being tested here has a high voltage secondary as used in tube (valve) equipment. You will need an audio generator and one or two AC voltmeters. Two meters are shown here to measure the primary and secondary voltage at the same time. The results should tell you the approximate output voltage a transformer has under no load.



The equipment used here was an old EICO 377 audio generator, a Fluke Model 75 DMM and an HP 400EL Voltmeter. You will need a sensitive voltmeter for any low voltage windings.

For transformers with 120 Volt input, set the signal general to 60 Hz and the output to 1.2 Volts with the generator connected to the primary of the transformer. The transformer will likely load the generator a little. Measure the voltage at the secondary winding(s). If you get say 3 Volts multiply that by 100 to get the actual voltage. If you are using 50 Hz and 240 Volts set the generator to 50 Hz and the level to 2.4 Volts when connected to the transformer primary. I have not tried this but it should work. For filament windings you will see a low voltage. For example, you might measure 0.065 Volts X 100 = 6.5 Volts.

Remember be careful around high voltage transformers when in use.

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