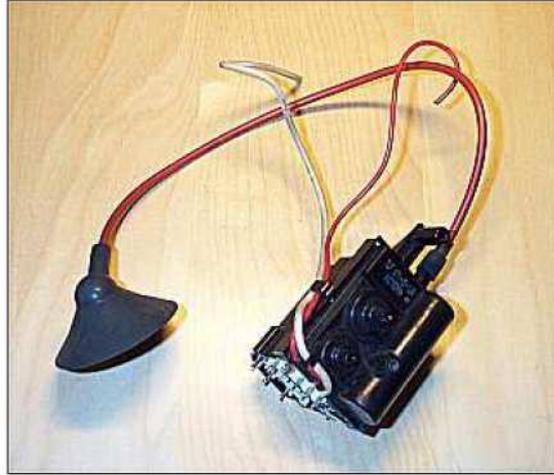


How to find the primary and the secondary coils of a FlyBack transformer.

(Проверил. Методика работает!! Вместо вольтметра использовал осциллограф в ждущем режиме.)

To build the Lab HV-PS, you may use any common flyback transformer rescued from an old color PC monitor (see below):

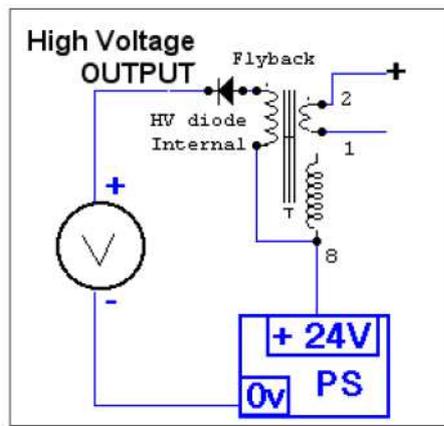


The main problem, in most cases, is that you don't know the pinout diagram of such a flyback transformer. So, I shall try to give you a simple method to find the primary coil input pins and also the 0 V output pin of the HV secondary coil.

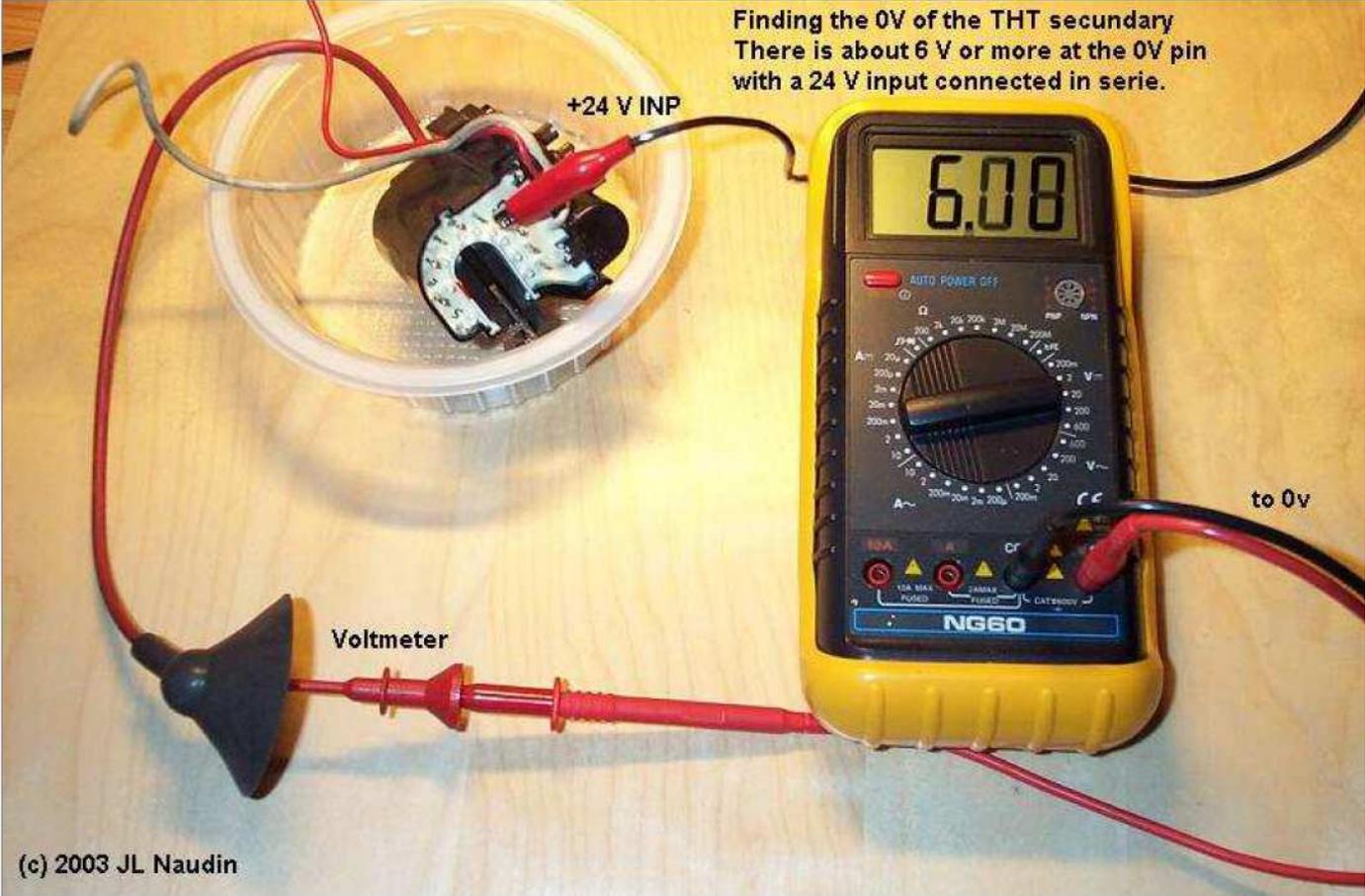
1) How to find the 0 V pin connection of the secondary coil?

With a common digital ohmmeter it is impossible to find the secondary coil pinout because its resistance is much too high. The main HV output is simple to find: this is the big red cable with the suction cup, but you need to find the 0 V pin of the secondary coil on the flyback transformer. So, I give you a simple method to find this 0v pin:

a) You need a 24 V DC power supply and a digital voltmeter set in 20 V range. Connect the + input of your voltmeter to the THT output plug (in the suction cup) and the (-) to the 0V of your power supply. Then, with the +24V output from your power supply, test each pin of your flyback transformer. When you measure a voltage between 5 and 10 V you have found the 0 V pin of your secondary coil. This is very simple... Look at the diagram and the photo below:



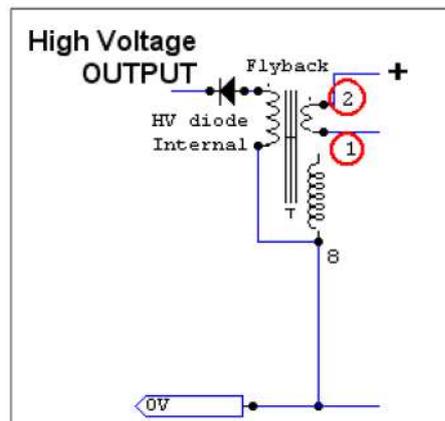
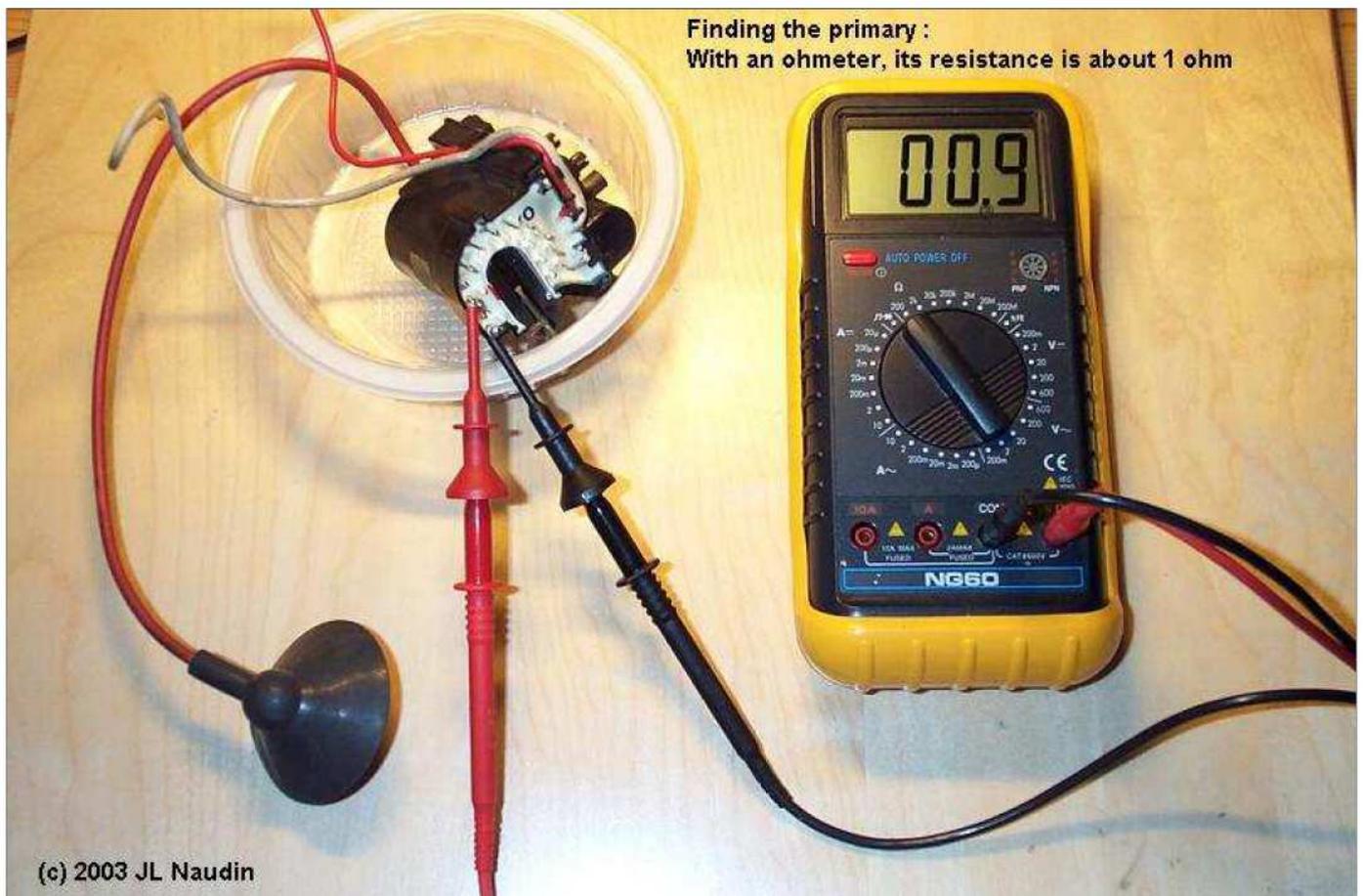
The 0V of the secondary coil is written as number 8 in the LAB HV-PS diagram.]



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2) How to find the pins location of the primary coil?

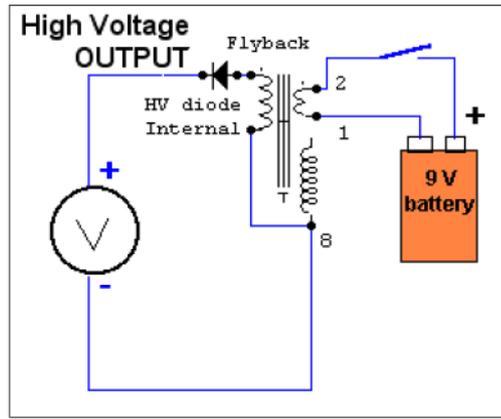
With a simple ohmmeter this is very simple, you will find easily the primary inputs because the coil resistance is about 1 ohm (see below):



You have now indentified the primary input. The next step is to find the polarity of the primary.

3) How to find the polarity of the primary coil?

The purpose is to find the polarity of your primary coil. You need a simple 9 V battery. Connect a digital voltmeter set in 100 V range between the main THT output and the 0 V pin of the secondary that you have indentified in test #1. With the 9 V battery send a short pulse on the primary input, measure the spike of the voltage, then reverse the polarity of your 9 V battery. When you get the max voltage (about a 30 V spike) you have found the correct polarity of your primary coil. The (+) is the pin number 2 and the (-) is the pin number 1 in the main diagram of the Lab HV-PS.



Now, you are ready to use your flyback transformer for building your own Lab HV-PS.