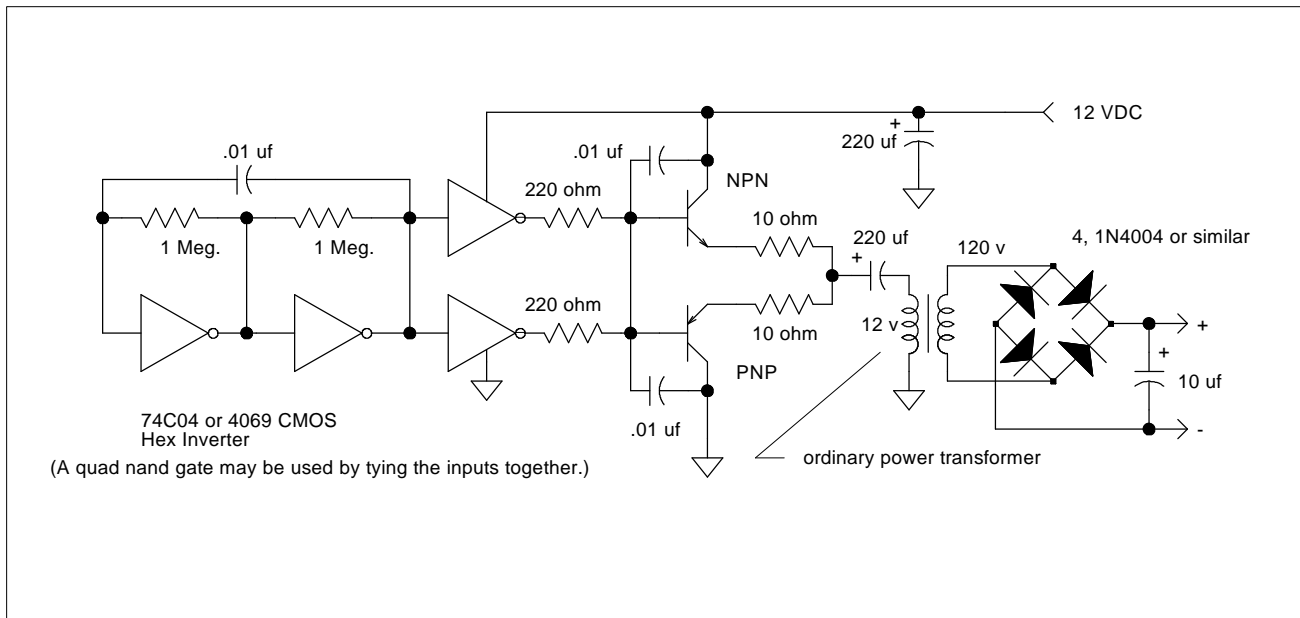


High Voltage Generator for Low Current Applications.



Here is a simple circuit for generating over 100 volts from a 12 volt source for powering low current devices and experiments. The two transistors may be 2N4401 and 2N4403 for lower power applications or higher power devices for heavier loads. If more power is desired then lower the two 10 ohm emitter resistors to 3.3 ohms. When driving power transistors, more drive may be achieved by adding two more gates in parallel with the two output gates shown. Notice that the two driver gates are simply in parallel with 220 ohm resistors in series with their outputs. Duplicate this connection with two more gates with two more 220 ohm resistors connected from the outputs to the transistor bases and the drive current will double.

The transformer is an ordinary power transformer but selecting a secondary voltage somewhat below the power supply voltage will give higher output voltage. The frequency is set near 60 Hz by the two 1 Meg. resistors and the 0.01 uF capacitor and this frequency may be varied for driving an audio transformer. The circuit will work well with other power supply voltages but do not exceed the voltage rating of the CMOS gates.