0 TO 20KV POWER SUPPLY

THIS POWER SUPPLY IS EXCELLENT FOR THE RESEARCHER OR EVEN NEUROPHONE APPLICATIONS. USE IT FOR LASERS, CAP CHARGERS, ETC.

FREQ RESPONSE 45 TO 55KHZ AC OUTPUT
0-20KVDC OUTPUT WITH RECTIFIER CIRCUIT

BY ADJUSTING THE INPUT VOLTAGE FROM 0 TO 5VDC YOU THUS ADJUST THE OUTPUT VOLTAGE FROM 0 TO 20KV

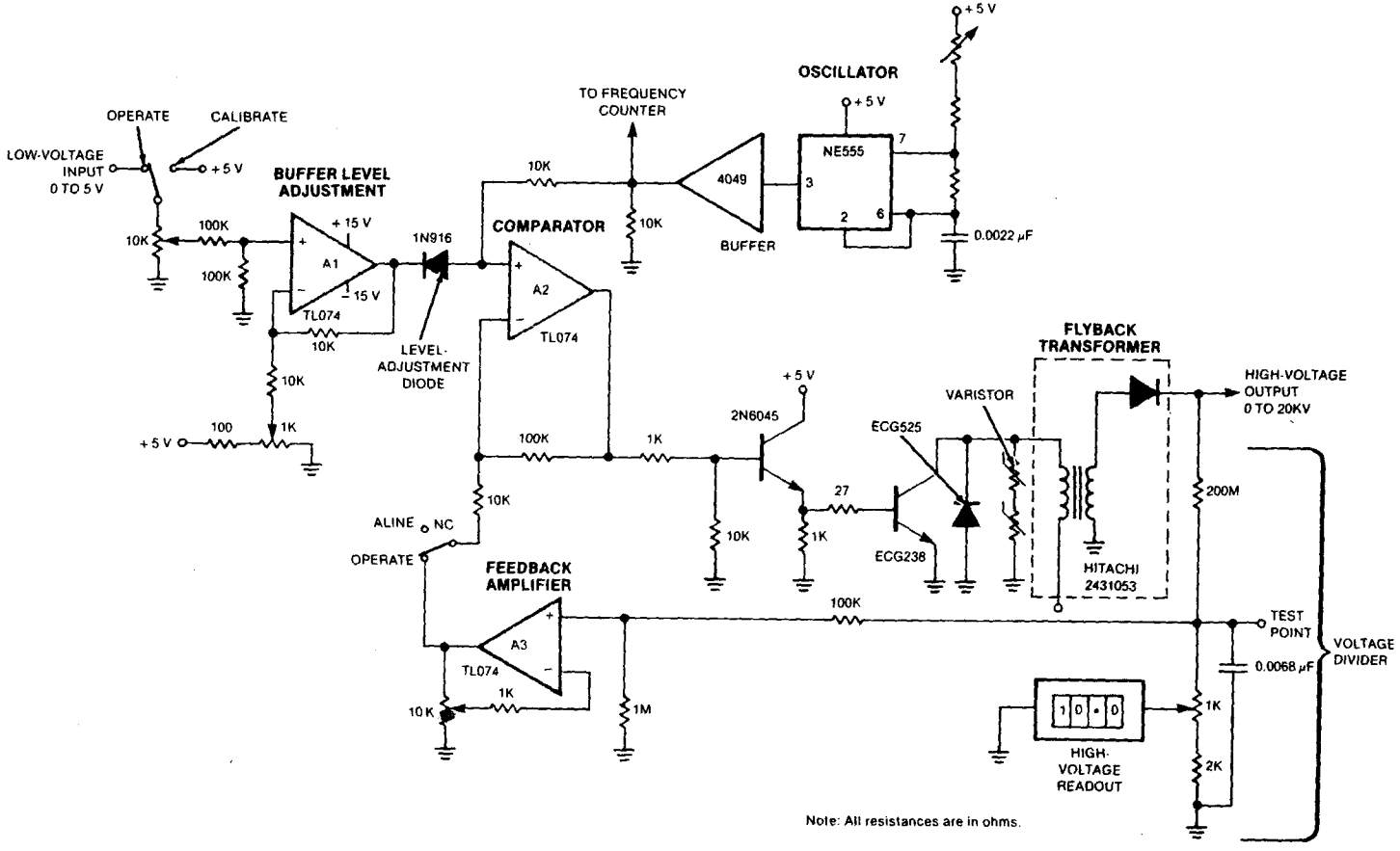
INSTEAD OF USING A FLYBACK TRANSFORMER YOU CAN TRY USING A CAR IGNITION COIL.

YOU CAN MAKE THIS CIRCUIT USING LESS PARTS AND WITH LESS SOLDERING IF YOU ELIMINATE EVERYTHING BEFORE THE 2N6045 AND JUST CONNECT OUTPUT PIN 3 FROM THE NE555 TO THE BASE OF 2N6045..ALSO ELIMINATE THE FEEDBACK AND TEST CIRCUIT. THIS WILL MAKE THE CIRCUIT EASIER TO BUILD AND WILL USE LESS PARTS AND REQUIRE LESS TIME TO BUILD.

A BLACK AND WHITE TV FLYBACK TRANSFORMER WORKS BETTER THAN THE HITACHI BRAND RECOMMENDED.

INSTEAD OF USING THE NE555, TRY USING A SIMPLE TWO TRANSISTOR MULTIVIBRATOR CIRCUIT WITH AN AC TYPE OUTPUT, THIS WILL GIVE YOU A CLEANER 20KV OUTPUT.

SOLID-STATE HIGH-VOLTAGE SUPPLY



The output voltage changes approximately linearly up to 20 KV as the input voltage is varied from 0 to 5 V. The oscillator is tuned by a 5-Ω potentiometer to peak the output voltage at the frequency of maximum transformer response between 45 and 55 kHz. The feedback voltage is applied through a 100-KΩ resistor, an op amp, and a comparator to a high-voltage amplifier. A diode and varistors on the primary side of the transformer protect the output transistor. The transformer is a flyback-type used in color-television sets. A feedback loop balances between the high-voltage output and the low-voltage input.