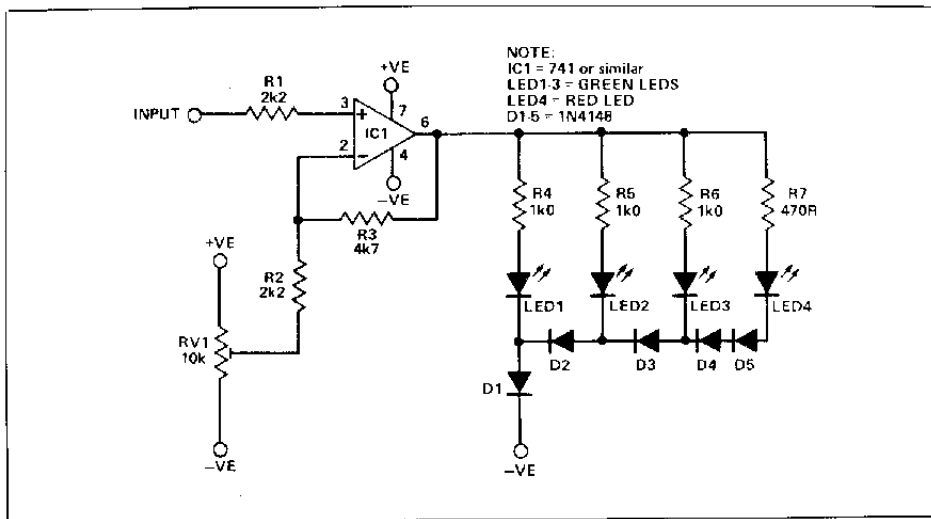


VU Meter

By J. Green

THE CIRCUIT uses three or more green LEDs and one red LED to indicate the level of a varying input signal. Each LED is connected to a different point on a chain of diodes and will only light up when the applied voltage exceeds the combined conduction threshold of all the diodes connected between its cathode and the negative rail.

About 5.2V is needed to light all the LEDs in the chain, and this is achieved by using an op-amp arranged to give a gain of 3.5. This is sufficient to light the red LED from a standard 0dB signal input. RV1 sets the gain of the op-amp and is adjusted so that the red LED just lights at the required level.



The circuit works well with a supply of plus or minus 5V, but if you plan to use more LEDs in the chain, the supply voltage will have to be increased and the

value of R3 raised to increase the gain of the op-amp. An op-amp with a higher current rating may also be required.