

## LED S-meter

This circuit, from Ivan Zaletel of Liverpool, NSW, employs two quad comparator ICs connected to drive a row of LEDs in a bargraph arrangement with the input coming from the detector dc output or AGC line of a receiver. Thus, signal strength is indicated on the row of LEDs.

Transistors Q1 and Q2 provide a constant current drive for the row of LEDs. All the comparators have one input tied together and driven from the detector output ("signal in"). Each other input of the chain of comparators is connected to taps on a resistive divider 'ladder'. As the input voltage increases, it will exceed the voltage on each successive tap of the ladder and the comparators will each change state in turn. The output of each comparator will initially sink current until it changes state and thus the LEDs will only turn on in sequence, commencing with LED1. The output from my receiver was derived from the point A in the supplementary circuit (I added the 47pF capacitor, 47k resistor and OA90 germanium diode). The voltage at point A varies from 0 V with no signal to just under 1 V for a strong signal. The 47k preset pot in the S-meter is set so that no LEDs are lit when no station is being received.

