

## 72 Peak-Level Detector

□ In many situations, particularly in recording, it is more important to know a signal's peak level than its average level. While VU meters are customarily employed for such purposes, you'll find this circuit's LED output easier to interpret and, as a result, more accurate. IC1a gauges the positive peaks, while IC1b does the same for the negative peaks. Both the positive and negative

signal thresholds are determined by pot R4's setting. You can choose any threshold from  $\pm 20$  mV to  $\pm 1$  V. Whenever the input exceeds either the positive or negative threshold, LED1 flashes on for approximately one-tenth of a second. That's long enough to attract your attention and warn you to cut back on the volume.

### PARTS LIST FOR PEAK-LEVEL DETECTOR

**C1, C2, C3**—0.1- $\mu$ F ceramic disc capacitor

**D1-D4**—1N914 diode

**IC1**—LM324 quad op amp

**LED1**—light emitting diode

**R1, R2, R3, R6, R10**—39,000-ohm,  $\frac{1}{2}$ -watt resistor (all resistors 5%)

**R4**—50,000-ohm,  $\frac{1}{2}$ -watt trim-potentiometer

**R5**—1,000-ohm,  $\frac{1}{2}$ -watt resistor

**R7**—100-ohm,  $\frac{1}{2}$ -watt resistor

**R8**—1,000,000-ohm,  $\frac{1}{2}$ -watt resistor

**R9**—51,000-ohm,  $\frac{1}{2}$ -watt resistor

**R11**—3,900-ohm,  $\frac{1}{2}$ -watt resistor

**R12**—270-ohm,  $\frac{1}{2}$ -watt resistor

