



## Automatic Keyboard Repeat

**I** This circuit can be added to almost any ASCII keyboard and encoder to create a simple, low-cost repeat function. The circuit shown uses the positive output of a 2376 keyboard encoder IC to drive the negative-going input required by many UART's and TVT's.

The signal from the keyboard encoder is normally low, thus this circuit has a high output. When a key is depressed, the positive-going pulse from the encoder drives this circuit output low for as long as the key is depressed. However, if the key is held down, the circuit will deliver outputs that repeat as long as you want. This is handy for cursor motions, adding spaces, etc. A one-second delay is provided between the first and second output pulses, and after that, the pulses will be repeated at a three-per-second rate. This built-in delay is created by the longer initial charging time of the capacitor, followed by the faster motion between the Schmitt trigger upper and lower trip points. You can use the other NAND triggers in the package to shorten pulses, or invert input or output.