

2 DIGIT LED DISPLAY for 32x memory expansion for SK5 SK8 by Graham Meredith

The 16 memories in each of the 2 banks of the 32x memory expansion are accessed using a push button that scrolls through each memory by pulsing a 4029 CMOS binary counter IC. It does 2 things: it switches the 4 lower address lines of the RAM chip, and also drives a 4511 BCD-to-7 Segment Latch/Decoder/Driver for the readout (at this stage I couldn't get hold of a 4 bit binary decoder driver quickly, so I used the 4511 I had lying around for the moment, and it only displays memories 0-9, the last 6 memories are not displayed, but still selected - they will be displayed when I get the binary decoder driver, such as the Motorola MC14495P1 CMOS hex driver).

The 2 banks, representing the on/off of the highest address pin, are switched between using a simple DPDT toggle switch to switch on/off the highest bit address line of the RAM chip, using one side of the switch. The other side of the switch also connects power to the 1st digit's segments to form either a "1", or a "2". Simple!

The scroll switch is a pushbutton momentary switch, with a 2.2uF 16V electrolytic capacitor across the terminals of the switch to prevent double triggering.

Casio SK5 SK8 memory controller/display

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Adapted from a circuit from the University of
California Electrical Engineering School

http://www.ee.ucr.edu/~stan/courses/ee120a_06spr/labs/Lab_1.pdf

