ASCII Keyboard
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This circuit uses a 16 key calculator keyboard to generate the 7 bit ASCII code, using two hex numbers to define ASCII character.

If, for example, the code for A (41 hex) is required, '4' is pressed first. After 10mS (to avoid switch bounce) the binary code from the diode matrix is latched into three D-type flip-flops. '1' is now entered. This time, after the 10mS delay, a 200uS pulse is produced by the second 74121. If the ENABLE input is low, a negative pulse appears on the STROBE output, while the ASCII code for A appears on the other outputs. If the enable input is high, the circuit remains in its initial state with the strobe pulse disabled.