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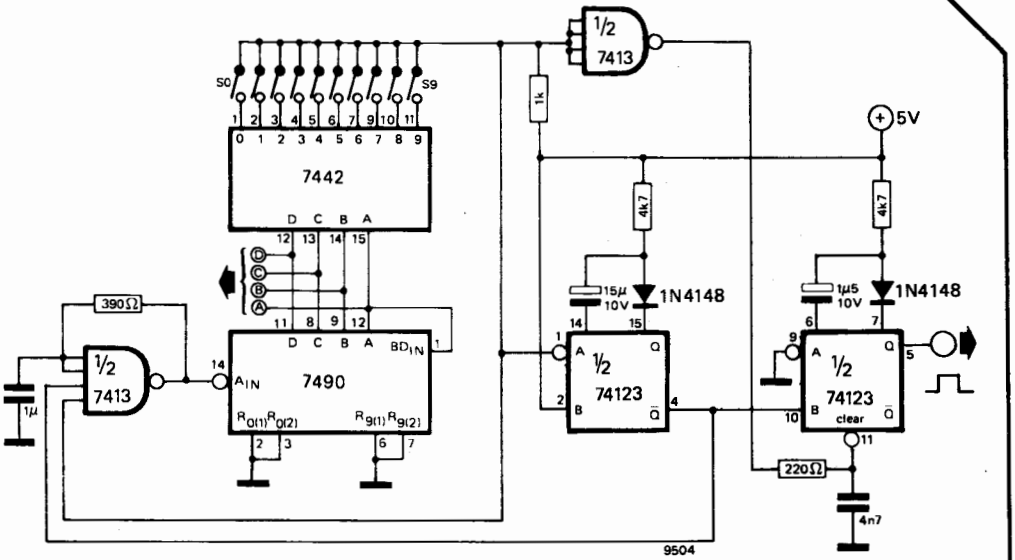
# key board decoder




When one of the keys S0 . . . S9 is pressed the keyboard decoder generates the BCD code which corresponds to that key. To ensure that only the desired BCD information is read out the circuit also produces a strobe pulse which indicates that the information has been accessed.

The diagram illustrates how clock pulses are fed from a free running squarewave oscillator (½7413) to a decade counter (7490). The state of the counter is decoded and fed to the contact keys S0 . . . S9.

The outputs of the decoder go successively low. Thus, the keys are scanned rapidly and sequentially until one of them is pressed. The corresponding output of the decoder will, after a certain time, go low. This '0' stops the oscillator and the counter, which then remains in the state which coincides with that of the key which has been pressed. To prevent possible mistakes arising as a result of contact bounce, the circuit includes a monostable multivibrator, which after 0.3 ms triggers a second monostable. This in turn supplies the pulse which reads in the BCD information from the 7490.