## 2102 Memory Tester

This circuit provides for the testing of 1024 bit X 1 memories, such as the 2102 series, in two modes. Mode-1 cycles the memory continuously through write and read, alternately writing zeroes and ones then reading to ensure the write was successful. Mode-2 allows the write of a signal onto the memory, then continuously reads it to ensure the data is stable.

In both modes, the output from the memory is compared with what should be there, and if there is a difference, an LED flashes, accompanied by a click from the speaker. In mode-2, on power on, a continuous noise will be heard from the speaker, on pressing the 'WRITE' button this should vanish. Similarly, a brief pulse of noise will be heard in mode-1 before the write is completed. The oscillator frequency is about 20 kHz with components shown.

In mode-2, when the supply voltage drops below 4.5V memory is not stable for more than a fraction of a second, although this does not show up using mode-1.