

PacCom Tiny2 Battery Tale

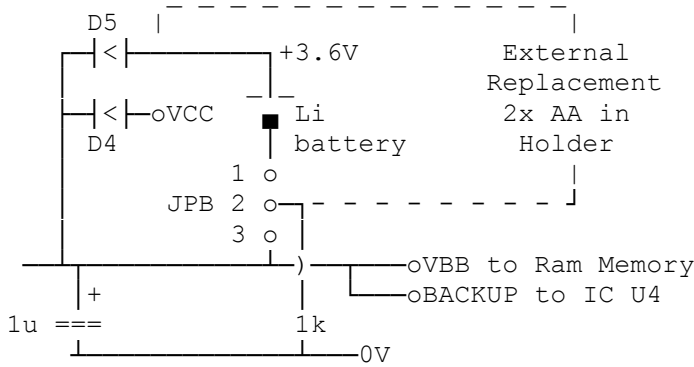
By G8MNY

(New Jan 08)

(8 Bit ASCII Graphics use code page 437 or 850)

I have been looking at the disastrous results of adding external backup battery connection to a tiny2, as the small rare soldered in Li battery had died.

The external batteries outside the metal case had been wired from the anode of low voltage drop D5 to JPB 2 battery 1k earth jumper link.



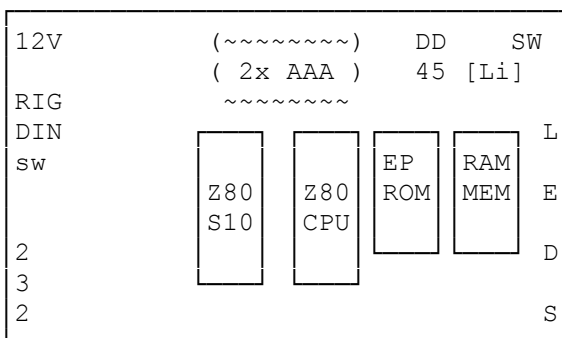
As you see from the circuit there is very little other than the 1uF protecting the static sensitive memory IC from external electrical shock (static & HF). The Li battery current limiting 1k earth resistor left in the external battery system only making matters worse!

THE DAMAGE

In the end the TNC packed up with a blown up memory 62256 IC & a Z80 S10/0 IC Which handles the data bus to the memory & Z80 CPU. This was found by swapping ICs to another TINY2, luckily all in sockets. The logic IC U4 a 78HC132 took the Zapp OK!

MY SOLUTION

After replacing the ICs, I unsoldered the Li battery & wired the battery connections to 2x AAA Alkaline cells (soldered to batts with special solder or file ends) all tapped up (parcel tape) to provide insulation & some battery leakage protection to the PCB & double side taped the bundle to the PCB where the 82C88 IC hole space is.



I expect the 2 AAAs should last as long as the original Li?

I hope this tale stops anyone else from zapping there TNC.

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