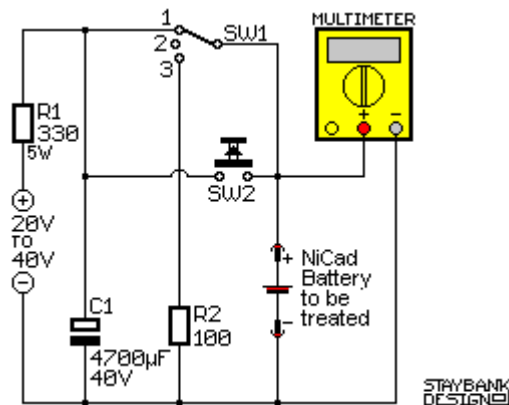


johnstaybank Circuit Exchange

Nicad Batteries - How to repair faulty Nicads.



When one or more batteries in a battery-pack are faulty, we have a problem. Sometimes these faulty batteries can be repaired with the circuit above. The circuit itself is very simple and shouldn't give you any problems: connect the defective battery as shown in the diagram. Then connect it to 20 to 40V DC (SW1 in position 1). Then put SW1 in the neutral position (position 2) and push SW2 a couple of times. Wait long enough between each push in order to give C1 the time to get fully loaded. After doing this a couple of times, set the switch in position 1 and check if the tension of the battery does rise. If so, the tension has to go to 1.25V. If not, repeat everything. If all works well, as soon as the tension equals 1.25V, switch to position 3 and check that the tension does not drop too quickly. If this is the case, repeat everything once again. If this attempt is still unsuccessful, your battery is really beyond repair and ought to be replaced by another one.

Warning:

Take care with all circuits that involve nicads! Use a voltmeter to observe correct polarity. Nicad batteries can explode if short circuited or connected with the wrong polarity.

Parts List

Unless otherwise stated, resistor wattage = 0.25W.

- R1 = 330Ω /5W
- R2 = 100Ω
- C1 = 4700μF/40V
- SW1 = switch, 3 positions
- SW2 = momentary, normally open
- Multimeter

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