Simple NiCad charger

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Most commercial NiCad chargers have connections for the A to D range of cells, but do not include PP3 type batteries. This circuit will charge from 1 to 6 standard 1.2V NiCads or one PP3 type in ten hours. If more than one cell is being charged then they should be connected in series, and the charging connection is made between positive and negative pins at IC1 input.

Switch S1 selects the appropriate range for the cell to be charged, and this must be chosen before applying mains power.

Resistors R1 to 8 determine the current flowing through IC1, which is a constant voltage regulator. The total current flowing through the NiCad will therefore be resistor (load) current and IC1 drive current (3 to 4mA). Bolt the IC onto a suitable heatsink when charging C or D type cells.