

Rejuvenating NiCads

Old Nicad batteries usually end up with several cells being short circuit, as they suffer from crystal growth in the electrolyte. To reclaim the cell before charging, (as charging will not remove the short) a very high current pulse must be used.

With a sealed battery pack this can blow any internal safety fuse! So it is best done when U have opened the pack. The good cells will withstand the high current OK, but having them in series can reduce the current depending on how you are applying it, if you have a really bad cell.

Current up to 10xC (eg 5A on a 500mAH AA cell, 40A on a 4AH D cell) can be safely applied until the pack warms, (how fast chargers detect 70% charge & drop back to trickle).

For more difficult cells, current over 10xC may be required, this can distroy the internal cell wires, but you have nothing to loose! Charge up a 10,000uF to 40V & connect to cell (computer must not be nearby!) with thick wires, the 100A pulse usually clears the short after a few pulses.

Once all the cells are over 1V, then trickle charge (Cx0.1) until warm or 14 hours. A few cycles of discharge & charge will bring back old cells to 100%.

If the capacity is less than 100% after a few cycles or there is excessive voltage (>2V) across a cell when charging, it is O/C or dry & will need to be replaced.