

Re: Is this the right way to charge a battery?

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Source: <http://sci.tech-archive.net/Archive/sci.electronics.basics/2005-08/msg00097.html>

- *From:* "kell" <kellrobinson@xxxxxxxxxxxx>
 - *Date:* 1 Aug 2005 18:41:26 -0700
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ngdbud@xxxxxxxxxxxx wrote:

> My brother got a Vectron ultralite made by Air Hogs. the battery is a
> 6v 100mah nimh, the charger used is a 13v 600ma transformer. This
> voltage and power rating sound way to high for a baattery so small.
> Will this transformer kill the battery? would a lower power
> transformer, like 7v 200ma be a good investment? Thanks in advance!

You are right. The transformer is too hot for the battery.

The crude solution, which is used in cheap chargers, is a series resistor.

First: does this thing put out dc or ac? Obviously you need dc. If it's ac, you need to rectify it or get a wall wart that does put out dc.

Then you need to limit the current with a resistor. You should go for a low charging current to avoid damage to the battery. That's because you will have no way of knowing exactly when the battery has finished charging, so you need a charging rate low enough that you don't have to worry about how long you leave the battery charging. Nicad and nimh batteries don't like overcharging. Find out the slow charging rate for the size nimh you have (google is your friend). If they suggest C/20 for example, you need 5 ma (wow sounds small). Anyway whatever it is, you can then figure out the resistor value. It's just 7 volts divided by the charging current (7 volts across the resistor because you have a 13 volt source going into a 6 volt battery). (Of course the actual voltage from your power source varies with the current, so it might not be exactly 13 volts.) Then the power the resistor dissipates is going to be current squared times resistance. Mske sure your resistor has a higher power rating by at least a factor of three.

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- *Follow-Ups:*
 - ◆ ***Re: Is this the right way to charge a battery?***
 - ◇ *From:* ngdbud
 - ◆ ***Re: Is this the right way to charge a battery?***

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◇ *From:* ChadMan

• **References:**

◆ ***Is this the right way to charge a battery?***

◇ *From:* ngdbud

- Prev by Date: ***Re: Shock Pen (Shocking Device) Please help!***
- Next by Date: ***Re: VHF Remote Radio Questions***
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