

Re: Charging A Lead Acid Battery

Source: <http://sci.tech-archive.net/Archive/sci.electronics.basics/2008-02/msg00387.html>

- *From:* ehsjr <ehsjr@xxxxxxxxxxxxxxxxxxxx>
 - *Date:* Thu, 14 Feb 2008 05:48:39 GMT
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Bill Bowden wrote:

On Feb 12, 6:50 pm, ehsjr <eh...@xxxxxxxxxxxxxxxxxxxx> wrote:

Ross Herbert wrote:

On Tue, 12 Feb 2008 01:30:43 GMT, ehsjr
<eh...@xxxxxxxxxxxxxxxxxxxx> wrote:

:Dave.H wrote:
:> How would I go about building a charger for a lead acid
:battery.
:> Jaycar Electronics sells a 5 amp hour 6 volt SLA battery
:for use in
:> flashlight lanterns, but as far as I can tell they don't sell the
:> charger.
:>
:> Battery
:><http://www.jaycar.com.au/productResults.asp?FORM=KEYWORD>
:> (CAT. NO. SB2498)
:>
:> Thanks
:
:
:Very simple charger:
:
:-----
:+9 ----- Vin|LM317|Vout----+
:----- |
: Adj [2.5R]
: | | 1N400x
: +-----+----->|----+
: | +
: [Batt]
: |

Re: Charging A Lead Acid Battery

: Gnd -----+
:
:You need a 9 or 12 volt wall wart capable of
:at least 500 mA, an LM317 chip, a heat sink for
:the chip, and 2.5 ohm, 1 watt (at least) resistors
:in parallel to make the 2.5 ohm resistance, and
:a 1N400x diode. Charge for 12–14 hours.
:
:Ed

While that might work, it is a constant current source more appropriate to charging Ni–Cd or Ni–Mh cells, not a lead acid battery.

LA battery is best charged with a constant voltage source or better still, a regulated 2 or 3 stage charger.

Read Jaycar's own reference sheet on SLA batteries.
http://www.jaycar.com.au/images_uploaded/slabatts.pdf

Read Jaycar's own description for the specific battery.
It states: "Charge current 500mA for 10– 14 hrs"

There is no "might" about it (as in your statement "While that might work"). CC charging *does* work on SLAs. Note that this is not comparing CC charging to other methods. It is correcting the "might" to "does".

If you want to talk about "best" chargers, don't snipe at my post which addressed a "Very simple charger" It's simple, it works, and it matches Jaycar's description.

Ed– Hide quoted text –

– Show quoted text –

Why is your simple charger so complicated? Why not use a 12 volt DC wall transformer and 13 ohm resistor (5 watt)? You get 540mA when the battery is low at 5 volts, and about 400mA as the battery voltage rises to 7 volts.

Re: Charging A Lead Acid Battery

-Bill

The circuit you describe would require **regulated** 12 volts, making it *_more_* complicated than the "very simple" circuit. The very simple circuit is designed to match the charging requirements in Jaycar's description. Can't do that with the 12 volt DC wall wart and 13 ohm resistor.

Ed

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