

Re: charging a fully discharged car lead acid battery

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Source: <http://sci.tech--archive.net/Archive/sci.electronics.repair/2005-10/msg00994.html>

- *From:* Jim Adney <jadney@xxxxxxxxxxxx>
 - *Date:* Sat, 15 Oct 2005 09:22:31 -0500
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On Thu, 13 Oct 2005 22:08:09 GMT Veggie <nospam@xxxxxxxx> wrote:

>dkuhajda@xxxxxxxx wrote:

>> A discharged, but not dead, battery is ok to jump start and allow the
>> alternator to charge it up. A discharged battery will read around
>> 11-12 volts unloaded or minimal load, 100mA. 8 volts on the battery
>> indicated that it was in a deep discharge state, not good.

>

>After a couple of days (daytime only) at 1 amp charge, it is now reading
>12 volts no load. Interesting that no matter where I dial in the
>current, it stays at 12.0 volts. The battery is acting like a voltage
>regulator of sorts.

Yes, it's just like a big capacitor which you're slowly charging up.

There is one thing that you should check occasionally, and that is to verify that you don't have a shorted cell in there, which would make this a 10V (or 8V) battery. To test for this, just leave it off the charger overnight and check the open circuit voltage in the morning. It should be above 12V.

I know you did this earlier, and at that time it was still only up to 11 volts. At that time it looked like this was reasonable, but by now, I think you should be back up to "normal." Haven't you put ~50 Amp-hrs into this thing so far?

If the voltage drops to ~10V, then you have a shorted cell, and I really don't think that is ever repairable.

I'm surprised that you're not higher in voltage by now, so maybe some caution is worthwhile. Your 1 A charging is still fine; that won't hurt anything.

But wait! Isn't your charger a 12V CC/CV lab supply? In that case, I think you just need to switch to something higher in voltage. Just keep the voltage under 14.1 V.

>It's just under two years old, original factory battery. When I topped

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>it off with distilled water, tops of the plates looked great. Looked
>just like new finned aluminum heatsinks, clean and no gunk. There was
>some oil slicks on the electrolyte, no doubt from the red bearing grease
>someone (the factory?) had smeared all over the terminals. There was
>semi liquid red grease underneath the caps too.

The + and - plates will be grey and brown once it is fully charged.
When it is discharged, they will both be grey. Don't be fooled by the
paper separator in there. You'll know you're done with the reversal of
the discharged state when half of the plates have turned brown.

The color change won't occur uniformly. First you'll see brown peaking
out from under the grey, they just grey flakes on the brown, then all
brown.

>Isn't there a better choice for corrosion protection than regular petro
>grease?

Wish I knew. ;-)

-

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• **Follow-Ups:**

- ◆ **[Re: charging a fully discharged car lead acid battery](#)**
◇ From: Veggie

• **References:**

- ◆ **[charging a fully discharged car lead acid battery](#)**
◇ From: Veggie
- ◆ **[Re: charging a fully discharged car lead acid battery](#)**
◇ From: dkuhajda@xxxxxxxx
- ◆ **[Re: charging a fully discharged car lead acid battery](#)**
◇ From: Dave Plowman (News)
- ◆ **[Re: charging a fully discharged car lead acid battery](#)**
◇ From: Veggie

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