

HOW-TO: Rebuild your laptop battery

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Admit it. Come out of denial. You know your laptop that was supercool 2 years ago now gets 15 minutes of battery life. It sucks and we all share the same problem eventually. Laptop batteries (and many others) will start to lose their total charging capacity after awhile. It's slow so we usually don't notice it until years later. But when it happens, you can't help but go insane. Laptop batteries usually cost a fortune (my 12-inch powerbook battery is like \$130). This is why you should take the road less traveled and rebuild your battery.

So what do you have to do? Well it's not too complicated, you just have to basically replace the individual cells inside of the battery casing. Ever have an R/C car and you had to buy those \$20 battery packs at Radio Shack for them? Well if you take a close look, it's usually just 6 batteries saran-wrapped together with a proprietary plug. Same goes for these laptop batteries.

Now before we go any further, **let me issue a warning**. Although most of us think we're invincible, we're not. This is something that could lead to harm if you don't follow everything directly. If you're new to hacking apart electronics and what not, don't proceed. Have a specialist help you. We're not responsible for anything that may happen, mkay? Kay.

Allright so let's get started. Take your fork out of the electrical socket for a moment and check it.

Remove your battery from your laptop. Try to get it drained all the way if you can. Look at the label on your battery. Somewhere near the warning where it says "Don't do this, don't do that...blah blah blah" you should see a model number for the battery pack. Probably something along the lines of "Lithium Ion Battery Pack No." Pry off the cover of your battery pack like so.





....which will reveal something like below.



Individual cells.

If you have a powerbook like me, it'll look like this:



So. Now we've got a bunch of cells. Cute. Find the part number for them. As you can see in the pic above the powerbook battery, the number is printed directly on the wrapping. In this case it's CGP345010. Ok great. What's that mean? Google it and see. Ahhh! It's made by Panasonic. Wonderful. Now we have to go get replacements. If there's 6 cells, you'll obviously need 6 new ones. Try [this website](#) for ordering them.

Get out your xacto knife, wire cutters, etc. for this. You'll need to carefully remove all the cells. Each battery pack is different so we can't say how it'll work out for you. Just be careful and don't throw away the old ones.

Take out all the metal contacts etc. until you have yourself a blank battery tray.

Chances are your battery cells will come with wires on there for connecting it to something. No. We don't want these. We need this to lay in the tray! Remove your black and red wires but keep any others left. It's usually to keep them from short-circuiting. Next, take any coating and tops off your old batteries and move them carefully onto the new ones. After you're done, you should have naked old batteries, and new batteries that look like the old ones.

Next, you need to get contact going. Obviously using metal. You can either solder them together properly with a metal strip on the front, or just try positioning the metal correctly inside the case with the cells. I did the 2nd method and it worked for me after some tinkering around.

Almost there. Put everything back together like it was and make sure you check out your finished product with a multimeter to make sure there's a current. If all is well, throw it all back together and then into your laptop. Charge it up completely without using it and voila. You my friend, are set.

Much thanks to [electronics lab](#), and reader [surfer] for the tips and pics! In my opinion, the PowerBook battery is much easier, but don't let that stop you! Just take care!