

Review: Using the sun to charge your phone is getting easier

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If you follow my reviews, you know I'm a geek for backup batteries, flashlights and anything with a solar panel, so when I received a box from Goal Zero with a few of its power products to review, I was in heaven.

I've previously reviewed a few of Goal Zero's solar panel and rechargeable battery kits, but this time it sent two gadgets with multiple uses. They're both very cool.

TORCH 250 FLASHLIGHT

Goal Zero is branching out into the flashlight and lantern business. The Torch 250 is a great utility light to have around the house. You may remember this light from my Christmas gift guide. I liked it so much that I decided a longer review was in order.

It's a good LED flashlight, putting out 180 lumens of 4000K warm white light from Cree LEDs.

The Torch 250 (\$79.99, goalzero.com) also has a 70-lumen floodlight, which makes it great for lighting up a small area, perhaps under the hood of your car. I used it on trips to my attic.

Both flashlight and flood have a high and low setting that cuts the light in half but doubles the run time.



The Torch 250 can power the flashlight for seven hours at full power and 15 hours in reduced-power mode.

The floodlight runs 22 hours on high and 48 hours in reduced-power mode.

The Torch 250 gets its power from a 3.7-volt, 4400-milliamp-hour lithium-ion battery.

But wait ... there's more.

The Torch 250's battery can also charge your cellphone or tablet or anything that can use USB to charge. The USB output is 1.5A (7.5W max).

The battery can charge the average smartphone two times.

How do you charge the battery? Goal Zero gives you three ways.

First, there's a built-in USB cable, so you plug it into your computer or any powered USB port, like your phone's charger. USB charging takes about seven hours.

Second, there's a solar panel, but it's kind of small. Put the Torch 250 out in the sun, and it'll charge the internal battery in 24 to 48 hours.

That's a really long time. Six hours of bright sun per day means four or more days to charge the battery from the solar panel.

Seems like Goal Zero wants you to keep the battery charged from the USB port and perhaps leave it out in the sun to keep it topped off.

Last, there's a hand crank, which Goal Zero says will provide 10 minutes



of light for every five minutes of cranking.

The Torch 250 is 10 inches by 3.5 inches by 1.75 inches and weighs 14.4 ounces. It's water-resistant but not waterproof - so use it in the rain but not the pool.

I love everything the Torch 250 can do. The downside is relatively slow charging.

The fastest way to charge it is USB, but like any flashlight, it's best to have it charged before you need it.

-Pros: Versatile. Combination flashlight/backup battery is nice. Multiple ways to charge.

-Cons: Charging the flashlight takes a long time.

-Bottom line: This is a useful item for everyone.

SWITCH 10 USB MULTI-TOOL KIT

The box for the Goal Zero Switch 10 USB Multi-Tool Kit is big, and while there's a lot in there, don't be fooled - the recharger itself is quite small.

This is another multi-use gadget with enough usefulness to please most people.

The Switch 10 USB Multi-Tool Kit (\$119.95, goalzero.com) is a combination kit of a 7-watt solar panel and a 3,000-mAh battery with a few other tricks up its sleeve.

The battery is the size of a small flashlight, which is handy, because it



comes with a detachable LED light that turns the battery into a nice LED flashlight (110 lumens).

There is also a detachable rubber fan blade that can cool you off even if the power is out. I have to admit, the fan is my favorite feature.

The main attraction is the battery, which can provide a charge to your phone or top off your tablet.

Like other Goal Zero products, the Switch 10 USB Multi-Tool Kit can charge in a few ways.

A built-in, flip-out USB plug lets you slip it directly into a convenient USB port, which will charge the battery in four hours.

The fold-up solar panel has a USB output and in bright sunlight can also charge the battery in four hours.

The power output is through a USB port on top providing 1.5A output (7.5W max). The flashlight and fan attachments plug into the port, but they are also secured by screwing a threaded collar up from the battery for a very secure fit.

There is a threaded cap that has a microUSB cable attached to charge your devices.

This is a great combination of battery and accessories that all fit into a zippered mesh pouch on the back of the solar panel, which folds up to slip in your purse or computer bag.

-Pros: Metal body on <u>battery</u>, handy accessories.

-Cons: Included solar panel adds to cost. Wish it were an option.



-Bottom line: Very cool kit to keep your phone charged, light your way and keep you cool. What's not to like?

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