



# FULL POWER CHARGING SOLUTIONS FROM BIKE2POWER

STORY BY JOSH TACK



→ POWER can mean a lot of things to a lot of people. To a politician, power can take the form of influence. For a writer, the pen becomes a source of power. Chuck Norris measures power with a roundhouse kick to the face. Ask a competitive cyclist about power and they will likely assume you're referring to wattage output.

If you're more of an adventure-minded cyclist, these examples of power probably don't mean all that much to you. Chances are you care more about meeting interesting people and hearing their stories as opposed to influencing them with your take on the current state of affairs. You might be writing about your journey, but in most cases this takes the form of a journal or blog instead of the next Great American Novel. As for a roundhouse kick to the face, you're a cyclist so you probably can't even touch your toes. Wattage output on the bike can be a fun metric to look at, but at the end of the day, all you really need to do is get from point A to point B in the most enjoyable fashion possible.

Not too long ago, the only type of power a touring cyclist would be interested in would be the power to put aside enough time to escape the nine-to-five grind and hit the open road. As we all become more dependent on electronic devices, such

as smartphones, tablets, cameras, and GPS devices, voltage becomes a source of power the modern bicycle traveler can appreciate.

Over the past few years of touring, I've noticed that it is more and more common to meet cyclists posted up at power outlets where they're killing a couple of hours updating their blog, Facebook, and Twitter accounts while topping off the charge for their various devices. That's where we meet because I'm there for the same reason. Although

I'm somewhat of an introvert, so I'm more likely to be found perusing cat videos on YouTube as opposed to updating my social media pages. In any case, there's a part of me that feels as though I'm wasting a great deal of time worrying about battery life.

The idealist in me wants to shake off as much communication with the real world as possible and conquer the back roads of America in cutoff jean shorts. In this fantasy, it's just me and the vast empty highway, and everything appears in sepia tone all the time. Unfortunately, as a pushover, I lack what it takes to shrug off societal pressures so I follow suit with the plug-and-play lifestyle.

In search of some sort of middle ground, I have spent a considerable amount of time trying out different power configurations to extend my battery life as much as possible in order to limit the amount of time I spend sitting next to power outlets. Systems I've worked with include solar power, dynamo hubs, and simply carrying a spare battery around. Each of these solutions has managed to work for me but not without its quirks. As I dug deeper into workarounds, I came across the company Bike2Power

([bike2power.com](http://bike2power.com)).

Getting their start in 2011, Bike2Power wasted no time piecing together an impressive array of power solutions for cyclists. Instead of building products that produce power, however, they seem to be more focused on taking power that is produced and finding ways to store and distribute it to your energy-dependent devices. To show how these can supplement an existing system you may already have, we can plow through these one by one,

starting with solar energy.

Over the last few decades, solar technology has steadily improved to reach a point where it is effective at portable sizes. There are an increasing number of companies — such as Goal Zero, PowerFilm, and Brunton — that are producing portable solar charging devices aimed at the outdoor adventure crowd. On sunny days, this is a great system. You can drape a solar panel over your panniers during the day while cycling and charge up your phone or tablet in the evening. The only problem is that sunshine isn't dependable, especially in regions such as the Pacific Northwest. Even on days when the clouds are parted, you might find yourself under a dense canopy of trees. This means that when the sun does beat down on your solar panel, you need to make sure you take full advantage of the occasion. One great way to do this is to charge an external battery with your solar charger as opposed to a device that is currently in use.

Some solar panels include an external battery pack that can be charged up, but if yours does not, consider the

turned off. At \$60, I do think this is a great supplemental power solution, especially considering that it will power up a wide variety of devices with USB ports, including smartphones, GPS units, and bike lights.

In my eyes, the ultimate power solution is the dynamo hub. If you're not familiar with dynamo hubs, they are simply hubs that generate electricity as they spin. Dynamo hubs only require your wheel to be spinning to generate power, and because there tends to be no mechanical friction, they do so without creating resistance.

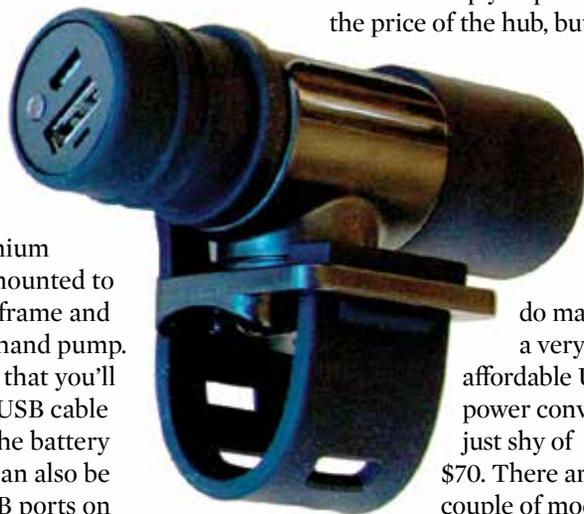
For such a dependable and efficient source of power, you might wonder why you don't see more of these out on the road. One answer is that they can be quite expensive. For just the hub, you're looking at \$100 on the low end of the spectrum. From there, you still have to build a wheel around that hub. If you split your touring time between road and dirt, you might be looking at two wheelsets. On top of all this, you need to be able to distribute that power to your state-of-the-art gadgets.

Bike2Power can't help you pull down the price of the hub, but they

mentioned BikeCharge Power Pack if you want to store some power for later. The last power-extending system I mentioned is simply bringing along a spare battery. This worked particularly well for me with phones right up until I purchased an iPhone, which has an internal battery that can't be swapped out on the fly. To route around this issue, Bike2Power has a handlebar-mounted smartphone case called the Power Plus Mount. Setting itself apart from other smartphone enclosures, inside the case is a battery that plugs right into your phone to further extend your battery life. They have a good variety of cases for various generations of iPhone and Samsung smartphones, all of which stand up well against water and dust. The attachment hardware is pretty sturdy and requires an allen key for installation, although on dirt roads or trails you'll want to secure it firmly as it can be a little top-heavy and bounce around. Again you're looking at \$70 for this product.

If any of this seems like more than you're willing to invest in keeping your phone and other various electronic devices charged up, it's also worth mentioning one easy and cheap way to extend your battery life: simply be aware of the power consumption settings on your device. For instance, your phone will burn through its battery in a hurry if you have Bluetooth, GPS, and wifi functions enabled. Even screen brightness can have a big effect on battery life. Turning these functions off when not in use can add a lot of miles between charges. Whatever system you choose, don't neglect calling home to let mom know you're okay. 📶

Bike2Power BikeCharge Power Pack. This is a lithium ion battery that can be mounted to your seatpost or bicycle frame and is as compact as a small hand pump. The only requirement is that you'll need to be able to run a USB cable from the solar panel to the battery pack. The battery pack can also be charged through the USB ports on wall chargers and computers. Off a full charge, I've had no problem powering my smartphone from 0 to 100 percent power with a small amount of additional juice to spare. However, this was only possible with the smartphone



do make a very affordable USB power converter just shy of \$70. There are a couple of models available to allow for compatibility with Schmidt, Shimano, and SP dynamo hubs. As long as your front wheel is spinning, you can be charging your smartphone or GPS unit. It is also compatible with the previously

*Josh Tack is Adventure Cycling's membership coordinator and is generally powered by coffee and his static-inducing cat. If you have questions or comments about this article or anything related to bicycle travel, feel free to shoot Josh an email at [jtack@adventurecycling.org](mailto:jtack@adventurecycling.org).*