

TEST BENCH

EDITED BY MARK HARRIS

EMERGENCY RECHARGERS

Small but packing enough power to save your bacon

In our gadget-filled world, running out of battery life can be more than a little awkward. So stay connected with one of our pick of back-up portable power sources

One thing that's guaranteed to drive you mad is a gadget that relies on battery power dying at the crucial moment. And with ever more gizmos — from mobile phones and digital cameras to sat navs and MP3 players — relying on rechargeable batteries, that unfortunately tends to happen frequently.

Sometimes losing power is irritating; at other times it might even be dangerous — such as when you're about to give the emergency services your location after an accident.

One solution is to carry a back-up charger that can provide those crucial few extra minutes of power with which to complete your call or even completely recharge the battery. Portable and self-contained, these devices are ideal whenever you have no access to mains power. Many have their own batteries and some can generate their own power with solar panels or a wind-up handle.

We've tested six such gadgets, costing from about £10 to more than £100. Three — the PowerMonkey, Freeloader and Solio Magnesium Edition — have a battery that can be charged from a combination of the mains, a computer or solar cells. Two others — the Freeplay Freecharge and Wind-Up Mobile Charger — rely on your wrist muscles to generate power when needed, while the Eze Charge uses a normal AA battery to provide an energy boost.

We tested the chargers with several battery-powered products likely to need a boost, including a conventional mobile phone, a large-screen smartphone and a digital music player. Most of the chargers are supplied with adaptors to suit a range of devices although the Freecharge 12V, is sold without any. Extra adaptors can be bought for the PowerMonkey, Freeloader, Eze Charge and Solio.

A mini-USB connection will serve a wide range of gadgets such as PDAs, BlackBerrys, some sat navs and cameras, while an iPod connector (here, supplied as standard only on the PowerMonkey) can ensure the musical soundtrack to your life never runs dry.

While it's good to do your bit for the environment, don't assume that wind-up and solar devices are necessarily a practical green solution. Wind-up chargers are tiring to use and tend to struggle to provide enough current to power mobile phones, while solar chargers are virtually useless in the UK for much of the time — for obvious reasons. And anyway, the CO₂ emissions you save by generating power either by hand or by the sun is limited — you'll do much more good by unplugging your device's mains adaptor at home when it's not in use.

The most useful chargers are those that store power, such as the PowerMonkey and Solio Magnesium Edition, which can be charged from the mains almost anywhere in the world, and so can free you from the need to drag a suitcase full of chargers and cables around with you. If you travel with a laptop, though, you might prefer the Freeloader — like the PowerMonkey, it can take its power from a USB socket. Finally, with its AA battery, the cheap Eze Charge gives instant emergency power at an unbeatable price.

JARGON BUSTER

Milliampere hour (mAh) The amount of energy a rechargeable battery can store. The higher the number, the longer you can use the battery without recharging

Mini-USB A small USB-compatible connection increasingly found on pocketable devices

PDA Personal digital assistant. A term used to describe phones or gadgets with organiser and calendar capabilities

Reviews by Dave Pollard Prices include Vat and delivery



When you are a long way from a mains socket a portable charger can keep your favourite gadget topped up with power

POWER RANGER

★★★★★

PowerMonkey — £37, or £71 with eXplorer solar panels, from www.powertraveller.com

Light, powerful and flexible

More mouse than monkey, and usefully small and light (70g), the PowerMonkey is tough and water-resistant. When full, its 2,200mAh battery should provide more than 90 hours of phone standby or 40 hours of iPod use. The mains adaptors are suitable for 150 countries and the PowerMonkey can also be charged from a computer USB socket. Nine output adaptors serve most mobile phones, Sony's PSP and mini-USB devices and, uniquely Apple's iPod, but oddly, no adaptor fitted our test phone. Extra adaptors cost £2.50 each. The eXplorer adds a zip-up case and a two-panel solar charger that did little in the UK but could be useful in sunnier places and can operate as a stand-alone charger. Annoyingly, the PowerMonkey cannot be used to charge a device while it itself is being charged.



TALK IS CHEAP

★★★★☆

Eze Charge — £10 from www.eze-charge.co.uk

Great glove-box emergency phone charger

The Eze Charge is a nicely made, light (60g), anodised aluminium tube that comes in a range of colours and contains a single AA battery (a Duracell Plus is supplied but you can easily use a rechargeable when this dies). The 10 supplied adaptors connect via a short lead and cover most phone types plus the popular mini-USB connection. Additional connectors for more phones (although not for other gadgets) are available for £1 each (plus £4 delivery), from the maker. The supplied soft drawstring bag is something of a must with so many small, loose items involved, although it did prove to be a bit of a struggle getting everything packed into it. The Eze Charge succeeded in powering both our test mobile and our test smartphone and works well as an emergency power source, delivering an hour or so of additional life. However, that depends on the phone you're charging, and its existing state of charge.



SUNNY DELIGHT

★★★★☆

Freeloader — £30 from www.solartechology.co.uk

Cheap and well connected

We like the design of this aluminium-bodied silver (or pink), 185g device, which is only marginally bigger than a packet of cigarettes. The end unclips and splits to reveal twin solar panels, which plug into the main section's battery. A lead has 11 adaptors (the most on test) covering mini-USB and most devices, and you can charge gadgets while powering up the Freeloader. Extra adaptors cost from £5 each. Although there's a USB lead for charging from a computer (it takes about three hours), a mains power connection costs £7 more. The Freeloader can apparently be fully charged in solar mode within five hours, but all the daylight hours of a typical British spring day just couldn't manage that. The battery is fine for emergency recharges, but its 1,000mAh capacity is only about half that of the PowerMonkey or Solio Magnesium. Nevertheless, a well priced choice for gadgeteers who use laptop computers.



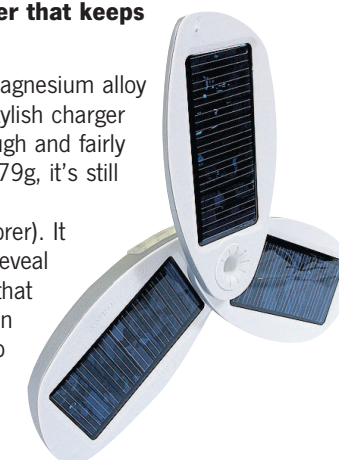
TRAVEL TYCOON

★★★★☆

Solio Magnesium Edition — £104 from www.ethicalsuperstore.com

Expensive charger that keeps on charging

An outer shell of magnesium alloy ensures that this stylish charger is good looking, tough and fairly light (although at 179g, it's still heavier than the PowerMonkey-eXplorer). It opens fan-style to reveal three solar panels that should take between 10 and 48 hours to charge the 1,800mAh battery, although six hours in the UK's spring sunshine achieved almost nothing. Interchangeable wall plugs (to cover 150 countries) allow for global mains charging in about six hours. While a range of 25 adaptors covers most portable gadgets on the market, only one (USB) connector comes in the box, although by registering online you can claim another one free of charge. As additional adaptors are priced at £5 each, costs can quickly mount for gadget fans. As with the PowerMonkey, the Solio cannot charge devices while it is being charged itself.



LIGHTER WORK

★★★☆☆

Freeplay Freecharge 12V — £20 from www.outdoorworldtd.co.uk

Heavy-handed solution that's neither smart nor speedy

The Freecharge 12V is well built but also an oddity as it connects via a car-type lighter socket, so you need a specific adaptor lead for each device to charge, and none is supplied. Motorists who already have a suitable lead can just use their car's lighter socket to charge from anyway. However, for £5 more, a variant available from www.freeplaydirect.co.uk comes with several phone-specific connectors. The Freecharge has an LED that glows when you reach the correct winding speed, but because it's bulky (and, at 310g, the heaviest charger here), winding makes your hands ache. Also, we found that two minutes on the winder produced barely enough juice to keep our test smartphone awake.



WRIST ASSESSMENT

★★★☆☆

Wind-up multi mobile charger — £10 from www.iwantoneofthose.com

Not quite a wind-up in the teasing sense, nor is it a brilliant idea

At 70g, this wind-up offering is light, and small enough to keep hidden in the palm of your hand. Its five adaptors come on long leads with jacks for various mobiles, but the useful mini-USB connector is not provided. A tiny LED lights up to confirm that charging is in progress, but the charger's small size makes it tricky to wind at the suggested speed of 2.5 revolutions per second. Winding is surprisingly hard work for the three minutes needed to gain eight minutes of extra phone talk time, and you would need even more to charge a smartphone. In terms of practicality, the charger can't be used at the same time as making a phone call, so while it's a nice idea overall, in the real world it makes more sense to carry the Eze Charge battery pack.

