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UV Filtration Water Bottle from Camelbak



There are many reasons you might be working on a project house without running water, but there are fewer reasons to go thirsty, even if the only water available is unfiltered.

Camelbak makes the **All Clear**, a personal ultraviolet (UV) water treatment plant in the form of a water bottle. UV light damages the microbes in untreated water, making it impossible for the bacteria to reproduce. NASA actually douses the craft it sends to Mars in UV in order to protect that planet from our germs. New York City, meanwhile, is working on the world's largest UV-treatment plant.

And now the **All Clear**. It's a fantastically sophisticated advance on Daniel Boone's canteen, and can be too easily dismissed as overkill until you need safe water. Here's how it works:



The water bottle comes with two caps. One is ordinary and intended for everyday use; the other one is stiff with electronics and a shortwave germicidal (UV-C) light bulb.

The bulb is called a cold cathode fluorescent lamp, and it exerts a powerfully deadly effect on microbes over short distances. It could, in fact, damage your skin and eyes if you were foolish enough to direct the point of the lamp unwisely.

Start with clear water. If there's any gunk at all floating in it, let the water settle or filter the gunk out. Next, cap the bottle with the seven-ounce UV top, activate the bulb (a visible light shines so you know it's working), and turn the bottle end over end for one minute. Done.

Why must you turn it? Because UV rays are so easily dispersed that if you don't agitate the water column, not all of it will be disinfected. (The product can't disinfect ice either—ice is too dense—so don't try treating margaritas!)

Designed to last 10,000 cycles, the bulb is powered by twin rechargeable lithium-ion batteries, each of which lasts 80 cycles per charge. Recharging is done via the mini USB cord that comes included. Here's the rub: Neither the batteries nor the bulb can be replaced. You'll need to buy a new cap eventually.

The **All Clear** might be the best Plan B you'll ever need.