BLACKOUT VS. BROWNOUT
The difference and what that means for your devices

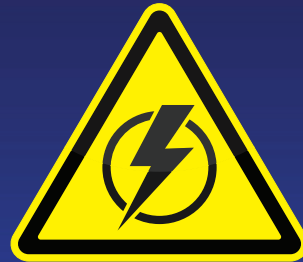**ZAP!** Light your candles and fire up your flashlights, folks! The power's out. What now?

When outages arise, you'll likely be facing one of two scenarios—blackout or brownout. Understanding the difference is key, because each can impact your electronics differently.

Shedding light: Definitions and differences

BLACKOUT

Widespread, total loss of electrical power.

Common causes: Structural damage to infrastructure from natural disasters, power plant equipment failure and sometimes by hacking the computer systems that keep the power grid online.

BROWNOUT

Temporary reductions in power during times of high demand that exceeds a utility company's output capacity.

Common causes: Usually a planned event by utility companies to manage spikes in demand, reduce strain on electrical infrastructure and avoid full-scale blackouts.

THE KEY DIFFERENCE: During a brownout, system capacity is decreased and voltage is typically reduced by at least 10 to 25 percent. Some electrical devices like light bulbs might still operate in a limited capacity.

What outages mean for electronics

The biggest risk to your devices is not so much the outage—it's electrical surges or spikes. Surges are most common during brownouts (as the power regularly fluctuates) or in the first few moments after the power is initially restored after a blackout. Surges can overload or short out circuits. Unpredictable voltage fluctuations are bad news for routers, modems and other electronics because it causes them to repeatedly power cycle. If left plugged in, you're risking permanent damage.

It's best to unplug all devices during any outage event and wait until power is fully restored.

Take charge! Here's what you can do:

- Use **alternate power sources** such as portable chargers, battery banks, solar chargers or an Uninterruptible Power Supply (UPS).
- Keep **extra batteries** on hand and charge devices in advance of inclement weather.
- Use **surge protectors** for all plug-in electronics.

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