



An Extended Guide · No. 1682

UPS Batteries: Backup for Computers, Internet, and Medical Gear

The little box that
rides out a blip

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! Read this first — a few battery-safety basics

A battery stores a lot of energy in a small package, so a few plain habits keep everyone safe — no matter the chemistry. Charge with the charger made for that exact battery, on a hard, non-flammable surface, and never charge one that is swollen, cracked, leaking, hot, or wet. Keep batteries away from open flame, sparks, and high heat, and give a lead-acid battery plenty of fresh air while it charges, because it can give off explosive hydrogen gas. Never puncture, crush, short the two terminals together, or throw a battery in a fire. Around lead-acid batteries wear eye protection — the acid inside can burn skin and eyes. And when any battery finally wears out, it does not belong in the household trash: batteries are recycled at the right drop-off, never thrown away. The reassuring part is that the LiFePO₄ chemistry — also written LFP — inside most of today's power stations and backup batteries is one of the safest and most stable there is. A UPS holds a charged battery all the time, so keep it where air can move around it, never block its vents, and when its battery finally wears out, recycle the old one rather than tossing it in the trash.

The little box that rides out a blip

A UPS is the quiet box that keeps your computer or internet running for a few minutes when the power flickers — long enough to save your work and shut down safely. It's simple, useful, and easy to look after.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. A common call I get is 'my computer's backup box is beeping — what do I do?' Nine times out of ten the answer is friendly and simple, and this guide walks you through the whole story.

UPS stands for uninterruptible power supply — a mouthful for a plain idea. Inside is a battery that's always charged and ready. When the wall power dips or drops, the UPS switches over so fast your gear never notices, giving you a bridge of a few minutes. This guide covers what a UPS is for, the battery inside, and how to keep it healthy.

★ No question is too small

If the beeping has you stumped, or you're not sure whether the battery needs replacing, that's exactly what I help with. Call or text me at (330) 200-8042.

The whole guide, on one page

If you remember nothing else about your UPS, remember these.

- ❑ A UPS is a short bridge — minutes to save and shut down, not hours of backup.
- ❑ Most home UPS boxes use a sealed AGM lead-acid battery that wears out in a few years.
- ❑ The UPS will warn you — a beep, a light, or a failed self-test — when its battery is tired.
- ❑ The battery is usually replaceable; you don't have to throw out the whole box.
- ❑ Keep the UPS cool and its vents clear — heat shortens the battery's life.
- ❑ Recycle the old battery; it's lead-acid and doesn't belong in the trash.

✓ Keep this near the computer

Skim it once, then tuck it by the machine the UPS protects. When it beeps someday, you'll know what it means.

What a UPS actually is

Underneath the initials, a UPS is a battery with a brain and a few outlets.

You plug the UPS into the wall, then plug your computer (or modem, or another small device) into the UPS. It keeps its battery topped up from the wall all day. The instant the wall power flickers or fails, it feeds your gear from that battery, seamlessly, so nothing blinks off. Many also smooth out little surges and dips along the way.

Think of it as insurance against the sudden 'poof' — the flicker that would otherwise crash your computer mid-sentence or reboot your internet. It buys you calm minutes to save your work and shut things down properly.

✓ It's a bridge, not a generator

A UPS is built to cover seconds and minutes, not to run your house. For longer outages, that's a power station or a generator — see our power-station guides.

What a UPS is good for

A UPS shines at protecting a few specific things you don't want blinking off.

- **A desktop computer** — so a flicker doesn't crash it or cost you unsaved work.
- **Your internet gear** — the modem and router, so a brief dip doesn't drop your connection.
- **A small, sensitive device** — anything that hates losing power suddenly.
- **Riding out a quick flicker** — the kind of blip that's over before you'd reach a generator.

For any of these, the UPS does two jobs at once: it bridges the gap during a blip, and it gives you time to shut down gracefully during a longer outage. That's its sweet spot.

A bridge, not hours of backup

This is the single most important thing to understand about a UPS, so let's be plain about it.

A UPS holds a modest battery meant to last minutes, not hours. How many minutes depends on the UPS and how much you've plugged in — a lighter load stretches further. The point isn't to keep working through a long outage; it's to bridge the flicker and give you a safe, unhurried shutdown.

If you need to keep something running for hours, a UPS is the wrong tool. That's a job for a larger power station or a generator, sized for the task. Our power-station and sizing guides cover that side of things.

! Don't count on a UPS for long outages or life-critical gear

If someone's health depends on a device staying powered, a small UPS bridge is not a backup plan on its own. Follow the device maker's guidance and build a fuller plan — our medical-equipment backup guide walks through it.

What's inside: usually sealed lead-acid

Ask what powers a UPS, and the answer is almost always the same.

Most home and office UPS boxes use a sealed AGM lead-acid battery. AGM stands for absorbed glass mat — a spill-proof, sealed kind of lead-acid that handles sitting in a warm box for years. It's 'maintenance-free,' so there's no watering; it just quietly does its job until, eventually, it wears out.

Because it's sealed lead-acid, everything from our maintaining-lead-acid and comparison guides applies in spirit: it likes to stay charged (the UPS handles that), it dislikes heat, and it has a shorter life than lithium. You don't service it — you replace it when it's tired.

✓ Sealed means hands-off

There's nothing to open, water, or tinker with inside a UPS battery. Your whole job is to keep the box cool and replace the battery when the UPS says so.

The battery wears out — and that's normal

A UPS battery isn't forever, and there's nothing wrong when it finally tires. It's a wear item, like tires.

Sealed lead-acid batteries wear out after a few years of sitting charged and warm inside the box. I won't quote you an exact number, because it depends on the unit, the heat it lives in, and how often the power actually fails. What matters is knowing it will happen, and that it's easy to deal with.

- Heat is the big enemy — a UPS baking near a sunny window or in a hot closet tires sooner.
- Every power event and deep drain uses up a little of its life.
- When it's worn, the UPS can no longer bridge an outage — even though it looks fine.
- The good news: the battery replaces easily, and cheaply compared to a whole new UPS.

✓ Plan for it, don't dread it

Jot the date on the UPS when you buy it or swap the battery. A few years on, a fresh battery is a small, simple job.

How your UPS tells you the battery is tired

A UPS is good about speaking up. You just have to know what it's saying.

- **Beeping** — a new or more insistent beep pattern often means the battery needs attention.
- **A warning light** — many have a 'replace battery' indicator that lights up.
- **A failed self-test** — UPS units test themselves; a failure points at the battery.
- **Short runtime** — if it used to hold for a few minutes and now drops instantly, the battery's done.

✓ Check the manual for the beep codes

Different beeps mean different things — a quick beep on battery power is normal, a steady alarm is not. The manual (or the maker's site) decodes them. When in doubt, call me.

Replacing the battery

For most UPS boxes, swapping the tired battery is a straightforward job — often a snap-in cartridge.

Many UPS units are made for the owner to change the battery: you power down, open a little door or panel, unclip the old battery pack, and clip in a matching new one. Some are sealed and meant to be sent in or serviced. Either way, the key is to use the correct replacement made for your exact model.

- Use the replacement battery specified for your UPS — the right size, type, and rating.
- Power the UPS down and unplug it first, per the manual, before opening anything.
- Never force a battery that doesn't fit or connect easily — wrong is wrong.
- If it's sealed, or you're unsure, let the maker or a helper handle it.

! Match the replacement exactly, and don't force it

A battery that isn't the right type or rating for your UPS can under-perform or run hot. If the model number or the fit has you second-guessing, stop and check with the maker — or give me a call and we'll get the right one.

Keep it cool, keep its vents clear

The kindest thing you can do for a UPS battery costs nothing: give it air and keep it out of the heat.

Heat is what ages a sealed lead-acid battery fastest, and a UPS makes a little heat of its own. So where you put the box matters. Give it room to breathe and keep it out of hot, stuffy spots, and its battery will last closer to its best.

- Set it where air can move around it — not boxed into a tight, closed cabinet.
- Keep the vents clear; don't stack papers or covers on top.
- Keep it out of direct sun and away from heat vents and radiators.
- Give it a dust-off now and then so the vents stay open.

✓ A few inches of air goes a long way

Even sliding the UPS out from a hot corner and giving it breathing room can add life to the battery inside.

Recycling the old battery

When you swap a UPS battery, the old one is lead-acid — and lead-acid never goes in the trash.

A used UPS battery is a sealed lead-acid battery, which is one of the most recyclable products there is. Many places that sell batteries will take it back, and an auto-parts store or recycling center will too. What it must not do is go in the household trash or the curbside bin, where loose batteries can start fires.

If the old battery is swollen, cracked, or leaking, handle it carefully and call the recycler first for how they'd like it brought in. Our disposal guide covers all of this — where batteries go, and how to get them there safely.

✓ Don't let old batteries pile up

Deal with the old one when you swap it in, rather than tossing it in a drawer to forget. It's easier, safer, and keeps them out of the trash.

Newer UPS units with lithium

Not every UPS is lead-acid anymore. Some newer ones use lithium, and that changes a few things for the better.

A growing number of UPS boxes now use lithium, often the stable LiFePO4 kind. Compared to sealed lead-acid, lithium tends to last longer, shrug off heat a bit better, and weigh less. It usually costs more upfront, the way lithium does everywhere.

- Longer life than sealed lead-acid, so fewer battery swaps over the years.
- Lighter, and often more tolerant of a warm spot.
- Still warns you and still needs eventual replacement — just less often.
- Recycles at a lithium or electronics drop-off, not the lead-acid channel.

✓ Check your unit's label to see which you have

The box or manual will tell you whether it's sealed lead-acid or lithium. It changes how long it lasts, and where the old battery is recycled.

Two kinds of homes, two sets of needs

A UPS does the same job everywhere, but what you ask of it depends on your outages and what you're protecting.

If you live in town or the suburbs

In town or the suburbs, outages tend to be short — often just a flicker or a few minutes. That's exactly what a UPS is built for.

- A UPS on the computer and the internet gear covers most of what short outages throw at you.
- For a flicker, the UPS bridges it seamlessly and you may not even stop typing.
- For a longer blip, it buys a calm shutdown, and the power's usually back soon.
- Replacement batteries and recycling drop-offs are close when the day comes.

If you are out in the country on a well

Out in the country on a well, outages run longer, and when the power stops the well pump stops — so no running water. A UPS still has a place here, but know its limits.

- A UPS keeps the internet and phone equipment alive through the first minutes — handy for calling out.
- It will not run a well pump or carry you through a long outage; that needs a power station or generator (see our well-pump and sizing guides).
- A hot barn or outbuilding shortens a UPS battery's life — keep the box somewhere milder.
- Farther from stores, it's worth keeping a spare battery and knowing your replacement type ahead of time.

★ Not sure a UPS is enough for your home?

If you're rural and worried about longer outages, I'll help you see where a UPS fits and where you'd want something bigger — honestly, with nothing to sell. Call (330) 200-8042.

Keeping the internet up through a blip

One of the handiest uses for a UPS is one folks often overlook: protecting the internet.

Your modem and router sip very little power, so a UPS can keep them running noticeably longer than it could a whole computer. In a brief outage, that can mean your internet — and any calls or alerts that ride on it — stays up while the neighborhood's is down.

It's a small, cheap bit of resilience: a modest UPS on just the modem and router. For a longer outage you'll still want a bigger battery or generator, but for the common short blip, this keeps you connected.

✓ Plug only the essentials into the battery side

A UPS often has some outlets on battery-and-surge and others on surge-only. Put the modem and router on the battery outlets; save the battery for what truly needs it.

Medical gear and a UPS: know the limits

This one matters enough to say slowly and clearly, because it's about someone's health.

A small UPS can bridge a flicker for a medical device, but it is not, by itself, a backup plan for equipment someone depends on. Its runtime is short, its battery wears out quietly, and it can fail just when you need it if it hasn't been kept up.

- Follow the device maker's instructions for backup power first and foremost.
- Never rely on a single small UPS as the whole plan for life-critical gear.
- Test it regularly, and know how long it truly lasts with that device plugged in.
- Have a fuller plan — a larger battery or generator, and a way to get help fast.

! For anything health-critical, plan beyond the UPS

If a device keeps someone safe or breathing, treat a UPS as one small layer, not the answer. Our medical-equipment backup guide walks through building a real plan — and I'm glad to help you set one up.

Setting one up, simply

Getting a UPS going is mostly plugging things in the right order. Here's the plain version.

Charge it first if the manual says to, then plug the UPS into a proper wall outlet — not a power strip. Plug the gear you want protected into the UPS's battery-backup outlets, and lighter or less-critical things into its surge-only outlets or elsewhere. That's most of it.

- Plug the UPS straight into the wall, not into a power strip or extension cord.
- Put the must-stay-on gear (computer, modem, router) on the battery outlets.
- Leave the printer and other big or non-critical items off the battery side.
- Run its self-test once it's charged, so you know it's working.

✓ Label which outlets are which

The battery-backup and surge-only outlets look alike. A small label saves you guessing later about what's actually protected.

Testing and looking after it

A UPS mostly cares for itself, but a little attention keeps it honest.

- Run the self-test now and then (a button, or through its software) to confirm it holds.
- Notice the runtime — if a test drains it almost instantly, the battery's near done.
- Keep it cool, ventilated, and dusted so heat doesn't age the battery early.
- Note the battery's age; a few years in, start planning a swap.
- Don't overload it — the more you plug in, the shorter every bridge becomes.

✓ A yearly test is a good habit

Pick a date you'll remember — a birthday, a New Year — to press test and glance at the age. It's a two-minute check that saves surprises.

Signs the UPS battery is done

A tired UPS battery gives clear signals. Catch them before the next outage does.

- It beeps or shows a 'replace battery' light.
- A self-test fails, or the runtime has collapsed to seconds.
- The box runs hot, or the battery inside looks swollen when you go to change it.
- It's several years old — age alone is reason enough to plan a swap.

! A swollen battery is a stop sign

If you open the UPS to change the battery and find it bulged or leaking, handle it gently, don't puncture it, keep it away from anything that burns, and recycle it as damaged — call the recycler first. Our disposal and safety guides explain how.

Common Questions

The questions I hear most about UPS backup boxes.

Q: How long will a UPS keep my computer running?

Minutes, not hours — and exactly how many depends on the UPS and how much you've plugged in. It's meant to bridge a flicker and give you time to save and shut down, not to work through a long outage. For that, look at a power station or generator.

Q: My UPS is beeping — is it broken?

Usually not. A beep often just means it's running on battery, or that the battery is getting tired and wants replacing. The manual decodes the beep patterns. If it's a 'replace battery' warning, a fresh battery usually sets it right.

Q: Can I replace the battery myself, or do I need a new UPS?

For most home units, you replace just the battery — often a snap-in cartridge — and keep the box. Use the exact replacement made for your model, power it down first, and don't force anything. If it's sealed or you're unsure, ask the maker or give me a call.

Q: Where does the old UPS battery go?

Not the trash. It's sealed lead-acid, so it recycles like a car battery — an auto-parts store, a battery retailer, or a recycling center. If it's swollen or leaking, call the recycler first. Our disposal guide has the details.

Q: Is a UPS enough backup for a medical device?

Not on its own. A UPS can bridge a flicker, but its runtime is short and its battery wears out. For anything health-critical, follow the device maker's guidance and build a fuller plan — our medical-equipment backup guide shows how, and I'm glad to help.

★ Still puzzling over your backup box?

Call or text (330) 200-8042 and tell me what it's doing. We'll figure out whether it needs a new battery or just a reassuring word — no silly questions here.

Your simple UPS checklist

The whole guide, boiled down to a list you can keep by the computer.

- ☐ Understand it's a bridge — minutes to shut down safely, not hours.
- ☐ Plug it into the wall; put must-stay-on gear on the battery outlets.
- ☐ Keep it cool, ventilated, and dusted.
- ☐ Run the self-test now and then, and watch the runtime.
- ☐ Replace the battery when it warns you, with the right one for your model.
- ☐ Recycle the old battery; never the trash.
- ☐ For medical gear, plan well beyond the UPS.

✓ Tape it to the side of the desk

A printed copy near the machine turns a mystery beep into a two-minute, no-panic fix.

Where this guide fits

A UPS is one small piece of home backup. Here's where the neighboring guides carry on.

- For batteries that carry you through a longer outage, see our power-station guides.
- For a real plan around health-critical equipment, see our medical-equipment backup guide.
- For recycling the old battery safely, see our disposal guide.
- For the sealed lead-acid battery inside, see our maintaining-lead-acid and comparison guides.
- For why lithium UPS units last longer, see our LiFePO4 guide.

Follow whichever question is on your mind. Each guide stands on its own, and none of them will talk over your head.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

I hope this guide made UPS batteries and backup for your computer and internet feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do licensed electrical work or open up sealed battery packs myself — for anything hardwired, or for panel work, I'll help you line up a trustworthy local pro.

★ Bill's Home Tech — real help, close to home

Call or text me at (330) 200-8042, or visit BillsHomeTech.com. Serving Atwater and all of Portage County. 30+ years of patient, plain-English tech help — and if you're ever not 100% happy with a visit, I'll make it right or refund it. That's a promise. — Bill

A UPS: What It's For

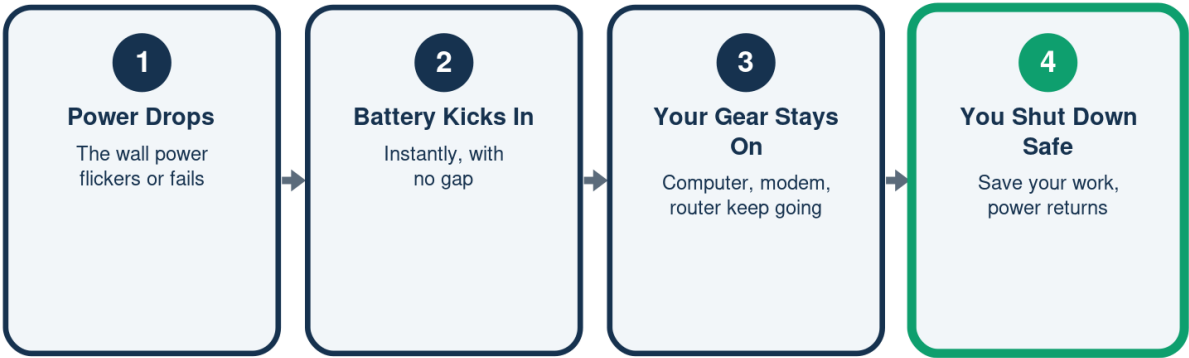
A short bridge, not hours of power

	A UPS	Not its job
Purpose	Ride out a blip	A whole outage
Runtime	A few minutes	Hours of power
Best use	Safe shutdown	Off-grid living
Keeps on	Computer, modem	The whole house

A UPS buys minutes to save your work, not hours.

When the Power Blinks

How a UPS bridges the gap



Seamless for a flicker; a calm bridge for a short outage.

What's Inside a UPS

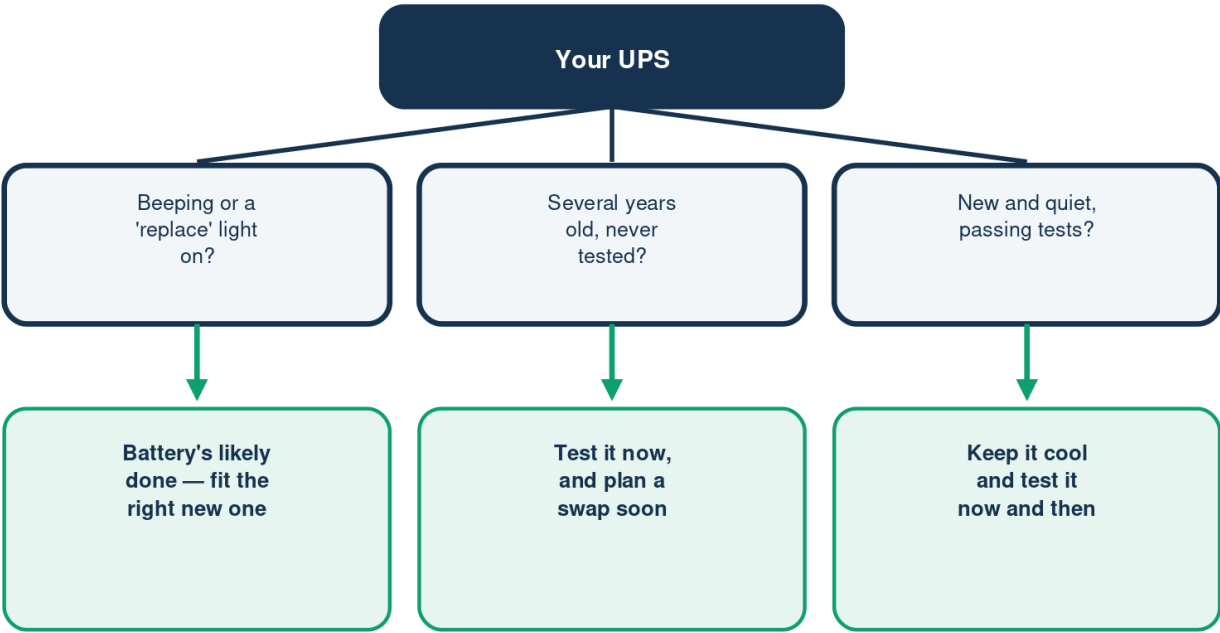
Usually sealed lead-acid, sometimes lithium

	AGM lead-acid	Lithium (newer)
How common	Most units	Some newer
Lifespan	A few years	Often longer
Weight	Heavier	Lighter
Recycle as	Lead-acid	Lithium

Both wear out and warn you — just recycle them differently.

Is Your UPS Battery Ready?

A starting point, not the final word



Swollen or leaking battery? Handle it gently and recycle it — don't puncture it.

Illustration - a schematic, not to scale. Your setup may differ.



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A Note From Bill

A quick note from Bill.

I write these guides to make home tech a little less frustrating, and I do my best to keep every step accurate and up to date. Still, every home, device, and setup is a bit different, so I can't promise a guide will match yours exactly or fix your particular problem. These guides are for general information only — they're not professional, legal, or financial advice, and they don't replace your device's own manual or the manufacturer's instructions. Please go slow, use your own good judgment, and use everything here at your own risk. If a step involves electrical wiring, a gas appliance, a water heater, plumbing, or climbing a ladder — or if anything just doesn't feel safe — please stop and call a licensed professional (or give me a call at 330-200-8042). Bill's Home Tech and Bill Davis can't be responsible for any damage, data loss, or injury that comes from using these guides. Thanks for reading, and stay safe out there.

— *Bill*



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