



An Extended Guide · No. 1796

What to Plug Into a UPS — and What Never To

The green list, the red list,
and why heat and motors are out

Tech Made Simple — Service Made Personal

BillsHomeTech.com · (330) 200-8042 · Atwater, Ohio

Free & printable — share it with someone who needs it



Book a visit —
billshometech.com/book

! Read this first — what a UPS can and can't do

First, the honest picture, so a UPS never disappoints you. A UPS — an uninterruptible power supply — is a battery backup box. When the power blinks or goes out, it keeps small electronics like your computer, your modem and router, or a medical monitor running without a flicker. But it is a short bridge, not a whole-home generator: it buys you minutes, not hours — time to save your work and shut down gently, keep the internet up through a brief blip, or ride you over until a generator or a portable power station takes over. Plug only small electronics into the battery side. Never plug in a laser printer, a space heater, a hair dryer, a microwave, a sump pump, or anything that makes heat or has a big motor — they draw far too much and can overload or damage the unit. A UPS has a sealed battery inside, so set it where a little warmth can escape, not sealed in a cabinet, and keep it dry. That battery wears out every few years and gets swapped and recycled at a battery drop-off — never put it in the household trash. This guide is the plug-in rulebook: the short list of what belongs on a UPS, and the firm list of what must never go on it.

What belongs on a UPS — and what never does

A UPS is built for small electronics. Plug in the right things and it protects them beautifully. Plug in the wrong thing and you can overload it in a heartbeat. This guide keeps you on the safe side.

I'm Bill, from Bill's Home Tech in Portage County, Ohio. One of the most important habits with a UPS is also one of the easiest: know what goes on the battery and what stays off it. Get that right and everything else is smooth sailing.

The rule is short enough to remember: small electronics yes, anything that makes heat or has a big motor no. The rest of this guide just fills in the details so you're never in doubt.

★ One habit, big payoff

Nothing ruins a UPS's day faster than a laser printer or a space heater plugged into the battery side. Learn the list once and you'll never make that mistake. Call (330) 200-8042 if you're ever unsure about a device.

The whole rulebook, on one page

If you read nothing else, here's what goes on — and what stays off.

- ❑ YES on the battery side: a computer, monitor, modem, router, Wi-Fi, a security base, a medical monitor (as a bridge).
- ❑ NEVER: laser printers, space heaters, hair dryers, microwaves, toasters, coffee makers.
- ❑ NEVER: sump pumps, power tools, fridges — anything with a big motor.
- ❑ The reason: heat and motors draw far too much and overload the unit.
- ❑ Chargers and printers can go on the UPS's surge-only outlets instead.
- ❑ Never plug a power strip into a UPS, or a UPS into a power strip.

✓ The one-line rule

If it makes heat or has a big motor, it does not belong on a UPS. When in doubt, keep it off the battery.

The golden rule: small electronics only

Everything in this guide flows from one simple idea.

A UPS is designed to carry the modest, steady appetite of electronics — computers, network gear, monitors, a security base. Those draw a gentle, predictable amount of power that a UPS handles with ease. The trouble starts when you ask it to feed something with a big, hungry appetite it was never built for.

✓ Picture a small dinner table

A UPS is set for a few polite guests. Sit a furnace or a space heater down at that table and it clears the whole spread in a second. Keep the guest list to small electronics.

The green list — welcome on the battery side

These are the things a UPS is made to protect.

- **A desktop computer** and one monitor — the classic pairing.
- **Your modem, router, and Wi-Fi gear** — to keep you online.
- **A network switch or a mesh point** — small and thrifty.
- **A security base or camera recorder** — so it keeps recording.
- **A NAS or small home server** — so files aren't corrupted.
- **A medical monitor or alert base** — as a short bridge, not the whole plan.

All of these are small, steady electronics — exactly what a UPS carries with room to spare. Our per-device guides go deeper on each.

The red list — never on a UPS

Commit these to memory. None of them belongs on the battery side, ever.

- **Laser printers** — they gulp a big jolt of power to heat up.
- **Space heaters, hair dryers, curling irons** — heat means huge draw.
- **Microwaves, toasters, coffee makers, kettles** — kitchen heat is far too much.
- **Sump pumps, well pumps, power tools** — big motors surge hard.
- **Refrigerators and freezers** — their motors are beyond a UPS.
- **Vacuum cleaners and shop equipment** — motors again.

! This isn't a suggestion — it's a hard rule

Plugging any of these into a UPS's battery outlets can instantly overload it, trip it off, or damage it — and leave your important gear without the backup you were counting on. Keep the red list off the battery, always.

Why heat and motors are the problem

It helps to understand the 'why,' so the rule sticks.

Anything that makes heat — a heater, a dryer, a laser printer's warming drum — turns a lot of power into warmth, so it draws far more than any electronic gadget. And anything with a big motor — a pump, a fridge, a tool — demands a large jolt of power just to get spinning, much more than it uses once it's running. Both of those are more than a UPS is built to give, so it protests by tripping off.

✓ Two words: heat and motors

You don't need to know a device's wattage. Just ask, 'Does it make heat, or does it have a big motor?' If yes to either, keep it off the UPS.

Laser printers deserve their own warning

This is the single most common mistake I see, so it gets its own page.

A laser printer heats a drum to fuse the toner, and to do it, it pulls a big gulp of power in sudden bursts — far more than the printer's gentle idle would suggest. That burst can overload a UPS instantly, even one that easily handles your computer. It's the classic 'but it's just a printer' surprise.

! Printers go on the surge outlets, not the battery

If your UPS has surge-only outlets, a printer can go there for surge protection. But never put a laser printer on the battery side. An inkjet printer is gentler, but it still doesn't need battery backup — surge side is the right home for any printer.

Space heaters and hot gadgets

Anything whose job is to make heat is off-limits.

Space heaters, hair dryers, curling irons, heating pads, electric kettles, toasters, coffee makers — all of them turn power into heat, which means they draw enormous amounts compared to your electronics. A UPS can't feed them, and trying will overload it right away. These belong straight in a wall outlet, never a UPS.

! Never try to 'ride out' with a heater

In a winter outage it's tempting to think a UPS could keep a little heater going. It absolutely cannot, and trying can damage the unit. For warmth in a long outage, that's a generator's job — used safely outdoors.

Motors and pumps

The other half of the red list: anything that spins a big motor.

Sump pumps, well pumps, refrigerators, freezers, power tools, vacuums — their motors demand a hard jolt of power to start, well beyond what a UPS can supply. Even where the running power seems modest, the start-up surge is the deal-breaker. Keep every motor appliance off the UPS.

★ A UPS can't save your basement

Folks sometimes hope a UPS could keep a sump pump running in an outage. It can't — the pump's motor is far too much. For a sump pump you want a dedicated battery-backup pump or a generator; that's a different guide, and a project I'm glad to help plan.

The 'it depends' list

A few things fall in between — here's how to place them.

- **A laptop** — fine on the battery side, and it already has its own battery, so it's very thrifty.
- **An inkjet printer** — doesn't need battery backup; put it on the surge outlets.
- **Small desk speakers** — fine, but they don't really need the battery; surge side is plenty.
- **A single small LED lamp** — harmless, though a flashlight is the better outage plan.
- **A phone or tablet charger** — fine, but the surge side is the sensible home for it.

✓ Reserve the battery for what matters

Even for things that could go on the battery, ask whether they truly need it. The fewer things on the battery, the longer your essentials last.

Two kinds of homes, two sets of needs

The plug-in rule is the same everywhere, but what you'll want protected shifts a little with where you live.

If you live in town or the suburbs

In town or the suburbs, the usual list is a computer, the internet gear, and maybe a security base — all comfortably within a UPS's appetite.

- Put the computer and internet gear on the battery side and you've covered the common short outages.
- Keep the laser printer and any chargers on the surge outlets.
- A security base or camera recorder is a fine, thrifty addition.
- No need to tempt fate with heaters or kitchen gear — those ride out on their own.

If you are out in the country on a well

Out in the country on a private well, the temptation is to ask the UPS to do more than it should — but the rule holds even more firmly here.

- Keep the modem, router, and phone base on the battery so you stay reachable — that's the highest-value use.
- Resist plugging in the sump or well pump; those motors are far beyond any UPS and need a generator or battery-backup pump.
- Don't try to run a space heater off a UPS in a winter outage — it can't, and it may damage the unit.
- For the big loads and long outages, let the UPS hand off to a generator; keep the UPS to its small-electronics job.

★ Not sure where a device belongs?

Text me the name of anything you're wondering about and I'll tell you: battery side, surge side, or wall only. No question too small — (330) 200-8042.

Battery outlets vs surge-only outlets

Most UPS units split their outlets into two kinds, and knowing which is which is half the battle.

Some outlets on a UPS give both battery backup and surge protection; others give surge protection only. Your must-stay-on gear — computer, internet — goes on the battery outlets. Things that only need surge safety — a printer, chargers — go on the surge-only outlets. They're usually labeled or grouped, and mixing them up is a common, easy-to-fix slip.

✓ There's a whole guide on the outlets

Our 'battery vs surge outlets' guide shows how to tell them apart and which plug goes where, with pictures. Well worth a look when you set yours up.

Don't overload the battery side

Even with only the right kinds of gear, you can pile on too much.

Every UPS has a limit to how much it can carry at once. Load it right to the edge and it may trip under a small surge, and its runtime shrinks to almost nothing. Keep the battery side to your true essentials, with headroom to spare — our sizing guide helps you judge that.

! A tripping UPS is often just overloaded

If your UPS beeps an overload warning or cuts out, the first thing to check is whether too much — or the wrong thing — is on the battery side. Lighten the load and it usually settles right down.

Never daisy-chain power strips

A safety habit that also protects your gear.

Don't plug a power strip or surge strip into a UPS's battery outlets, and don't plug a UPS into a power strip or an extension cord. Give the UPS its own wall outlet, and plug your gear straight into the UPS. Chaining strips can overload things, defeat the protection, and even be a fire risk.

! One UPS, one wall outlet, gear plugged straight in

That's the safe arrangement. If you're short on outlets, the answer is a properly sized UPS with enough outlets — not a tangle of strips.

A careful word about medical devices

A UPS can help with some medical gear, but it is only ever one layer.

A UPS can smooth the power to a monitor or an alert base and buy a few minutes, which is genuinely useful. But it is a short bridge, not a life-support plan. Equipment someone depends on to breathe — an oxygen concentrator, a ventilator — needs proper battery backups, spare tanks, and a plan you've made with your supplier and doctor.

★ Plan medical backup in layers

Our 'UPS for a medical monitor' guide covers this gently and in full. If someone in your home relies on powered medical equipment, please read it — and let me help you set up and test the whole plan.

A quick room-by-room guide

Where a UPS makes sense in the house — and where it never does.

Around the home	On a UPS?
The home-office desk	Yes — computer and internet
The TV / entertainment area	Small gear yes; nothing hot
The kitchen	Never — everything there makes heat
The bathroom	Never — heaters and dryers
The basement (sump pump)	Never — that's a generator's job

The pattern is easy to see: the office and the entertainment center are UPS country; the kitchen, bathroom, and utility areas are not.

What about phone and tablet chargers?

A common, reasonable question with a simple answer.

Charging a phone or tablet draws very little, so a charger won't hurt a UPS. But since a phone holds its own battery, it doesn't need the UPS's backup — so the sensible spot for a charger is a surge-only outlet, leaving the battery outlets free for gear that truly needs them, like your internet.

✓ In a long outage, keep the phone charged another way

A small power bank or a car charger is the better way to keep phones going through a long outage — let the UPS spend its minutes on the internet and computer.

Common plug-in mistakes

The slip-ups that trip a UPS — literally.

- **A laser printer on the battery side** — the number-one overload.
- **A space heater 'just for a minute'** — an instant overload and a risk to the unit.
- **Everything on the battery outlets**, including the printer and chargers, draining runtime.
- **A power strip chained to the UPS** — defeats the protection and risks overload.

! When it trips, check the plugs first

Most overload trips come down to the wrong thing on the battery. Before you worry the UPS is broken, check what's plugged into the battery outlets.

Common Questions

The plug-in questions I hear most.

Q: Can I plug my printer into the UPS?

On the surge-only outlets, yes — for surge protection. Never on the battery outlets, especially a laser printer, which can overload the unit the instant it heats up.

Q: Why can't I run a space heater on it, even briefly?

Because a heater turns power into heat and draws far more than any electronic gadget. A UPS can't feed that, and trying will overload or damage it. Heaters belong in a wall outlet only.

Q: Can a UPS keep my sump pump going?

No — a pump's motor needs a hard jolt of power well beyond a UPS. For a sump pump you want a battery-backup pump or a generator. Happy to help you plan that.

Q: Is it okay to plug a UPS into a power strip?

No. Give the UPS its own wall outlet and plug your gear straight into the UPS. Chaining strips can overload things and defeat the protection.

Q: What should I actually put on it?

Your must-stay-on small electronics: the computer, the internet gear, a security base, a NAS. Keep printers and chargers on the surge outlets, and everything hot or motorized off entirely.

★ Wondering about a specific device?

Just ask — text me its name and I'll tell you exactly where it belongs. There's no silly question here. Call or text (330) 200-8042.

The plug-in checklist

Tape this to the wall behind your UPS.

- ☐ Computer and monitor -> battery outlets.
- ☐ Modem, router, Wi-Fi -> battery outlets.
- ☐ Security base or NAS -> battery outlets.
- ☐ Printer and chargers -> surge-only outlets.
- ☐ Heaters, kitchen gear, pumps, tools -> wall outlet, never the UPS.
- ☐ No power strips chained to the UPS; give it its own wall outlet.

✓ When in doubt, off the battery

If you can't decide, keep it off the battery side. You'll never harm a UPS by plugging too little into it.

Where to go next

You've got the plug-in rules — here's what pairs with this guide.

- Which outlet is which? See 'battery vs surge outlets.'
- Worried about overloading? See our 'sizing' guide.
- Setting one up for the internet or a desktop? See those guides.
- Medical gear involved? See 'UPS for a medical monitor' first.

Take them one at a time. Each stands on its own, and none asks you to remember the last.

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 what to plug into a UPS and what to keep off it 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.

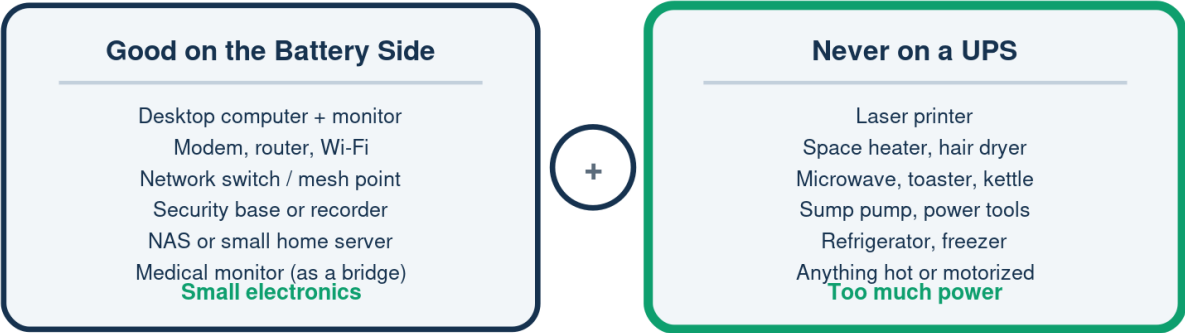
When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. Setting up a plug-in UPS is friendly, everyday work I'm glad to do with you; I don't do licensed electrical work myself, so for a hardwired unit or any panel or wiring 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

What Belongs on a UPS?

Small electronics yes; heat and motors no

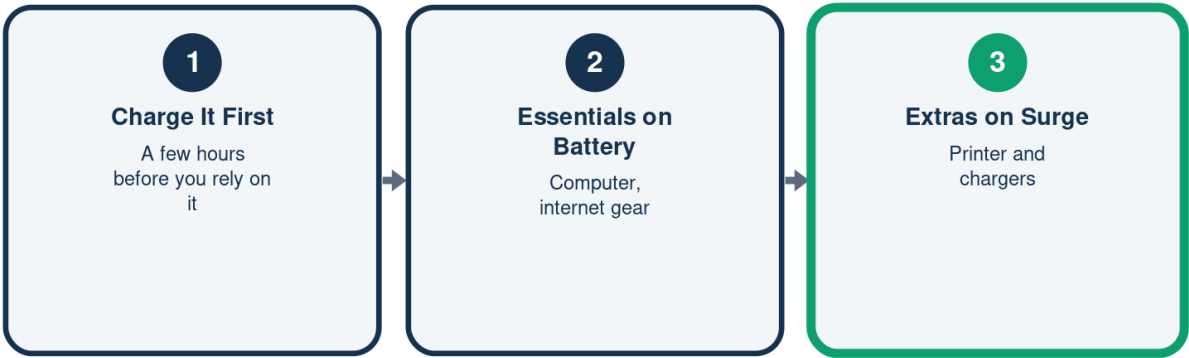


If it makes heat or has a big motor, keep it off.

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

Where Each Plug Goes

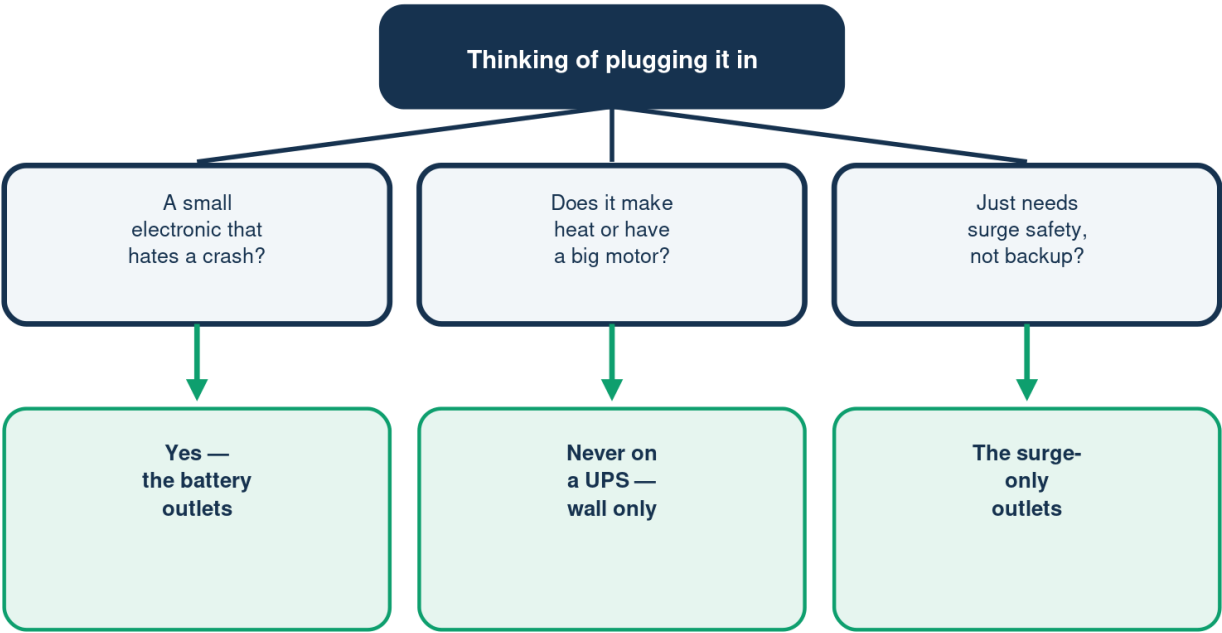
Setting up the two kinds of outlets



Battery outlets for must-stay-on gear; surge outlets for the rest.

Does It Belong on the Battery?

A starting point, not the final word



When in doubt, keep it off the battery side.

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

Room by Room

Where a UPS makes sense

On a UPS?	
Home-office desk	Yes — computer + net
Entertainment area	Small gear only
Kitchen	Never — all heat
Bathroom	Never — heaters/dryers
Basement sump pump	Never — generator job

Office and living room yes; kitchen, bath, and utility no.



Need a Real Person?

You do not have to remember all of it.
You just have to remember you can call.
Friendly, in-home tech help -- I come to you.

BILL'S PROMISE

If you are not 100% happy with a visit, I will
make it right -- or refund it. No awkwardness,
no fine print. That is how I would want to be treated.

(330) 200-8042 · BillsHomeTech.com

Bill@BillsHomeTech.com · Mon–Sat 9:00 AM – 7:30 PM

— Bill

Prefer help without a visit?

Bill can screen-share and fix many things remotely — a flat \$49, free for Support Plan members.



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*



Book a visit —
billshometech.com/book

Use of these guides is subject to our Terms of Use (billshometech.com/terms-of-use).

(330) 200-8042 · BillsHomeTech.com

Bill@BillsHomeTech.com · Mon–Sat 9:00 AM – 7:30 PM

For general information only — not professional advice. Use at your own risk. For electrical, gas, water, or ladder work, please call a licensed professional. — Bill's Home Tech