



An Extended Guide · No. 1224

Connecting a Generator to Your House, Safely

The three honest ways, and
the deadly one to avoid

Tech Made Simple — Service Made Personal

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! Read this first — carbon monoxide is the real danger

A running generator's exhaust contains carbon monoxide — an invisible, odorless gas that can kill in minutes. Never run a generator indoors, in a garage, in a shed, or on a porch, not even with the door open and a fan going. Run it outside only, well away from the house — the safety agencies say at least 20 feet — with the exhaust pointed away from every window, door, and vent. Put battery-backup carbon-monoxide alarms on each floor and outside the bedrooms. If an alarm sounds, or anyone feels dizzy, sick, or sleepy, get everyone into fresh air first and ask questions later. None of the three safe hookups in this guide change that rule — however the power reaches your panel, the generator itself still runs outside, well away from the house, every single time.

Let's get the power from the generator to the house

A generator sitting in the yard doesn't do you much good until its power reaches your fridge, your furnace, or your lights. This guide walks through the three honest ways to make that connection — and the one dangerous shortcut you should never, ever consider.

I'm Bill, and this is one of the most important conversations I have with folks who've just brought home a generator. Getting the machine right is only half the job. How you connect it to your home is where safety, cost, and convenience all meet — and it's where I see the most confusion, and honestly, the most risk.

The good news is the honest choices are simple to understand, even though the wiring itself isn't a do-it-yourself project. Think of this guide as the overview — the lay of the land. For the two hookups that touch your electrical panel, I'll point you to our deeper guides on transfer switches and interlock kits, which walk through each one step by step.

★ I coordinate the electrician — I don't wire panels

I'm a tech helper, not a licensed electrician. What I do is help you figure out which of these three ways fits your home, line up a licensed electrician for any panel work, and make sure everything gets set up and tested properly afterward. Call or text me at (330) 200-8042 any time you want to think it through.

The whole guide, on one page

If you remember only these things, you're already most of the way to a safe hookup.

- ❑ There are exactly three honest ways to connect a generator to your house: cords, an interlock kit, or a transfer switch.
- ❑ Outdoor-rated extension cords need no wiring, but they can't reach anything hardwired into your walls.
- ❑ An interlock kit and a transfer switch both feed your panel — and both are a licensed electrician's job, usually with a permit.
- ❑ A transfer switch is the cleanest, most polished option. An interlock kit does the same safety job for less.
- ❑ Never use a double-ended 'suicide cord' or backfeed through a dryer or range outlet — it can kill a utility worker and burn down your house.
- ❑ Hardwired 240-volt loads — a well pump, a water heater, central air — need a real panel hookup, not a cord.

✓ One question decides a lot

Ask yourself: am I trying to power a few plug-in things, or do I want the furnace, the well pump, or whole circuits working every time without a second thought? The answer points you straight at cords versus a panel hookup.

Three honest ways in, no shortcuts

Every safe way to connect a generator to your home falls into one of these three buckets. Read through all three before you decide — the right one depends on your home and your must-run list, not on which sounds fanciest.

1. Outdoor-rated extension cords

Heavy-duty cords run straight from the generator to individual appliances. No electrician, no permit, no wiring — just plug and go.

2. An interlock kit at the panel

A small mechanical plate at your breaker panel that lets a licensed electrician safely feed your whole panel from the generator, one breaker at a time.

3. A manual transfer switch

A dedicated set of labeled switches, installed by a licensed electrician, that cleanly isolates the generator from the utility and feeds the circuits you chose in advance.

✓ Read your must-run list first

If you haven't already made a list of what you'd want running in an outage, start there — our sizing guide walks through it. That list does most of the work of deciding which hookup you need.

Outdoor-rated extension cords

The simplest hookup there is. No electrician, no permit, no waiting — you run heavy-duty cords straight from the generator to the things you want powered.

- **The upside:** nothing to install. You can start using it the same day you bring the generator home.
- **The downside:** you can only reach things with a plug. A furnace, a well pump, or anything hardwired into the wall is out of reach.
- **Best for:** a handful of essentials — the fridge, some lights, phone chargers, maybe a window air conditioner.
- **The one rule:** outdoor-rated cords only, fully uncoiled, sized to the load and the length of the run. Our guide on extension cords covers gauge and length in detail.

✓ Keep the path tidy

Route cords away from where people walk, keep the connections up off wet ground, and never pinch one under a door or window. A cheerful-looking cord run is also a safer one.

An interlock kit at your panel

A budget-friendly way to feed your whole panel, not just what's plugged in.

An interlock kit is a UL-listed sliding plate mounted at your breaker panel. It mechanically stops your main breaker and a new generator breaker from ever being switched on at the same time, so power can never flow the wrong direction. It's a licensed electrician's job to install, usually with a permit.

- **The upside:** feeds your whole panel for less than a transfer switch typically costs, using hardware that's simple and reliable.
- **The downside:** no dedicated labeled switches — you decide which circuits to power by working your panel's own breakers yourself, each time.
- **Best for:** households who want whole-panel flexibility on a tighter budget and don't mind managing breakers directly.

★ Go deeper when you're ready

Our interlock-kit guide walks through exactly how it works, what your panel needs, and how to use it safely during an outage — read that one once you're leaning this direction.

A manual transfer switch

The cleanest, most polished way to feed your panel.

A transfer switch is a small dedicated panel of labeled switches, installed by a licensed electrician, usually with a permit. It physically isolates the generator from the utility — there's no way for power to flow the wrong direction — and one heavy cord carries power from the generator to a power inlet box mounted outside.

- **The upside:** labeled, dedicated switches for the circuits you chose in advance — no guessing which breaker is which.
- **The downside:** usually a more involved electrician's job than an interlock kit.
- **Best for:** households who want the most automatic-feeling setup, or who expect to lean on it often, like a rural home on a well.

★ Go deeper when you're ready

Our transfer-switch guide walks through exactly how it works, how the isolation keeps you safe, and how you use it step by step during an outage.

How to decide between them

Lay your must-run list next to this table and the answer usually becomes clear.

Method	No wiring needed	Feeds hardwired loads	Electrician + permit
Extension cords	Yes	No	No
Interlock kit	No	Yes	Yes
Transfer switch	No	Yes	Yes

If your list is entirely plug-in things, cords may be all you ever need. If a furnace, a well pump, or whole circuits belong on that list, you're choosing between an interlock kit and a transfer switch — and that choice usually comes down to budget versus how polished you want the day-to-day experience to be.

✓ **It's fine to start small**

Plenty of folks start with cords and add a panel hookup later once they know how they actually use the generator. You don't have to solve every circuit on day one.

The one way that can kill someone

You may hear about a cord with a plug on both ends, pushed into a dryer or range outlet to 'backfeed' the whole house at once. Please don't. This is the one shortcut in this entire guide with no honest version.

! Never use a 'suicide cord'

A double-ended cord plugged into an outlet sends your generator's power backward through your house wiring and out onto the utility lines outside — the same lines a utility crew may be working on to restore power. It can electrocute a lineman, it bypasses your main breaker so nothing protects your house wiring from overload, it leaves live prongs exposed on the unused end of the cord, and it's illegal. There is no safe way to do this yourself.

It earns its grim nickname honestly. If a neighbor, a forum post, or anyone else suggests it as a quick fix, the answer is no — every time. The only safe ways to feed your panel are an interlock kit or a transfer switch, both installed by a licensed electrician.

✓ If you only remember one page from this guide

Make it this one. Cords to individual appliances are safe. A panel hookup by a licensed electrician is safe. A cord pushed into a wall outlet to backfeed the house is never safe, no matter how careful you think you're being.

Why hardwired 240-volt loads can't use cords

A well pump, an electric water heater, and central air all share something in common: they're wired directly into your home's electrical system, not plugged into an outlet.

There's no cord to plug in, because there's no plug to begin with — just wires running from the appliance straight into the panel. The only way to feed a load like that from a generator is through the panel itself, using an interlock kit or a transfer switch installed by a licensed electrician.

These loads also tend to be the biggest motors in the house, needing a large starting surge and a generator with a 240-volt outlet to match. Our sizing guide covers how to plan for that surge honestly, without guessing at numbers.

! Don't let anyone talk you into a workaround

There is no adapter, splitter, or clever cord trick that safely powers a hardwired 240-volt load. If someone suggests one, they're describing a fire or shock hazard, however confident they sound.

What 'a licensed electrician's job' actually means

Both an interlock kit and a transfer switch involve opening your electrical panel — and that's exactly where a tech helper like me steps back and a licensed professional steps in.

A licensed electrician evaluates your panel, installs the hardware, wires it to code, and in most areas pulls a permit so the work gets inspected. That's not red tape for its own sake — it's what confirms the hookup was done safely, which matters enormously when the whole point is protecting you and the utility crew outside.

My role is everything around that: helping you decide which hookup fits, building your must-run list, lining up an electrician I trust, and making sure the finished setup gets tested with you before you ever need it in the dark. For the wiring costs themselves, get a quote from a licensed electrician rather than guessing — every home and panel is a little different.

★ I'll help you line it up

Coordinating a licensed electrician for the panel work is part of what I do. Call or text me at (330) 200-8042 once you know roughly which hookup you're leaning toward.

Two kinds of homes, two sets of needs

Where you live shapes which of the three hookups makes the most sense — not because the safety rules change, but because what's on your must-run list does.

If you live in town or the suburbs

In town or on a tidy suburban lot, city water keeps flowing no matter what, so you're usually powering food, comfort, and connection — not a hardwired pump. Many town homes get by just fine on cords alone.

- A handful of plug-in essentials often covers the whole list, so cords may be all you ever need.
- Want the furnace or a few more circuits included? An interlock kit is often the budget-friendly step up.
- Smaller lots mean the generator, the cords, and the neighbors are all close together — a tidy, well-planned cord run matters.
- Check with your town or homeowners' association before any panel work — a permit is the norm, not the exception.

If you are out in the country on a well

Out on a well, the math changes. A well pump is a hardwired 240-volt motor, and cords simply can't reach it — no power to the pump means no water at all, for drinking, cooking, flushing, or the animals.

- A well pump all but requires an interlock kit or a transfer switch — cords aren't a practical option here.
- Longer rural outages make a whole-panel hookup, not just a few plug-in items, worth the electrician's visit.
- A transfer switch's labeled circuits can make juggling the pump, the furnace, and the fridge far less stressful during a multi-day outage.
- Our sizing guide covers how a well pump's surge shapes the generator you'll need to feed that hookup.

★ Not sure which camp you're in?

Plenty of homes sit in between. Tell me what's on your must-run list and whether you're on a well, and I'll help you figure out which of the three hookups actually fits. Call (330) 200-8042.

A quick technical note (and why it's still the electrician's call)

You don't need to master this one — just know it exists, so the electrician's questions make sense.

A generator's neutral wire is either 'bonded' (tied to the generator's frame) or 'floating,' and which one you have affects how ground-fault (GFCI) protection behaves once it's connected to your house wiring. Getting this right depends on your specific generator and your specific hookup.

This is exactly the kind of detail a licensed electrician sorts out as part of installing your interlock kit or transfer switch — not something you need to solve yourself. It's one more reason the panel connection isn't a do-it-yourself project, even for a handy homeowner.

✓ Use GFCI protection generally

Whatever hookup you choose, keep the generator, the cords, and your hands dry, and favor GFCI-protected outlets, especially in damp weather. It's simple, cheap insurance.

The true cost picture

The generator itself is rarely the whole bill. Knowing the other pieces up front keeps there from being surprises.

Cords are the affordable path — a set of outdoor-rated cords and you're done. An interlock kit or a transfer switch adds a licensed electrician's visit and usually a permit on top of the hardware itself. I won't guess a number for you here, because every panel, every home, and every electrician's rates are different — get a quote from a licensed electrician rather than trusting a figure from the internet.

None of this is meant to scare you off; it's to help you budget the whole job rather than just the first part. A right-sized hookup, chosen once and installed properly, serves for many years.

★ I'll help you plan the whole thing

I don't sell generators or wiring, and I earn no commission, so my advice is just advice. Tell me your home and your list, and I'll help you map out the full plan — method, electrician, and testing — so there are no surprises.

Common mistakes people make

A handful of avoidable slip-ups account for most of the regret I hear about after the fact.

- **Buying the generator before deciding the hookup**, then discovering it doesn't have the 240-volt outlet a transfer switch or interlock needs.
- **Assuming cords can reach everything**, including a furnace or well pump that was never going to be cord-reachable.
- **Considering a 'suicide cord' out of desperation** in the middle of an outage, when the safe options feel too slow.
- **Skipping the permit or the electrician** to save time, and ending up with a hookup nobody has confirmed is safe.
- **Never testing the setup** until the night it's actually needed, in the dark, under stress.

! The dangerous mistake

Every mistake on this page costs time, money, or convenience — except one.

Reaching for a backfeed cord because the safe options feel slow can cost a life. Plan ahead so you're never tempted.

Getting your home ready

A little homework before the electrician ever arrives makes the whole process faster and cheaper.

- ❑ Build your must-run list first — our sizing guide walks through it.
- ❑ Decide roughly which circuits matter most: furnace, well pump, fridge, a few outlets.
- ❑ Photograph your electrical panel, inside and out, to share ahead of time.
- ❑ Know your generator's outlet type — ordinary household outlets, a 240-volt outlet, or both.
- ❑ Think about where an outdoor power inlet box could go, and how the cord would reach it.

★ Bring me what you've got

Text me your panel photo and your must-run list at (330) 200-8042, and I'll help you walk into the electrician's visit with a clear plan instead of a pile of questions.

What I do, and what I leave to the electrician

It's worth being plain about this, because it's easy to assume a tech helper does everything.

- **What I help with:** figuring out which hookup fits your home, building your must-run list, lining up a licensed electrician I trust, and testing the finished setup with you.
- **What only a licensed electrician can do:** open your panel, add or wire a breaker, install the power inlet, and sign off on the permit and inspection.
- **What I never do:** panel work, 240-volt wiring, or gas work — not because I couldn't learn it, but because that's not my license, and your safety deserves the real thing.

★ Think of me as your project manager

I keep the whole plan straight — generator, hookup, electrician, and testing — so you're not juggling it alone. Call or text me at (330) 200-8042 to get started.

Using your hookup safely, whichever one you chose

The exact steps differ by method — our transfer-switch and interlock-kit guides walk through each one in detail — but the big picture is the same for every honest hookup.

Set the generator up outside, at least 20 feet from the house, exhaust pointed away from windows and doors, and start it with nothing connected. Then follow your hookup's own steps: with cords, plug in one appliance at a time; with an interlock kit or transfer switch, follow the order your electrician showed you, switching on chosen circuits one at a time rather than all at once.

! Never force two things to be true at once

Never try to have the main breaker and a generator breaker on together on a panel that isn't set up for it, and never bypass an interlock plate or a transfer switch's design to 'make it easier.' The whole safety point of these hookups is that utility and generator power can never meet — respect that by the book.

Questions to ask before you commit

Whether you're talking to an electrician or to me, these questions get you to the right hookup.

Q: Can my generator's outlet even support a transfer switch or interlock?

It needs a 240-volt outlet for either. If yours only has ordinary household outlets, cords may be your only option unless you upgrade the generator.

Q: How long does the whole process take, start to finish?

It varies by area and electrician — ask about their schedule, the permit timeline, and when inspection happens, so you're not caught mid-project during an actual outage.

Q: Will you show me how to operate it before you leave?

Always ask for a walk-through. A hookup you don't know how to use safely isn't doing you much good.

Q: What happens if I outgrow this hookup later?

Ask whether more circuits could be added down the road, so today's choice doesn't box in tomorrow's.

✓ There's no silly question

If an electrician or salesperson makes you feel rushed or foolish for asking, that's a reason to get a second opinion, not to sign anything.

Signs you've outgrown cords

Cords are a perfectly honest hookup — right up until they aren't quite enough anymore. Here's how to tell.

- You're running cords through a door or window every single outage, and it's starting to feel like a hassle rather than a backup plan.
- You keep wishing the furnace, the well pump, or a specific room were on the list, and it never can be with a cord.
- Outages at your house tend to run long enough that convenience starts to matter as much as just keeping the lights on.
- You'd rather flip a switch or two than manage several individual cords and appliances by hand.

✓ There's no rush to upgrade

Plenty of households happily use cords for years. This page is just here so you recognize the moment if and when it arrives, rather than white-knuckling through it.

Common Questions

The questions I hear most from folks planning their hookup, answered plainly.

Q: Can I install an interlock kit myself if I'm pretty handy?

I'd strongly advise against it. Panel work done wrong can create exactly the backfeed danger this guide warns about, and most areas require a licensed electrician and a permit for good reason.

Q: Is a transfer switch really worth it over an interlock kit if they do the same safety job?

Both are genuinely safe. The difference is convenience and cost — a transfer switch gives you labeled, dedicated switches; an interlock kit asks you to manage your own breakers for less money. Our two deep-dive guides walk through the trade-offs.

Q: Do I need a permit even for a fairly simple interlock kit?

In most areas, yes — any work that adds a breaker or changes your panel typically needs a permit and inspection. Your electrician will know your local rules.

Q: What if my panel isn't compatible with either one?

Some older or unusual panels need extra work, or in rare cases a panel upgrade, before an interlock kit or transfer switch can go in. A licensed electrician can tell you quickly during an evaluation.

★ Still weighing it up?

Deciding how to connect your generator is exactly the kind of thing I love to help with. Call or text me at (330) 200-8042 and let's find the hookup that fits your home.

Bringing it all together

Three honest ways in, one dangerous shortcut to avoid, and a clear path to deciding which is yours.

Start with your must-run list — our sizing guide walks through building it. If it's all plug-in items, outdoor-rated cords may be all you need. If a furnace, a well pump, or whole circuits belong on it, you're choosing between an interlock kit and a transfer switch, and our deep-dive guides on each walk through exactly how they work and how you'll use them.

Whichever path you choose, the two rules that never change are these: the generator runs outside, well away from the house, and the panel connection is a licensed electrician's job. Everything else is just deciding what fits your home and your budget.

★ Let's figure it out together

Call or text me at (330) 200-8042 with your must-run list, and I'll help you land on the right hookup and line up the electrician — free, with nothing to sell you.

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 connecting a generator to your house 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 the licensed electrical or gas work myself — for that 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

The Three Honest Ways to Connect

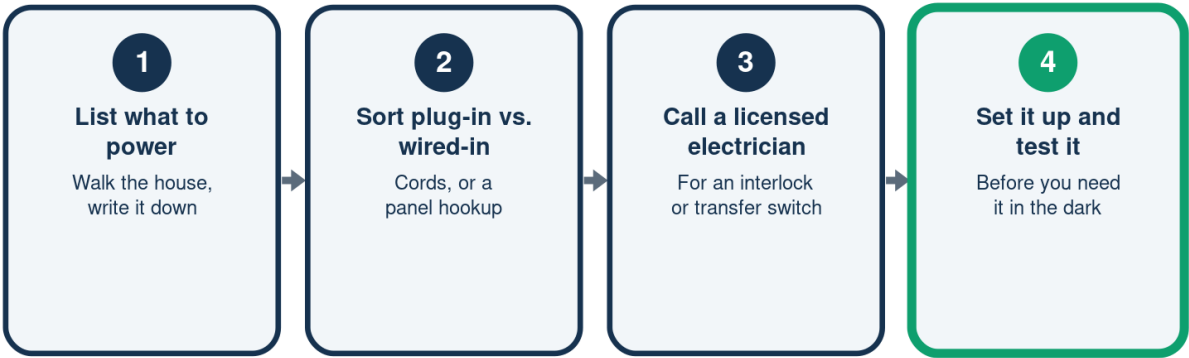
What each one needs, and what it's good for

	What it needs	Good for
Extension cords	No wiring at all	A few plug-in items
Interlock kit	Electrician + permit	Whole panel, budget-friendly
Transfer switch	Electrician + permit	Whole panel, cleanest feel

Match the hookup to your must-run list, not the other way around.

Choosing Your Hookup in Four Steps

The calm way to land on the right method



Do these in order and the right hookup almost picks itself.

The Honest Ways -- and the One to Avoid

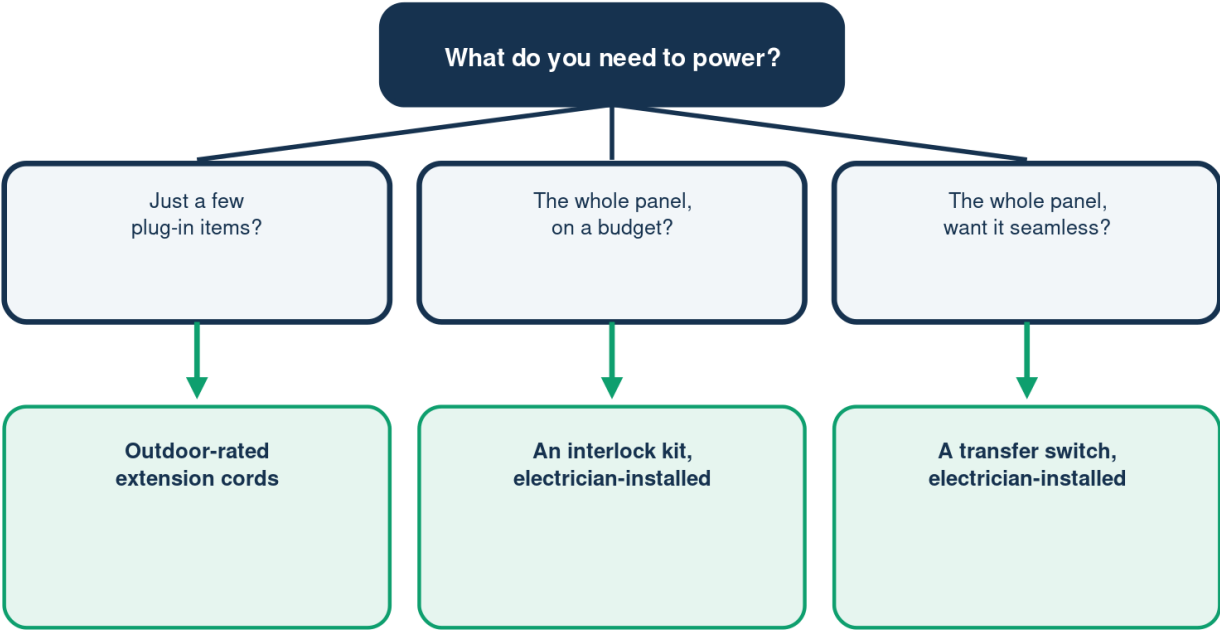
Know the difference before an outage, not during one

	What it does	Safe?
Extension cords	Powers a few plug-in items	Yes, done right
Interlock or transfer switch	Feeds the panel safely	Yes, electrician-installed
A 'suicide cord'	Backfeeds an outlet	Never -- illegal and deadly

If it involves plugging a cord into a wall outlet to feed the house, stop.

Which Hookup Fits Your Home?

Let your must-run list point the way



Never a cord into a dryer or range outlet -- that's the dangerous 'suicide cord' ~~shortcut~~

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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