



An Extended Guide · No. 1647

Why Backfeeding Kills — and the Safe, Legal Alternatives

The most dangerous shortcut,
and what to do instead

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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. And a reminder that runs underneath this whole guide — even as we sort out the safe way to wire it in, the generator is still a carbon monoxide source, so it always runs outside, well away from the house.

The most dangerous shortcut — and what to do instead

Of all the ways people connect a generator to a house, one is genuinely deadly — and it's the one that looks easiest. This guide is about why to never take it, and the honest, legal ways to power your home instead.

I'm Bill. In 30-plus years of helping folks with the gear in their homes, this is the shortcut that worries me most, because it's cheap, it's quick, and someone always swears it's fine. It isn't. It can kill a utility worker, burn down a house, or electrocute the person holding the cord — and it's against the law.

The good news is there's nothing scary about the right way. There are three honest, legal ways to power a home from a generator, and this guide walks through all three. Two of them are a licensed electrician's job, and lining that up is exactly the kind of thing I help with.

★ This is the one I most want you to read

If you take only one guide in this category to heart besides carbon monoxide safety, make it this one. And if anyone's ever suggested the shortcut to you, call or text me at (330) 200-8042 before you act on it — I'll help you find the safe way.

The whole guide, on one page

If you remember only these things, you already understand the heart of this guide.

- ❑ 'Backfeeding' means forcing generator power into your house through an outlet — usually with a double-ended 'suicide cord,' or by plugging into a dryer or range outlet. Never do it.
- ❑ It can push deadly voltage back onto the utility lines outside and electrocute a lineworker trying to restore your power.
- ❑ It leaves live metal prongs exposed on the other end of the cord, bypasses your main breaker's overload protection, and can start a fire.
- ❑ It is illegal and against electrical code. There is no 'careful' way to do it.
- ❑ There are three honest, legal ways instead: outdoor-rated cords to individual appliances, an interlock kit at the panel, or a manual transfer switch.
- ❑ The two panel hookups both need a licensed electrician and usually a permit — and I'll help you line one up.

! The nickname is a warning, not a joke

A double-ended cord is called a 'suicide cord' for a reason. If a neighbor, a video, or a forum post calls it a quick fix, the answer is still no — every time.

What 'backfeeding' actually means

Before we talk about why it's so dangerous, let's be clear about exactly what it is, so you can recognize it if anyone ever suggests it.

Normally, power flows from an outlet into whatever you plug in. Backfeeding means forcing power the other way — pushing your generator's electricity into the house wiring through an outlet, so it spreads to your circuits backward.

It's usually done one of two ways. One is a 'suicide cord' — an extension cord with a regular male plug on both ends, so one end goes in the generator and the other into a wall outlet. The other is plugging the generator into a large appliance outlet, like a dryer or electric range outlet, to feed the panel through it. Both are dangerous, and both are what this guide is warning you away from.

! If a plan feeds the house through an outlet, stop

Any scheme that pushes generator power into your home through an outlet — rather than through equipment an electrician installed — is backfeeding. That's your signal to stop and choose one of the safe ways instead.

Why it can kill a utility worker

This is the danger most people never think of, and it's the most important reason backfeeding is forbidden.

When a storm knocks out power, utility crews go out to repair the lines — often working on wires they have every reason to believe are dead. If your generator is backfeeding your house, its power doesn't just fill your circuits; it can travel back out the same lines coming into your home and onto the utility system outside.

Along the way, ordinary house voltage can be stepped back up by the transformer on the pole to the much higher voltage of the distribution lines — more than enough to instantly kill a lineworker who touches a wire they thought was safe. They can't see your generator running in the backyard. The isolation a proper hookup provides is what protects them.

! Backfeeding can electrocute the person restoring your power

This is not a rare, theoretical risk — it's the exact reason transfer equipment and interlocks are required by code. A backfeed cord puts a stranger's life in your hands, without their knowledge or consent. There is no version of that trade-off worth making.

Why it endangers you and your home, too

Even setting the utility lines aside, backfeeding is dangerous right where you're standing.

- **Exposed live prongs.** A double-ended cord has bare metal prongs on the end that isn't plugged in yet — and once the generator is running, they're electrified and deadly to touch.
- **No overload protection.** Backfeeding through an outlet bypasses your main breaker, so nothing protects your house wiring from being overloaded — a classic way to start a fire in the walls.
- **No isolation.** Nothing stops utility power from meeting generator power when the grid comes back, which can damage your generator, your wiring, or both.
- **Shock risk to anyone.** A child, a spouse, or a first responder can be hurt by a setup only you understand.

! It fails in more than one way at once

Backfeeding isn't one risk — it's several stacked together: electrocution, fire, and equipment damage. A proper hookup removes all of them at the same time.

There's no 'careful' way to do it

The most common thing I hear is some version of 'I know what I'm doing, so it's fine for me.' I want to gently take that apart.

The usual claim is that if you just remember to shut off your main breaker first, backfeeding is safe. But that safety depends entirely on you — and everyone else who might touch the panel — getting it exactly right, every single time, in the dark, under stress, for the whole outage. Forget once, or have someone flip the main back on, and the danger is instant.

A proper hookup doesn't rely on memory or good intentions. A transfer switch or an interlock kit makes the dangerous combination physically impossible, by design. That's the difference between 'careful' and 'safe' — and it's why this is against code no matter how handy you are.

! Safe by design beats careful every time

The whole point of a real hookup is that it removes the chance for human error, not that it trusts you never to make one. Please don't stake a life — yours, a family member's, or a lineworker's — on a perfect memory.

The three honest ways to power your home

Here's the reassuring part: doing it right is well understood, and one of the three ways needs no wiring at all.

1. Outdoor-rated extension cords

Heavy, outdoor-rated cords run straight from the generator to individual appliances — the fridge, a lamp, a space heater with a plug. No wiring, no electrician, no permit. The catch is that a cord can only reach things with a plug.

2. An interlock kit at the panel

A licensed electrician adds a UL-listed sliding plate to your existing breaker panel so a generator can safely feed your circuits. More on how that works a couple pages on.

3. A manual transfer switch

A licensed electrician installs a separate switch that cleanly hands your chosen circuits back and forth between the utility and the generator. Our transfer-switch-vs-interlock guide compares these last two in depth.

✓ Start with your must-run list

What you actually need to power decides which way fits. If it's all plug-in items, cords may be all you need. If a furnace or well pump is on the list, you're looking at a panel hookup — and our extension-cords guide and transfer-switch-vs-interlock guide pick up from there.

Way one: cords straight to appliances

The simplest honest hookup there is — and for a lot of homes, all they ever need.

You run heavy-duty, outdoor-rated cords from the generator, sitting safely outside, straight to the things you want powered. Nothing gets installed, nothing touches your panel, and there's no backfeed risk at all, because you're never pushing power into the house wiring — just plugging appliances into the generator directly.

- **The upside:** no electrician, no permit, no waiting. It works the day you bring the generator home.
- **The limit:** a cord can only reach something with a plug. Anything hardwired into your walls is out of reach — more on that a few pages ahead.
- **The rule:** outdoor-rated cords only, fully uncoiled, sized to the load and the length of the run. Our extension-cords guide covers gauge and length in plain English.

✓ Safe, and genuinely enough for many homes

There's nothing second-rate about cords. Plenty of households run their essentials this way for years. It's not the shortcut — it's one of the three right answers.

Ways two and three: a hookup at the panel

When you want whole circuits — the furnace, the well pump, a room at a time — the power has to reach your panel, and there are two safe ways to do that.

A **manual transfer switch** is a separate box of switches a licensed electrician installs alongside your panel. It physically isolates the generator from the utility — the electrical code, specifically NEC 702.5, requires transfer equipment to prevent the generator and the utility from ever being connected together — so there's simply no path for power to backfeed the lines outside.

An **interlock kit** is a UL-listed metal plate a licensed electrician fits to your existing panel. It mechanically prevents the main breaker and the generator breaker from ever being switched on at the same time — so, again, generator and utility power can never meet. It's the more affordable of the two.

★ Both are a licensed electrician's job — with a permit

Either one means opening your electrical panel, which is where a tech helper like me steps back and a licensed professional steps in. Both usually need a permit and inspection too. Tell me which way you're leaning at (330) 200-8042 and I'll line up someone I trust.

Why a real hookup is safe where backfeeding isn't

It comes down to one word that backfeeding can never offer: isolation.

A backfeed cord leaves utility and generator power free to meet — that's the whole danger. A transfer switch and an interlock kit are both built to make that meeting impossible. The transfer switch does it by physically routing each circuit to one source or the other; the interlock plate does it by mechanically blocking the two breakers from ever being on together.

Because the connection can never happen, your generator's power can't travel out to the utility lines, a returning grid can't slam back into your running generator, and there are no exposed live prongs anywhere. The protection is built into the hardware, not left to you to remember.

! Isolation is the safety feature

Everything good about a real hookup flows from that one idea — generator power and utility power can never touch. That's what keeps you, your home, and the crew on the lines safe, automatically, every time you use it right.

What I do, and what I leave to the electrician

It's worth being plain about this, because the honest way involves knowing where my help ends.

- **What I help with:** talking you out of the shortcut, figuring out which honest hookup fits, 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, install a transfer switch or interlock kit and the outdoor inlet, and pull the permit.
- **What I never do:** panel work or 240-volt wiring myself — that's not my license, and your safety deserves the real thing.

★ Call before, not after

The best time to reach me is while you're deciding, not after a risky setup is already in place. Call or text me at (330) 200-8042 and we'll get you on the safe path from the start.

Two kinds of homes, two sets of needs

Backfeeding is deadly wherever you live — but the picture of who it puts at risk looks a little different in town and out in the country.

If you live in town or the suburbs

In town and the suburbs, power lines and neighbors are close by, and line crews are often working nearby during an outage. A backfeed from one house can reach the very stretch of line a crew is repairing down the block.

- Close-set homes and shorter outages make cords a common, safe choice for the essentials.
- Line crews restoring a neighborhood are often working within sight — backfeeding puts them directly at risk.
- For whole circuits, an interlock kit is often the budget-friendly panel hookup; a transfer switch is the tidiest.
- Check with your town before any panel work — a permit is the norm, not the exception.

If you are out in the country on a well

Out in the country, the danger doesn't shrink — it stretches out. Long feeder lines run for miles, and a single lineworker may be restoring power far from any house, with no way to know a generator is backfeeding from somewhere down the line.

- A well pump is a hardwired 240-volt load that cords can't reach — rural homes almost always need a panel hookup.
- Longer, more frequent outages make a transfer switch or interlock kit well worth the electrician's visit.
- A lone worker miles out is just as vulnerable as a crew in town — the isolation of a real hookup protects them both.
- Our transfer-switch-vs-interlock guide covers which panel hookup fits a demanding rural must-run list.

! The danger is real everywhere

Whether the nearest lineworker is a block away or ten miles out, backfeeding can reach them. A proper hookup protects them in both places — that's why it's never optional.

When someone swears it's fine

Sooner or later, someone will tell you they've backfed their house for years with no trouble. Here's how to think about that.

'Nothing bad has happened yet' is not the same as 'it's safe.' Backfeeding is dangerous precisely because it usually works — right up until the one time the main breaker is left on, a lineworker touches the wrong wire, or a cord's live prongs meet a hand. The absence of a disaster so far doesn't lower the odds of the next one.

The people most at risk from your setup — a lineworker, a family member, a first responder — never got a say in it. That's what makes it different from a risk you take only with your own safety. When someone offers the shortcut, the kind thing and the legal thing are the same: no.

! 'It's always worked' is the most dangerous sentence here

Every safe alternative in this guide costs a little more time or money than a backfeed cord. None of them costs a life. That's the trade the shortcut is really asking you to make.

Why a well pump or water heater needs a real hookup

This is often the reason people are tempted to backfeed in the first place — so it's worth understanding why cords truly can't do it.

A well pump, an electric water heater, and central air are wired directly into your panel — there's no plug, because they were never meant to be unplugged. A cord has nothing to connect to. The only way to power a load like that from a generator is through the panel itself, using a transfer switch or an interlock kit.

These are also usually the biggest motors in the house, needing a generator with a 240-volt outlet and enough starting surge to match. That's a sizing question our other guides handle without guessing at numbers — but the connection itself is always a panel hookup, never a cord and never a backfeed.

! No adapter or clever cord makes a backfeed safe

If anyone offers you an adapter, a splitter, or a special cord to power a hardwired 240-volt load without a real hookup, they're describing a fire or shock hazard, however confident they sound. The answer is a licensed electrician and a transfer switch or interlock.

The temptations that lead people astray

Almost nobody backfeeds out of carelessness — they do it under pressure. Knowing the traps in advance is how you stay out of them.

- **'The safe options feel too slow'** in the middle of an outage — so plan and install the real hookup before you ever need it.
- **'It's just this once'** during a bad storm — the exact situation where a lineworker is most likely to be out on the lines.
- **A cheap double-ended cord for sale online** — the fact that it's sold doesn't make it legal or safe to use.
- **A confident neighbor or video** walking through the 'trick' — confidence isn't the same as safety, and they won't answer for your outage.
- **An unused dryer or range outlet** that seems made for it — it isn't; feeding the panel through it is still backfeeding.

★ Plan ahead so you're never tempted

The best defense against the shortcut is a safe hookup already in place. If you're not sure what yours should be, call or text me at (330) 200-8042 and let's sort it out on a calm day, not during the next storm.

Getting ready, the right way

A little homework now makes the safe path faster and cheaper — and removes the temptation to improvise later.

- ❑ Build your must-run list — what you truly need in an outage. Our other guides walk through it.
- ❑ Decide whether it's all plug-in items (cords may do) or includes hardwired loads (a panel hookup is needed).
- ❑ Photograph your electrical panel, inside and out, to share with an electrician ahead of time.
- ❑ Know your generator's outlets — ordinary household, a 240-volt outlet, or both.
- ❑ Line up a licensed electrician for any panel work, and let me help coordinate it if you'd like.
- ❑ Never buy or keep a double-ended 'suicide cord,' even just in case.

✓ A plan on paper beats a scramble in the dark

Walking into an outage knowing exactly how you'll power the house — safely — is worth far more than any shortcut. Settle it before the weather does.

Myths people believe — and the truth

A few mistaken beliefs come up again and again about backfeeding. Here's the honest version of each.

Myth	Fact
'It's fine if I shut off the main breaker.'	That relies on perfect memory every time. A real hookup makes the danger physically impossible instead.
'The lines are dead during an outage anyway.'	Crews may be energizing them at any moment, and your backfeed can too. Never assume a line is safe.
'A dryer outlet is made for that kind of power.'	It's made to power a dryer, not to feed your panel. Using it that way is still illegal backfeeding.
'I've done it for years with no problem.'	It usually works — until the once it doesn't. The risk falls on others, too, not only you.
'It's my house, so it's my risk to take.'	A backfeed can kill a lineworker or a first responder who never agreed to it. It's not only your risk.

! A belief doesn't have to be true to feel true

Every myth above sounds reasonable, which is exactly why they persist and why they're dangerous. When something you've heard doesn't match this guide, trust the rule, not the rumor.

Questions worth asking

A few plain questions clear up most of the confusion I hear about connecting a generator.

Q: Is there any safe way to backfeed if I'm careful?

No. There is no code-legal, safe way to backfeed a house through an outlet, no matter how careful you are. The safe options are cords to appliances, an interlock kit, or a transfer switch.

Q: Can I power my whole house with extension cords instead?

You can power anything with a plug, which covers a lot — but not hardwired loads like a well pump, water heater, or central air. Those need a panel hookup by a licensed electrician.

Q: Which panel hookup should I choose?

That depends on your budget, your circuits, and how hands-on you want to be. Our transfer-switch-vs-interlock guide compares the two in depth, and I'm glad to help you decide.

Q: Do I really need a permit for a panel hookup?

In most areas, yes — any work that changes your panel typically needs a permit and inspection, which is there to confirm the isolation was done correctly. Your electrician will know the local rules.

★ There's no silly question here

This is a topic where I'd genuinely rather you call and ask than guess. Reach me at (330) 200-8042 any time you want to talk through the safe way to connect your generator.

Common Questions

The questions I hear most from folks working through this guide, answered plainly.

Q: What exactly is a 'suicide cord'?

An extension cord with a regular male plug on both ends, used to push generator power into a wall outlet. The nickname is grim on purpose — the exposed prongs and the backfeed danger make it deadly. Never make or use one.

Q: Could my generator really send power out to the street?

Yes. Through a backfeed, ordinary house voltage can be stepped up by the pole transformer to the high voltage of the distribution lines — enough to kill a lineworker. That's the core reason backfeeding is banned.

Q: Is an interlock kit or transfer switch hard to use once installed?

Not at all — both are straightforward, and a good electrician will walk you through the steps. The hard part is deciding and installing; using it safely becomes routine.

Q: What should I do if I already have a backfeed setup?

Stop using it and have a licensed electrician replace it with a proper hookup before the next outage. I'm glad to help you understand your options and line one up — there's no judgment, just a safer path.

! When in doubt, choose isolation

If you're ever unsure whether a hookup is safe, ask one question: can generator power and utility power ever meet? If the honest answer is yes, or 'only if I'm careful,' it isn't safe.

Bringing it all together

One shortcut to never take, three honest ways to power your home, and a clear path to the right one for you.

Backfeeding — through a 'suicide cord' or an appliance outlet — is deadly and illegal, and there's no careful version of it. The honest ways are cords to individual appliances, an interlock kit, or a transfer switch, and the two panel hookups are always a licensed electrician's job.

From here, our extension-cords guide covers powering things safely with cords, our transfer-switch-vs-interlock guide compares the two panel hookups, and our inlet-box guide covers the weatherproof connection an electrician mounts on your outside wall for either one. And it all still assumes the generator runs outside, well away from the house.

★ Let's get you on the safe path

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

If you remember only one thing

Out of everything in this guide, one idea matters more than all the rest.

Never feed your house by pushing power into an outlet. Not with a double-ended cord, not through a dryer or range outlet, not just this once, not even if you shut off the main breaker first. It can kill a lineworker, start a fire, or shock whoever's holding the cord — and there is always a safe, legal way instead.

! Say it back to yourself

No suicide cord. No backfeeding through an outlet. Ever. The safe ways are cords to appliances, an interlock kit, or a transfer switch — and the panel hookups are a licensed electrician's job.

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 the safe, legal way 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.

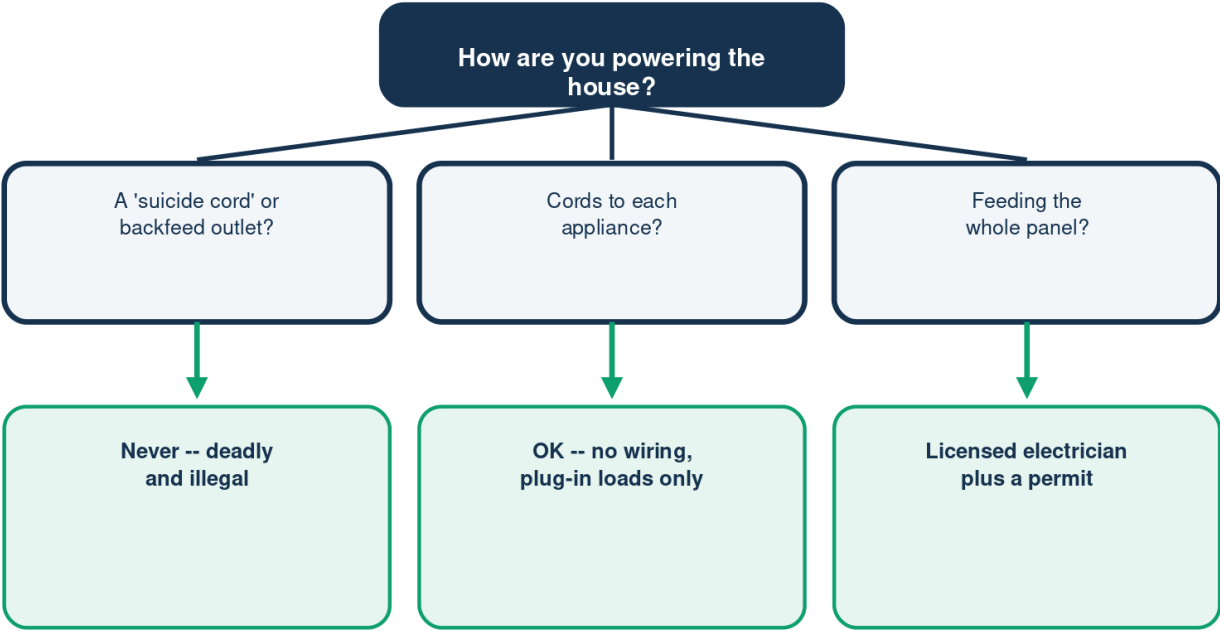
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How Are You Powering the House?

One of these is never allowed

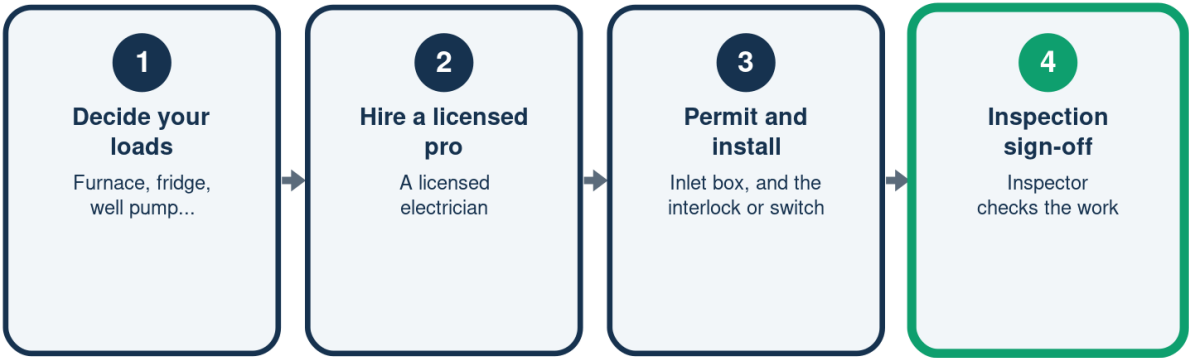


Backfeeding an outlet can kill a lineworker restoring power -- never do it.

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

The Safe Path to a Panel Hookup

How the two proper hookups get installed



An interlock kit or a transfer switch -- both a licensed electrician's job.

Backfeeding vs. a Real Hookup

Why one is deadly and the other is safe

	Backfeeding	Transfer switch/interlock
Utility lines	Deadly backfeed	Kept isolated
A lineworker	Can be killed	Protected
Exposed prongs	Live and deadly	None
Your wiring	No overload safety	Breaker-protected
The law	Illegal	To code

A real hookup isolates the generator; a backfeed leaves it deadly.

The 3 Legal Ways to Connect

Two of the three need a pro

	Method	Needs a pro?
1	Cords to appliances	No
2	Interlock kit	Yes
3	Transfer switch	Yes

The two panel hookups are a licensed electrician's job, usually with a permit.



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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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