



An Extended Guide · No. 1652

Connecting a Generator to Natural Gas or Propane

Always a licensed pro's job
— here's what's involved

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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. A cleaner-burning fuel still makes carbon monoxide when the engine runs — the outdoor placement and clearance rules never bend for fuel type.

Connecting to gas is a pro's job — here's what's involved

Hooking a generator up to natural gas or propane is one of the few jobs in this whole category where the honest answer is simple: this one is always for a licensed professional. My job here is to help you understand it, not to do it.

I'm Bill. For 30-plus years I've helped folks around Portage County with the gear in their homes, and I'll tell you plainly where my line is: I do not do gas work, and neither should you. Fuel lines are a licensed gas fitter's trade, and the wiring is a licensed electrician's trade — both with a permit and an inspection behind them.

So think of this guide as the one that helps you be a smart, confident customer. I'll walk you through natural gas versus propane, what a proper hookup actually involves, and the handful of safety rules that matter most — so when the pros come out, you understand every step and nothing feels like a mystery.

★ I coordinate the pros — that part I'm glad to do

I don't touch the gas or the panel, but I'm happy to help you choose the fuel, line up a trustworthy licensed gas fitter and electrician, and be there so it all makes sense. If that would help, call or text me at (330) 200-8042.

The 60-second version

If you read nothing else in this guide, read this page.

- ❑ Connecting a generator to a gas line is ALWAYS a licensed professional's job — a gas fitter for the fuel, an electrician for the wiring, with a permit and inspection. Never DIY.
- ❑ Natural gas is piped in from town — no refilling, but the line must be sized right and the meter has to keep up with the added demand.
- ❑ Propane comes from a tank on your property — common in the country, it stores for years, but needs the right tank size, safe placement, and room for deliveries.
- ❑ The gas line must be correctly sized and pressure-tested by the pro. An undersized line starves the engine.
- ❑ If you EVER smell gas: leave the area right away and call the gas company or 911 from somewhere safe. Do not flip any switches.
- ❑ A running engine still makes carbon monoxide, whatever the fuel — the outdoor placement and clearance rules always hold.

! This page is worth reading twice

Everything else in this guide expands on these six lines. The single most important one is the smell-gas rule — if you take only one thing from this guide, make it that.

Why this is always a licensed professional's job

I want to be clear about this up front, because it shapes everything else: a gas hookup is not a project you take on yourself, and it is not one I take on either.

A fuel line carries pressurized gas into your home. Getting it wrong doesn't give you a second chance the way a loose extension cord might — a leak can lead to a fire or an explosion, and an undersized or poorly made connection can go unnoticed until it matters most. That's why the work is licensed, permitted, and inspected by law in most places.

There are really two trades involved. A licensed plumber or gas fitter handles the fuel side — tapping into the gas, running and sizing the pipe, and pressure-testing it. A licensed electrician handles the wiring side, since a gas-fueled unit is almost always a permanently installed standby that ties into your panel. Our standby pad-and-placement guide walks through that side in more depth.

! This is not a weekend project

There is no safe shortcut here, no matter how handy you are or how many videos you've watched. If someone offers to 'save you money' by doing gas work without a license and a permit, that's exactly the offer to turn down.

Natural gas or propane: the big picture

Most standby generators run on one of two fuels, and which one makes sense usually comes down to where you live and what's already available at your home.

Natural gas is piped to your house from the utility, the same line that may already feed your furnace or water heater. Its great advantage is that it never runs out and never needs refilling — as long as the gas keeps flowing, so does your generator.

Propane is stored in a tank on your own property and delivered by a supplier. It's common out in the country where there's no gas line at the road. It stores for years without going bad, which makes it a dependable choice — as long as you keep enough in the tank.

Neither one is simply better. They just fit different homes. The comparison diagram in this guide lays the two side by side so you can see at a glance which suits your situation.

✓ Start with what you already have

If a natural gas line already serves your home, that's often the simplest path. If you're rural with no gas at the road, propane is usually the natural fit. Your gas pro can confirm what your home can actually support.

Natural gas, in a little more depth

Piped natural gas is a wonderful convenience for a standby generator — but there are two things the pro has to confirm before it will work well.

First, the line feeding the generator has to be the right size. A generator can call for a good deal of gas when it's running under load, and if the pipe is too small or too long, it can't deliver enough — which starves the engine. Sizing that line correctly is part of what you're paying the licensed gas fitter to get right.

Second, your gas meter has to be able to supply that added demand on top of everything else in the house. Sometimes the existing meter handles it easily; sometimes the utility needs to upgrade it. Your gas pro will check this, and coordinate with the utility if a bigger meter is needed.

- No tank on your property and nothing to refill — one less thing to manage.
- The line must be sized for the generator's demand, not just tapped into the nearest pipe.
- The meter has to keep up with the added load; the utility may need to upgrade it.
- If the gas utility itself goes down in a disaster, the supply can be interrupted — rare, but worth knowing.

Propane, in a little more depth

Propane gives you a fuel supply you own and control, which is a real comfort during a long outage — as long as a few things are set up right.

It starts with the tank. It has to be the correct size for your generator and how long you want to run, and it has to be placed safely — there are required setbacks, meaning a minimum distance from the house, property lines, and ignition sources. Your propane supplier and gas pro handle the tank sizing and placement together.

You also need room for the delivery truck to reach the tank, and a habit of keeping enough propane on hand. A tank that runs dry in the middle of a storm helps no one, so folks who rely on propane usually keep it well topped up going into storm season.

- The tank must be the right size and placed with the required setbacks — the pro handles both.
- It stores for years without going stale, which makes it dependable for emergencies.
- Keep enough in the tank for a long outage, and keep the delivery route clear.
- In bitter cold, propane may not vaporize well, which can reduce how much the generator can draw — your supplier can advise on this.

✓ Cold weather deserves a mention

In deep cold, liquid propane turns to usable vapor more slowly, so a tank that's fine in mild weather may struggle on the coldest nights. The right tank size and setup accounts for this — another reason to let the pro size it, not a rule of thumb.

Why the line gets sized and pressure-tested

Two words come up again and again with a proper gas hookup: sizing and pressure-testing. Both are the pro's job, and both are there to protect you.

Sizing means matching the pipe to the job. The gas fitter looks at how much fuel the generator needs, how far the pipe has to run, and what else is drawing gas in the house, then chooses a pipe that can deliver enough. Too small a line, and the engine gets starved — it may run rough, struggle under load, or not carry the appliances you were counting on.

Pressure-testing means the pro seals the new line and confirms it holds pressure with no leaks before any gas flows through it for real. It's the step that proves the connection is sound. You can't eyeball this or trust that it 'seems fine' — it gets tested, properly, with the right equipment.

! An undersized line is more than an inconvenience

A line that can't keep up doesn't just annoy you — it can leave you without the power you were relying on in an emergency. Correct sizing is not an upsell; it's the difference between a generator that works when you need it and one that lets you down.

Know where your shutoff valve is

Here's one simple, practical thing you can and should know about your own system: where the gas shutoff valve is, and how it turns off.

A proper installation includes a manual shutoff valve for the generator's fuel supply. It lets the gas be turned off at the unit, which matters for service and in an emergency. When the pro finishes the install, ask them to show you exactly where it is and which way it turns.

For propane, there's also a main shutoff at the tank itself. For natural gas, there's a main shutoff at the meter. Knowing where these are — and keeping the path to them clear — is worth a few minutes of your time. You don't have to be a technician to know how to shut the gas off if you're ever told to.

✓ Ask for the two-minute tour

When the install is done, ask the pro to walk you to each shutoff and show you how it works. Write it down or take a photo on your phone. It's the kind of thing you'll be glad to already know if you ever need it.

If you ever smell gas

This is the single most important safety rule in this guide, so it gets its own page. Please read it, and make sure everyone in your household knows it too.

Natural gas and propane are given a strong, unpleasant smell on purpose — often described as rotten eggs — so a leak is easy to notice. If you ever smell that, treat it as real. Don't wait to be sure, and don't try to find the source yourself.

- ❑ Leave the area immediately — get everyone and any pets outside and away from the building.
- ❑ Do NOT flip any switches, turn lights on or off, unplug anything, or use a phone while still inside — a small spark can ignite gas.
- ❑ Do not start a car in an attached garage, and don't light a match or a flame.
- ❑ From somewhere safe and well away, call the gas company's emergency line or 911.
- ❑ Don't go back inside until the gas company or emergency responders tell you it's safe.

! When in doubt, get out and call from outside

You will never regret leaving over a smell that turned out to be nothing. You may deeply regret staying to investigate. Fresh air first, then call from a safe distance — every single time.

Fuel choice, placement, and carbon monoxide

It's easy to assume that a cleaner fuel or a permanently installed unit changes the carbon monoxide rules. It doesn't, and that matters.

No matter what it burns, a running engine produces carbon monoxide — the invisible, odorless gas covered in depth in our 20-foot-rule guide. Propane makes less of it than gasoline, and natural gas is cleaner still, but 'less' has never meant 'none.' The exhaust is still dangerous, and it still has to go somewhere safe.

That's why a standby generator is installed at manufacturer- and code-required clearances from windows, doors, and vents, with its exhaust directed away from the house. The fuel changes how the generator is supplied; it does not change where the exhaust can safely go. The distance-and-direction thinking from the 20-foot-rule guide still applies.

! 'Cleaner' is not a placement rule

Don't let a cleaner fuel talk anyone into relaxing the clearances or pointing exhaust toward the house 'since it's not as bad.' The outdoor and clearance rules hold for every fuel, every time.

Dual-fuel and tri-fuel portables

You may have heard of portable generators that can run on more than one fuel. They're worth understanding, because they blur the line between a simple portable and a piped-in setup.

A dual-fuel portable can typically run on gasoline or on propane from a portable tank, and a tri-fuel unit adds natural gas as a third option. Used with a portable propane bottle you connect and disconnect yourself, that's still portable-generator territory — no permanent gas line involved.

But the moment you want any generator hard-piped into your home's natural gas or a permanent propane tank, you are back to a licensed job. That permanent connection — the pipe, the sizing, the pressure-test — is a gas pro's work whether the generator is a big standby or a capable portable. The fuel flexibility is a nice feature; it does not turn a piped connection into a DIY project.

✓ Flexible fuel, same safety line

A multi-fuel portable gives you options during an outage, which is genuinely handy. Just remember the rule doesn't change: a bottle you hook up by hand is one thing; a permanent line into the house is always the pro's job.

Two kinds of homes, two sets of needs

The fuel that fits your home usually depends on where you live — but the pro-only rule and the safety rules never change with it.

If you live in town or the suburbs

In town, natural gas is often already at the house, which makes it the common choice — no tank to place, no deliveries to schedule, and nothing to refill.

- If a gas line already feeds your furnace, tapping in for a generator is often the simplest path — but the line still needs proper sizing.
- Ask the pro whether your meter can supply the added demand, or whether the utility needs to upgrade it.
- On a smaller lot, the unit's clearances from your windows, doors, and vents — and the neighbor's — take careful thought.
- No tank means no setbacks to worry about, but the same permit and inspection still apply.

If you are out in the country on a well

Out in the country, there's often no gas line at the road, so propane is the usual choice — and long rural outages make a dependable, well-stocked tank especially valuable.

- A propane tank needs the right size, safe placement with proper setbacks, and clear access for the delivery truck.
- Keep the tank well topped up going into storm season — a tank that runs dry mid-outage helps no one.
- In bitter cold, propane vaporizes more slowly, so the tank size and setup have to account for your coldest nights.
- Farther from help means the safety habits — knowing your shutoffs, the smell-gas rule — matter more, not less.

★ Not sure which fuel fits your home?

Whether you're on a city gas line or out on a well with room for a tank, I'm glad to talk it through and line up the right licensed pros to look at it properly. Call (330) 200-8042.

The permit and the inspection

A proper gas hookup isn't finished when the pipe is connected. It's finished when it's been permitted and inspected — and that's a good thing for you.

In most places, gas work and the electrical tie-in both require a permit, and a local inspector checks the finished work. The licensed pros usually pull the permits as part of the job, so this isn't paperwork you have to chase down yourself.

That inspection is protection you're paying for. It confirms the work meets code, it matters for your homeowner's insurance, and it keeps things clean if you ever sell the house. Our permits-and-inspection guide goes deeper on how all that works, so I'll keep it short here and just say: don't skip it, and be glad it exists.

! No permit is a red flag

If anyone suggests doing the gas or panel work without a permit to save time or money, treat that as a warning sign. The permit and inspection are exactly what tell you the work was done right.

What I do — and what I leave to the licensed pros

I like to be plain about where my help ends and a licensed professional's begins, so there are no surprises.

I do not do gas work, and I do not do the licensed electrical work at your panel. Those are trades with licenses, permits, and inspections behind them, and that's exactly as it should be. Pretending otherwise would do you no favors.

What I do is help you be a confident, well-informed customer. I'll help you weigh natural gas against propane, understand what the pros are quoting and why, line up trustworthy licensed people, and be there during the work so it all makes sense to you. I sell no generators and earn no commission — it's just honest advice.

★ A friendly go-between, at your pace

Think of me as the patient person who sits at your kitchen table, explains what's happening, and makes sure your questions get answered. A first visit is a flat \$99. Call or text me at (330) 200-8042.

Getting ready for the pro's visit

A little preparation makes the whole process smoother and helps you get straight, useful answers when the pros come out.

- ❑ Know what fuel your home already has — a natural gas line, an existing propane tank, or neither.
- ❑ Have a rough idea of what you want to keep running in an outage, so the pro can size things sensibly.
- ❑ Ask whether your gas meter can supply the added demand, or whether the tank is the right size.
- ❑ Ask to be shown the shutoff valves and how they work once the job is done.
- ❑ Confirm the pros will pull the permit and that the work will be inspected.

✓ Write your questions down beforehand

It's easy to forget a question in the moment. Jot them on a notepad before the visit, and don't be shy about asking every one — a good pro expects it and won't rush you.

Fuel and cold weather

A generator earns its keep in the worst weather, so it's worth understanding how the cold affects each fuel.

Natural gas keeps flowing through the coldest nights, which is one of its quiet advantages — there's no tank to worry about and no vaporizing to slow down. As long as the utility's supply holds, so does yours.

Propane needs a little more thought in deep cold. Liquid propane has to turn to vapor to feed the engine, and in bitter temperatures that happens more slowly, especially from a smaller or low tank. This is why correct tank sizing matters and why keeping the tank well filled helps — a fuller tank vaporizes more readily than a nearly empty one.

✓ This is a sizing question, not a guessing game

If you're on propane in a cold climate, tell your supplier plainly that you want it to run a generator through the worst of winter. Let them size the tank for that — it's exactly the kind of thing the pros get right and rules of thumb get wrong.

Myths people believe — and the truth

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

Myth	Fact
'Gas is safer, so I can hook it up myself.'	No. A gas connection is always a licensed pro's job, with a permit and inspection.
'Any gas pipe I can reach will do.'	The line must be sized for the generator's demand, or the engine gets starved.
'Natural gas is so clean it makes no CO.'	Any running engine makes carbon monoxide. The outdoor and clearance rules still apply.
'If I smell gas, I should find the leak first.'	No. Leave immediately and call from somewhere safe. Don't flip switches or investigate.
'My propane tank never needs attention.'	It needs the right size, safe setbacks, delivery access, and enough fuel for a long outage.

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

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

Questions worth asking your gas pro

A few plain questions that clear up most of the confusion I hear about fuel hookups.

Q: Is my meter or tank big enough for a generator?

That's exactly what the pro checks. For natural gas, they confirm the meter can supply the added demand; for propane, they size the tank for how long you want to run, even in cold weather.

Q: How do you make sure the line is safe?

The gas fitter sizes the pipe for the generator's demand and pressure-tests it before any gas flows — confirming it holds with no leaks. Then it's permitted and inspected.

Q: Do I need both a gas pro and an electrician?

Usually yes for a standby unit. The gas fitter handles the fuel line; the electrician handles the tie-in to your panel. Each works in their own licensed lane.

Q: Can I convert my portable to run on my house gas myself?

Any permanent, hard-piped connection is a licensed job, portable or not. A portable propane bottle you hook up by hand is different — but a line into the house is always the pro's work.

★ There's no silly question here

This is a topic where I'd much rather you ask than guess. Reach me at (330) 200-8042 any time you want to talk through your fuel and hookup.

Common Questions

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

Q: Which is better, natural gas or propane?

Neither — they fit different homes. Natural gas is common in town and never needs refilling; propane suits rural homes and stores for years. Your gas pro can confirm what your home supports.

Q: Does a gas generator still make carbon monoxide?

Yes. Any running engine does, whatever the fuel. Natural gas and propane burn cleaner than gasoline, but the outdoor placement and clearance rules from the 20-foot-rule guide still apply.

Q: What's the very first thing to do if I smell gas?

Leave the area right away, without flipping any switches or using a phone inside. Once you're safely away, call the gas company's emergency line or 911, and don't go back in until you're told it's safe.

Q: Why can't I just skip the permit to save money?

The permit and inspection confirm the work is safe and up to code, and they matter for insurance and resale. Skipping them isn't a saving — it's a risk. Our permits-and-inspection guide explains why.

! Read it again if it's been a while

This guide is worth revisiting any time you're changing fuels, adding a generator, or moving to a new home with a different setup.

Bringing it all together

The heart of this guide is short: a gas hookup is always a licensed pro's job, the fuel choice follows your home, and the safety rules never bend.

How the standby unit itself sits on its pad, at its required clearances, is covered in our standby pad-and-placement guide, and the permit-and-inspection side has its own guide too. This guide's job is the fuel: what natural gas and propane each involve, and why the connection belongs to the pros.

And underneath all of it is the rule that never changes — a running engine makes carbon monoxide whatever it burns, so the outdoor placement and clearances from our 20-foot-rule guide always hold. The fuel supply changes; the exhaust safety does not.

★ Let's line up the right people together

On a visit I'll help you weigh natural gas against propane, understand the quotes, and line up trustworthy licensed pros to do it right. Call or text me at (330) 200-8042.

If you remember only one thing

Out of everything in this guide, two short rules matter more than all the rest.

First: connecting a generator to gas is always a licensed pro's job — never yours, and never mine. Second: if you ever smell gas, leave right away and call the gas company or 911 from somewhere safe, without flipping a single switch. Everything else here supports those two.

! Say it back to yourself

Gas work is the pro's job — always. And if I smell gas, I leave first and call from outside. Hold onto those two, and you've got the heart of this whole guide.

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 natural gas or propane 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

Natural Gas vs. Propane

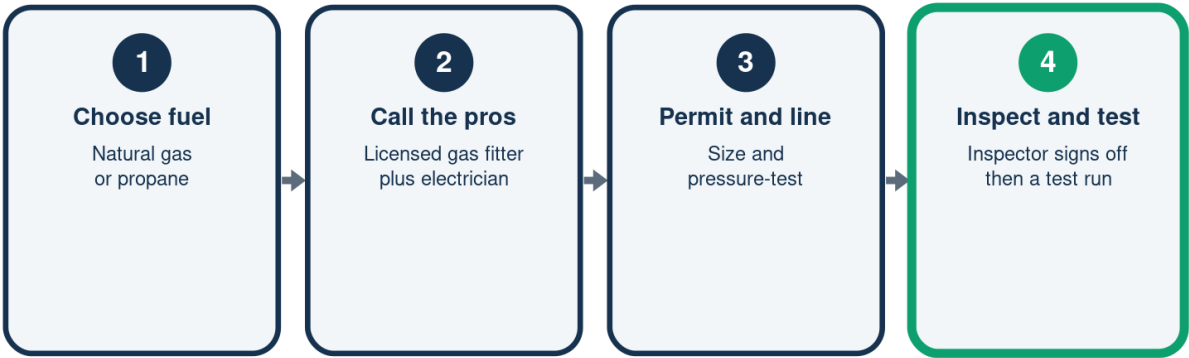
Two good fuels for two kinds of homes

	Natural gas	Propane
Where	Piped from town	Tank on site
Refuel	Never runs out	Refill the tank
Cold snaps	Steady supply	May not vaporize
Storage	No tank needed	Stores for years
Setup	Meter must keep up	Size and setbacks

Both are a licensed pro's job to connect -- with a permit and an inspection.

The Safe Way to Add a Gas Hookup

Every step is a licensed professional's work



Never a DIY project – the permit and inspection protect you.

Gas Safety Do's and Don'ts

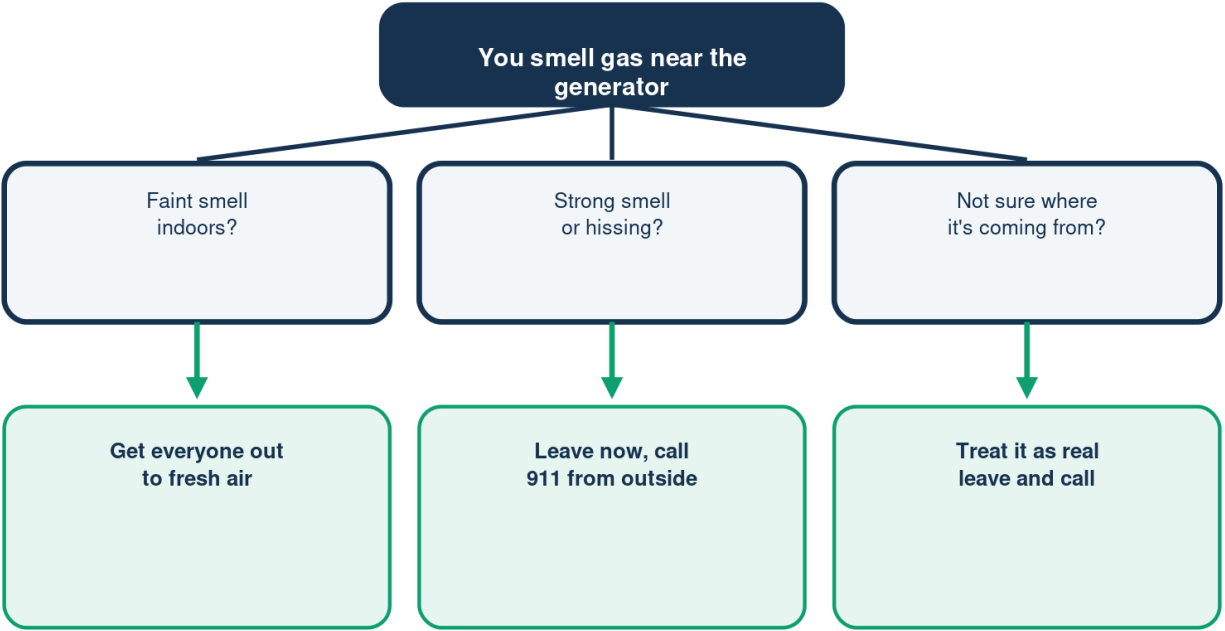
The habits that keep a gas setup safe

	Do	Don't
Smell gas	Leave, then call	Flip a switch
The hookup	Hire a gas pro	Do it yourself
Line sizing	Pro sizes it	Guess and hope
Permit	Get it inspected	Skip inspection

When in doubt about gas, choose the cautious side every time.

Smell Gas? What to Do

When in doubt, leave and call from safety



Never flip switches or light a flame -- call the gas company or 911 from a safe spot away from the home.

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



Need a Real Person?

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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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