



An Extended Guide · No. 1278

Running Your Generator on Gasoline: Getting It Right

Fresh fuel, stabilizer,
and no no-starts

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! Before you begin — a quick safety note.

This guide covers work involving gasoline and engine exhaust, which can cause serious injury, fire, or property damage if something goes wrong. It's here for general information only, not professional advice. If you're not completely comfortable — or if your local codes require a licensed pro — please stop and hire a qualified generator installer. Turn off the power at the breaker before any electrical step. Never work on gas lines yourself; if you smell gas, leave right away and call your gas company or 911. There's no shame in calling a pro — that's often the smart, safe choice. You follow this guide at your own risk. — Bill

A Note From Bill

Gasoline is the fuel most of us grew up with, and it's still the one that makes the most power. This guide is about getting the most out of it safely, and dodging the one mistake behind most of my “it won't start” calls.

If you're deciding between fuels, there's a different guide for that. This one assumes gasoline is in the tank, or about to be, and walks through doing it right.

What you'll get out of this guide

- The habits that keep gasoline from going bad on you
- What ethanol actually means for a generator
- The classic no-start story, and how to dodge it
- How to refuel safely, every time
- Town and country notes, and the CO rule that never changes

★ The most common call I get

A generator that won't start after sitting all year — almost always old gas. This whole guide is really aimed at making sure that's never you.

Running on Gasoline, in One Page

Everything below is detail. If you only remember five things, remember these.

- ❑ Buy fresh gasoline and use it within a few months — sooner if it's an ethanol blend.
- ❑ Add fuel stabilizer if it'll sit more than a month or so; it's cheap insurance.
- ❑ Keep ethanol at 10% or less (E10 is fine) — never use E85 in a generator.
- ❑ Only refuel a stopped, cooled engine. Never pour gasoline near one that's hot or running.
- ❑ Run it outdoors only, 20+ feet from the house — CO is invisible and deadly.

✓ One habit that prevents most no-starts

Stabilizer in every can, every time. It's a small step that saves a frustrating morning.

Why Gasoline Is Still Worth Knowing

Even with propane and natural gas as options, gasoline earns its place on a dual- or tri-fuel generator.

- **It makes the most power.** The wattage number on the box is almost always the gasoline rating.
- **It's everywhere.** Any working gas station has it, day to day.
- **It's simple.** Pour it in — no fittings or valves to fuss with.

The trade-off is that gasoline is the fussiest fuel to keep fresh, and the only one that can strand you if the pumps themselves lose power in a wide outage. Knowing that up front is most of the battle.

★ My honest take

I like gasoline for quick jobs and as a backup to a backup — propane or natural gas as the main plan, with a little fresh gasoline in reserve for the days you need every watt.

The Golden Rule: Keep It Fresh

If there's one thing to take from this whole guide, it's this.

Gasoline doesn't last forever. Left untreated, regular gasoline is usually good for about **three to six months**, and ethanol blends can start to turn sooner — in as little as one to three months. Old gasoline gums up carburetors and fuel lines, and that gumming is behind most of the “it won't start” calls I get.

- Buy only what you'll use in a reasonable time.
- Treat anything that might sit a while with stabilizer.
- Rotate your supply — use the old can before the new one.

! Old gas is the #1 cause of a no-start

If your generator has sat untouched since last season with gas still in it, that's the first thing to suspect if it won't fire up.

Ethanol, in Plain English

Most pump gasoline today has some ethanol in it. Here's what that means for your generator.

- **E10** (up to 10% ethanol) is the standard blend at most stations, and it's fine to use.
- **E85** (up to 85% ethanol) is a completely different fuel meant for specially built “flex-fuel” vehicles — **never** put it in a generator.
- Ethanol blends tend to go stale a little faster than ethanol-free gasoline, and can attract moisture over time.
- If **ethanol-free gasoline** is available nearby, it stores noticeably longer — worth it for fuel you plan to keep a while.

The short version: keep it at 10% ethanol or less, and treat gasoline as a fuel with a shelf life, not a pantry staple.

! Never E85

It looks like gasoline at the pump, but E85 can damage a generator's engine, which isn't built for that much ethanol. Always check the label at the pump.

Fuel Stabilizer: Cheap Insurance

This one small bottle solves most of gasoline's aging problem.

Fuel stabilizer is an additive that slows down the breakdown of gasoline, stretching its useful shelf life from a matter of weeks or months to something more like a year or two. It's inexpensive, easy to use, and one of the best small investments you can make in a generator that starts when you need it.

- Add it to fresh gasoline as soon as you buy it, following the bottle's ratio.
- Give the can or tank a shake or swirl to mix it in.
- It won't rescue gasoline that's already gone bad — it only protects fresh fuel going forward.

✓ Stabilize every can, not just some

It's tempting to skip it on a can you'll "use soon." Life gets busy — treat every can the moment you fill it, and you'll never have to remember later.

The Classic Stale-Gas No-Start

Here's the scenario that plays out at more homes than any other, and how to make sure it isn't yours.

A generator sits all year with gasoline left in the tank from the last time it ran. The gasoline slowly breaks down, leaving a sticky varnish behind as it evaporates. Then a storm hits, the power goes out, and the generator won't start — or starts rough and dies. The carburetor's tiny passages are gummed up with what used to be fuel.

- The fix is prevention, not a cure: fresh fuel, stabilizer, and not letting it sit untouched for a year at a time.
- If it's already happened, that's usually a job for a small-engine repair shop or a visit from me — it's cleanable, just not a quick fix.

The good news: this is completely avoidable with a couple of easy habits, covered over the next few pages.

★ The good news

This is the single most preventable generator problem there is. A little stabilizer and a once-a-season run is genuinely all it takes.

Refueling Safely: Cool Engine Only

Gasoline is the one fuel here you pour by hand, so refueling habits matter.

- **Always stop the engine and let it cool** before refueling. Never pour gasoline near one that's hot or running — the vapors can ignite.
- Refuel **outdoors**, away from any flame, spark, or lit cigarette.
- Wipe up any spills before restarting, and give fumes time to clear.
- Use a proper gas can with a working spout to avoid splashing.

None of this is complicated, but it's the step where rushing causes real accidents. Give it the extra minute.

! This is the rule that matters most for gasoline

A hot generator plus spilled gasoline is a fire risk. Stop, let it cool, then refuel — every single time, no exceptions.

Starting Up on Gasoline

A cold gasoline start has one extra step that propane and natural gas usually skip: the choke.

- Set up in your safe outdoor spot, exhaust pointed away from the house.
- Confirm the selector is set to gasoline before starting.
- Use the **choke** for a cold engine, then ease it off as the engine warms and smooths out.
- Let it settle a minute before plugging anything in.

Every model is a little different, so your manual is the final word — but that basic rhythm holds across most portable generators.

✓ Find your model's manual

Look for the brand and model on the generator, then search that plus the word “manual” online, or ask me. Ten minutes with it once saves a lot of guessing later.

What to Expect for Power on Gasoline

This is the one fuel where there's no bad news on the power side.

The wattage number printed on most generators **is** the gasoline rating — the biggest number on the box. Running on gasoline gives you the full rated output, running and starting watts both, with no derate to plan around.

- If you need every watt the generator has — a big well pump, several appliances at once — gasoline is where you'll find it.
- That's exactly why many folks keep a little fresh gasoline on hand even if propane or natural gas is their everyday plan.

✓ The trade for that power

Full power comes with the fussiest fuel to store. Keep only what you'll rotate through in a reasonable time, and lean on stabilizer for the rest.

Running on Gasoline in Town or the Suburbs

In town, gasoline's biggest advantage is convenience — until the outage is the kind that closes the gas station too.

What usually matters most here

- **Easy top-offs, most of the time.** A station is usually close by, which makes gasoline a fine choice for short, routine outages.
- **But pumps need power too.** In a wide outage, the station down the road may be dark right when you need it most — worth keeping a little extra on hand.
- **Storage space is tight.** Keep only a can or two, stored properly outdoors or in a detached, ventilated space — never inside living areas.
- **The sump pump and fridge** are usually the priority loads, and gasoline handles that easily.

A common town approach is a couple of stabilized cans rotated every few months, with propane or natural gas as the steadier main plan.

✓ Small space, small stash

You don't need a garage full of cans. A couple of approved containers, properly stored and rotated, covers most town households just fine.

Running on Gasoline in the Country

Out in the country, a trip to the station can mean real miles — and in a wide outage, real uncertainty.

What usually matters most here

- **Distance matters.** If the nearest open station is a drive away, gasoline becomes less reliable exactly when you need it most.
- **Full power for the well pump.** Gasoline's advantage is no power derate — helpful for that big 240-volt starting surge a well pump demands.
- **Storage needs more thought.** Keep gasoline in approved cans, outdoors or in a detached, ventilated structure, away from the house and any ignition source — never in a basement or attached garage.
- **Rotate more deliberately.** With fewer quick trips to town, a habit of buying, using, and refreshing your supply on a schedule matters even more.

Many rural households treat gasoline as their “full power” reserve — kept fresh and stabilized for the day a well pump or a big load needs everything the generator has — while leaning on propane for the everyday and the longer stretches.

★ Well-pump backup is worth doing right

If gasoline is carrying your well pump's starting surge, let's make sure the generator's sized correctly and the fuel on hand is actually fresh. Water is the thing you miss first.

The Rule That Matters No Matter the Fuel

Gasoline generators are the ones most associated with carbon monoxide tragedies, simply because they're the most common. The rule is the same for every fuel.

CO is **invisible** and has **no smell**. Breathing enough of it can make you pass out — or worse — before you realize anything's wrong. It takes roughly a hundred lives a year, almost always in situations that were preventable.

- Run the generator **outdoors only**, at least **20 feet** from the house.
- Point the exhaust **away** from doors, windows, and vents.
- **Never** run it in a garage, basement, shed, or carport — even with the door open.
- Put **battery-backup CO alarms** on every level of the house and near bedrooms, and test them.
- If an alarm sounds, or anyone feels dizzy or sick, get outside into fresh air and call 911.

! Don't bring it in from the rain

It's tempting to run a gasoline generator just inside a garage door during a storm. Please don't — a cracked door is not enough. Outdoors, 20+ feet away, every time.

A Few Habits That Keep Gasoline Trouble-Free

Gasoline asks a little more of you than propane or natural gas, but the habits are simple.

Do	Don't
Store in approved, labeled gas cans	Store gasoline in random containers or glass jars
Keep cans cool, ventilated, away from living space	Store gasoline in the house or an attached living area
Keep it away from any flame, spark, or pilot light	Store or pour it near a water heater or furnace
Let a hot engine cool before refueling	Refuel a hot or running generator — ever

None of this is complicated — it's just worth doing the same careful way every time.

! If you ever smell strong fumes indoors

Move any stored gasoline outdoors immediately and air out the space. Gasoline vapors are heavier than air and can pool in low spots.

Running It Smoothly Once It's Started

Once a gasoline generator is warmed up, it settles into the same good habits as any fuel.

- Add your loads a **few at a time**, biggest motor first, rather than everything at once.
- Keep an eye on the fuel gauge — a gasoline tank can run dry with less warning than a propane gauge gives you.
- Give it room to breathe, away from walls, fences, or anything that blocks airflow.

Gasoline engines can be a bit more sensitive to load swings than propane or natural gas, so easing loads on gradually is worth the extra few seconds.

✓ Keep a spare can ready

A single stabilized, fresh can waiting in reserve means a mid-outage refuel doesn't turn into a trip anywhere.

Shutting Down and Storing Between Uses

How you put a gasoline generator away matters almost as much as how you run it.

- Unplug or switch off loads first, then let the engine run unloaded a minute before stopping it.
- For fuel you'll use again soon, make sure it's stabilized and the cap is sealed well.
- For longer storage, some owners prefer to run the tank down low or empty it rather than let fuel sit for many months — your manual will have a recommendation.

This is really a shelf-life question, and there's a whole guide in this series dedicated to storing fuel safely and rotating your supply — worth a look if gasoline sits in your garage for months at a time.

✓ Write the date on the can

A grease pencil and the fill date on each can takes ten seconds and makes rotating your supply almost automatic.

Keeping Gasoline Fresh Between Outages

A few ongoing habits keep your supply ready without much thought.

- **Rotate it.** Use the oldest can for the lawn mower or car, and replace it with a fresh, stabilized one.
- **Run the generator monthly** for a little while — it cycles fuel through the engine and keeps things limber.
- **Buy in amounts you'll actually use** within a few months, rather than stockpiling more than you'll rotate through.

There's a dedicated guide in this series on fuel storage and shelf life if you want the deeper dive — this page is the everyday version.

★ A simple system beats a big stockpile

I'd rather see two fresh, stabilized cans than five old ones. Smaller and fresher wins every time.

If Something's Not Quite Right

A gasoline generator that won't cooperate almost always points back to the fuel. Here's the short list to check first.

What's happening	Check this first
Won't start after sitting	Old fuel is the top suspect — may need fresh gas and a carburetor cleaning
Starts, then dies	Choke technique; make sure fuel is fresh, not stale
Runs rough	Old or contaminated fuel; check the air filter per your manual
Strong gasoline smell near the unit	Check for a spill or loose fuel cap before restarting

If the basics check out and it's still not cooperating, that's a reasonable point to call in some help rather than keep guessing.

★ **When you'd rather just call**

A stale-gas cleanup or a stubborn no-start is a quick fix for me and a frustrating afternoon on your own. (330) 200-8042.

A Simple Gasoline Routine Worth Building

A few small habits, done consistently, are what actually keep gasoline trouble-free.

- ❑ Add stabilizer to every can the day you fill it.
- ❑ Use gasoline within a few months rather than letting it sit indefinitely.
- ❑ Run the generator monthly, even off-season, to cycle fuel through the engine.
- ❑ Store cans properly — cool, ventilated, away from living space and ignition.
- ❑ Write the fill date on each can so you know what's oldest.

✓ Little habits, big payoff

None of this takes more than a few minutes, and it's the difference between a generator that starts on the first pull and one that doesn't.

When to Give Me a Call

Gasoline is meant to be simple, and most of it is. But a few moments are better handed off.

- A stale-gas no-start you can't clear on your own.
- Setting up a simple fuel rotation system that actually fits your household.
- Deciding how much gasoline makes sense to keep versus leaning on propane or natural gas.
- A carburetor cleaning or other small-engine repair.
- A yearly check-up so it starts the moment you need it.

I come to you, here in Portage County and nearby, and I explain everything in plain language at whatever pace suits you.

★ Bill's Home Tech

Call or text (330) 200-8042. Tech Made Simple, Service Made Personal. Every visit is \$99 flat and 30-day come-back-free.

Everyday Cheat Sheet

Dog-ear this page. It's the fast answer to what comes up most about running on gasoline.

I want to...	Remember this
Keep fuel fresh	Buy what you'll use in a few months; add stabilizer every time
Pick the right blend	E10 or less is fine; never E85
Refuel safely	Engine stopped and cool — never hot or running
Avoid the classic no-start	Fresh fuel + stabilizer + rotate + run it monthly
Store it safely	Approved cans, cool and ventilated, away from living space
Stay safe from CO	Outdoors only, 20+ feet from the house, alarms working inside
Get help	Call Bill: (330) 200-8042

Words People Use

A few gasoline-specific terms, in everyday language.

Q: Ethanol

An alcohol added to most pump gasoline. E10 (10% or less) is fine for generators; E85 is not.

Q: Fuel stabilizer

An additive that slows gasoline from breaking down, extending how long it stays usable.

Q: Stale fuel

Gasoline that has broken down over time, leaving gum and varnish that can clog a carburetor.

Q: Choke

A cold-start control that enriches the fuel mix to help a gasoline engine start; eased off as it warms.

Q: Fuel selector

The knob or valve on a dual- or tri-fuel generator that picks which fuel the engine burns.

Q: Derate

A generator making less power on one fuel than another. Gasoline is the baseline — the fuel with no derate.

Q: Carbon monoxide (CO)

The invisible, odorless gas in engine exhaust that can kill. The reason a generator must always run far outdoors, on any fuel.

Keeping Gasoline Trouble-Free

Four habits that prevent almost every no-start

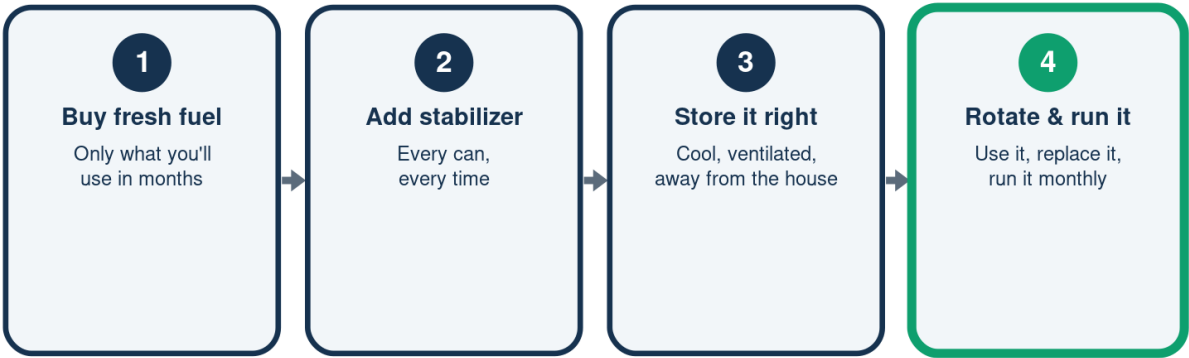


Illustration - a schematic, not to scale. Your setup may differ.

Gasoline: What Helps, What Hurts

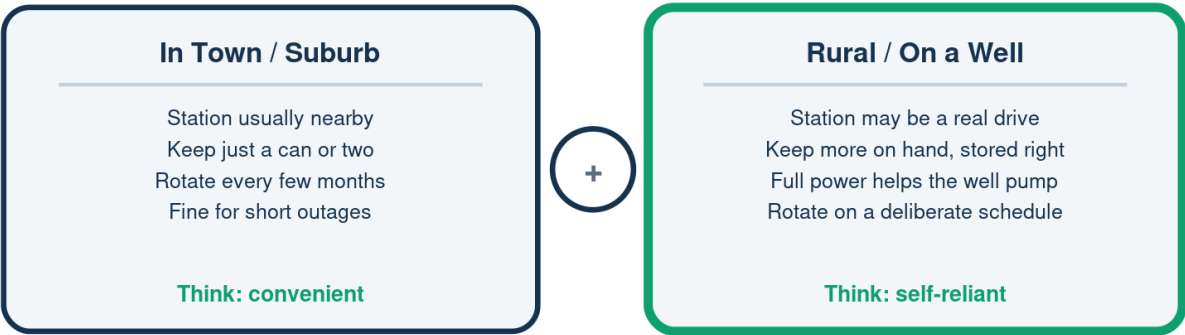
Small choices, big difference in reliability

	Helps	Hurts
Fuel age	Fresh, used within weeks	Sitting for months
Ethanol	E10 or less	E85 — never
Storage	Stabilizer added	No stabilizer
Refueling	Cool, stopped engine	Hot or running engine

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

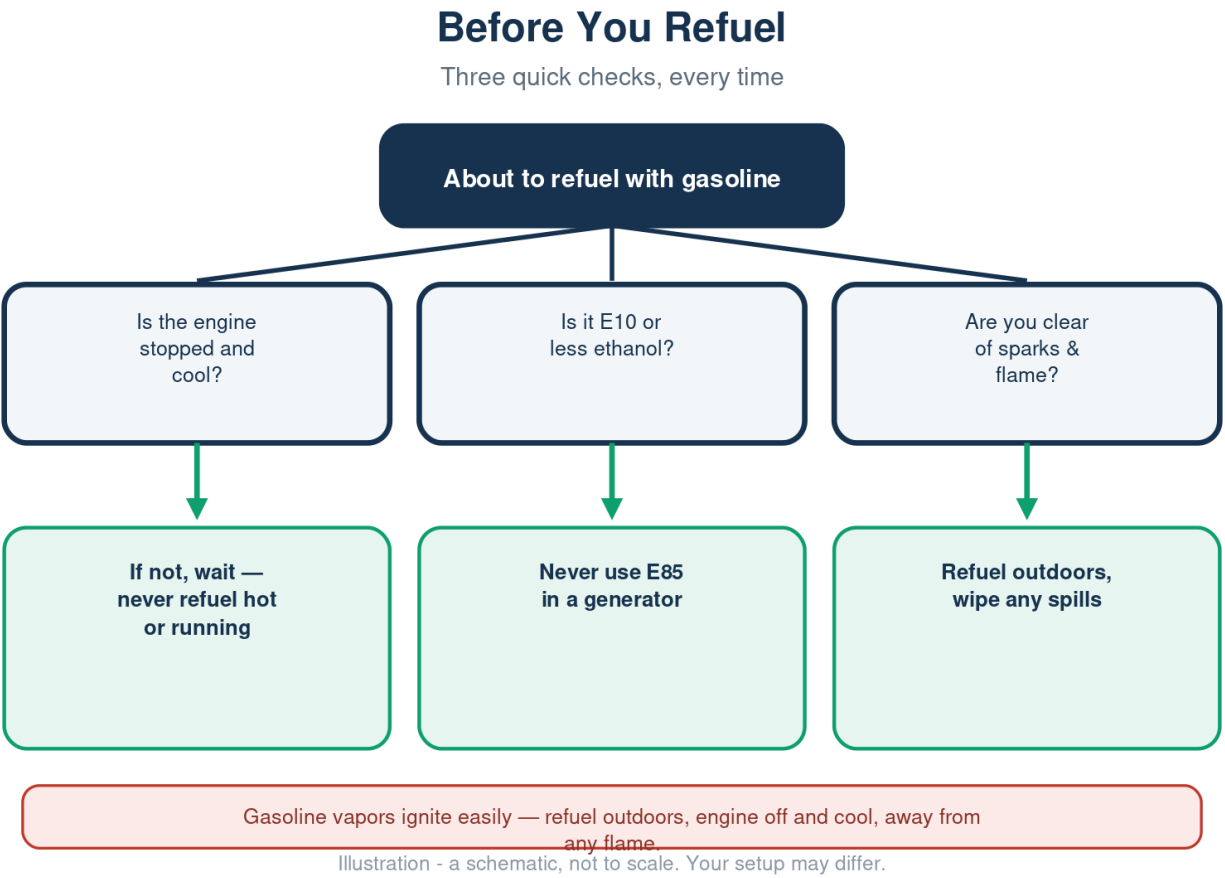
Town Gasoline vs. Country Gasoline

Same fuel, different distances



Same fuel — different margin for error

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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