



An Extended Guide · No. 1767

Food Safety in a Power Outage

The 4-hour and 48-hour
rules, made simple

Tech Made Simple — Service Made Personal

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! Read this first — when in doubt, throw it out

Here is the one rule that keeps your family safe when the power goes out: when in doubt, throw it out. Keep the refrigerator and freezer doors shut, and know the clock — a closed refrigerator keeps food safe for about 4 hours, and a full freezer holds its cold for about 48 hours (about 24 hours if it is only half full). Any perishable food — meat, poultry, fish, eggs, milk, soft cheese, cut fruit, and leftovers — that has been above 40 degrees Fahrenheit for 2 hours or more should be thrown out. Never taste food to decide whether it is safe; many of the germs that cause food poisoning leave no smell, taste, or change you can see. This whole guide is really just those few rules, explained slowly and calmly so you never have to guess in the moment.

Let's keep your food safe when the lights go out

When the power goes out, the refrigerator and freezer are usually the first worry in the house — and that worry is easy to put to rest once you know a handful of simple rules.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. A big share of the calls I get during an outage start the same way: 'Bill, is the food in my fridge still good?' There's a calm, reliable way to answer that, and this guide walks you through it.

The good news is that a fridge and freezer hold their cold far longer than most people expect. If you keep the doors closed and know the clock, most of your food will come through a typical outage just fine.

★ Worried right now, mid-outage?

If the power is already out and you're staring at the fridge wondering what to do, call or text me at (330) 200-8042. I can talk you through it in a few minutes, no charge and no judgment.

The whole guide, on one page

If you remember only these things, you already know most of what matters.

- ❑ Keep the doors closed. Every peek lets cold out and warm air in.
- ❑ A closed refrigerator keeps food safe for about 4 hours.
- ❑ A full freezer holds safe temperatures for about 48 hours closed; a half-full one, about 24.
- ❑ Keep the fridge at 40 degrees or below and the freezer at 0 degrees or below — and keep a thermometer in each.
- ❑ Throw out any perishable food that's been above 40 degrees for 2 hours or more.
- ❑ Never taste food to decide if it's safe. You can't taste-test your way out of food poisoning.
- ❑ When in doubt, throw it out.

✓ Freeze a few water jugs ahead of time

If weather is coming, fill some clean jugs with water and freeze them now, leaving room at the top for the ice to expand. Tucked into empty space, they add hours of cold if the power does go out.

The clock most people don't know is running

The moment the power quits, an invisible clock starts on everything in your fridge and freezer. Knowing the rough times takes the guesswork out of an already stressful day.

Every one of these times assumes the doors stay closed. Each time you open one to look, you let warm air in and shorten the clock — so peek fast and decide quickly, or better yet, don't peek at all.

Appliance (Doors Closed)	Stays Safe For About
Refrigerator	4 hours
Full freezer	48 hours
Half-full freezer	24 hours

✓ **Write down the moment the power went out**

A sticky note on the fridge with the exact time the power quit is worth more than you'd think. It turns a guess into a fact when you're later deciding what to keep and what to toss.

Rule one: keep the doors closed

It sounds too simple to be real advice, but it's the single best thing you can do, and it costs nothing at all.

Every time a door opens, the cold air that took hours to build spills out and warm air rushes in. Multiply that by a curious family checking 'just to see' every hour, and a fridge that should have lasted most of a day is in trouble by lunchtime.

Agree as a household ahead of time: open a door only when you truly need something, know what you want before you open it, and grab it fast. A note taped to the door is an easy reminder in the moment.

- Decide what you need before you open the door, not while standing in front of it.
- Keep a small cooler with ice nearby for drinks and snacks you'll reach for often, so the fridge stays shut.
- If you have young grandkids or houseguests, a reminder note on the door helps everyone remember.
- Group items you'll want together on one shelf so a single quick open covers more ground.

✓ A full fridge holds cold better than an empty one

If yours is looking bare, fill the empty space with jugs of water. It gives the fridge more cold mass to hold onto — the same idea that makes a full freezer outlast a half-empty one.

Why 40 degrees is the line that matters

Food-safety experts talk about a 'danger zone,' and it's worth understanding, because it explains every other rule in this guide.

Between about 40 and 140 degrees Fahrenheit, the bacteria that cause food poisoning grow quickly. That's why your refrigerator is set to keep food below 40 degrees: it slows those bacteria to a crawl. Once food climbs above 40 degrees, that protection is gone and the clock starts ticking.

This is the reason a thermometer beats a guess. Food can feel cool to the touch and still be above 40 degrees. The number is what keeps you safe, not how it feels in your hand.

! Keep the fridge at 40 or below, the freezer at 0

These two numbers — 40 degrees for the fridge, 0 degrees for the freezer — are the targets set by food-safety agencies. A cheap appliance thermometer in each is the easiest way to know you're actually hitting them, outage or not.

The 2-hour rule, in plain English

Here's the rule that decides what stays and what goes, and it's simpler than most people fear.

Any perishable food — meat, poultry, fish, eggs, milk, soft cheese, cut fruit or vegetables, cooked leftovers — that has sat above 40 degrees for 2 hours or more should be thrown out. Not tasted, not sniffed, not 'probably fine.' Thrown out.

In a closed fridge, that gives you a comfortable cushion, since a shut refrigerator holds below 40 degrees for about 4 hours. It's only once things warm past 40 that the 2-hour count begins.

- The clock is about time spent above 40 degrees, not time since the power went out.
- A closed fridge buys you roughly 4 hours before it crosses that line in the first place.
- A cooler of ice can hold food below 40 degrees far longer — move food there before the fridge warms up.
- When you truly can't tell how long something's been warm, treat it as unsafe.

★ Not sure how to time it?

If you're unsure whether your food has crossed the line, that's a fine reason to call. Tell me when the power went out and what you've got, and I'll help you sort the keepers from the tosses. (330) 200-8042.

The freezer plays by slightly different rules

Your freezer is the strong, quiet one of the pair — it holds its cold far longer, and its food is more forgiving.

A full freezer holds safe temperatures for about 48 hours with the door closed, and a half-full one for about 24. The reason a full freezer lasts longer is simple: all that frozen food acts like a big block of ice, helping everything nearby stay cold.

When the power returns, don't judge the freezer by the clock alone — look at the food. If items still have ice crystals or are at 40 degrees or below, they're safe to refreeze or cook, though the texture of some foods may change a little.

✓ Ice crystals are your green light

Visible ice crystals in a package, or a freezer thermometer reading 40 degrees or below, means that food is safe to refreeze. It's the clearest, simplest signal you have.

Let a thermometer tell the truth

Your eyes and nose are kind, but they'll lie to you about food safety. A two-dollar thermometer won't.

Keep an appliance thermometer in the fridge and a freezer thermometer in the freezer, all the time — not just during outages. Then, the moment the power comes back, you can read exactly how cold things stayed instead of guessing.

This matters most for the freezer, where you can't feel the temperature through a closed door and food can look frozen while sitting above a safe temperature. The number settles the question.

- An appliance thermometer for the fridge should read 40 degrees or below.
- A freezer thermometer should read 0 degrees or below in normal times, and 40 or below to be safe after an outage.
- Check the reading before you open the door wide, so a quick glance answers the question.
- Write the reading down when the power returns, along with the outage length, for next time.

✓ Two thermometers, always in place

The trick is to have them in there before you need them. Pop one in the fridge and one in the freezer today, and you'll never again have to guess after an outage.

Turn guesses into facts

The single most useful habit during an outage takes ten seconds: write down the time the power went out.

With that one number on a sticky note, the whole 4-hour and 2-hour math becomes easy. Without it, you're left squinting at the clock trying to remember when the lights flickered, right when you're most rattled.

If you were asleep or away when it happened, a clock that's blinking or reset can give you a rough idea of how long the power was out. So can a neighbor, or an outage alert from your utility if you've signed up for one.

✓ A frozen-water-and-coin trick

Freeze a cup of water solid, set a coin on top, and leave it in the freezer. If you come home to find the coin at the bottom of the cup, the freezer thawed and refroze while you were away — a sign the food may have gotten too warm.

Two kinds of homes, two sets of needs

How you handle an outage looks a little different depending on where you live and what you're protecting.

If you live in town or the suburbs

In town or the suburbs, outages tend to be shorter and help usually isn't far away. Your kitchen fridge and maybe one freezer are the main thing to protect, and a cooler with ice often bridges a short outage with no fuss.

- Shorter typical outages mean the 4-hour and 48-hour cushions often cover you with room to spare.
- A cooler and a bag of ice from a still-powered store nearby are an easy backup plan.
- You likely have just one fridge and maybe one freezer, which keeps the plan simple.
- If you lose power often, a small battery power station is a quiet, indoor-safe way to keep the fridge going.

If you are out in the country on a well

Out in the country, outages often run longer, and there's usually more food at stake — a big chest freezer of garden produce or meat is common, sometimes with a second fridge in the garage. If you're on a private well, remember the pump needs power too, so the fridge shares the backup plan with the water.

- More freezer capacity means more to protect, so know which units are fullest and most valuable.
- Longer outages reward a real plan: a generator or a large battery, plus coolers and ice on hand.
- If a generator also runs your well pump, the fridge is one more job it's juggling — size and schedule with that in mind.
- A backup thermometer in every unit is cheap peace of mind, especially for a freezer out in an unheated barn or garage.

★ Somewhere in between?

Plenty of homes are a mix — a kitchen fridge, a garage freezer, and an outage now and then. Tell me what you're protecting and how long your outages usually run, and I'll help you build a plan that fits. Call (330) 200-8042.

A quick look at what to toss and what to keep

Not everything in the fridge is equally fragile. Knowing the difference saves both food and worry.

The perishable foods — raw and cooked meat, poultry, seafood, milk and soft cheeses, eggs, cooked leftovers, and cut produce — are the ones the 2-hour rule is really about. If they've been above 40 degrees for 2 hours or more, let them go.

Plenty of other items are hardier. Many condiments, hard cheeses, butter, whole uncut fruits and vegetables, breads, and unopened juices tolerate a warm spell far better. I've written a whole separate guide just on the toss-or-keep question if you'd like the full list.

! When in doubt, throw it out

This is the one rule worth repeating on every page: if you're not sure how long food sat warm, or whether it's a fragile item, don't gamble. A tossed meal is a small loss; food poisoning is not.

A cooler and ice: your simplest backup

Long before you think about generators, a good cooler and some ice can carry a fridge's worth of food through most outages.

Once the power's been out a few hours, or right away if you have ice ready, move the most perishable items — meat, milk, eggs, leftovers — into a cooler packed with ice. Keeping that cooler at 40 degrees or below buys you far more time than the fridge alone.

- Slip a thermometer into the cooler too, and keep it at 40 degrees or below by adding ice as needed.
- A full cooler holds cold longer than a half-empty one, so pack it snugly and fill gaps with ice.
- Keep the cooler in the coolest, shadiest spot you have, away from sunny windows.
- Block ice lasts longer than cubes; a mix of both cools fast and stays cold.

✓ Freeze your own ice before you need it

You don't have to buy ice. Fill empty jugs, freezer bags, or clean tubs with water and freeze them ahead of a storm. Homemade block ice is cheap, and it does double duty in the freezer until you need it.

Why a full freezer is your friend

One of the most useful facts in this whole guide: a full freezer holds its cold roughly twice as long as a half-empty one.

All that frozen food works together like a giant ice block. The more of it there is, the longer everything stays frozen when the power stops. A packed freezer can hold safe temperatures for about 48 hours closed, versus about 24 for one that's half full.

So if your freezer is looking sparse, fill the empty space — jugs of water are perfect, and they freeze into free ice you can move to a cooler later. Just leave a little room at the top of each jug for the water to expand as it freezes.

✓ The water-jug trick, again

It comes up so often because it's that useful: a few frozen jugs turn a half-empty freezer into a nearly full one, stretch your cold hours, and give you ready-made ice for a cooler. Cheap, simple, and it works.

Please, never taste food to test it

Of all the rules here, this is the one I most want to save you from learning the hard way.

Many of the bacteria that cause food poisoning don't change the way food looks, smells, or tastes at all. A carton of milk or a package of chicken can be genuinely dangerous and seem completely normal. Tasting a tiny bit to 'check' can be enough to make you sick.

This is exactly why the 2-hour and 4-hour rules exist: they let you decide by the clock and the thermometer, which tell the truth, instead of by your senses, which can't. When the numbers say toss it, toss it, no matter how fine it seems.

! Your senses can't detect the danger

Spoilage bacteria might make food smell bad, but the germs that cause food poisoning often leave no trace you can sense. Don't rely on a sniff or a taste. Rely on the clock and the thermometer.

A simple game plan for outage day

Having the order of operations in your head ahead of time turns a stressful day into a manageable one.

- ❑ Write down the time the power went out.
- ❑ Keep the fridge and freezer doors closed from this point on.
- ❑ Check your appliance thermometers before opening anything wide.
- ❑ Have a cooler and ice ready for the most perishable items.
- ❑ After about 4 hours, move fridge perishables into the iced cooler.
- ❑ Use the thermometer and the 2-hour rule — not your nose — to decide what to keep.
- ❑ When in doubt about any food, throw it out.

★ Want this plan tailored to your kitchen?

On a visit I can help you set up thermometers, plan where a cooler goes, and think through backup power if you want it. No pressure, nothing to sell. Call (330) 200-8042.

When the power comes back on

The moment the lights flicker back isn't quite the moment to relax about the fridge and freezer.

Check your thermometers before you assume anything is safe just because the power's back. If the fridge stayed at or below 40 degrees, the food in it is fine. If the freezer food still has ice crystals or reads 40 degrees or below, it's safe to refreeze or cook.

If anything was above 40 degrees for 2 hours or more, follow the 2-hour rule and let it go. Then give the appliances time to return to their normal temperature before you restock, and jot down what you learned for next time.

✓ Refill your freeze-ahead jugs

Once things are back to normal, refill and refreeze any water jugs you used. Future-you, in the next outage, will be glad they're ready and waiting.

Common mistakes people make

A handful of avoidable slip-ups explain most of the food that gets tossed unnecessarily — or, worse, eaten when it shouldn't be.

- **Opening the door 'just to check'** over and over, which drains the cold faster than anything else.
- **Trusting a guess instead of a thermometer**, especially once the power has been out for hours.
- **Tasting food to see if it's still good** — please don't. You can't taste the germs that make you sick.
- **Forgetting to note when the power went out**, which turns an easy 4-hour rule into a guessing game.
- **Letting a half-empty freezer sit half empty**, when a few frozen jugs would have doubled its cold hours.

! The costliest mistake is the confident guess

Almost every food-poisoning case I hear about starts with someone feeling sure a food was 'probably okay.' The rules in this guide exist so you never have to rely on a hopeful guess.

! Read this first — carbon monoxide is the real danger

A running gas generator's exhaust contains carbon monoxide — an invisible, odorless gas that can kill in minutes. Never run a gas 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. A battery or solar power station is the safe indoor alternative — it makes no exhaust at all. It's the reason a gas generator and your kitchen never share the same indoor air.

If you want to keep things running

Coolers and ice handle most outages, but if yours run long or often, backup power keeps the fridge and freezer humming.

There are two main paths. A gas generator makes plenty of power but must run outdoors only, well away from the house, because its exhaust carries deadly carbon monoxide. A battery or solar power station makes no exhaust and is safe to use indoors, right next to the fridge.

✓ A battery power station is safe to use indoors

Unlike a gas generator, a battery or solar power station makes no exhaust and no carbon monoxide, so it is safe to run inside the house right next to the refrigerator. A gas generator is the opposite — it must always run outdoors, well away from doors, windows, and vents.

Either way, don't guess at the size you need. A fridge or freezer draws a modest, steady amount of power but needs a brief, much larger jolt each time its compressor starts. The right size is read from the appliance's own nameplate, not from a rule of thumb — I've written separate guides on running a fridge on a generator, on a battery station, and on sizing it right.

Medicine, formula, and other special cases

A few things in the fridge deserve their own moment of thought, because the stakes are higher than a spoiled dinner.

If you keep refrigerated medicine — insulin is the one I hear about most — an outage needs a plan. How well a medicine holds up out of the fridge varies a great deal from one to the next, so your pharmacist or doctor is the right person to ask. Keep a cooler ready, and never assume; check with them.

Infant formula and breast milk also have their own careful handling rules. When in doubt about either medicine or feeding a baby, lean on a professional rather than a general guide like this one.

! Medicine questions go to your pharmacist

I can help you set up a cooler and a thermometer, but I'm not a medical professional. For whether a specific medicine is still good after an outage, please call your pharmacist or doctor — they'll know your situation.

Print this page and stick it on the fridge

Keep this where you'll actually see it during an outage — the fridge door isn't a bad choice.

- ☐ Power out? Write down the time.
- ☐ Keep the doors closed. Open only when you must, and be quick.
- ☐ Fridge is good for about 4 hours closed.
- ☐ Full freezer, about 48 hours closed; half-full, about 24.
- ☐ Anything perishable above 40 degrees for 2+ hours: throw it out.
- ☐ Freezer food with ice crystals or at 40 or below: safe to refreeze.
- ☐ Trust a thermometer over a guess, and never taste to test.

★ Keep my number nearby too

Tape my number right next to this checklist: (330) 200-8042. If you're ever unsure, a quick call costs you nothing.

Common Questions

The questions I hear most often about keeping food safe when the power's out.

Q: How long is my food safe once the power goes out?

A closed refrigerator keeps food safe for about 4 hours. A full freezer holds for about 48 hours, a half-full one about 24 — as long as the doors stay shut.

Q: How do I know if food is still safe if I'm not sure how long the power was out?

Use a thermometer if you have one, and the rule that perishable food above 40 degrees for 2 hours or more should go. If there's real doubt, throw it out.

Q: Is it safe to refreeze food that partly thawed?

If it still has ice crystals or is at 40 degrees or below, it's generally safe to refreeze or cook, though the texture may change. If it's been fully thawed and warm for a while, follow the 2-hour rule.

Q: Do I need a generator to protect my food?

Often not. For most outages, keeping the doors closed plus a cooler and ice is plenty. A generator or battery station helps most if your outages run long or happen often.

Q: Can I just trust my nose to tell if food is bad?

No — and this is the important one. Many dangerous germs leave no smell, taste, or look at all. Decide by the clock and the thermometer, never by a sniff or a taste.

★ Still have a question?

Food-safety worries during an outage are one of the most common calls I get, and I'm always glad to talk it through. Call or text me at (330) 200-8042.

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 keeping your food safe during a power outage 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

How Long Food Stays Safe

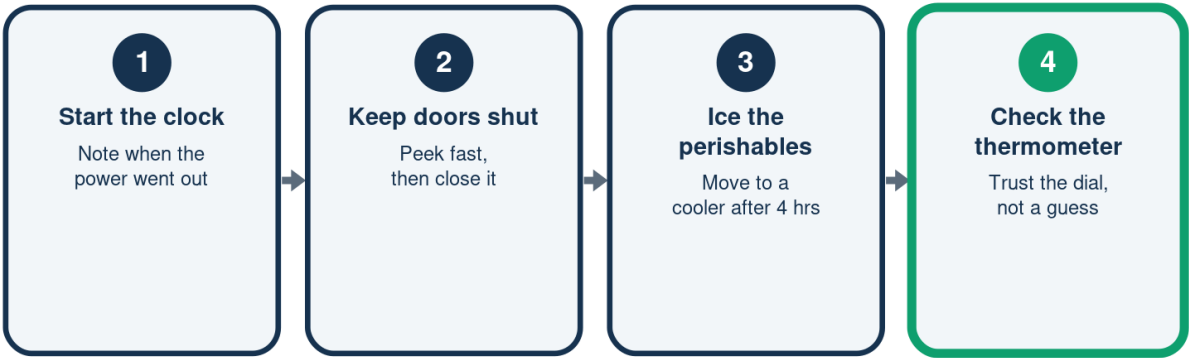
Doors closed the whole time

	Holds Safe Temps For	Best Habit
Refrigerator	About 4 hours	Peek fast, shut it
Full freezer	About 48 hours	Keep it packed
Half-full freezer	About 24 hours	Add frozen jugs
Above 40F, 2+ hrs	Time to discard	When in doubt, toss

Real USDA/FDA outage guidance – when in doubt, throw it out.

Outage Day, Step by Step

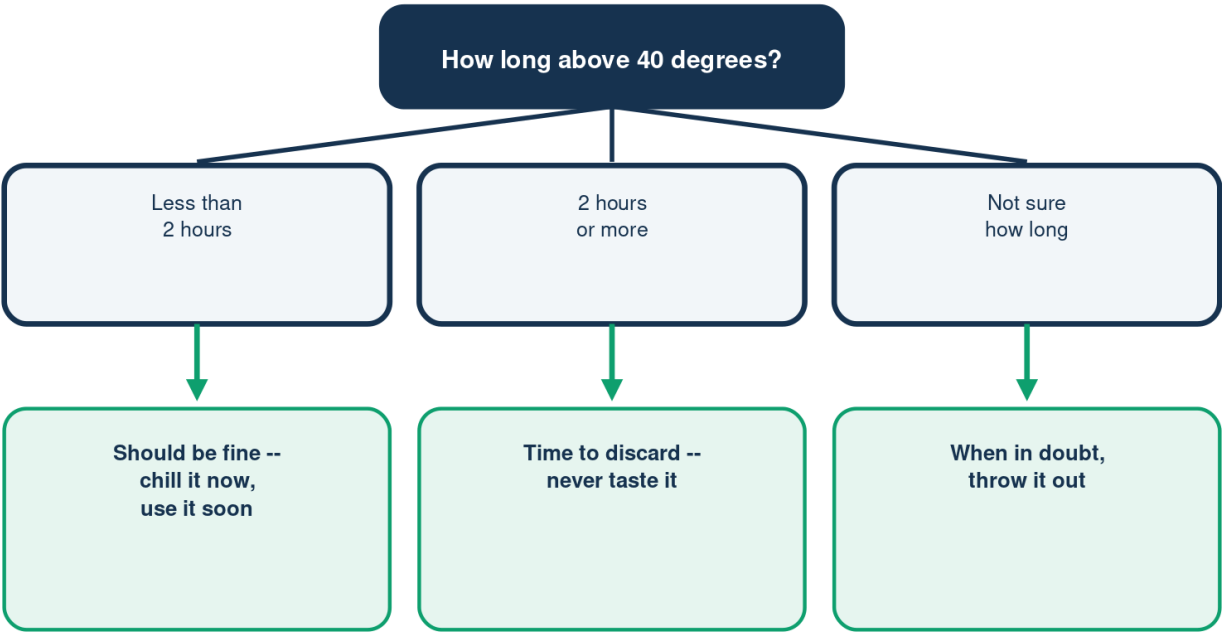
The calm way to protect what's in the kitchen



Do these in order and most food comes through just fine.

Is It Still Safe to Eat?

How long has the food been above 40 degrees?



General food-safety guidance -- not a medical or USDA hotline.

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

Set It and Check It

The two numbers that keep food safe

	Target Temp	How to Know
Refrigerator	40F or below	Appliance thermometer
Freezer	0F or below	Freezer thermometer
After an outage	40F or below = safe	Read, don't guess
The golden rule	When in doubt	Throw it out

Keep a thermometer in each -- the number tells the truth.



Need a Real Person?

You do not have to remember all of it.
You just have to remember you can call.
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BILL'S PROMISE

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

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— Bill

Prefer help without a visit?

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



A Note From Bill

A quick note from Bill.

I write these guides to make home tech a little less frustrating, and I do my best to keep every step accurate and up to date. Still, every home, device, and setup is a bit different, so I can't promise a guide will match yours exactly or fix your particular problem. These guides are for general information only — they're not professional, legal, or financial advice, and they don't replace your device's own manual or the manufacturer's instructions. Please go slow, use your own good judgment, and use everything here at your own risk. If a step involves electrical wiring, a gas appliance, a water heater, plumbing, or climbing a ladder — or if anything just doesn't feel safe — please stop and call a licensed professional (or give me a call at 330-200-8042). Bill's Home Tech and Bill Davis can't be responsible for any damage, data loss, or injury that comes from using these guides. Thanks for reading, and stay safe out there.

— *Bill*



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