



An Extended Guide · No. 1588

How to Tell What Inverter You Have

Identifying your system
safely, in plain English

Tech Made Simple — Service Made Personal

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! Read this first — two honest truths about solar inverters

Two honest truths before we start, because they surprise a lot of good folks. First, the inverter is the brains of your solar system, and it ties straight into your home's electrical panel — so choosing one, replacing one, or adding a battery to it is a professional job. It takes a licensed installer, a building permit, and your utility's approval to connect (called interconnection). This guide is here to help you understand and choose wisely; it is not a do-it-yourself project, and I never want you opening a solar inverter or an electrical panel yourself. Second, a plain grid-tied inverter shuts itself off during a power outage, even in bright sunshine, so it cannot put electricity onto the lines while the crews are repairing them. If keeping the lights on during an outage matters to you, you will want a hybrid or battery-capable inverter and a battery — and we will talk about that plainly. Identifying your inverter means looking and reading — never opening the unit or climbing the roof.

Figuring out what you've got

Maybe you bought a home with solar already on it, or you just never learned the details of your own system. Knowing whether you have a string inverter, microinverters, or optimizers — and whether it can do backup — helps with everything from monitoring to service. Here's how to tell, safely.

I'm Bill, of Bill's Home Tech in Portage County. This comes up a lot, especially with folks who inherited a system when they bought their house. The good news is you can usually figure it out from the app, the paperwork, and a look — without touching anything you shouldn't.

Throughout, the rule holds: you look and read, but you never open the inverter or get on the roof. Identifying your system is about gathering clues from the outside, not investigating hands-on.

★ Not sure what you inherited?

If you bought a home with solar and don't know what's up there, I'm glad to help you figure it out and get you set up with the monitoring. Call or text me at (330) 200-8042.

Identifying your inverter, on one page

The essentials, if you remember nothing else.

- ❑ The monitoring app is the fastest clue — panel-by-panel views usually mean micro or optimizers.
- ❑ One box on a wall (garage or by the meter) points to a string or optimizer system.
- ❑ Your original paperwork or the app's account often names the equipment.
- ❑ A battery and a backup panel mean you likely have a hybrid setup.
- ❑ You can read labels on the outside of the equipment — but never open it.
- ❑ Still unsure? Your installer, or I, can identify it for you.

✓ The one-sentence takeaway

Between the app, the paperwork, and a look at the equipment, you can almost always tell what inverter you have — without touching a thing you shouldn't.

Start with the monitoring app

Your quickest, safest clue is right on your phone or a website.

If you can open your system's monitoring, look at how it shows your production. If it displays each panel separately — a little grid or roof layout with a reading per panel — you almost certainly have panel-level electronics: microinverters or optimizers. If it shows one whole-system number, that points toward a plain string inverter.

The app's name and account can be another giveaway, since different makers have their own apps. You don't have to recognize the brand — just note it. If you can't get into the app, that's a great first thing to sort out anyway, and our monitoring guide helps.

★ Can't get into your app?

If you inherited a system and don't have the monitoring login, I can help you track it down or get set up fresh — and read the clues it gives. Call (330) 200-8042.

Telling micro from optimizer

If the app shows each panel, you have panel-level electronics — but which kind?

Both microinverters and optimizers give you panel-by-panel views, so the app alone may not distinguish them. The tell is whether there's also a central inverter box: optimizers work with one, while microinverters don't have a central inverter at all — just the little units on the roof and, usually, a small communication device indoors.

So if you have panel-level monitoring and also a full-size inverter box on a wall, you likely have optimizers. Panel-level monitoring with no central inverter box points to microinverters. If it's murky, the paperwork or a quick look at the equipment usually settles it.

✓ The central box is the clue

Panel-level views plus a central inverter box means optimizers. Panel-level views with no central inverter usually means microinverters. That one distinction sorts most systems.

Look for a central inverter box

A quick, safe look around your home tells you a lot.

Check the usual spots — a garage wall, the basement or a utility area, or outdoors near your electric meter. A string or optimizer system will have a central inverter box there, roughly the size of a small suitcase or a large briefcase. A microinverter system won't have that central box; instead the converting happens up on the roof, with just a small communication gateway indoors.

You're only looking, not touching. Note whether there's a central box, roughly its size, and any brand name or labels on the outside. That, plus the app, usually pins down your setup. Never open the box or remove any cover.

! Read the outside only

It's fine to look at the inverter and read any labels on its outside. Never open the case or remove a cover — it can hold a dangerous charge. Looking is safe; opening is a pro's job.

Dig out the paperwork

If you have the original documents, they're the clearest answer of all.

Your install paperwork, the system design, the permit, or the warranty documents will name the exact equipment — the inverter or microinverters, and any battery. If you bought the home with solar, ask the previous owner or your real estate agent for these; they should have been passed along, and they're valuable for service and warranty claims.

If you can't find them, the manufacturer or your installer can often look up your system, and the labels on the equipment plus the app usually fill the gaps. It's worth assembling a folder of whatever you can find — it'll help every time the system needs attention.

★ I'll help you assemble the papers

If your solar paperwork is scattered or missing, I can help you track down what you can and organize a folder for the future. Call or text me at (330) 200-8042.

Do you have backup capability?

A key thing to know: can your system keep power in an outage?

The simplest tell is whether you have a battery — usually a cabinet-sized unit near the inverter or in the garage — and a separate 'backup' or 'essential loads' electrical panel. If you have those, you likely have a hybrid setup with backup capability. If you have only panels and an inverter, with no battery, it's almost certainly plain grid-tied — which goes dark in an outage.

The surest test, of course, is what happened last time the power went out: if your solar kept some circuits alive, you have backup; if the whole house went dark despite sunshine, you don't. Our [why-solar-goes-dark](#) guide explains that behavior.

✓ Battery plus backup panel equals backup

A battery and a separate 'backup' or 'essential loads' panel are the signs of a hybrid system that can keep power in an outage. No battery means plain grid-tied — it goes dark.

Why knowing this matters

Identifying your system isn't just curiosity — it's practically useful.

- **Monitoring:** knowing your type helps you read the app and know what views to expect.
- **Service:** a technician works faster when you can say what you have.
- **Shade decisions:** whether you have panel-level electronics shapes how shade affects you.
- **Backup planning:** knowing if you're hybrid tells you whether you have outage power.
- **Adding a battery:** your current setup shapes how a battery would be added.

In short, knowing what you have makes you a more capable owner and helps every conversation about your system go better. It's a small bit of homework that pays off again and again.

Reading the labels (safely)

The outside of your equipment carries useful information — here's how to use it.

Inverters and related equipment have labels on the outside with the maker's name, a model number, and sometimes the type. Snap a clear photo of these — it's perfect for looking up your system, and gold for a technician or for me if you want help identifying it. Required safety labels near the meter can also tell you about rapid shutdown and any battery.

That's as hands-on as you get: reading and photographing the outside. You never open anything or disturb the wiring. A few good photos of the labels, plus the app, are usually all it takes to identify a system completely.

★ Text me the label photos

Snap the labels on your inverter and equipment and send them my way — I'm glad to help you identify exactly what you have. Call or text me at (330) 200-8042.

Two kinds of homes, two sets of needs

Identifying your system matters for everyone, with a couple of wrinkles between town and country.

If you live in town or the suburbs

In town or the suburbs, folks often inherit solar when buying a home, so tracking down the paperwork and app login from the previous owner is the common task. The equipment is usually easy to find in a garage or by the meter.

- Ask the previous owner or agent for paperwork and the app login.
- The central box, if any, is often on a garage wall.
- Panel-level views in the app point to micro or optimizers.
- Confirm whether there's a battery for backup.

If you are out in the country on a well

Out in the country, systems may be larger or spread across outbuildings, and knowing whether you have backup for the well is especially important — so identifying a battery and backup panel matters most.

- Check the house and any outbuildings for inverters and a battery.
- Knowing if you're hybrid tells you whether the well is backed up.
- Larger rural systems make the paperwork especially worth finding.
- A clear picture helps when service is farther away.

★ Inherited a rural system?

If you bought a country place with solar and aren't sure what's there — especially whether the well is backed up — I'm glad to help you figure it out. Call (330) 200-8042.

When the clues don't add up

Sometimes the signals are mixed — here's what to do then.

Occasionally you'll find, say, a central box but also per-panel monitoring, or a battery you didn't expect. Mixed setups exist — a string with optimizers, or a system that was upgraded over time. If the clues don't clearly point one way, that's fine; you don't have to crack the case yourself.

The surest route when it's murky is to ask a pro. Your installer (or the maker, using your equipment labels) can identify the system precisely, and so can I with a look and your photos. There's no need to guess or, worse, open anything to investigate.

✓ Mixed setups are common

A central box plus panel-level views often just means a string with optimizers. Don't be thrown by mixed clues — a pro can confirm it in a moment.

What never to do while investigating

Curiosity is good; a few actions are still off-limits.

- **Don't open the inverter** or any equipment case to peek inside.
- **Don't get on the roof** to look at microinverters or optimizers.
- **Don't disturb wiring, connectors, or the disconnect** beyond looking.
- **Don't flip breakers or switches** just to see what happens.
- **Don't let an unlicensed handyman** open things to identify them.

Everything you need to identify your system is available from the outside: the app, the paperwork, and the labels. Keep it to looking and reading, and leave anything hands-on to a licensed pro. Safety first, always.

Questions to ask to identify your system

Whether you're asking a previous owner, an installer, or the maker, these get you there.

Q: What inverter type is this — string, micro, or optimizer?

The core question. If asking a pro, your equipment labels and app usually let them answer quickly.

Q: Is there a battery, and can this system power anything in an outage?

This tells you whether you have a hybrid, backup-capable setup or plain grid-tied solar that goes dark.

Q: Where's the paperwork and the monitoring login?

Especially if you inherited the system, tracking these down is invaluable for service, warranty, and everyday monitoring.

★ I'll help you identify it

Send me photos of your equipment labels and tell me what the app shows, and I'll help you pin down exactly what you have. Call or text me at (330) 200-8042.

A few identification myths

Let's clear up some common misunderstandings.

- **'I need to open the inverter to know what it is.'** No — the outside labels, the app, and the paperwork tell you, safely.
- **'Panel-level views mean microinverters.'** They mean micro OR optimizers — the central box is what tells them apart.
- **'If I have solar, I have backup.'** Only if you have a battery and a backup panel; plain grid-tied goes dark.
- **'The type doesn't matter once it's installed.'** It shapes monitoring, shade, service, and adding backup — worth knowing.

The honest summary: you can identify your system safely from the outside, and knowing what you have makes you a more capable, confident owner.

Putting it all together

Here's the whole identification story in one calm summary.

To tell what inverter you have, start with the app: panel-by-panel views point to microinverters or optimizers, while a single system number points to a string. Look for a central inverter box — present for string and optimizers, absent for microinverters. Check for a battery and backup panel to know if you're hybrid. And dig out the paperwork and read the outside labels for the exact equipment.

Keep it all to looking and reading — never open anything or climb the roof — and lean on a pro when the clues are mixed. Knowing your system makes monitoring, service, shade decisions, and backup planning all go better. That's a small bit of homework well worth doing.

★ Questions about your system?

Figuring out what you have is a great first step to owning it confidently. Call or text me at (330) 200-8042 and we'll identify it together.

Common Questions

The questions I hear most about identifying a solar system, answered plainly.

Q: How can I tell if I have microinverters or a string inverter?

Check the app: panel-by-panel views point to panel-level electronics (micro or optimizers); one system number points to a string. Then look for a central inverter box, which micro systems don't have.

Q: How do I tell microinverters from optimizers?

Both give panel-level views. The tell is a central inverter box: optimizers use one, microinverters don't. Panel-level monitoring plus a central box usually means optimizers.

Q: How do I know if my solar has battery backup?

Look for a battery (a cabinet-sized unit) and a separate 'backup' or 'essential loads' panel. Those mean a hybrid setup. No battery means plain grid-tied, which goes dark in an outage.

Q: Can I open the inverter to check the model?

No — never open it. The maker, model, and type are on labels on the outside, and the app and paperwork fill in the rest. Reading is safe; opening is a pro's job.

★ Still not sure what you have?

No question is too basic. Send me photos and what the app shows, and we'll figure it out. Call or text me at (330) 200-8042.

A simple recap to keep

Tuck this short version in your solar folder.

- ❑ App shows each panel? Micro or optimizers. One number? Likely a string.
- ❑ Central inverter box present? String or optimizer. Absent? Microinverters.
- ❑ Battery and a backup panel? You likely have hybrid backup.
- ❑ Read the outside labels and dig out the paperwork.
- ❑ Never open the inverter or climb the roof — look and read only.

✓ You've got the gist

That's all you need to identify your system safely and know what you're working with.

Where to go next

Once you know what you have, a few sibling guides help you make the most of it.

If you have a string inverter, our string guide explains it; for panel-level electronics, see the microinverter and optimizer guides. The monitoring guide helps you read your app, and the why-solar-goes-dark guide explains backup. Follow whichever matches what you found.

And whenever the detective work stalls, I'm a phone call away to help you identify your system from photos and clues. Knowing what you own is the foundation for everything else.

★ Let's identify it together

Send me photos and what the app shows, and I'll help you pin down your system. Call or text me at (330) 200-8042.

A special word for new homeowners

If you inherited solar with a home, this page is for you.

Buying a house with solar already on it is common and can be a real gift — but you'll want to take a few steps to make it truly yours. Track down the system paperwork and warranties from the seller, get your own monitoring login set up, and identify the equipment so you know what you're caring for. Find out, too, whether any warranty transferred to you.

Doing this early means you're not caught flat-footed if the system needs attention later. Our whole-home-solar guide on selling a home with solar covers the handover from both sides. And of course, I'm glad to help you get oriented to a system you didn't choose but now own.

★ New to a solar home? I'll orient you

If you bought a place with solar, let me help you learn what you have, get the app going, and gather the papers — so it feels like yours. Call (330) 200-8042.

One last, reassuring word

Identifying your system sounds like detective work, and it's genuinely doable.

You now know to start with the app, look for a central box, check for a battery and backup panel, and read the outside labels and paperwork — all safely, without opening anything. That's enough to identify almost any home system, and to lean on a pro for the rest.

Keep this guide with your solar papers, gather what you can into a folder, and call me any time the clues get tangled. Knowing what you own is the first step to owning it with confidence.

★ Always glad to help

Call or text me at (330) 200-8042 any time you want help identifying or understanding your solar. Patient, plain answers, every time.

Build a simple system folder

As you identify your system, capture what you learn — future-you will thank you.

Once you've figured out your inverter type, whether you have backup, and the equipment names, jot it all down and keep it with your home papers: the type, the maker and model, the install date if you can find it, the warranty, the monitoring login, and your installer's contact. Add your label photos too.

That simple folder turns every future moment — a service call, a question, a battery addition, a home sale — into something quick and calm instead of a scramble. It's a small effort now for a lot of ease later.

★ I'll help you build it

On a visit I can help you assemble a tidy solar folder — type, equipment, warranty, logins, and photos — so you're set for anything. Call (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 figuring out what solar inverter you have 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.

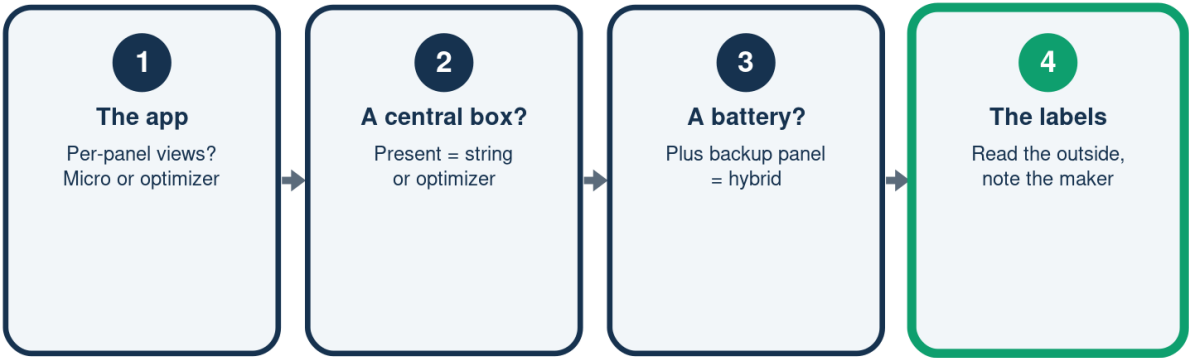
When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't sell solar and I don't do the licensed electrical work or the rooftop install myself — I help you understand it all, ask the right questions, and line up a trustworthy local solar installer, so you never feel talked into anything.

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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

Four Safe Clues

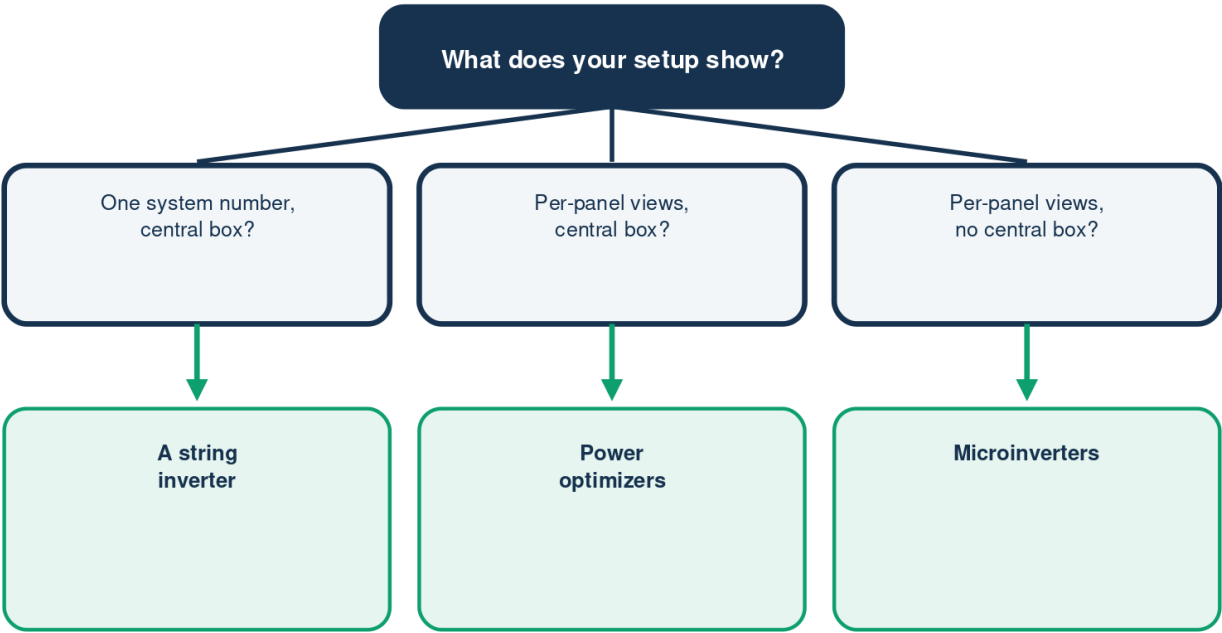
Identify your system without touching it



Everything you need is on the outside -- never open anything.

Which Inverter Do I Have?

Follow the clues

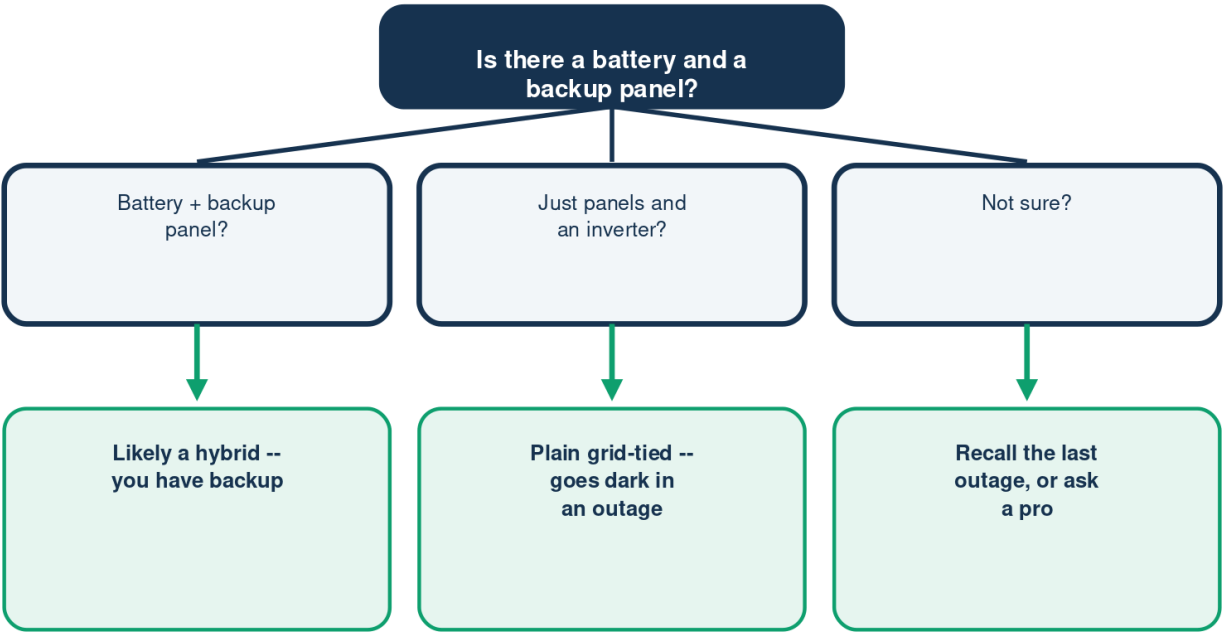


Read labels and check paperwork to confirm -- never open the unit.

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

Do I Have Outage Backup?

The battery is the tell



No battery means no outage power, even in bright sun.

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

Build a System Folder

Capture what you learn

	Write down	Why
Type	String, micro,	optimizer
Maker / model	From the labels	and paperwork
Backup?	Battery and	backup panel
Login	Your monitoring	account
Installer	Who to call	for service

A simple folder makes every future moment quick and calm.



Need a Real Person?

You do not have to remember all of it.
You just have to remember you can call.
Friendly, in-home tech help -- I come to you.

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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