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Weighing and Measuring Coins at Home — Scales and Calipers

Scales and calipers for the coin collector

Tech Made Simple. Service Made Personal.

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THE 60-SECOND VERSION

1 The 60-Second Version

The whole thing in a breath.

For a coin collector, two cheap little tools — a precision scale and a caliper — make it easy to examine your coins at home by weighing and measuring them, which is more useful than it might sound. The reason it helps is that a genuine coin has a known, officially-specified weight and size: a particular coin is supposed to weigh a certain number of grams and have a certain diameter and thickness.

So by carefully weighing and measuring one of your coins and comparing it to those published specifications, you can help confirm what the coin is, and — importantly — catch some counterfeits, because many fakes get the weight or the dimensions subtly wrong (often because they're made of the wrong metal, which weighs differently). The tools: a precision scale, often a small 'jeweler's' or pocket scale, weighs a coin accurately to a fraction of a gram, which is the precision you need.

A caliper is a measuring tool that measures a coin's diameter (across) and thickness precisely, far better than a ruler. Both are inexpensive and easy to use: you place the coin on the scale and read the weight, and you gently close the caliper's jaws on the coin and read the measurement. Then you compare your readings to the official specifications for that coin (readily found in coin references and online), and if the weight or size is off, that's a red flag worth investigating.

Crucially, though, understand the limits: weighing and measuring is one helpful check that can catch some fakes and help identify coins, but it is not full authentication — a good fake can get the weight and size right, and passing these checks doesn't guarantee a coin is genuine or valuable. So treat it as a useful part of your coin-examining toolkit, alongside other checks and, for anything important, expert opinion — not as the final word.

- Two cheap tools — a precision scale and a caliper — let a collector weigh and measure coins at home. It helps because a genuine coin has a known, specified weight and size, so comparing your readings to the published specs helps identify the coin and catch some fakes (many get weight or dimensions subtly wrong).
- The scale: a precision 'jeweler's' or pocket scale weighs a coin accurately to a fraction of a gram. The caliper: measures a coin's diameter and thickness precisely, far better than a ruler.
- Both are inexpensive and easy: place the coin on the scale and read the weight; gently close the caliper's jaws on the coin and read the size. Then compare to the official specs for that coin (in references and online) — if the weight or size is off, that's a red flag.
- Crucial limit: this is one helpful check, not full authentication. A good fake can get weight and size right, and passing these checks doesn't guarantee a coin is genuine or valuable — so use it alongside other checks and, for anything important, expert opinion.

WHY IT HELPS

2 Why a Coin's Weight and Size Matter

Genuine coins have known specs.

The whole value of weighing and measuring coins rests on one simple fact: a genuine coin is made to precise, published specifications, so it has a known, correct weight and size. That makes weight and dimensions a useful fingerprint for identifying a coin and for catching fakes that get them wrong.

- Genuine coins are made to exact specs: every official coin is produced to precise specifications — a defined weight, diameter, and thickness, and a specific metal composition — so a real example should match those known figures closely.
- Weight and size are a kind of fingerprint: because the correct figures are known and published, a coin's weight and dimensions act as a checkable fingerprint — a real coin should match, a wrong one won't.
- It helps identify a coin: measuring can help confirm what a coin is (or isn't), which is useful for cataloging, for unclear or worn coins, and for distinguishing similar-looking pieces.

- It catches many counterfeits: crucially, many counterfeit coins get the weight or dimensions subtly wrong — often because they're made of a different, cheaper metal that weighs differently than the genuine alloy — so weighing and measuring can reveal those fakes.
- Metal is the key: much of a coin's weight comes from what it's made of, so a fake in the wrong metal will usually weigh noticeably wrong even if it looks right — which is exactly what the scale catches.
- Simple, objective checks: weight and size are objective, measurable facts you can check yourself at home, unlike the subtler visual judgments of a coin — which is what makes these tools so handy.

The entire usefulness of weighing and measuring coins rests on one simple and powerful fact: a genuine coin is manufactured to precise, officially-published specifications, so it has a known and correct weight and size. Every official coin is produced to exact specs — a defined weight in grams, a defined diameter across, a defined thickness, and a specific metal composition — which means that a real example of a given coin should match those known figures closely, within the small tolerances of manufacturing.

This makes a coin's weight and dimensions a kind of checkable fingerprint: because the correct figures for any coin are known and published, you can measure a coin and see whether it matches, with a genuine coin matching its specs and a wrong one failing to. That's useful in two main ways. First, it helps identify a coin — confirming what a coin is, or isn't — which is handy for cataloging your collection, for puzzling out an unclear or heavily worn coin whose markings are hard to read, and for distinguishing between coins that look similar but differ in size or weight.

Second, and importantly, it can catch many counterfeits, because a great many fake coins get the weight or the dimensions subtly wrong. The deepest reason for this is metal: a large part of a coin's weight comes from the specific metal or alloy it's made of, and counterfeiters frequently use a different, cheaper metal than the genuine coin, which weighs differently — so even a fake that looks convincing to the eye will often weigh noticeably wrong, and the scale catches exactly that discrepancy.

Similarly, fakes often miss the precise diameter or thickness, which a caliper reveals. The great practical appeal of all this is that weight and size are objective, measurable

facts that you can check for yourself at home with simple tools, unlike the far more subtle and subjective visual judgments that authenticating a coin usually involves — the look of the surfaces, the sharpness of the details, the character of any wear — which take real expertise to assess.

Weighing and measuring give the collector a couple of hard, numerical checks they can make themselves, which is precisely why these inexpensive tools are such a handy addition to the hobby. (That said, as a later chapter stresses, these checks have real limits and aren't a complete authentication on their own.)

GOOD TO KNOW

Weighing and measuring coins helps because a genuine coin is made to precise, published specs — a known weight, diameter, thickness, and metal composition — so its weight and size act as a checkable fingerprint. This helps identify a coin and, importantly, catch many counterfeits, since fakes often get the weight or dimensions subtly wrong — frequently because they're made of a different, cheaper metal that weighs differently. Weight and size are objective facts you can check yourself at home, unlike the subtler visual judgments of authenticating a coin.

THE SCALE

3 The Precision Scale

Weighing a coin accurately.

The first tool is a precision scale — the kind that weighs accurately to a fraction of a gram, often a small 'jeweler's' or pocket scale. Ordinary kitchen scales aren't precise enough; coin work needs this finer accuracy. Here's what to know and how to use one.

- A precision (jeweler's/pocket) scale: you want a small digital scale that weighs accurately to a fraction of a gram (such as to a hundredth of a gram) — often sold as a 'jeweler's scale' or 'pocket scale.' These are inexpensive.

- Kitchen scales aren't precise enough: a normal kitchen scale weighs to the gram or so, which is far too coarse for coins, where a fraction of a gram matters — so you need the finer precision scale.
- Weigh in grams: coin specifications are given in grams, so set the scale to grams to compare directly with the published figures.
- How to use it: place it on a flat, stable surface, turn it on and let it zero (or zero it with nothing on it), then gently place the clean coin on the weighing platform and read the weight.
- A few good habits: weigh on a steady, draft-free surface (air currents can affect a sensitive scale), make sure the scale is zeroed and, ideally, check it against a known weight now and then so you can trust it.
- Handle coins carefully: handle valuable coins by the edges and keep them clean and dry, both to protect the coin and to avoid dirt or moisture affecting the weight.

The first of the two tools is a precision scale, and the key thing to understand is that coin work needs a scale far more accurate than an ordinary kitchen scale — one that weighs to a fraction of a gram. The right tool is a small digital scale accurate to a fraction of a gram, often to a hundredth of a gram, which is commonly sold as a 'jeweler's scale' or a 'pocket scale,' and which is inexpensive to buy.

The reason an ordinary kitchen scale won't do is precision: a typical kitchen scale weighs only to the nearest gram or so, which is far too coarse for coins, where differences of a fraction of a gram are exactly what you're looking for and what can reveal a fake, so the finer precision scale is genuinely necessary rather than a luxury.

Since coin specifications are published in grams, you set the scale to weigh in grams, which lets you compare your reading directly against the official figure for the coin. Using one is simple: you set the scale on a flat, stable surface, turn it on and allow it to zero itself (or zero it manually with nothing on the platform), and then gently place your clean coin on the weighing platform and read off the weight it displays.

A few good habits make your readings trustworthy. Weigh on a steady, draft-free surface, because a scale sensitive enough to read fractions of a gram can be nudged by air currents or vibration, so avoid drafts and a wobbly table. Make sure the scale is properly zeroed before each weighing, and it's a good idea to occasionally check the scale against a known reference weight (small calibration weights are cheap) so that

you can trust it's reading accurately rather than drifting.

And handle your coins carefully throughout — holding valuable coins by their edges, and keeping them clean and dry — both to protect the coins from damage and from the oils on your fingers, and because dirt, grime, or moisture on a coin can add to its weight and throw off your reading. With a decent precision scale, set up and used carefully, you can weigh a coin accurately enough to compare meaningfully against its published specification, which is the foundation of this whole method and often the single most revealing check, since a fake in the wrong metal so often betrays itself on the scale.

GOOD TO KNOW

Use a precision scale accurate to a fraction of a gram — a small 'jeweler's' or 'pocket' scale, inexpensive. An ordinary kitchen scale (accurate only to about a gram) is far too coarse for coins. Set it to grams to match published specs. To use: put it on a flat, steady, draft-free surface, let it zero, then gently place the clean coin on and read the weight. Check it against a known weight occasionally so you can trust it, and handle coins by the edges, clean and dry.

Rather not do this yourself? I'll come to your home and set it up for you — a flat $99 first visit across Portage County, Ohio and nearby communities. Outside the area? I also help remotely by phone or screen-share. Book at billshometech.com/book or call (330) 200-8042.

THE CALIPER

4 The Caliper

Measuring diameter and thickness.

The second tool is a caliper — a precise measuring instrument that measures a coin's diameter (the distance across) and its thickness far more accurately than a ruler ever could. Here's what a caliper is and how to use it on a coin.

- A caliper measures precisely: a caliper is a measuring tool with jaws that close onto an object to measure its size precisely — to fractions of a millimeter — far more accurately than a ruler, which is nowhere near precise enough for coins.
- Digital ones are easy to read: calipers come in different types, but an inexpensive digital caliper, which shows the measurement as a number on a little screen, is the easiest to read and use for a beginner.
- Measure the diameter: to measure a coin's diameter, you gently close the caliper's jaws across the coin (edge to edge, across the widest part) and read the measurement — comparing to the coin's specified diameter.
- Measure the thickness: you can also measure the coin's thickness by closing the jaws gently on the coin's edge (how thick it is), and compare that to the specified thickness.
- Gently does it: close the jaws just until they lightly touch the coin — don't clamp hard, which could mar the coin or give a slightly off reading; a light, square contact gives the best measurement.
- Measurements in millimeters: coin dimensions are specified in millimeters, so set a digital caliper to millimeters to compare directly with the published figures.

The second tool is a caliper, which is a precise measuring instrument used to measure a coin's physical dimensions — its diameter, meaning the distance straight across the coin, and its thickness — far more accurately than any ruler could manage. A caliper works by means of a pair of jaws that you close onto the object you're measuring, and it then reads the size to fractions of a millimeter, a level of precision that a ruler comes nowhere close to and that you genuinely need for coins, where small differences matter.

Calipers come in a few different types, but for a beginner the easiest to use is an inexpensive digital caliper, which simply shows the measurement as a clear number on a small digital screen, removing any difficulty of reading a scale off the instrument by eye. To measure a coin's diameter, you gently close the caliper's jaws across the coin, from one edge to the other across its widest point, and read the measurement it shows, which you then compare against the coin's specified diameter.

You can likewise measure the coin's thickness by gently closing the jaws onto the coin's edge to measure how thick it is, and compare that reading to the specified thickness for the coin. An important technique point is to be gentle: you close the

jaws only until they lightly make contact with the coin, rather than clamping down hard, both because clamping too hard could potentially mar or scratch a coin and because over-tightening can give a slightly inaccurate reading — a light, square contact, with the coin properly seated between the jaws, gives the truest measurement.

Since coin dimensions are published in millimeters, you set a digital caliper to read in millimeters so that your measurements can be compared directly against the official figures for the coin, just as you weigh in grams for the same reason. With a little practice, measuring a coin's diameter and thickness takes only moments, and together with the weight from the scale, it gives you a second and third objective number to check against the coin's specifications — another way a fake with the wrong dimensions can reveal itself, and another aid to identifying a coin correctly.

GOOD TO KNOW

A caliper is a precise measuring tool with jaws that close onto a coin to measure its diameter (across the widest part) and thickness to fractions of a millimeter — far more accurate than a ruler. An inexpensive digital caliper, which shows the measurement as a number, is easiest for a beginner. Close the jaws gently — just to light contact, not clamping hard (which could mar the coin or skew the reading). Set it to millimeters to match published coin specs.

COMPARE & LIMITS

5 Comparing to Specs, and the Limits

What the numbers can and can't tell you.

Once you've weighed and measured a coin, you compare your readings to the coin's published specifications — and you must understand the real limits of what these checks can tell you. Here's how to compare, and the crucial caveats.

- Find the official specs: every coin has published specifications — its correct weight, diameter, thickness, and metal composition — readily available in coin reference books and reputable online coin databases. Look up the exact coin (type, year, country).
- Compare your readings: compare your measured weight and dimensions to those official figures. A genuine coin should match closely, within small manufacturing tolerances — exact-to-the-decimal matches aren't expected, but it should be close.
- Off readings are a red flag: if the weight or size is clearly off — too light, too heavy, wrong diameter — that's a genuine red flag suggesting the coin may be counterfeit, altered, or not what it's claimed to be, and worth investigating.
- But passing isn't proof: crucially, a coin matching its weight and size is not proof it's genuine — a good counterfeit can get the weight and dimensions right, so passing these checks doesn't guarantee authenticity.
- One check among many: weighing and measuring is one helpful check in authenticating or identifying a coin, not the whole story — genuine authentication also involves visual examination, other tests, and expertise.
- For anything important, get expert opinion: for a coin that might be valuable or that you're unsure about, don't rely on these home checks alone — seek a professional opinion or grading, since the stakes and the subtlety warrant real expertise.

Once you've carefully weighed and measured a coin, the next step is to compare your readings against the coin's published specifications, and — just as important — to understand clearly the real limits of what these checks can and cannot tell you, because misunderstanding that is where collectors can go wrong. To compare, you first find the official specifications for the exact coin in question: every coin has published specs — its correct weight, diameter, thickness, and metal composition — which are readily available in coin reference books and in reputable online coin databases, and you'll want to look up the precise coin by its type, year, and country, since specs differ between coins.

You then compare your measured weight and dimensions against those official figures. A genuine coin should match closely, bearing in mind that small manufacturing tolerances mean you shouldn't expect a perfect match to the last decimal place, but it should be close — within a small margin. If, on the other hand, your readings are clearly off — the coin is noticeably too light or too heavy, or the diameter or thickness is plainly wrong — that is a genuine red flag, suggesting the coin

may be counterfeit, may have been altered, or may simply not be the coin it's claimed or assumed to be, and it's well worth investigating further.

So far so useful — but here is the crucial caveat that must be understood: a coin matching its specified weight and size is absolutely not proof that it's genuine. A good, well-made counterfeit can get the weight and the dimensions right — sophisticated fakes are made precisely to pass such obvious checks — so passing your weighing and measuring does not guarantee that a coin is authentic.

This means weighing and measuring should be understood as one helpful check among several in identifying or authenticating a coin, rather than the whole story: genuine authentication also involves careful visual examination of the coin's surfaces, details, and wear, potentially other tests, and real expertise that goes well beyond two numbers. The practical upshot is that these home measurements are excellent for catching some fakes and for helping identify coins, but for any coin that might be genuinely valuable, or that you're uncertain about, you should not rely on these home checks alone — instead, seek a professional opinion or have the coin professionally authenticated and graded, because when real money is at stake and counterfeits can be sophisticated, the subtlety of the judgment warrants expert knowledge.

Used with that understanding — as a valuable, revealing first check that can catch obvious problems but isn't the final word — weighing and measuring earns its place in the collector's toolkit without misleading you into false confidence.

WATCH OUT

Comparing your readings to a coin's published specs (in references and online) is genuinely useful: if the weight or size is clearly off, that's a real red flag for a possible fake or altered coin. But the crucial limit — a coin matching its weight and size is not proof it's genuine, because a good counterfeit can get both right. So this is one helpful check, not full authentication, which also needs visual examination and expertise. For any coin that might be valuable or that you're unsure about, get a professional opinion rather than relying on these home checks alone.

QUESTIONS

6 Plain Questions and Answers

The things collectors ask most.

"Why weigh and measure my coins?"

Because a genuine coin is made to precise, published specs — a known weight, diameter, thickness, and metal — so its weight and size act as a checkable fingerprint. Comparing your readings to the official figures helps identify a coin and, importantly, catch many counterfeits, since fakes often get the weight or dimensions subtly wrong (frequently because they're made of a different, cheaper metal that weighs differently). Weight and size are objective facts you can check yourself at home.

"What tools do I need?"

Two inexpensive ones. A precision scale accurate to a fraction of a gram — a small 'jeweler's' or 'pocket' scale; an ordinary kitchen scale is far too coarse for coins. And a caliper to measure the coin's diameter and thickness precisely (to fractions of a millimeter) — a digital caliper that shows the number is easiest for a beginner. Set the scale to grams and the caliper to millimeters, to match the published specs.

"How do I use them?"

For the scale: set it on a flat, steady, draft-free surface, let it zero, then gently place the clean coin on and read the weight (handle coins by the edges, clean and dry). For the caliper: gently close the jaws across the coin's widest point for the diameter, or on its edge for the thickness, closing just to light contact rather than clamping hard, and read the measurement. Then compare both readings to the coin's published specs.

"Does passing these checks mean my coin is genuine?"

No — this is the crucial limit. If the weight or size is clearly off, that's a real red flag for a possible fake. But a coin matching its weight and size is not proof it's genuine, because a good counterfeit can get both right. So weighing and measuring is one helpful check, not full authentication — which also needs visual examination and

expertise. For any coin that might be valuable or that you're unsure about, get a professional opinion rather than relying on home checks alone.

WRAP UP

7 A Handy Check for the Collector

Useful numbers, understood for what they are.

For a coin collector, a precision scale and a caliper are two inexpensive, easy-to-use tools that add a genuinely useful way to examine your coins at home: weighing and measuring them. It works because a genuine coin is made to precise, published specifications — a known weight, diameter, thickness, and metal composition — so a coin's weight and size act as a checkable fingerprint.

By weighing a coin on a precision (jeweler's or pocket) scale, which an ordinary kitchen scale is far too coarse to replace, and measuring its diameter and thickness with a caliper, you get objective numbers you can compare against the coin's official specs, which are readily found in references and online. If the weight or size is clearly off, that's a real red flag suggesting a fake or altered coin — and since many counterfeits get the weight or dimensions subtly wrong, especially when made of the wrong metal, these checks genuinely catch some fakes, as well as helping to identify coins.

But the crucial thing to keep in mind is the limit: a coin matching its weight and size is not proof it's genuine, because a good counterfeit can get both right, so weighing and measuring is one helpful check rather than full authentication, which also needs visual expertise. Use these tools, then, as a valuable and satisfying part of your coin-examining toolkit — one that can catch obvious problems and teach you about your coins — while turning to professional opinion for anything that might be valuable or that you're unsure about.

Understood for what they are, a scale and a caliper make the hobby richer and your eye sharper, without ever being mistaken for the final word on a coin.

- A precision scale and a caliper are two cheap, easy tools that let a collector weigh and measure coins at home — useful because a genuine coin has a known, published weight and size that act as a checkable fingerprint.
- Weigh on a precision 'jeweler's'/pocket scale (a kitchen scale is too coarse) and measure diameter and thickness with a caliper (a digital one is easiest), then compare to the coin's official specs in references and online.
- If the weight or size is clearly off, that's a real red flag — and since many fakes get weight or dimensions subtly wrong (often wrong metal), these checks catch some counterfeits and help identify coins.
- Crucial limit: matching weight and size is not proof a coin is genuine (a good fake can match both) — so it's one helpful check, not full authentication. For anything valuable or uncertain, get a professional opinion.

GOOD TO KNOW

If you collect coins and want to add weighing and measuring to how you examine them, I'm happy to help. It's a satisfying, practical check: a genuine coin has a known weight and size, so comparing your readings to its published specs can help identify it and catch some fakes. We can sort out the simple tools — a precision 'jeweler's' scale (accurate to a fraction of a gram) and a digital caliper for diameter and thickness — and how to use them and find the official specs. I'll also be clear about the limits: matching the numbers isn't proof a coin's genuine, so it's one check, not full authentication — and for anything potentially valuable, a professional opinion is worth getting.

CHEAT SHEET

Everyday Cheat Sheet

Keep this page handy. It points you straight to what to do for each task.

I want to...	Do this...
why it helps	A coin's weight and size help identify it and spot fakes
the scale	A precision (jeweler's) scale weighs to a fraction of a gram
the caliper	A caliper measures diameter and thickness precisely
compare to specs	Check your readings against the coin's published specs
catches some fakes	Many counterfeits get weight or size subtly wrong
not the whole story	One helpful check, not full authentication
Get help	Call Bill: (330) 200-8042

AT A GLANCE

A Picture to Follow Along

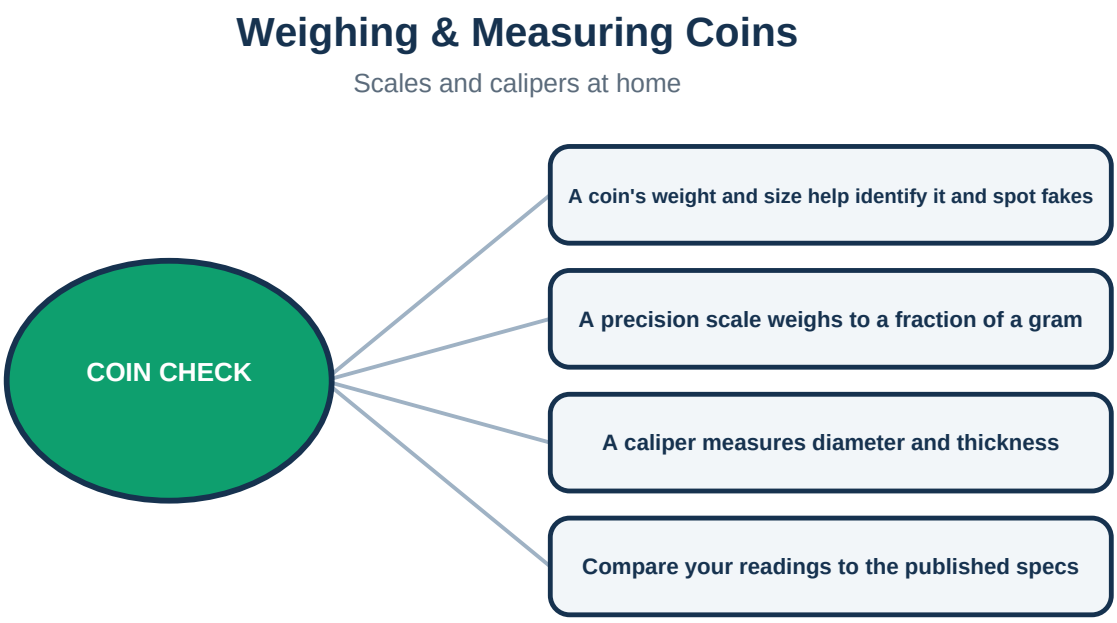


Illustration — a schematic. Set-up screens differ; each takes only a few minutes.

AT A GLANCE

A Second Look

Checking a Coin

Four steps

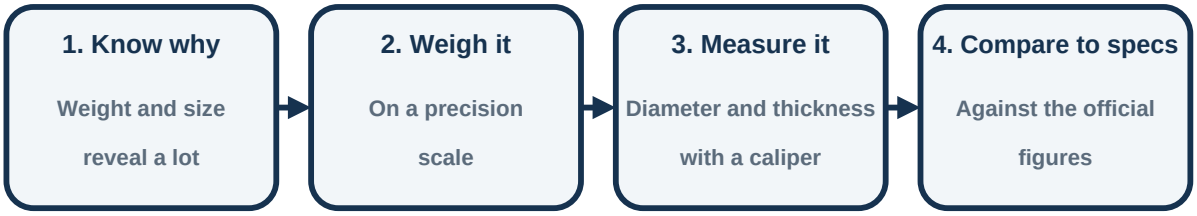


Illustration — a schematic. The order is a suggestion; do one box at a time.

A schematic of the plan — company steps vary; the order does not have to.

BEFORE YOU GO

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 results.

HOW I CAN HELP

Your Visit — and My Promise

You don't have to remember all of it — just that a friendly, patient person is one call away, whenever you'd rather have a hand.

KEY SPECS

In your home — $99 flat for the first visit, no contracts and no surprises, with a 30-day come-back-free follow-up. In-home visits cover Portage County, Ohio and nearby communities.
Outside the area? Remotely — $49 for a screen-share session (free for Support Plan members, $39/mo), refundable if I can't fix it — and credited toward a visit if you'd rather have me in person. Book either at billshometech.com/book.

GOOD TO KNOW

My promise — If you're not 100% satisfied with your visit, I'll come back at no charge, or refund the full $99. No questions, no awkwardness. That's how I'd want to be treated.

Whenever you're ready, I'll come to your home anywhere in Portage County, Ohio and nearby communities, at your pace. Too far for a house call? I also help remotely. Book at billshometech.com/book or call (330) 200-8042. — Bill

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