BILL'S HOME TECH
Home & Small Business Tech Solutions

BILL'S COMPLETE MANUALS

TV Antennas & Free Local Channels

Free local TV in Portage County, and how to get it — explained in plain English, one step at a time

A plain-English guide for every antenna viewer

Take your time — you can't break it

Written for you by Bill — Bill's Home Tech

(330) 200-8042 · BillsHomeTech.com

Covers Cleveland, Akron & Youngstown stations, NextGen TV & antenna DVRs · facts current November 2026

What's Inside

This is your plain-English guide to free over-the-air TV in Portage County: which stations you can receive, choosing and placing an antenna, scanning for channels, NextGen TV, recording, and staying safe and scam-free. Read it in any order and at your own pace; there's no test, and you can't fall behind.

Part 1 — Getting Started with Free Antenna TV

1 A Note from Bill
2 What an Antenna Gets You (and What It Doesn't)
3 How Over-the-Air TV Works, in Plain English
4 Your First Hour: A Quick Start

Part 2 — What Portage County Can Receive

5 Where the Signals Come From
6 The Cleveland Channels
7 The Youngstown Channels
8 The VHF Puzzle: Channels 8 and 19
9 Checking Your Own Address

Part 3 — Choosing and Placing an Antenna

10 Antenna Types Explained
11 Indoor Antennas: Where to Put Them
12 Attic Antennas
13 Outdoor and Mast Antennas
14 Amplifiers: When They Help and When They Hurt
15 Cables, Splitters and More Than One TV

Part 4 — Scanning, Rescanning and Fixing Reception

16 Running a Channel Scan
17 Rescanning by TV Brand
18 When Channels Break Up or Disappear
19 The Guide, Favorites and Captions

Part 5 — NextGen TV and Recording

20 What NextGen TV Is
21 NextGen TV in Cleveland Today
22 What You Need to Watch NextGen TV
23 The Encryption Problem and the FCC's Plans
24 Antenna DVRs and Networked Tuners
25 Choosing the Setup That Suits You

Part 6 — Your Rights, Your Safety and Scams to Avoid

26 Your Right to Put Up an Antenna
27 Lightning, Grounding and Ladder Safety
28 Antenna Scams and "Free TV" Tricks
29 Honest Costs: Antenna, Cable and Streaming

Part 7 — When to Call Bill, Your Cheat-Sheet and a Glossary

30 When to Call Bill
31 Your Antenna Cheat-Sheet
32 A Plain-English Glossary

PART 1

Getting Started with Free Antenna TV

What an antenna really gets you, how over-the-air TV works in plain English, and a calm first hour that ends with local channels on your screen.

CHAPTER 1

A Note from Bill

Hello, and welcome. I'm Bill. For more than 30 years I've helped people make sense of their technology, and these days I do it right here in Portage County, Ohio, in person and over the phone. If you've ever wondered, "Can I really get the local channels for free?" the answer is yes. This guide shows you how, one plain step at a time.

Your local stations, the ones that carry the evening news, the weather, network shows and a good deal of live sports, still send their pictures through the air, the same way they did when you were young, only now the signal is digital and sharp. A modern antenna can catch it. There's no monthly bill and no contract.

WHAT THIS DOES FOR YOU

What this guide does for you

By the end you'll know which stations reach your part of Portage County, which antenna makes sense for your house, where to put it, how to make your TV find the channels, and what the new "NextGen TV" signal means for you. You'll also know which ads and offers to ignore, so you never pay for something that should be free.

You can't break anything

Plugging in a cable, moving an antenna around the room and running a channel scan can't damage your TV or erase your streaming apps. If a scan comes up short, move the antenna and scan again. The only part that calls for real caution is climbing onto a roof, and Part 6 is honest about that.

How to use this guide

In a hurry? Chapter 4 is a quick start. Part 2 lists the stations that serve our county, Part 4 fixes reception trouble, and Part 5 explains NextGen TV.

And I'm only a phone call away

If you'd rather have someone sit beside you, or you'd like an antenna put in the attic properly, call or text me at **(330) 200-8042**. Help is $49 remote · $99 in your home. Now, let's get you some free TV.

— Bill

CHAPTER 2

What an Antenna Gets You (and What It Doesn't)

Before you buy anything, it helps to know exactly what's on the table. An antenna is wonderful at one job, and it's worth being clear about where that job ends.

What you get

- **The big local network stations.** In our area that means NBC, ABC, FOX and CBS from Cleveland, and, in much of the county, the same networks from Youngstown as well.
- **Public television.** Ideastream's WVIZ from Cleveland and PBS Western Reserve, which has its studios on the Kent State campus.
- **The CW, MyNetworkTV, ION, Univision and more.** These are full stations too.
- **Extra "subchannels."** Each station can send several channels at once. That's where you'll find classic-TV and movie channels such as MeTV, Antenna TV, Cozi TV and Grit, all free.
- **Local news, weather and emergency coverage,** which keeps coming even if your internet is down, as long as your TV has power.

What you don't get

- **Cable-only channels** such as CNN, ESPN, HGTV, Fox News or the Hallmark Channel. Those never go over the air; they come from cable, satellite or a streaming service.
- **Regional sports networks** that carry many Guardians and Cavaliers games. Check how your team's games are carried each season; some games do air on local stations.
- **Everything on demand.** An antenna shows what's on right now. If you want to record or pause, Chapter 24 covers the recorders that work with an antenna.

> GOOD TO KNOW
>
> **Antenna plus streaming is a common pairing**
>
> Many households keep an antenna for local news and network shows, and add one or two streaming apps for everything else. Our companion guide, *TV & Streaming Setup*, and the *Cutting the Cord* manual cover the streaming side. This guide stays focused on the free, over-the-air part.

Is my TV ready?

Almost certainly. Every TV sold in the United States since 2007 has a digital tuner built in, so it can receive today's broadcasts. Look on the back for a round, threaded connector, usually labeled **ANT IN**, **ANT/CABLE** or **RF IN**. That's where the antenna cable screws on. If your TV is older than that, a small digital converter box will do the job.

TIP

If you have cable now

That same round connector is where your cable company's wire may be attached today. You can use it for an antenna instead. Just remember that if you go back to cable later, the cable wire goes back on that same socket.

CHAPTER 3

How Over-the-Air TV Works, in Plain English

You don't need to understand any of this to enjoy free TV. But a few simple ideas explain almost every puzzle you'll run into later, so it's worth five minutes.

Stations, towers and line of sight

Each station sends its signal from a tall tower. Most of the Cleveland stations share a group of towers in **Parma**, just south of Cleveland. Others broadcast from towers near Akron, and the Youngstown stations broadcast from the Youngstown area. The signal travels best in a straight line. Hills, tall trees, metal siding and big buildings between you and the tower all weaken it. That's why the same antenna can work beautifully on one street and poorly two streets over.

The "digital cliff"

With the old analog TV, a weak signal gave you a snowy picture. Digital TV works differently. When the signal is good enough, the picture is perfect. When it drops below a certain point, the picture freezes, breaks into little squares, or disappears entirely. There's very little in between. People call this the **digital cliff**. It means a small improvement, such as moving the antenna two feet, can be the difference between nothing and a perfect picture.

Two numbers for every channel

Here's the idea that clears up the most confusion. Every station has the number you see on screen, called the **virtual channel**, and a different number it actually broadcasts on, called the **real** or **RF channel**. Cleveland's NBC station, WKYC, shows up as channel 3, but it actually broadcasts on channel 19. Your TV sorts this out automatically during a channel scan. You only need the real channel number when you're choosing an antenna, because it tells you which *kind* of signal the station sends.

UHF and VHF

Real channels 14 through 36 are called **UHF**. Real channels 7 through 13 are called **VHF-high**. Most of our stations are UHF, but two of Cleveland's most-watched stations are VHF: FOX 8 (WJW) really is on channel 8, and CBS 19 (WOIO) actually broadcasts on channel 10. Many small flat indoor antennas are good at UHF and only fair at VHF. If you can get everything except channels 8 and 19, this is almost always why. Chapter 8 is all about this.

Subchannels

One digital station can carry several programs at once. They show up as numbers with a dot: 19.1, 19.2, 19.3 and so on. The ".1" is usually the main network. The others are extra channels, often classic TV, movies, game shows or shopping. You get all of them from the one signal.

Term	What it means
Virtual channel	The number on your screen, such as 3, 5 or 8.
Real (RF) channel	The frequency the station actually uses. Matters for antenna choice.
UHF	Real channels 14-36. Most local stations. Easy for most antennas.
VHF-high	Real channels 7-13. In Cleveland: FOX 8 and CBS 19. Needs an antenna that handles VHF.
Subchannel	An extra channel from the same station, such as 8.2 or 19.2.

CHAPTER 4

Your First Hour: A Quick Start

If you'd like to get going right away, this chapter is for you. It works for most homes in Portage County. If you end up missing a channel or two, the later chapters explain why and what to do.

What you need

- A TV with an antenna connector (any TV from the last fifteen years or so).
- An indoor antenna that says it receives both **VHF and UHF**. This matters in our area.
- Fifteen minutes to try a few spots in the room.

Step by step

1. Unpack the antenna and screw its cable onto the TV's **ANT IN** connector. Finger-tight is plenty.
2. If the antenna has a small power box or USB plug, it's amplified. Plug it in for now.
3. Set the antenna as high as you can, near a window that faces **northwest** toward Cleveland if you can manage it. Upstairs is better than downstairs.
4. On the TV remote, press **Input** or **Source** and choose **TV**, **Antenna** or **Live TV**.
5. Open the TV's settings and look for **Channel Scan**, **Auto Program** or **Auto Tuning**. When asked, choose **Antenna** or **Air**, not Cable.
6. Let the scan finish. It takes a few minutes. Don't touch the antenna while it runs.
7. Flip through the channels. Write down which ones come in well and which are missing.
8. If you're missing channels, move the antenna to a new spot and scan again. Most people find their best spot within two or three tries.

> **TIP**
>
> **Scan again after every move**
>
> Your TV only remembers the channels it found during the last scan. If you move the antenna and a missing channel still doesn't appear, it may be there now but not saved. A fresh scan finds it.

GOOD TO KNOW

Exact menu names

Every TV maker words the scan menu a little differently. Chapter 17 goes brand by brand: Samsung, LG, Sony, TCL, Hisense, Roku TV, Google TV and Fire TV sets.

FROM BILL

Happy to do the first scan with you

If you'd like a hand finding the best spot, I can walk you through it over the phone or come by. $49 remote · $99 in your home. Call or text (330) 200-8042.

PART 2

What Portage County Can Receive

Where the signals come from, the Cleveland and Youngstown stations by channel number, the two tricky VHF channels, and how to check your own address.

CHAPTER 5

Where the Signals Come From

Portage County sits in an unusual and lucky spot. We're officially part of the Cleveland TV market, but we're close enough to Akron and Youngstown that many homes can pull in stations from three directions. Knowing where the towers are tells you which way to point an antenna.

The three main tower areas

Tower area	What's there and which way it is
Parma (Cleveland)	Most Cleveland stations: NBC 3, ABC 5, FOX 8, CBS 19, PBS 25, Univision 61 and the new NextGen TV signal. From most of Portage County this is to the **northwest or west-northwest**, roughly 20 to 35 miles away depending on where you live.
Akron area (Copley and Norton)	PBS Western Reserve 49, ION 23, Bounce TV 17, TCT 47, and a UHF fill-in for CBS 19. From Kent and Ravenna these are to the **west-southwest**, roughly 12 to 30 miles away.
Youngstown	NBC 21, CBS 27, ABC 33, and FOX on 27.2. These are to the **east**, roughly 28 to 40 miles from most of the county. PBS Western Reserve's Youngstown-market signal, channel 45, comes from a tower near **Salem**, to the southeast.

GOOD TO KNOW

These distances are approximate

They're rough straight-line distances from Kent, Ravenna, Aurora and Garrettsville to the tower locations published in FCC records. Your own distance depends on your street. Chapter 9 shows you how to get exact, address-by-address predictions for free.

What that means for you

- **Western Portage County** (Aurora, Streetsboro, Kent, Brimfield, Tallmadge-side) is generally closest to Parma and Akron. An indoor or attic antenna often does well here.
- **Central Portage County** (Ravenna, Rootstown, Shalersville) is usually in a good middle position for both Cleveland and Akron, with Youngstown possible with a better antenna.
- **Eastern Portage County** (Garrettsville, Windham, Palmyra, Deerfield) is farther from Parma but closer to Youngstown. Many homes here can choose between Cleveland and Youngstown versions of the same networks.

These are general patterns, not promises. A house in a valley may need an outdoor antenna even close to the towers.

CHAPTER 6

The Cleveland Channels

These are the full-power stations of the Cleveland-Akron-Canton market. All of them are free. The table shows the channel number you'll see on screen, the network, and the real channel each one uses, which tells you whether your antenna needs to handle VHF.

On screen	Station	Network	Real channel	Tower area
3	WKYC	NBC	19 (UHF)	Parma
5	WEWS	ABC	15 (UHF)	Parma
8	WJW	FOX	**8 (VHF)**	Parma
17	WDLI	Bounce TV	22 (UHF, shared)	Norton (Akron)
19	WOIO	CBS	**10 (VHF)**	Parma
23	WVPX	ION	22 (UHF)	Norton (Akron)
25	WVIZ	PBS (Ideastream)	35 (UHF)	Parma
43	WUAB	MyNetworkTV	**10 (VHF, shared)**	Parma
47	WRLM	TCT (religious)	24 (UHF, shared)	Copley (Akron)
49	WEAO	PBS Western Reserve	24 (UHF)	Copley (Akron)
55	WBNX	The CW	carried on 8 (VHF)	Parma
61	WQHS	Univision	36 (UHF)	Parma

"Shared" means two stations send their programs on one signal to save airwaves. Bounce TV rides with ION, TCT rides with PBS Western Reserve, and MyNetworkTV 43 rides with CBS 19. You don't have to do anything about it; your TV lists them separately.

HEADS UP

Channel 55 moved in July 2026

The CW's own transmitter, WBNX, switched to the new NextGen TV format on July 22, 2026. Its regular channel 55.1 now travels on FOX 8's signal, and its extra channels ride on other stations. If 55 vanished from your TV this summer, a fresh channel scan usually brings it back, and if you can get FOX 8 you can usually get The CW.

The extra channels you'll find

This is where antenna TV gets fun. Here are the subchannels RabbitEars and the stations' published listings show for the main Cleveland stations. Stations change these from time to time, so treat this as a guide and let your own scan be the final word.

Station	Subchannels
NBC 3 (WKYC)	3.2 True Crime Network · 3.3 Cozi TV · 3.4 Quest · 3.5 The Nest · plus shopping channels · 55.5 Start TV
ABC 5 (WEWS)	5.2 Grit · 5.3 Laff · 5.4 ION Plus · plus shopping channels · 55.3 Rewind TV · 55.4 Heroes & Icons
FOX 8 (WJW)	8.2 Antenna TV · 8.3 Comet · 8.4 Charge! · 55.1 The CW
CBS 19 (WOIO)	19.2 MeTV · 19.3 Defy · 19.4 365BLK
MyNetworkTV 43 (WUAB)	43.2 Outlaw · 43.3 Oxygen
ION 23 (WVPX)	23.2 Court TV · 23.3 Busted · 23.4 Ion Mystery · shopping channels · 55.2 Buzzr
PBS 25 (WVIZ)	25.2 The Ohio Channel · 25.4 Create · 25.5 PBS Kids · 25.7 WKSU radio (audio only)
PBS Western Reserve 49 (WEAO)	49.2 Fusion · 49.3 FNX
Univision 61 (WQHS)	61.2 UniMás

GOOD TO KNOW

Why do some numbers start with 55 on other stations?

When WBNX moved to NextGen TV, its channels kept their familiar 55 numbers but were placed on other stations' signals. Your TV still shows them as 55.1, 55.2 and so on, sorted in number order.

A low-power bonus: Telemundo 6

Cleveland's Telemundo station, WTCL-LD on channel 6, is a lower-power station broadcasting on UHF from Parma. It reaches much of the area but not as far as the full-power stations. It also carries a copy of CBS 19, shown as **19.10**, which turns out to be very handy. More on that in Chapter 8.

CHAPTER 7

The Youngstown Channels

If you live in central or eastern Portage County, you may be able to receive the Youngstown stations as well. They're all UHF, which makes them friendly to ordinary antennas, and they're a useful backup when a Cleveland channel is hard to get.

On screen	Station	Network	Real channel	Extra channels
21	WFMJ	NBC	33 (UHF)	21.2 The CW · 21.3 Dabl
27	WKBN	CBS	31 (UHF)	27.2 FOX (WYFX)
33	WYTV	ABC	31 (UHF, shared)	33.2 MyYTV (MyNetworkTV)
45	WNEO	PBS Western Reserve	29 (UHF)	45.2 Fusion · 45.3 FNX

Why Youngstown can be a lifesaver

Remember the two VHF channels from Chapter 3? FOX 8 and CBS 19 can be stubborn on small indoor antennas. Youngstown's CBS (27) and FOX (27.2) are both on UHF. Wikipedia's history of WKBN notes that viewers in the eastern half of the Cleveland market have often had better luck with WKBN's UHF signal than with the Cleveland VHF stations. So if you live toward the east side of the county and can't get 8 or 19, try for 27 instead.

GOOD TO KNOW

Same network, different local news

A Youngstown station carries the same network shows as its Cleveland cousin, such as the NFL on CBS or Sunday night football on NBC. The local news, weather and ads will be about the Mahoning Valley rather than Cleveland. Some sports may also differ because of local broadcast rights. Many people happily keep both.

TIP

Your TV can hold both

If your scan picks up NBC 3 and NBC 21, you'll have both. Nothing is lost. Use your TV's channel list or favorites to keep the ones you watch most at the top.

CHAPTER 8

The VHF Puzzle: Channels 8 and 19

If there's one chapter in this guide likely to solve a problem in our area, it's this one. A very typical result with a small indoor antenna here is: "I get almost everything, but not FOX 8 or CBS 19." Here's why, and four ways around it.

Why these two are different

FOX 8 (WJW) broadcasts on real channel 8, and CBS 19 (WOIO) broadcasts on real channel 10. Both are in the **VHF-high** band. VHF signals have longer waves, so an antenna needs longer elements to catch them well. Many thin, flat indoor antennas are designed mostly for UHF. They pick up VHF weakly, if at all. VHF signals also suffer more from household electrical noise, from things like LED bulbs, phone chargers and computer power supplies.

HEADS UP

Three channels ride on VHF in Cleveland

It's not just 8 and 19. MyNetworkTV 43 shares CBS 19's signal on channel 10, and The CW 55.1 now travels on FOX 8's signal. If those four numbers are missing together, VHF reception is your problem, not the stations.

Fix 1: Use an antenna rated for VHF

Look for an antenna whose box clearly says **VHF and UHF**, or that lists real channels 7 to 13. Attic and outdoor antennas with longer rods or "wings" handle VHF far better than small flat panels. Some flat antennas are larger and do include VHF; the packaging will say so.

Fix 2: Try the UHF copies of CBS 19

CBS 19's owner runs several UHF "fill-in" signals to reach places the main VHF signal misses. According to the station's FCC listings and RabbitEars:

- **19.10** on Telemundo's WTCL-LD, broadcasting on UHF from Parma.
- **19.10** on W28FG-D, broadcasting on UHF from the Akron area.
- **19.10** on WOHZ-CD, broadcasting on UHF from the Canton area.
- An Akron UHF transmitter for WOIO itself, which shows up as **19.1**.

In much of western and central Portage County, one of these Akron-area signals may come in more easily than the main VHF signal from Parma. If your scan shows a **19.10**, try it.

Fix 3: Use the Youngstown stations

As Chapter 7 explained, Youngstown's CBS 27 and FOX 27.2 are UHF. In eastern Portage County they're often the easier catch.

Fix 4: Move or upgrade the antenna

- Move the antenna away from the TV, computers and LED lamps to cut electrical noise.
- Get it higher. An upstairs window or the attic often makes a dramatic difference for VHF.
- For the most reliable VHF, an attic or outdoor antenna pointed toward Parma is the long-term answer.

TIP

NextGen TV is on UHF

If you own a TV or box that receives NextGen TV, FOX 8 and CBS 19 are also on the NextGen signal, which broadcasts on UHF from Parma. That's one more possible path. Part 5 explains NextGen TV.

CHAPTER 9

Checking Your Own Address

Before you spend money, it's worth five minutes at the computer to see what's predicted for your exact address. Two free tools do this well. Neither sells anything.

The FCC's DTV Reception Maps

The Federal Communications Commission, the government agency that licenses TV stations, offers a free lookup called **DTV Reception Maps** at **fcc.gov/media/engineering/dtvmaps**.

1. Go to **fcc.gov/media/engineering/dtvmaps** in your web browser.
2. Type your full street address, city and ZIP code, and press **Go**.
3. Read the list of stations. Each one is labeled by how strong the signal is predicted to be at your address, from strong down to weak or none.
4. Click a station to see more about it, including its real channel and which direction its tower is.
5. Make a note of which stations are predicted to be strong or moderate. Those are your likely catches.

> GOOD TO KNOW
>
> **A prediction, not a guarantee**
>
> These maps use computer models of the terrain. They don't know about your trees, your metal roof, or the hill behind your neighbor's barn. Treat them as a good starting point. Real-world results can be better or worse.

RabbitEars.info

RabbitEars.info is a long-running free site run by TV-reception enthusiasts. It keeps detailed, up-to-date lists of every station, its real channel and its subchannels. Its **Signal Search Map** tool lets you click your location on a map and see a predicted list of stations sorted by signal strength, with the compass direction to each tower.

Questions to answer before you shop

1. Which stations are predicted strong at my address? These will likely work with an indoor antenna.

2. Are FOX 8 and CBS 19 strong or weak here? If weak, plan for a VHF-capable attic or outdoor antenna.
3. Do I want Youngstown too? If so, note that it's in the opposite direction from Cleveland.
4. Are there tall trees or hills between me and Parma? If so, height will matter more than anything.

FROM BILL

I can read the report with you

If the map looks like alphabet soup, send me your address and I'll tell you in plain English what it means for your house and what I'd try first. $49 remote · $99 in your home.

PART 3

Choosing and Placing an Antenna

The kinds of antennas, which one fits your house, where to put it, when an amplifier helps and when it hurts, and how to feed more than one TV.

CHAPTER 10

Antenna Types Explained

Walk down the antenna aisle and you'll see dozens of boxes with big promises. Underneath the marketing there are really only a handful of types. Here they are, from simplest to most capable.

Flat indoor antennas

These are the thin, square or rectangular panels you can stick on a wall or window. They're cheap, tidy and easy. They work well when you're fairly close to the towers and the signal is strong. Most are best at UHF and only fair at VHF, which matters for FOX 8 and CBS 19 in our area.

Indoor antennas with rods or loops

The modern cousins of old "rabbit ears." Rods or larger elements often help VHF reception, and you can adjust them. They're less pretty but sometimes more effective than a flat panel.

Amplified indoor antennas

Any of the above with a small electronic booster, powered by a wall plug or a USB port on the TV. An amplifier can help with a long cable or a weak signal. It can also make things worse, which is why Chapter 14 is devoted to it.

Attic antennas

Larger antennas meant to sit in an attic, out of the weather and out of sight. They get height without a ladder on the roof, and they're big enough to do VHF properly. For many Portage County homes this is the sweet spot.

Outdoor antennas

Mounted on the roof, a chimney, the side of the house or a mast. They give the best reception of all because they're high and clear of the house's walls. Outdoor antennas come in two flavors:

- **Directional** antennas are aimed at one tower area. They reach farther and reject interference from other directions. Best when nearly all your stations are in one direction.
- **Multidirectional** (sometimes called omnidirectional) antennas pick up from several directions at once, with less reach. Useful in Portage County, where stations come from northwest, west-southwest and east.

Type	Typical cost	Good at VHF?	Best for
Flat indoor	About $15-$50	Often weak	Strong-signal areas, renters, quick tries
Indoor with rods/loops	About $20-$60	Usually better	Indoor use when 8 and 19 are a problem
Attic	About $50-$150	Yes, on most	Many Portage County homes
Outdoor/mast	About $60-$200 plus mounting	Yes	Fringe areas, trees, hills, Youngstown

GOOD TO KNOW

About those prices

These are rough, typical ranges to help you budget, not quotes, and prices vary widely by brand and store. Professional installation of an outdoor antenna, with mounting, cable and grounding, costs more. Get a written price first.

SCAM ALERT

"Mile range" is marketing, not a measurement

There's no industry standard for the "150-mile range" printed on antenna boxes. A bigger number doesn't mean a better antenna. What matters is whether it handles VHF and UHF, how big it is, and how high you can put it.

CHAPTER 11

Indoor Antennas: Where to Put Them

With indoor antennas, placement matters more than brand. The same antenna can find five channels in one spot and twenty-five in another. Here's how to find your best spot without frustration.

The rules of thumb

- **Higher is better.** Upstairs beats downstairs. The top of a window beats the bottom.
- **Face the towers.** For Cleveland stations, a window or wall facing northwest or west usually works best from Portage County.
- **Windows beat walls.** Glass lets signals through more easily. Some energy-efficient windows with metallic coatings are an exception.
- **Avoid metal.** Keep the antenna away from metal blinds, foil-backed insulation, mirrors, refrigerators and metal siding.
- **Avoid electronics.** Computers, Wi-Fi routers, LED bulbs and chargers create noise that especially hurts VHF.
- **Avoid basements.** If your TV is downstairs, put the antenna upstairs and run a cable down.

A calm way to test spots

1. Pick three candidate spots, such as a high spot on the northwest wall, an upstairs window, and next to the TV.
2. Put the antenna in the first spot and run a full channel scan.
3. Write down how many channels it found and which of your must-have channels are there.
4. Repeat for the other spots. Many TVs have a **signal strength** screen in their settings; it can help you fine-tune once you're close.
5. Settle on the spot that gets your must-have channels, even if another spot found more total channels you'll never watch.

TIP

Need a longer cable?

If your best spot is across the room, a longer coaxial cable (often called coax) is fine. Buy one with the same screw-on ends. A good-quality 25-foot cable costs little and loses very little signal.

CHAPTER 12

Attic Antennas

An attic antenna gives you height and size without the risks of the roof. For many homes in our county it's the best balance of reception, looks and safety.

What to expect

A roof and shingles do absorb some signal, often a noticeable amount. So an attic antenna won't match the same antenna on the roof. But compared with an indoor antenna it's usually a big step up, particularly for VHF channels 8 and 19.

Things that work against you

- **Metal roofs** block most signal. An attic antenna under steel roofing rarely works well.
- **Foil-faced insulation or radiant barriers** on the rafters act like a shield.
- **Wet shingles and snow** weaken signals a little. Reception may dip in heavy weather.
- **HVAC ducts and wiring** near the antenna can reflect or add noise.

Placement tips

1. Mount the antenna as high as practical, near the peak, and away from ductwork.
2. Aim a directional antenna toward Parma (northwest or west-northwest). Use a phone compass app or the direction shown on the FCC or RabbitEars map.
3. Run a scan from the TV before you secure everything. Have a helper call out results while you nudge the aim a few degrees.
4. Once you're happy, secure the antenna and the cable so neither can shift.
5. Run the cable down an existing path, or feed the house's old cable wiring (Chapter 15).

STAY SAFE

Attics deserve respect

Step only on joists or a walk board, never between them, or you can come through the ceiling. Watch for nails poking through the roof deck, exposed wiring and wasp nests. Attics get dangerously hot in summer, so work early in the day. If climbing into the attic isn't easy for you, this is a good job to hand off.

CHAPTER 13

Outdoor and Mast Antennas

An outdoor antenna is the gold standard for reception. If you're in a valley, behind heavy trees, or want both Cleveland and Youngstown, this may be the right choice. It's also the type that most often calls for a professional.

Mounting options

- **Roof mount:** a tripod or base fastened to the roof. Highest, but means work on the roof.
- **Eave or wall mount:** a bracket on the side of the house near the roofline. Easier to reach.
- **Chimney mount:** straps around a sound chimney. Check the chimney's condition first.
- **Mast or pole:** a pipe that raises the antenna above the roof or trees.
- **Balcony or patio:** a smaller antenna on a stand, popular with renters.

Pointing in Portage County

Because our stations come from more than one direction, you have choices:

If you want...	Consider
Cleveland only	A directional antenna aimed northwest toward Parma. Often picks up Akron's stations too, since they're fairly close.
Cleveland and Youngstown	A multidirectional antenna, or two antennas joined with a proper combiner, or one antenna on a **rotator** (a motor that turns it by remote).
Youngstown first	In the far east of the county, a directional antenna aimed east may be the simplest way to get every network on UHF.

HEADS UP

Two antennas aren't simply joined with a splitter

Connecting two antennas to one cable sounds easy, but if both catch the same station from different directions, the signals can interfere and you lose it. It can be done with the right combiner and careful choices. This is a job where experience pays off.

Questions to ask before going outdoors

- Can I reach the mounting spot safely from the ground or a short, stable ladder?
- Is there a power line anywhere near where the antenna or mast could fall? If so, stop. Hire a professional.

- Does my HOA or lease say anything? Federal rules protect most antennas; see Chapter 26.
- How will the cable get inside, and where will it be grounded? See Chapter 27.

STAY SAFE

Power lines are the number-one danger

Every year people are seriously hurt when an antenna or mast touches an overhead line. Plan the installation so that if anything falls, it can't come within reach of a power line, and keep ladders well away from lines too. If in doubt, don't.

CHAPTER 14

Amplifiers: When They Help and When They Hurt

An amplifier, also called a preamp or booster, makes the signal stronger before it travels down the cable. It sounds like more is always better. It isn't. Used in the wrong place, an amplifier makes reception worse.

When an amplifier helps

- You have a **long cable run**, say from the attic or roof down to a basement TV.
- You're **splitting** the signal to several TVs, which divides it each time.
- You're **far from the towers** and the signal is weak but steady.

When an amplifier hurts

- **You're close to strong towers.** Too much signal can overload the amplifier or the TV's tuner. The result looks exactly like a weak signal: missing channels and freezing pictures.
- **The signal is noisy, not weak.** An amplifier boosts the noise right along with the picture.
- **It's a cheap, noisy amplifier.** Some add their own noise.

TIP

The two-scan test

If your antenna came with an amplifier, run one scan with it plugged in and one with it unplugged or bypassed. Keep whichever gets your must-have channels. In western Portage County, closer to Parma and Akron, many people find they do better without it.

Where the amplifier goes

A preamplifier works best close to the antenna, before the long cable. Outdoor preamps mount on the mast and get power up the cable from a small inserter indoors.

HEADS UP

Unplugging may not be enough

On some amplified antennas, no signal passes when the amplifier's power is off. Check the instructions to see whether it can be removed or bypassed for your test.

CHAPTER 15

Cables, Splitters and More Than One TV

One good antenna can feed every TV in the house. You just need to understand the wiring and how much signal each split costs.

The cable

TV antennas use coaxial cable with screw-on connectors, the same kind cable TV uses. The common type is **RG6**. Loose, corroded or kinked connectors are a common hidden cause of trouble.

Splitters divide the signal

A splitter sends one antenna to two or more TVs. Each time you split, each TV gets less.

Splitter	Each TV gets	Usually fine when...
2-way	Roughly half the signal	Your signal is good at one TV
4-way	Roughly a quarter or less	Signal is strong, or with a distribution amplifier
8-way	Much less	Only with an amplifier and strong signals

1. Find where your home's coax cables meet. It's often in the basement, a closet or outside by the old cable box.
2. If the house was wired for cable, disconnect the cable company's line from that hub, and connect the antenna cable in its place.
3. Use a splitter with only as many outputs as you need.
4. Scan each TV. If the far TVs are weak, add a **distribution amplifier** at the hub to make up for the splitting.

HEADS UP

Don't mix antenna and cable on the same wires

If you still have cable TV or cable internet, keep the cable company's line and your antenna on separate wiring. Never join them.

TIP

Or skip the wiring altogether

A networked tuner (Chapter 24) sends live TV over your home network instead of new coax.

PART 4

Scanning, Rescanning and Fixing Reception

How to make your TV find the channels, where the scan menu lives on the popular TV brands, and what to do when a picture freezes or a channel disappears.

CHAPTER 16

Running a Channel Scan

A channel scan is simply your TV listening on every channel and saving the ones it can hear. You'll run one when you first connect an antenna, any time you move it, and whenever a station changes frequencies. It's quick, harmless and the first thing to try for almost any problem.

The general steps on any TV

1. Press **Input** or **Source** on the remote and choose the TV's built-in tuner, often called **TV**, **Antenna**, **Air** or **Live TV**.
2. Open **Settings** and look for a menu named **Channels**, **Broadcasting** or **Live TV**.
3. Choose **Channel Scan**, **Auto Program**, **Auto Tuning** or **Auto Scan**.
4. If asked for the signal type, choose **Antenna** or **Air**, not Cable. If it offers **Air and Cable** and you don't have cable, Air alone is faster.
5. Wait for it to finish. Don't change channels, move the antenna or press buttons during the scan.
6. When it's done, the TV shows how many channels it found. Flip through to check your favorites.

> **GOOD TO KNOW**
>
> **A scan replaces the old list**
>
> On most TVs a new scan erases the previous channel list and saves only what it finds now. If a channel was coming in yesterday but the antenna is in a bad spot today, it won't be saved. That's why it's best to scan with the antenna in its final position.

When to rescan

- After you move, re-aim or replace the antenna.
- When a channel you used to get suddenly says **No Signal** while others work fine.
- When the news mentions a station changing channels or equipment. In July 2026, for example, The CW's channels moved to other stations' signals when WBNX switched to NextGen TV.
- A couple of times a year anyway. Note the channel count in Chapter 31 so you can spot changes.

CHAPTER 17

Rescanning by TV Brand

Here is where to find the scan on today's most popular TV brands. Menus change with software updates and differ between model years, so I've described where to look rather than promising an exact path. If yours looks different, look for the words in bold.

Samsung

On most recent Samsung TVs, open **Settings** (you may need **All Settings**), choose **Broadcasting**, then **Auto Program** (sometimes **Auto Tuning**). Choose **Start**, then pick **Air** as the signal source. If the Broadcasting menu is greyed out, first switch the input to **TV** or **Live TV**.

LG

On most LG TVs with webOS, open **Settings**, then **All Settings**, and look for **Channels** (on some models it's inside **General**). Choose **Channel Tuning** and then **Auto Tuning**, and select **Antenna**.

Sony (Google TV)

On most recent Sony Bravia sets, open **Settings**, choose **Channels & Inputs**, then **Channels**, and look for **Channel Setup**, **Channel Scan** or **Auto Program**. Select **Antenna** or **Air**.

TCL and Hisense with Google TV

On Google TV models, open the **Live TV** app or switch the input to **TV** first. Then open **Settings**, find **Channels** (sometimes **Channels & Inputs**), and choose **Channel Scan** or **Auto Scan**.

Hisense with VIDAA

On Hisense sets with the VIDAA system, open **Settings**, choose **Channel**, and select **Auto Scan** (sometimes under **Channel Scan**). Choose **Antenna** as the tuner mode.

Roku TV (TCL, Hisense, Roku-brand and others)

On a Roku TV, the antenna lives under the **Live TV** (older models: **Antenna TV**) input. The first time, open that input from the Home screen and follow the setup, which includes a scan. To rescan later, press **Home**, go to **Settings**, then **TV inputs**, choose **Live TV** or **Antenna**

TV, and select **Scan again for channels**.

Fire TV smart TVs (Amazon, Insignia, Toshiba and others)

On TVs with Fire TV built in, open **Settings**, choose **Live TV**, then **Channel Scan**, and pick **Antenna**. Your antenna channels then appear in the Fire TV guide alongside streaming channels.

GOOD TO KNOW

A streaming stick doesn't have a tuner

A Roku stick, Fire TV Stick, Apple TV box or Google TV Streamer plugged into the TV can't receive an antenna by itself. Antenna channels come through the TV's own tuner, or through a networked tuner such as those in Chapter 24.

TIP

Use the manual if the menus fight you

Every maker posts its manuals online. Search the maker's support site for your exact model number, which is on a sticker on the back of the TV, plus the word "channel scan."

CHAPTER 18

When Channels Break Up or Disappear

Sooner or later a picture will freeze, stutter or vanish. Usually the cause is simple and the fix is free. Work down this list in order.

What you see	Likely cause	What to try
One channel says No Signal, others fine	Station changed something, or you need a rescan	Rescan. Check RabbitEars for news about that station.
Channels 8, 19, 43 and 55 all missing	Weak VHF reception	See Chapter 8. Try 19.10, 27, or a VHF-capable antenna.
Picture freezes or breaks into squares	Signal right at the digital cliff	Raise or move the antenna a little. Keep it away from electronics.
Everything worse than last week	Loose cable, new leaves, weather	Check connections. Wait out storms. Consider height.
Fewer channels after adding an amplifier	Overload	Remove or bypass the amplifier and rescan.
Fine at one TV, bad at another	Splitter loss or a bad cable	Swap cables. See Chapter 15.
Problems when a microwave or light is on	Electrical noise	Move the antenna and its cable away from the source.

Seasons and weather

Reception can change with the seasons. Leaves on trees between you and the tower absorb signal, so some homes see a dip from spring to fall. Heavy rain, wet snow on the roof and ice on an outdoor antenna can do the same. On some summer evenings, unusual weather lets distant stations travel much farther than normal, and you may briefly see stations from far away or interference on a channel. That clears up on its own.

Use the signal meter

Many TVs have a signal strength or signal information screen, often in the channel or support settings. Tune to a problem channel, open that screen, and adjust the antenna slowly while you watch the reading. Give it a few seconds after each move, because the meter takes a moment to settle.

HEADS UP

If nothing works at all

If you suddenly get zero channels, check the simple things first: is the TV on the right input, is the cable firmly attached at both ends, and if the antenna is amplified, is its power plugged in? Then run a scan.

FROM BILL

When it's time for a second set of hands

If you've worked through this list and you're still fighting the picture, I can test the signal at your house and tell you honestly whether a better spot, a different antenna or an attic install will fix it. $49 remote · $99 in your home.

CHAPTER 19

The Guide, Favorites and Captions

Once the channels are in, a few settings make antenna TV much more pleasant to use day to day.

The program guide

Digital stations send along basic program information, so most TVs can show what's on now and next. Press **Guide**, **Info** or **Live** on the remote. Some smart TVs, including Roku TV, Fire TV and Google TV models, can blend antenna channels into a fuller guide when the TV is connected to the internet.

Favorites and hiding channels

A scan may find forty or more channels, including shopping and religious channels you'll never watch. Most TVs let you mark **favorites** and **hide** or **skip** the rest, usually from the channel list or the channel settings menu. Hidden channels stay saved; they're just out of the way when you flip up and down.

Closed captions

Local stations send closed captions with their programs. To turn them on, look for a **CC** button on the remote, or open the TV's **Accessibility** settings and find **Captions** or **Subtitles**. Many TVs also let you make the caption text larger or change its colors, which can make a real difference.

Second audio and described video

Some programs carry an extra soundtrack, such as Spanish, or **audio description**, where a narrator describes what's happening on screen for viewers with low vision. Look for an **Audio** or **MTS/SAP** button, or an audio language setting while the program is on.

> **TIP**
>
> **Our hearing guide goes further**
>
> If captions and clearer dialogue matter to you, the *Hearing Help Tech* manual covers caption settings, TV listening devices and more.

PART 5

NextGen TV and Recording

What the new NextGen TV format is, what went on the air in Cleveland in July 2026, the encryption problem, where the FCC stands, and how to record and watch antenna TV all over the house.

CHAPTER 20

What NextGen TV Is

You may have seen the words **NextGen TV** on a TV box at the store, or heard that "antenna TV is changing again." Here's the plain-English version, and the reassuring news first: the TV you own today keeps working.

A newer way to send the same channels

Today's digital broadcasts use a standard called **ATSC 1.0**, the one that arrived with the switch from analog in 2009. **ATSC 3.0** is a newer standard, marketed as **NextGen TV**. It's a different "language" for the signal. A TV needs a NextGen tuner to understand it, the same way an old analog TV needed a converter box to understand digital.

What it's designed to offer

- The ability to carry 4K pictures and high dynamic range (HDR) for richer color.
- Improved sound, including features that can make dialogue easier to hear.
- More detailed emergency alerts, which can be aimed at specific areas.
- Better use of the airwaves, so stations can fit more into the same signal.

GOOD TO KNOW

Promise versus today

As of November 2026, industry coverage notes that NextGen programming is still broadcast in regular high definition rather than 4K.

Why it matters to antenna viewers

Broadcasters would eventually like to stop sending the older ATSC 1.0 signal and use only NextGen. If that happens in our area, TVs without a NextGen tuner would need a converter box to keep receiving antenna channels. That's a real possibility for the future, but it isn't happening now. Chapter 23 explains exactly where the rules stand.

WHAT THIS DOES FOR YOU

The bottom line for most households

You don't need to buy anything today. Your current TV keeps receiving every local station in the regular format. If you happen to be shopping for a new TV anyway, a NextGen tuner is a nice extra to look for, but not something to pay a big premium for yet.

CHAPTER 21

NextGen TV in Cleveland Today

Cleveland was the last of the country's 25 largest TV markets to get NextGen TV. That changed on **July 22, 2026**.

How Cleveland's NextGen signal works

Rather than every station converting its own transmitter, the stations share one. WBNX, The CW's station, converted its transmitter in Parma to NextGen TV. That one transmitter, called the **lighthouse**, now carries NextGen versions of five stations. Meanwhile, the other stations' own transmitters keep sending the regular signal, and WBNX's regular channels moved onto their signals, as Chapter 6 described.

NextGen channel	Station	Network
3.1	WKYC	NBC
5.1	WEWS	ABC
8.1	WJW	FOX
19.1	WOIO	CBS
55.1	WBNX	The CW

On a NextGen-capable TV, these may appear alongside the regular versions, with station names such as WKYC-NG. The NextGen signal broadcasts on **UHF** from Parma, so it doesn't share the VHF trouble of channels 8 and 19.

GOOD TO KNOW

What isn't on NextGen here (yet)

As of November 2026 I couldn't confirm NextGen broadcasts from Cleveland's PBS stations, ION, Univision, or from the Youngstown stations, so I've left them out. Station lineups can change. RabbitEars.info keeps an up-to-date ATSC 3.0 list if you'd like to check.

The regular signals continue

Under current FCC rules, a station that moves its main channel to NextGen TV must keep a regular ATSC 1.0 version on the air for viewers. That's why Cleveland's stations arranged to host each other's regular signals. Nothing you watch today was switched off for the NextGen launch.

CHAPTER 22

What You Need to Watch NextGen TV

If you'd like to try NextGen TV, you have three routes. All of them use your existing antenna; NextGen doesn't need a special antenna, though it does need to reach Parma on UHF.

1. A TV with a NextGen tuner built in

Look for the **NEXTGEN TV** logo on the box or the words "ATSC 3.0" in the specifications. Built-in tuners have been included mostly on higher-end models, and makers have gone back and forth:

- **Samsung** left NextGen tuners out of its 2025 and 2026 OLED TVs, according to industry reports, and has kept them on certain Neo QLED models.
- **LG** stopped including NextGen tuners in its U.S. TVs starting in 2024, after a patent dispute.
- **Sony, TCL and Hisense** have included them mainly on premium or flagship models.

TIP

Check the exact model number

Tuner support can differ between sizes and model years of what looks like the same TV. Before you buy, check the specifications for the exact model number on the box, not just the series name.

2. A NextGen converter box

A small box connects between your antenna and your current TV's HDMI input and receives NextGen channels. Makers such as ADTH and ZapperBox have offered them. In January 2026 industry coverage described most of these boxes as costing about $200 or more. A broadcaster group called Pearl TV announced a program to encourage basic boxes around $60. As of this writing I couldn't confirm which, if any, of those lower-cost boxes are on store shelves, so check before you buy.

HEADS UP

A box adds a second remote

Like the converter boxes of 2009, a NextGen box usually means switching inputs and using its own remote. For some households that extra step isn't worth it while the regular signals continue.

3. A networked tuner that receives NextGen

The **HDHomeRun FLEX 4K** from SiliconDust receives NextGen TV on two of its four tuners and sends live TV around your home network. SiliconDust's own site lists it at $199.99. It also says that some NextGen channels are encrypted and may not currently play on HDHomeRun; when that happens it uses the regular version of the channel instead. Chapter 24 covers networked tuners.

Route	Rough cost	Things to know
New TV with tuner	Part of the TV price	Mostly higher-end models. Check the exact model.
Converter box	Commonly $200+ (Jan. 2026); lower-cost boxes promised	Extra remote and input.
HDHomeRun FLEX 4K	$199.99 list	Whole-home; encrypted channels may fall back to regular.

CHAPTER 23

The Encryption Problem and the FCC's Plans

Two issues decide how NextGen TV will affect you: whether you can actually watch the channels on the device you buy, and whether the regular signal will someday be turned off. Here's the honest status of both as of mid-November 2026.

Encryption, also called DRM

Unlike today's regular broadcasts, NextGen signals can be **encrypted**, meaning scrambled so that only approved devices can play them. This is called **DRM**, short for digital rights management. Some broadcasters encrypt their NextGen channels, and RabbitEars marks which of Cleveland's NextGen channels are encrypted.

- **Approved TVs and boxes** can play encrypted channels, but some need an internet connection to do it, which surprises people who chose an antenna precisely to avoid depending on the internet.
- **Some networked tuners and DVRs** can't currently play encrypted NextGen channels. SiliconDust says this plainly about its HDHomeRun FLEX 4K.
- Broadcasters can use DRM to limit which devices play a channel, block watching away from home, and in some cases limit or expire recordings.

GOOD TO KNOW

Why this matters only a little, for now

As long as the regular ATSC 1.0 signals stay on the air, encryption only affects the NextGen versions. Your current TV and recorder keep getting the regular channels, unscrambled.

Where the FCC stands

- **Today's rule:** a station that puts its main channel on NextGen must also keep it on the air in the regular format.
- **October 2025:** the FCC voted to propose new rules. The proposal would let stations decide for themselves when to stop the regular simulcast, and it asked about possible timelines, including dates in 2028 for the largest markets.
- **Early 2026:** the public comment period ran into February 2026.
- **As of mid-November 2026:** industry coverage reports that the FCC still has not adopted final rules, set a shutoff date for the regular signal, or required new TVs to include NextGen tuners. No federal coupon program for converter boxes has been proposed.

SCAM ALERT

No one from the FCC will call you about NextGen TV

Any caller, email or door-to-door seller who says the government requires you to buy a box now, or your TV will stop working next week, is not telling the truth. When a real change comes, it will be widely announced on the local news, on the stations themselves, and in this guide's updates.

FROM BILL

A calm plan

Keep enjoying what you have. If you're buying a new TV, look for a NextGen tuner as a bonus. If and when a shutoff date is set for our area, I'll be glad to help you choose the simplest way to keep watching. $49 remote · $99 in your home.

CHAPTER 24

Antenna DVRs and Networked Tuners

An antenna by itself shows only what's on right now. If you miss the evening news or want to record a Sunday game, you need a recorder, usually called a **DVR** (digital video recorder). Today's antenna DVRs have a clever twist: many of them connect to your home network, so one antenna can feed every screen in the house.

How a networked tuner works

1. Your antenna's cable plugs into the tuner box instead of the TV.
2. The box connects to your home internet router, by cable or Wi-Fi depending on the model.
3. You install the maker's free app on your streaming devices, smart TVs, phones or tablets.
4. The app shows a channel guide. You watch live, pause, rewind and set recordings.

Tablo

Tablo's 4th generation DVR is a small box sold in **2-tuner** and **4-tuner** versions, with or without an antenna in the package. The number of tuners is how many channels you can watch or record at the same moment. In November 2026 Tablo's own U.S. store listed it from $99.95, with versions up to $159.95. Tablo describes it as **subscription-free** and says it also offers more than 100 free streaming channels alongside your antenna channels.

- Recordings are stored on the box; check the package for how much space your version has.
- It does not receive NextGen TV.
- It depends on your home network and internet for setup and its program guide.

HDHomeRun

SiliconDust's HDHomeRun FLEX tuners take a slightly different approach. Live TV and recording are free with no subscription, and you add your own USB hard drive for recordings. SiliconDust's site lists three models in November 2026:

Model	List price	Channels at once	NextGen TV
FLEX DUO	$109.99	2	No
FLEX QUATRO	$149.99	4	No
FLEX 4K	$199.99	4	Yes, on 2 tuners (encrypted channels may not play)

The free HDHomeRun app runs on Roku, Apple TV, Fire TV, Google TV and Android TV devices, Xbox, iPhone and iPad, Android phones and tablets, and Windows and Mac computers. SiliconDust offers an optional extended guide and advanced series recording for $35 a year.

What about Amazon's Fire TV Recast?

Amazon's Fire TV Recast was an antenna DVR for Fire TV devices. Amazon **discontinued** it in 2022, and no replacement was released. Echo Show devices lost the ability to use it in 2024. If you already own one and it works for you, there's no need to throw it out, but I wouldn't buy one used today, because its support could end at any time.

HEADS UP

A recorder needs a good antenna signal too

A DVR can't improve reception. If a channel breaks up on your TV, it will break up in the recording. Get the antenna working well first, then add the recorder.

GOOD TO KNOW

Recording for your own use is fine

Recording broadcasts at home to watch later is a normal, long-accepted use. Just don't sell or share copies of the recordings.

CHAPTER 25

Choosing the Setup That Suits You

There's no single right answer. The best setup is the simplest one that gives you what you actually watch. Here are four common arrangements, from simplest to fanciest.

1. One TV, one antenna

The antenna plugs straight into the TV. Use the TV's own remote and guide. Nothing to subscribe to, nothing to update. Perfect if you mostly watch the news live in one room.

2. One antenna feeding several TVs by cable

An attic or outdoor antenna connects to the house's existing coax wiring through a splitter, possibly with a distribution amplifier. Each TV uses its own tuner. Reliable and simple to use once installed, but there's no recording.

3. A networked tuner or DVR

One antenna feeds a Tablo or HDHomeRun. Every streaming device, phone and tablet in the house can watch live TV and recordings through an app. Best if you want to record, or watch the news on a tablet in the kitchen. It does mean learning one new app.

4. Antenna plus streaming services

Many people use any of the above for local channels, then add one or two paid streaming apps for cable-type channels. On many Roku TV, Fire TV and Google TV sets, antenna channels can appear in the same guide as streaming channels, which makes switching easy.

If you mostly...	Consider
I just want the local news	Setup 1. An indoor or attic antenna on the main TV.
Every TV in the house, no fuss	Setup 2, often with an attic antenna.
I want to record and pause	Setup 3, a networked DVR such as Tablo or HDHomeRun.
I watch on a tablet or phone at home	Setup 3. The apps run on phones and tablets.
I want NextGen TV too	A NextGen TV, a NextGen box, or HDHomeRun FLEX 4K (Chapter 22).
I want ESPN, CNN or HGTV as well	Add a streaming service. An antenna can't get those.

TIP

Start simple and add later

You can always start with an antenna on one TV and add a recorder or more TVs later. Nothing you buy for the simple setup is wasted when you grow it.

FROM BILL

Setting up a recorder together

If you'd like a DVR set up with your favorite shows already scheduled to record, I'm glad to help, remotely or in person. $49 remote · $99 in your home.

PART 6

Your Rights, Your Safety and Scams to Avoid

The federal rule that protects your right to an antenna, how to stay safe on ladders and roofs, lightning and grounding, the scams that target antenna buyers, and an honest look at costs.

CHAPTER 26

Your Right to Put Up an Antenna

Worried your HOA, condo board or landlord won't allow an antenna? In most cases a federal rule is on your side.

The FCC's OTARD rule

The FCC's **Over-the-Air Reception Devices** rule, usually shortened to **OTARD**, limits restrictions on antennas designed to receive broadcast TV. In general, it applies to antennas on property you own or rent and that is under your exclusive use and control, such as your house, your own yard, or the balcony or patio of your apartment.

What HOAs, landlords and towns generally can't do

- Ban an antenna outright on property you control.
- Impose rules that **unreasonably delay** installation, such as requiring advance approval.
- Impose rules that **unreasonably raise the cost**, or **prevent an acceptable signal**.

What they generally can do

- Enforce genuine **safety** requirements, and some rules for properties in historic districts.
- Express a preference for a less visible location, as long as you'd still get an acceptable signal there and it doesn't add unreasonable cost.
- Control **common areas** that you don't have exclusive use of, such as a shared roof or the outside walls of an apartment building.
- Require a permit for a tall mast. Masts reaching more than 12 feet above the roofline may face added safety review.

TIP

Renters: think balcony or window

An indoor antenna, or one on a stand on your own balcony or patio, is usually easiest. Your landlord may forbid drilling through outside walls.

GOOD TO KNOW

If you hit a disagreement

Bring a printout of the FCC's OTARD guidance from fcc.gov; many boards simply aren't aware of it. The FCC also explains how to ask it for a ruling.

CHAPTER 27

Lightning, Grounding and Ladder Safety

An indoor or attic antenna carries no special electrical risk. An outdoor antenna is a different matter. It's a metal object high on your house, connected by a wire to equipment inside. Done properly, it's perfectly safe. Done carelessly, it can be dangerous. This is the chapter where I most want you to consider hiring a professional.

Grounding

The National Electrical Code, the safety standard electricians follow, covers TV antennas in **Article 810**. In broad terms it calls for the antenna mast and the coax cable to be bonded to your home's electrical grounding system using a heavy copper conductor, with a **grounding block** where the cable enters the house. This helps protect against static buildup and electrical surges. It is not a substitute for proper lightning protection on a tall structure.

STAY SAFE

Grounding is a job for someone who knows the code

Local inspectors expect antenna grounding to be done to the code, and getting it wrong can make things worse. A licensed electrician or an experienced antenna installer should do or check it.

During storms

- Never work on an antenna, mast or ladder when a storm is near or the roof is wet or icy.
- In a thunderstorm, stay away from the antenna cable and the TV's antenna connection.
- If you're worried about surges, a quality surge protector with a coax connection can help protect the TV.

Ladder and roof safety

- Use a sturdy ladder rated for your weight plus tools, on firm, level ground.
- Follow the **4-to-1 rule**: for every four feet of height, set the base one foot out from the wall.
- Keep **three points of contact**, two hands and a foot or two feet and a hand, at all times.
- Have someone with you to hold the ladder and call for help if needed.
- Stay well clear of overhead power lines, at least 10 feet for you, the ladder and anything you carry.

STAY SAFE

My honest advice about roofs

A fall from a ladder or a roof can be life-changing at any age, and more so as we get older. An attic antenna often gets you most of the benefit with none of the climbing. If a roof or tall mast is truly needed, please hire an insured professional. The money is small next to a broken hip.

FROM BILL

What I do, and what I'll refer out

I'm happy to choose an antenna with you, set up indoor and attic installs, run scans and connect recorders. For rooftop masts and grounding work, I'll help you find and talk to a qualified, insured installer or electrician. $49 remote · $99 in your home for my part.

CHAPTER 28

Antenna Scams and "Free TV" Tricks

Because free TV sounds almost too good to be true, it attracts people who exaggerate it or twist it into a trap. Here are the patterns to watch for.

"Free TV forever" ads

You may see ads for a "secret" or "banned" device that "the cable companies don't want you to know about." It's almost always an ordinary indoor antenna, often a cheap one, sold at a high price with a breathless story. Antenna TV really is free, but it's no secret, and a basic antenna from a regular store does the same job.

Claims that antennas get cable channels

No antenna can receive ESPN, CNN, HBO, Fox News, HGTV or other cable channels, because those channels don't broadcast over the air. Any ad that shows these logos and promises them with an antenna is false.

"Channel unlock" schemes

- **Paying to "unlock" antenna channels.** Antenna channels need no unlocking, code, card or activation fee. If a website or caller asks you to pay to activate free channels, it's a scam.
- **"Fully loaded" boxes and sticks.** Devices sold with unofficial apps that promise every movie, sports channel and premium network for one low price usually rely on pirated streams. They can stop working without warning, and some carry malware.
- **"Free antenna, just pay shipping."** Read the fine print. Some offers quietly sign you up for monthly charges.

Fake support and government scares

- Searching for "TV support" can turn up fake numbers. Use the support site printed in your TV's manual or the maker's own website.
- Nobody from the FCC, your TV maker or a station will call to say you must buy a NextGen box today.
- Be wary of door-to-door antenna installers who want a large cash deposit up front.

SCAM ALERT

The quick test

Free antenna TV never needs a subscription, an unlock code, gift cards, remote access to your computer, or a payment to a stranger who called you. Any of those is a sign to hang up and check with someone you trust.

FROM BILL

Call before you pay

If an offer has you wondering, call or text me at (330) 200-8042 before you buy. A two-minute conversation can save you a lot of money and worry. Our *Spotting and Avoiding Scams* manual has much more.

CHAPTER 29

Honest Costs: Antenna, Cable and Streaming

An antenna's cost is mostly one-time. Cable, satellite and live-TV streaming services are monthly. Here's how to compare fairly, without anyone's sales pitch.

What an antenna setup costs

Item	Typical cost
Indoor antenna	About $15 to $60, one time.
Attic or outdoor antenna	About $50 to $200 for the antenna, plus mounting hardware and cable.
Professional outdoor install	Varies widely with height, roof and grounding. Get written quotes.
DVR or networked tuner	About $100 to $200 (Chapter 24), plus an optional hard drive.
Monthly cost	Nothing for the channels. Optional guide service on some recorders.

Doing your own comparison

1. Find your current monthly TV bill, not counting internet. Look for the TV portion and any box rental, "broadcast TV" or "regional sports" fees.
2. Multiply by 12. That's your yearly TV cost now.
3. Add up the one-time antenna costs above for the setup you'd choose.
4. If you'd add a streaming service for cable channels, look up its current monthly price and multiply by 12.
5. Compare year one, then year two. The antenna costs drop to nearly zero after the first year.

HEADS UP

Your internet bill may change

Internet on its own can cost more than in a bundle. Before you cancel TV, ask your internet-only price.

WHAT THIS DOES FOR YOU

What you gain

For a one-time purchase, you get local news, weather, network shows, PBS and dozens of classic-TV channels with no monthly bill and no contract.

PART 7

When to Call Bill, Your Cheat-Sheet and a Glossary

An honest word on when a visit is worth it, a one-page summary of the channels and steps, and plain-English meanings for the antenna words you'll meet.

CHAPTER 30

When to Call Bill

Most people can get free antenna TV working on their own with this guide. But there's no prize for struggling, and some situations really are easier with experienced hands. Here's when a call makes good sense.

Good reasons to call

- You've tried a few spots and scans, and you're still missing channels you care about.
- You'd like an attic antenna installed and aimed properly, with the cable run down to your TV.
- You want one antenna to feed several TVs through the house's existing wiring.
- You'd like a DVR or networked tuner set up, with your favorite shows already set to record.
- You're thinking about canceling cable and want an honest, no-sales look at what you'd keep and lose.
- An ad, caller or website is pushing you to pay for "free TV," an unlock or a NextGen box.
- You need a rooftop antenna and want help finding and talking with a qualified, insured installer.

What working with me is like

I've spent 30+ years in professional technology work, and I now help folks right here in **Portage County, Ohio**, both in person and remotely. I'll explain what I'm doing as I go, in plain English, and I'll leave you with notes so you can do it yourself next time. If something isn't worth buying, I'll tell you. I don't sell antennas or earn commissions on them.

FROM BILL

How to reach me

Call or text **(330) 200-8042**, or book online at **billshometech.com/book**. If my AI receptionist, **Sophie**, answers the main line, she can take your details and get you on my schedule. Help is $49 remote · $99 in your home.

No question is too small. If you're not sure whether it's worth a call, call anyway, and we'll figure it out together.

— Bill

CHAPTER 31

Your Antenna Cheat-Sheet

Print this page or keep it handy. It's the whole guide in one place.

The main channels in Portage County

Network	Cleveland	Youngstown	Notes
NBC	3	21	Both UHF
ABC	5	33	Both UHF
FOX	8	27.2	Cleveland 8 is VHF
CBS	19 (or 19.10)	27	Cleveland 19 is VHF; 19.10 is a UHF copy
PBS	25 and 49	45	PBS Western Reserve is 45 and 49
The CW	55	21.2	Cleveland 55 now rides on FOX 8's signal
MyNetworkTV	43	33.2	Cleveland 43 rides on CBS 19's signal
ION	23	-	From the Akron area
Univision	61	-	61.2 UniMás

Quick fixes

Problem	Try this
Missing a channel	Rescan. Then move the antenna higher and rescan again.
Missing 8, 19, 43 and 55	VHF trouble. Try 19.10, Youngstown 27, or a VHF-rated antenna.
Picture freezes	Move the antenna away from electronics. Try a little higher.
Worse with the amplifier	Unplug or bypass it and rescan.
Zero channels	Check the input (TV/Antenna/Live TV), the cable and the amplifier's power.
NextGen TV	Optional. Your current TV keeps working. No need to buy a box now.

Useful free websites

Website	What it's for
fcc.gov/media/engineering/dtvmaps	FCC predicted signals for your address.
RabbitEars.info	Station lists, real channels, subchannels, NextGen TV list.
fcc.gov (search "OTARD")	Your right to install an antenna.

Keep this handy

Item	Write it here
My TV brand and model	
Where the scan menu is	
My antenna (brand, type)	
Best antenna spot / direction	
Channels found on last scan	
Date of last scan	
Channels I can't get	
Recorder (if any)	

FROM BILL

Stuck? I'm a call away

Call or text (330) 200-8042, or book at billshometech.com/book. $49 remote · $99 in your home.

CHAPTER 32

A Plain-English Glossary

Here are the antenna and TV words used in this guide, each in a sentence or two.

Word	What it means
Amplifier (preamp, booster)	A small powered device that strengthens the signal. Helps with long cables and splitting; can hurt near strong towers.
ATSC 1.0	The regular digital TV standard in use since 2009. Every current TV receives it.
ATSC 3.0 / NextGen TV	A newer broadcast standard. Needs a NextGen tuner. On the air in Cleveland since July 22, 2026.
Channel scan	The TV searches and saves the channels it finds. Also called Auto Program.
Coax (coaxial cable)	The round TV cable with a screw-on connector. RG6 is the common type.
Digital cliff	Digital TV either works perfectly or not at all, with little in between.
DRM / encryption	Scrambling that lets only approved devices play a channel. Used on some NextGen channels.
DVR	Digital video recorder. Records shows to watch later.
Grounding block	Connects the antenna cable to the home's grounding system.
Lighthouse station	One transmitter that carries NextGen signals for several stations. In Cleveland, that's WBNX.
Networked tuner	A box that shares antenna TV over your home network.
OTARD	The FCC rule that protects your right to install a TV antenna on property you control.
Real (RF) channel	The frequency a station actually broadcasts on. Different from the number on screen.
Simulcast	Sending the same program in two formats at once, such as ATSC 1.0 and NextGen.
Splitter	A device that sends one antenna signal to several TVs, with some loss each time.
Subchannel	An extra channel from the same station, such as 19.2.
UHF	Real channels 14 to 36. Most local stations.
VHF-high	Real channels 7 to 13. In Cleveland: FOX 8 and CBS 19.
Virtual channel	The channel number you see on screen.