BILL'S HOME TECH
Home & Small Business Tech Solutions

BILL'S COMPLETE MANUALS

Dash Cams

Choosing, mounting, SD cards and saving a clip after a crash — explained in plain English, one step at a time

A plain-English guide for drivers and their families

Take your time — you can't break it

Written for you by Bill — Bill's Home Tech

(330) 200-8042 · BillsHomeTech.com

For Garmin, Vantrue, Nextbase, VIOFO, Rove & more · facts current November 2026

What's Inside

This is your dash cam guide. Read it in any order and at your own pace — there is no test. Whether a dash cam showed up as a gift, you're thinking about buying one, or you just want to know how to save the video after a fender-bender, every chapter explains what a feature actually does *for you*, with slow step-by-step directions. Dash cams from different makers use slightly different buttons and menu names. If yours looks a little different, the idea is still the same, and the instruction booklet that came in the box will have the exact words.

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PART 1

Getting to Know Dash Cams

What a dash cam is, what it can and can't do for you, and the handful of words on the box that actually matter. Start here.

CHAPTER 1

A Note from Bill

Hello, and welcome. Maybe a dash cam came wrapped under the tree, or a son or daughter keeps saying "you really should have one of those." Maybe you saw a news story about a crash where the video settled who was at fault. Whichever brought you here, this guide is for **you**.

I'm Bill. Helping folks feel at home with their technology is what I do every day, and I wrote this guide the way I'd explain it sitting in the passenger seat next to you: patiently, in plain English, with no gadget jargon. If I use a word you don't know, I'll stop and explain it right then.

You truly can't break it by exploring

A dash cam is a small, simple camera. Once it's mounted and plugged in, it mostly takes care of itself: it starts recording when the car starts and stops when the car stops. Pressing a wrong button in the menu won't hurt the car or the camera. The one thing worth learning well is how to **save a clip** so it isn't recorded over — and Chapter 17 walks you through that slowly.

WHAT THIS DOES FOR YOU

Why this matters

After a crash, people remember things differently, and it can come down to your word against theirs. A dash cam is a quiet, impartial witness that rides along every trip. Many drivers say simply having one makes them feel calmer behind the wheel.

What this guide covers

- What a dash cam does, and the difference between **front-only**, **front and rear**, and **cabin** cameras.
- How to choose one, with honest prices from popular makers as of November 2026.
- Mounting it so it doesn't block your view, and powering it from the 12-volt socket or a hardwire kit.
- Picking the right **SD card**, formatting it, and how loop recording works.
- **Parking mode** — and how to keep it from draining your car battery.
- Using the phone app, and **saving and sharing a clip** after a crash.

- Ohio's windshield rules, recording audio, privacy, and staying safe while you drive.

And I'm only a phone call away

This guide will carry you a long way on your own. But if you ever get stuck — say, the app won't connect, or you need a clip off the camera after an accident and your hands are shaking — call me at **(330) 200-8042**. No question is too small.

So find the box, grab your car keys, and let's get to know this thing together.

— Bill

CHAPTER 2

What a Dash Cam Does (and Doesn't)

A **dash cam** (short for dashboard camera) is a small video camera that mounts on your windshield or dashboard and records the road while you drive. It saves the video onto a tiny memory card, the same kind many cameras use.

What it does for you

- **Records every drive automatically.** No buttons to press. It turns on with the car.
- **Saves the important moments.** A built-in motion sensor notices a bump or hard stop and protects that bit of video so it won't be erased (Chapter 13).
- **Gives you evidence.** If someone runs a red light into you, backs into you in a parking lot, or claims you hit them, the video shows what really happened.
- **Can watch the parked car.** Many models offer a **parking mode** that records bumps or motion while you're in the store (Chapter 14).
- **Captures the nice moments, too.** A scenic drive, the first snow, a deer crossing the road.

What it doesn't do

- It doesn't call for help by itself (a few models can with a phone and a subscription — see the "Ways a Dash Cam Can Make Life Easier" topic).
- It doesn't keep video forever. It records over the oldest video when the card fills up, unless a clip has been saved.
- It doesn't decide who was at fault. Police and insurers do that — the video simply helps them.
- It doesn't make up for careful driving. It's a witness, not a co-pilot.

GOOD TO KNOW

Some newer cars have cameras built in

A few car makers now include a built-in recorder that uses the car's own cameras. If you're shopping for a car, ask the dealer whether it has one and how you get the video off it. Most cars on the road don't, which is why add-on dash cams are so popular.

FROM BILL

My honest take

For most drivers, a dash cam is a modest purchase that you hope you'll never need. If you do need it, it can save a great deal of time, worry and argument. That's the whole sales pitch — no gimmicks.

CHAPTER 3

Front, Front & Rear, or Cabin

The first decision is how many directions you want to record. Dash cams come in three main styles. You'll see them called **1-channel**, **2-channel** and **3-channel** — "channel" just means "camera."

Type	What it records	Good for
Front-only (1-channel)	The road ahead through the windshield.	Most drivers. Simplest to install. Covers the most common crashes and red-light disputes.
Front + rear (2-channel)	The road ahead, plus a second small camera on the rear window.	Anyone worried about being rear-ended, tailgaters, or bumps in parking lots.
Cabin or 3-channel	Adds a camera looking inside the car, usually with infrared for night.	Rideshare and delivery drivers, or families who want to see the inside of the car.

The rear camera takes more installing

A rear camera sits on the inside of the back window and connects to the front camera with a long, thin cable. That cable has to be tucked along the headliner (the fabric ceiling) and the trim around the doors. It's not hard, but it takes patience — figure on an hour or so the first time, and more in an SUV or van. Some people have a shop do it (Chapter 9).

TIP

Not sure? Start with a front camera

If you're undecided, a good front-only camera covers most situations and installs in minutes. Several makers sell a rear camera as an add-on later, so check whether the model you like offers one.

HEADS UP

Cabin cameras record your passengers

A camera pointed inside the car records the people in it — and, with audio turned on, what they say. Tell your passengers it's there. Chapter 20 explains the privacy side and Ohio's recording law.

CHAPTER 4

The Words on the Box

Dash cam boxes are covered in numbers and abbreviations. Only a few really matter. Here they are in plain English.

You'll see	What it means
Resolution (1080p, 1440p / 2K, 4K)	How sharp the picture is. 1080p ("Full HD") is the basic level. 1440p, often sold as "2K," is sharper. 4K is sharpest and best for reading license plates, but makes bigger files that fill the card faster.
Field of view (for example, 140°)	How wide the camera sees. Around 130 to 150 degrees catches the lanes beside you without making everything look bent.
Night vision / HDR / STARVIS	Features for low light and glare. "STARVIS" is a Sony sensor used by many makers for better night video.
Loop recording	When the card is full, the camera records over the oldest video. That's normal — see Chapter 13.
G-sensor	A motion sensor that notices a bump or hard stop and locks that clip so it isn't recorded over.
Parking mode	Watches the car while it's parked. Usually needs a hardwire kit (Chapters 14 and 15).
GPS	Records your speed and location along with the video. Helpful as evidence; you can usually hide the speed stamp in settings.
Wi-Fi / app	Lets your phone connect to the camera to watch and download clips (Chapter 16).
Supercapacitor	A heat-tough power part used instead of a battery. Important in a hot car (Chapter 7).

TIP

Sharp enough is enough

A plate is easiest to read when the other car is close. Even a 4K camera can't read a plate on a car speeding away at night. A good 1440p or 4K camera from a known brand is plenty for most drivers; don't pay extra just for the biggest number on the box.

GOOD TO KNOW

Bigger pictures need bigger cards

A 4K front-and-rear camera fills a memory card much faster than a 1080p front camera. That's not a problem — the camera simply loops sooner — but it's one more reason to choose a roomy card (Chapter 11).

PART 2

Choosing a Dash Cam

The questions to ask before you buy, the popular makers and what they cost as of November 2026, and why summer heat matters more than you'd think.

CHAPTER 5

Choosing a Dash Cam: Six Questions

There are hundreds of dash cams for sale, and many look nearly identical. Answering these six questions narrows the choice to a handful.

1. **Which directions do I want to record?** Front only, front and rear, or the inside too (Chapter 3).
2. **Do I want a screen on the camera?** A small screen makes setup easier without a phone. Screenless "mini" cameras hide better behind the mirror but need the phone app for setup and viewing.
3. **Will I use the phone app?** If you're comfortable with a smartphone, an app makes saving and sharing clips much easier. If not, choose a camera with a screen and buttons.
4. **Do I want parking mode?** If yes, plan on a hardwire kit or special power cable and possibly a professional install (Chapters 14 and 15).
5. **Does the car sit in the sun?** Choose a camera that uses a **supercapacitor** rather than a battery (Chapter 7).
6. **Do I want voice control?** Some cameras let you say a phrase to save a clip, so your hands stay on the wheel.

Features worth paying for

- A known brand with support in the U.S. and firmware (software) updates.
- A supercapacitor, not a battery.
- Good night video — look for sample night footage from independent reviewers, not just the maker.
- A simple, reliable way to save a clip: a big button, a voice command, or both.

Features you can probably skip

- Lane-departure and "forward collision" warnings. Many cars already have these, and the dash cam versions tend to beep a lot.
- Cloud subscriptions, unless you really want to check on a parked car from your phone. They add a monthly cost.
- The very highest resolution, if it means a less-known brand.

HEADS UP

Be careful with no-name bargains

Online marketplaces are full of dash cams with unfamiliar names, glowing reviews and very low prices. Some work fine; many have poor night video, weak apps and no support when something goes wrong. For something you're counting on as evidence, a recognized brand is worth a little more.

FROM BILL

Buying one as a gift?

Ask two questions first: does the person use a smartphone comfortably, and where do they park — garage or street? Those two answers point clearly to the right kind of camera. And include a good memory card if one isn't in the box.

CHAPTER 6

Popular Brands & What They Cost

Here are five makers you'll see most often in U.S. stores and online, with a few of their current models. Prices are list or typical prices as of November 2026. Dash cams go on sale often — especially around the holidays — so treat these as a starting point. I don't earn anything from any of these companies.

Maker	Examples (2026)	Typical price	Phone app
Garmin	Dash Cam Mini 3, X110, X210, X310 (4K)	$149.99 to $399.99 list	Garmin Drive
Vantrue	S1 Pro (front + rear), N4 Pro (3-channel)	About $170 to $470 list; often on sale	Vantrue
Nextbase	322GW, 522GW, 622GW, Piqo	About $150 to $500	MyNextbase Connect (Piqo uses a separate Nextbase app)
VIOFO	A119 Mini 2 (front), A229 Pro (front + rear)	About $100 to $390	VIOFO
Rove	R2-4K Dual, R2-4K Dual Pro	About $90 to $350	ROVE Dash Cam App

A word about each

- **Garmin** — the most familiar name. The X-series launched in late 2025 with voice control ("OK, Garmin, Save Video"). Some features, like getting phone alerts when the parked car is bumped, need Garmin's paid **Vault** subscription.
- **Vantrue** — popular with rideshare drivers for its 3-channel cameras. The N4 Pro and S1 Pro use supercapacitors.
- **Nextbase** — sold at many big-box stores. The 322GW and up work with the MyNextbase Connect app and offer an optional Emergency SOS crash service.
- **VIOFO** — well regarded for video quality for the price; sells its own hardwire kits with battery protection.
- **Rove** — budget-friendly front-and-rear cameras, frequently on sale online.

GOOD TO KNOW

Budget for the extras

If a memory card isn't in the box, add the cost of a good high-endurance card (Chapter 11). Add more if you want a hardwire kit or professional installation. Ask the installer for a written quote first.

TIP

Check the return policy

Buy from a store with an easy return policy. Live with the camera for a week — if the night video is poor or the app frustrates you, return it and try another.

CHAPTER 7

Summer Heat, Ohio Winters & the Supercapacitor

A car parked in the summer sun gets far hotter inside than the air outside, and the windshield — right where the dash cam lives — is the hottest spot of all. Ohio winters bring the opposite problem. How the camera stores its small bit of backup power makes a real difference.

Battery or supercapacitor?

	Small built-in battery	Supercapacitor
What it does	Keeps the camera running briefly after power cuts off	Holds just enough power to finish saving the last file
In a hot car	Can wear out quickly, swell, or fail	Handles heat much better
In the cold	Holds less charge	Works well
Records with the car off?	Briefly, on some models	No — needs a hardwire kit for parking mode

Most well-known dash cam makers now use supercapacitors in their mainstream models. Check the specifications (often listed as "power source" or "battery") before you buy.

STAY SAFE

If a camera looks puffy, stop using it

A battery that has swollen from heat can push the case apart. If your dash cam's case bulges, cracks or smells odd, unplug it, take it out of the car and don't charge it again. Ask the maker about a replacement and recycle the old one properly — don't toss a damaged battery in the trash.

Simple habits for hot and cold days

- Park in the shade or use a windshield sunshade. The camera sits behind the mirror, so most shades still fit.
- If your camera has a battery, take it out of the car in extreme heat if that's easy.
- Don't leave a spare memory card on the dashboard in summer.
- In winter, let the defroster clear the glass in front of the lens before you drive.

WHAT THIS DOES FOR YOU

What this does for you

A camera that survives a hot August parking lot is a camera that's still working on the day you need it. Picking the right power type up front saves you from buying twice.

PART 3

Mounting, Power & First Setup

Where the camera goes so it never blocks your view, how it gets power, and the few settings to check on day one.

CHAPTER 8

Mounting It So It Doesn't Block Your View

The best spot for almost every dash cam is high on the windshield, **tucked behind the rearview mirror**. From the driver's seat, the mirror hides most of it, and the camera gets a clear view of the road through the part of the glass the wipers clean.

Before you stick anything

1. Sit in the driver's seat in your normal position.
2. Hold the camera (with its mount) against the glass just behind the mirror, slightly toward the passenger side.
3. Check that you can't see it around the edge of the mirror, or only barely.
4. Check from the camera's screen or the phone app that the picture shows the road ahead, level, with only a thin strip of hood at the bottom.
5. Make sure it doesn't cover the sensor patch some cars have behind the mirror (often a dark box for rain sensing or lane-keeping cameras). Look at it from outside the car if you're not sure.

Sticking it on

1. Clean the inside of the glass where the mount goes with a little rubbing alcohol on a cloth, and let it dry.
2. Avoid the dotted black band at the edge of the windshield; adhesive holds poorly there.
3. Peel the backing off the adhesive pad, press the mount firmly to the glass and hold it for 30 seconds.
4. If the instructions say so, wait before attaching the camera so the adhesive can set — overnight is common, and warm weather helps.
5. Clip the camera onto the mount and aim it.

STAY SAFE

Keep the airbags clear

Never mount the camera, or run its cable, across an airbag panel. Airbags are often marked "SRS" or "Airbag" on the pillars beside the windshield and on the dashboard. When tucking the cable down the pillar, follow the instructions in your camera's manual or have an installer do it.

Tucking the cable

A dangling cable looks messy and can catch on your hand or the mirror. Most dash cams come with a small plastic pry tool. Gently push the cable into the gap between the windshield and the headliner, across to the side, down along the door seal and under the glove box to the power outlet. It usually stays put without tape.

TIP

Rear camera placement

A rear camera goes at the top center of the back window, inside, where the rear wiper (if you have one) clears the glass. Keep it out of the path of the rear defroster lines if you can, and check that the picture isn't upside down — most apps have a "flip" or "mirror" setting.

GOOD TO KNOW

Ohio's windshield rule

Ohio law allows a camera on a passenger car's windshield as long as it doesn't block your view of the road and traffic signs. Mounting behind the mirror is the simplest way to stay well within that. Chapter 19 has the details.

CHAPTER 9

Power: Plug-In vs. Hardwiring

Every dash cam needs power from the car. There are three ways to get it, from simplest to most involved.

Method	How it works	Who does it	Parking mode?
12-volt socket (the old cigarette lighter)	The included adapter plugs in. Camera turns on with the car.	You, in minutes	Usually not
OBD cable	Plugs into the car's diagnostic port under the dashboard. Some makers sell one for parking mode.	You, with care	Yes, on supported models
Hardwire kit	Connects to the car's fuse box with "fuse taps." Frees up the socket.	A professional installer, ideally	Yes

Starting simple: the 12-volt socket

1. Plug the camera's power cable into the camera.
2. Plug the adapter into the 12-volt socket.
3. Start the car. The camera should power on, beep or show a light, and begin recording.
4. Turn the car off. On most cars the socket goes dead and the camera saves its last file and shuts down.

HEADS UP

Some sockets stay on all the time

In some cars, the 12-volt socket keeps power even with the car off. If your camera keeps running after you lock the car, unplug it when you park, or ask about a hardwire kit with battery protection (Chapter 15). Otherwise you could come back to a car that won't start.

Hardwiring: worth a professional

A **hardwire kit** connects the camera to the car's fuse box, so the camera gets power even when the car is off — that's what makes parking mode work. It also hides every wire and frees up your 12-volt socket for a phone charger.

FROM BILL

Have a pro do the fuse box

Tapping into a fuse box means choosing the right fuses, connecting a ground wire properly and not disturbing airbag or safety circuits. Done wrong, it can blow fuses, drain the battery or worse. I recommend a car-audio or accessory installer for this part. Ask for a written price first, and ask them to set up the battery-protection setting on the kit while they're there.

GOOD TO KNOW

Check your warranty and lease

Hardwiring is common and generally doesn't void a car's warranty by itself, but if you lease or have a newer car, it's reasonable to ask your dealer first. A good installer can also remove it cleanly later.

CHAPTER 10

Setting It Up the First Time

Most dash cams work right out of the box, but a few settings are worth checking on day one. Do this in the driveway with the car on (and the garage door open if you're inside a garage).

The first-day checklist

1. **Insert the memory card** with the camera off. It only goes in one way; push until it clicks.
2. **Turn the camera on** (start the car) and follow any setup screens, or pair the phone app (Chapter 16).
3. **Format the card** in the camera's menu, even if it's brand new (Chapter 12).
4. **Set the date and time.** Many cameras with GPS or an app do this automatically. A wrong date on your video makes it weaker evidence.
5. **Choose audio on or off.** Recording sound inside the car is a personal choice; see Chapter 20.
6. **Check the G-sensor sensitivity.** Medium is a good start. Turn it down if every pothole saves a clip.
7. **Decide on the speed stamp.** With GPS, the camera can print your speed on the video. You can usually turn that off and still keep the location record.
8. **Record a test drive**, then watch a minute of it to check the picture, the angle and the sound.

TIP

Update the firmware

"Firmware" is the camera's built-in software. Makers fix bugs with updates, usually through the phone app or by downloading a file from their support website. Check for an update when you first set it up and every few months after.

WHAT THIS DOES FOR YOU

What this does for you

Ten minutes of setup means the video you need later has the right date, a level picture and no surprises. After that, the camera just quietly does its job.

PART 4

The Memory Card & How Recording Works

The little card that holds every minute of video: which one to buy, how to look after it, and how loop recording and event lock keep the important clips safe.

CHAPTER 11

Pick an SD Card

The memory card is the most overlooked part of a dash cam — and the most common reason one fails. A dash cam writes video to the card nonstop, every time you drive. That wears ordinary cards out much faster than a camera or phone ever would.

What to buy

- A **microSD** card (the tiny size, about the size of a fingernail).
- Labeled **"High Endurance"** or **"Endurance"**, made for dash cams and security cameras. Well-known examples are **SanDisk High Endurance** and **Samsung PRO Endurance**.
- A capacity your camera supports. The manual or the maker's website lists the largest card it accepts.
- Speed marked **U3** or **V30** for 4K cameras.

How big?

Your camera	A sensible card size
Front only, 1080p or 1440p	64 GB to 128 GB
Front only, 4K	128 GB
Front + rear, or 3-channel	128 GB to 256 GB, if supported

Bigger isn't always better. A larger card holds more hours before it loops, but some cameras don't accept very large cards. Check the manual first.

HEADS UP

Buy cards from a store you trust

Counterfeit memory cards are a real problem online. A fake card can claim a big capacity and then quietly lose video once it fills up. Buy from the camera maker, a major retailer, or the card maker's own store — and be wary of a large card at a price that seems too good.

GOOD TO KNOW

Cards wear out

Even endurance cards have a limited life. Many drivers replace the card every year or two as routine maintenance, or sooner if the camera shows a card error. A fresh card is far cheaper than missing the one clip you needed.

WHAT THIS DOES FOR YOU

What this does for you

The right card is what makes the camera reliable. Spend a few dollars more here and you can stop wondering whether it's really recording.

CHAPTER 12

Formatting & Caring for the Card

Formatting means wiping the card clean and setting it up fresh. It clears out small errors that build up from constant recording. Think of it like shaking out a rug.

Format in the camera, not on the computer

1. First, copy off any clips you want to keep (Chapter 17). **Formatting erases everything**, including saved clips.
2. With the camera on, open its **Settings** or **Setup** menu, on the camera's screen or in the phone app.
3. Look for **Format Card**, **Format SD** or similar.
4. Confirm. It takes a few seconds. The camera may restart.

How often?

Follow your camera's manual if it gives a schedule. If it doesn't, once a month is a sensible habit, and always format when you put in a new card. Some cameras can remind you, or format automatically on a schedule — look for a "format reminder" setting.

TIP

Make it a habit

Pick an easy day to remember — the first of the month, or when you get gas on a Saturday. It takes less than a minute in the driveway.

Taking the card out safely

1. Turn the car off and wait until the camera has shut down completely (its light goes out).
2. Press the card in gently with a fingernail; it springs out partway.
3. Pull it straight out and store it in a small case.
4. To read it on a computer, use a microSD adapter or a USB card reader.

HEADS UP

Don't pull the card while it's recording

Removing the card while the camera is running can damage the file being written — or the card itself. Always let the camera power down first.

CHAPTER 13

Loop Recording & Event Lock

Two features work together to keep the right video: **loop recording** makes room for new video, and **event lock** protects the clips that matter.

Loop recording: the endless tape

The camera records in short pieces, usually 1 to 3 minutes each. When the card fills up, it deletes the oldest unprotected piece and keeps going. You never have to empty the card — but it also means ordinary video won't be there forever. On a typical card, a few hours of driving is kept before it's recorded over.

Event lock: the protected shelf

When the **G-sensor** (motion sensor) feels a sharp bump, swerve or hard stop, the camera moves the current clip — usually with some seconds before and after — into a protected folder, often called **Event**, **Saved** or **Locked**. Loop recording doesn't erase that folder.

You can also lock a clip yourself by pressing the camera's save or lock button (often marked with a lock or an exclamation point), or by voice on cameras that support it.

HEADS UP

The protected folder can fill up too

If potholes or speed bumps keep triggering saved clips, the protected folder can fill, and some cameras then start recording over the oldest locked clips. Turn the G-sensor sensitivity down a notch if you see dozens of saved clips, and copy off and clear old ones now and then.

TIP

Saw something? Save it right away

If you witness a crash or a near miss that didn't jolt your car, the sensor won't notice. Press the save button (or use the voice command) as soon as it's safe. The camera keeps the seconds leading up to it.

WHAT THIS DOES FOR YOU

What this does for you

You don't have to manage anything day to day. The camera keeps recent video, quietly protects the bumps, and lets you protect anything else with one press.

PART 5

Parking Mode

Watching the car while it's parked — what it catches, what it takes to set up, and how to keep it from draining your car battery.

CHAPTER 14

Parking Mode

Parking mode keeps the dash cam watching while the car is parked and turned off. If someone dings your door in a parking lot or backs into your bumper and drives away, parking mode can catch it.

The usual kinds of parking mode

Type	What it does
Impact detection	The camera sleeps and wakes up to save a clip when the G-sensor feels a bump. Uses the least power.
Motion detection	Records when something moves in front of the camera. Catches more, but a busy street triggers it a lot.
Time-lapse	Records a frame every second or so, making a sped-up video of the whole time you were parked.
Buffered recording	Keeps the few seconds before a bump or motion, so you see the car approaching, not just the hit.

What it takes

- **Constant power** while the car is off. That means a **hardwire kit**, an **OBD power cable** made for your camera, or a separate dash cam battery pack. The regular 12-volt adapter usually can't do it (Chapter 9).
- A camera that supports parking mode — check the box or the maker's website.
- Turning parking mode on in the camera's settings or phone app.

GOOD TO KNOW

Some features need a subscription

Getting an alert on your phone the moment the parked car is bumped, or watching the camera live from your living room, usually needs the camera to be online and a paid cloud plan. For example, Garmin's Parking Guard alerts and Live View need a **Garmin Vault** subscription plus Wi-Fi or a hotspot in the car. Plain parking-mode recording to the card doesn't need a subscription.

Is parking mode worth it for you?

- **Probably yes** if you park on the street, in busy lots, or at work all day.
- **Probably not** if the car lives in your garage and short errands are most of your driving.
- **Think it over** if the car sits for days at a time — parking mode will use some battery each day (Chapter 15).

TIP

Tell the camera how long to watch

Most setups let you limit parking mode to a set number of hours. Twelve to twenty-four hours covers a workday or overnight without asking much of the battery.

CHAPTER 15

Protecting Your Car Battery

Parking mode draws a small amount of power the whole time the car is off. A healthy battery in a car you drive every day can handle that. An older battery, cold weather, or a car that sits for a week can leave you with a car that won't start. A few simple settings prevent that.

Low-voltage cutoff: the safety switch

A good hardwire kit has a **low-voltage cutoff**. It watches the car battery and cuts power to the dash cam when the battery drops to a set level, leaving enough to start the engine. On many kits you choose the level with a small switch; others set it in the phone app. VIOFO's kits, for example, offer several cutoff levels.

1. Ask your installer to set the cutoff on the **higher (safer)** setting to start.
2. In cold months, or if the battery is more than a few years old, keep it on the higher setting.
3. Set a parking-mode time limit in the camera too (Chapter 14), as a second safety net.
4. If the car will sit for more than a few days, turn parking mode off or unplug the camera.

HEADS UP

Warning signs

If the engine cranks slowly in the morning, or the car won't start after a day parked, turn parking mode off and have the battery tested. Many auto parts stores test batteries at no charge. A tired battery and parking mode don't mix.

Dash cam battery packs

Some makers sell a separate battery pack that charges while you drive and powers the camera while you're parked, so the car's own battery isn't touched. They cost more and take up space, but they're a good choice for people who park for long stretches or don't want to touch the car's wiring for parking power.

FROM BILL

When to bring in help

If you want parking mode but the words "fuse tap" and "cutoff voltage" make you uneasy, that's completely normal. An installer can wire it and set it safely, and I'm happy to set up the camera's app and settings afterward and show you how it all works.

WHAT THIS DOES FOR YOU

What this does for you

With the right cutoff, you get the peace of mind of a watched car without the worry of a dead battery on a cold January morning.

PART 6

The Phone App & Saving Clips

Connecting your phone, watching video, and — most important — saving and sharing a clip after a crash or incident.

CHAPTER 16

The Phone Apps

Most dash cams today connect to a free phone app. The phone talks to the camera directly over the camera's own Wi-Fi (and sometimes Bluetooth), so you don't need internet in the car for the basics.

Which app goes with which camera

Camera	App to download
Garmin	**Garmin Drive**
Vantrue	**Vantrue** (some older manuals call it "Vantrue Cam")
Nextbase 322GW, 422GW, 522GW, 622GW	**MyNextbase Connect** (the Piqo uses a separate Nextbase app — check its box)
VIOFO	**VIOFO**
Rove	**ROVE Dash Cam App**

Always use the app named in your camera's own instructions, downloaded from the App Store or Google Play. Watch out for look-alike apps from other companies.

Connecting the first time

1. Install the app and open it. Allow the permissions it asks for — usually location, Bluetooth and local network. It needs these to find the camera.
2. Start the car so the camera is on.
3. In the app, choose the option to add or connect a camera and pick your model.
4. Follow the prompts. Usually you join the camera's Wi-Fi network (its name is on the camera screen or in the manual) or confirm a code shown on the camera.
5. Once connected, you'll see a live picture. Use it to aim the camera.

GOOD TO KNOW

Your phone may say "no internet"

While connected to the camera's Wi-Fi, your phone may warn that the network has no internet. That's normal — the camera isn't an internet connection. Choose to stay connected. When you disconnect, your phone goes back to cellular or home Wi-Fi.

What you can do in the app

- Watch recent video and saved clips.
- Download a clip to your phone, then text or email it.
- Change settings: audio, resolution, G-sensor sensitivity, parking mode, speed stamp.
- Format the card and install firmware updates.

STAY SAFE

Only in park

Use the app with the car parked. Many cameras pause recording while the app is showing video, and looking at your phone while driving is both dangerous and against Ohio's distracted-driving law (Chapter 21).

CHAPTER 17

Save a Clip After a Crash

This is the chapter to read twice. After a crash — even a small one — the dash cam keeps recording. If the clip isn't protected and copied, it could eventually be recorded over. Here is what to do, in order.

At the scene

1. **Safety first.** Check on everyone, call 911 if anyone is hurt or the cars block traffic, and move to a safe spot if you can.
2. **Lock the clip.** The bump probably saved it automatically. To be sure, press the camera's save or lock button, or use the voice command if it has one (on Garmin cameras, say "OK, Garmin," then "Save Video").
3. **Leave the card in the camera** for now. Don't format it or fiddle with settings.
4. Exchange information, take photos with your phone, and talk with the police as you normally would.
5. If an officer asks whether you have video, it's fine to say yes and that you'll provide a copy.

Once you're home or parked safely

1. Open the camera's phone app and connect.
2. Find the saved clips — often a folder or tab called **Saved**, **Event** or **Locked**. (In the Garmin Drive app, choose **Videos and Photos**, then the **Saved** category.)
3. Watch to find the right clip. Check the clips just before and after it, too.
4. **Download** the clip to your phone. Keep the full-length original; don't trim the only copy.
5. Copy it somewhere else as well: email it to yourself, or save it to a computer or cloud storage.

No app? Use the card

1. Turn the car off and wait for the camera to shut down.
2. Remove the memory card and put it in a card reader on a computer.
3. Open the card and look for a folder named **Event**, **Locked**, **Saved** or similar.
4. Copy the whole folder to the computer's Documents or Desktop. Don't delete anything from the card.

5. Put the card back in the camera, or keep it aside and use a spare card until the claim is settled.

HEADS UP

Don't let it record over

Until you've made at least two copies, don't format the card, and think twice about driving for days with it in the camera. Swapping in a spare card is the safest way to preserve the original.

WHAT THIS DOES FOR YOU

What this does for you

A clip copied in two places can't be lost if the camera is damaged, the card fails, or the car goes to the body shop. It's the difference between "I have video" and "I had video."

CHAPTER 18

Sharing Video with Police & Your Insurer

Video only helps if the right people see it. Here's how to share it sensibly.

Your insurance company

1. When you report the claim, tell the adjuster you have dash cam video.
2. Ask how they'd like to receive it. Many insurers have an upload link in their app or claim website; others take email.
3. Send the original, unedited clip. If it's large, ask for an upload link rather than shrinking it.
4. Keep your own copy. Never send your only copy or mail the memory card itself unless they insist and you've made copies.

The police

If police respond to the crash, they may ask for the video or give you a way to submit it. Ask for the officer's name and the report number, and send the video the way they ask. For a hit-and-run, a clear clip of the other car and plate is especially worth sharing.

Sharing a shorter clip

Many apps let you trim a clip to just the important seconds before you share it, which makes it easier to text or email. Share the trimmed version for convenience, but always keep the full original too.

HEADS UP

Think before you post online

Posting crash video on social media can complicate an insurance claim or a court case, and it shows other people's faces and license plates. Talk with your insurer or attorney first, and when in doubt, don't post.

GOOD TO KNOW

Video helps both ways

Dash cam video shows exactly what happened — including anything you did. That's fine. Honest evidence usually speeds up a fair outcome. Just be ready for it to be watched closely.

FROM BILL

Need the clip off the camera?

If you've been in an accident and can't get the video off the camera — or you're just too rattled to deal with it — call me. Getting the clip safely copied and sent is exactly the kind of thing I help with.

PART 7

The Law, Privacy, Safety & Fixes

Ohio's windshield and recording rules, driving safely with a camera on board, staged-crash scams, and what to do when the camera misbehaves.

CHAPTER 19

Ohio's Windshield Rules

Ohio law generally forbids putting things on a car's windshield that block the driver's view. But the law makes an exception for electronic devices — and it names cameras specifically.

What the law says, in plain English

Under Ohio Revised Code section **4513.24**, the windshield rule doesn't apply to a person driving a **passenger car** with a camera (or other electronic device such as a toll transponder or navigation unit) on the front windshield, as long as the device **doesn't restrict the driver's view of the road and of traffic signs and signals** and doesn't hide the car's vehicle identification number (VIN). The current version took effect in April 2023. Commercial vehicles follow separate, federal-based rules.

How to stay comfortably within it

- Mount the camera behind the rearview mirror, high on the glass (Chapter 8).
- Choose a small camera if you have a short windshield or a low mirror.
- Keep the cable tucked out of sight, not draped across the glass.
- Don't mount it low on the driver's side, where the VIN plate shows through the windshield.

GOOD TO KNOW

Traveling out of state

Windshield and recording rules vary from state to state, and a few are stricter than Ohio. A camera tucked behind the mirror is the safest choice everywhere. If you're planning a long trip, it's worth a quick look at the rules for the states you'll drive through.

FROM BILL

I'm not a lawyer

This chapter explains the law in plain words so you can mount your camera with confidence. It isn't legal advice. For a specific legal question, ask an attorney or your local police department.

CHAPTER 20

Recording Audio & Privacy

Most dash cams can record sound inside the car. Whether to turn it on is your choice — and it's worth a moment's thought.

Ohio is a one-party consent state

Under Ohio Revised Code section **2933.52**, it's generally legal to record a conversation you are part of, or one where a participant has agreed to the recording. So recording audio of your own conversations in your own car is generally allowed in Ohio. Secretly recording a conversation you're **not** part of — for example, leaving the camera recording sound when you lend your car to someone — is a different matter and can be a crime.

Good manners and good sense

- Tell passengers there's a camera, especially if it records the inside of the car or sound.
- If you lend the car, turn the audio off or let the driver know.
- Some states require **everyone's** permission to record a conversation. If you drive out of state, consider turning audio off.
- Audio can be helpful evidence (a horn, a skid, what someone said after a crash), but it also records your own words. Some people simply prefer it off.

Turning audio on or off

Look for **Audio Recording**, **Microphone** or **Record Audio** in the camera's settings or the phone app. Many cameras also have a quick microphone button, and Garmin cameras accept voice commands to start or stop audio recording.

HEADS UP

Video of other people

Recording what happens on a public road is generally allowed. Sharing it widely is another matter. Before posting a clip that shows faces or license plates, think about whether you need to — and for anything tied to a claim, ask your insurer first.

GOOD TO KNOW

Rideshare and delivery drivers

Uber, Lyft and other services have their own rules about cameras. If you drive for one, read their current policy, and post a notice in the car if they require it.

CHAPTER 21

Driving Safely with a Dash Cam

A dash cam should be something you forget is there. The safest camera is one you set up once and never touch while the wheels are turning.

Hands off while driving

- Do all your setup, aiming and app use while parked.
- Don't reach up to adjust the camera at a red light.
- If you need to save a clip while driving, use one quick press of the save button — or better, a voice command.
- Leave the phone app closed while driving. Watching video can wait.

Ohio's distracted-driving law (Revised Code section **4511.204**, strengthened in 2023) bans holding or using a phone or other wireless device while driving, with narrow exceptions such as a single touch or swipe, and hands-free use. Fiddling with a dash cam app on your phone while driving can break that law, and it's dangerous either way.

STAY SAFE

Turn off the beeping extras

Some dash cams offer lane-departure or "car ahead has moved" alerts. If they beep so often that they distract you, turn them off in settings. Your car's own safety systems, if it has them, are designed for the job.

TIP

Turn down the screen

If your camera has a screen, set it to turn off after a minute (often called "screen saver" or "auto screen off"). The camera keeps recording, and you aren't distracted by a glowing picture at night.

CHAPTER 22

Staged Crashes & Other Scams

One honest reason people buy dash cams is **staged crashes** — a type of insurance fraud where criminals deliberately cause an accident and blame you.

The "swoop and squat"

The National Insurance Crime Bureau (NICB) describes a common setup with two cars working together. One car (the "squat") pulls in front of you. A second car (the "swoop") cuts in front of the squat car, which then slams on its brakes for no good reason. You can't stop in time and rear-end it. The people in the squat car then claim injuries against your insurance.

Other staged-crash tricks to know

- A driver waves you on to pull out, then hits you and denies waving.
- A car brakes hard in front of you with brake lights that don't seem to work.
- People at the scene who seem to know each other, or a "witness" who appears out of nowhere and pushes a particular doctor, lawyer or tow company.

SCAM ALERT

If you suspect a staged crash

Stay calm and polite. Call the police and ask for a report. Take photos of the cars, plates and people. Save the dash cam clip right away (Chapter 17). Don't agree to settle in cash at the scene, and don't sign anything from strangers. Tell your insurer you suspect fraud — the NICB also takes tips.

SCAM ALERT

Fake memory cards and too-good-to-be-true cameras

Online listings sometimes sell counterfeit memory cards that claim a huge capacity, or knock-off cameras using a famous brand's name. Buy from the maker or a major retailer. If a big-name 4K camera is half price from an unknown seller, it probably isn't what it claims.

SCAM ALERT

Never pay with gift cards

No real insurance company, police department or dash cam maker will ever ask you to pay with gift cards, wire transfers or cryptocurrency. If someone does — for a "claim," a "fine" or a "warranty" — it's a scam. Hang up and call the company using the number on your policy or its official website.

WHAT THIS DOES FOR YOU

What this does for you

A staged crash is built on the scammer's word against yours. Clear video takes that away — which is a big part of why many drivers feel safer with a camera on board.

CHAPTER 23

When the Camera Misbehaves

Most dash cam problems have simple fixes. Try these in order.

Problem	Try this
Camera won't turn on	Check the 12-volt adapter is pushed in fully; try another socket or a phone charger in it. Some adapters have a small fuse or light. Check the cable at the camera end.
"Card error" or "Please format"	Format the card in the camera (Chapter 12). If it keeps happening, replace the card with a new high-endurance one.
Stopped recording or missing video	Usually the card. Copy off anything important, format, and replace the card if needed.
Too many saved clips	Lower the G-sensor sensitivity. Clear old saved clips after copying any you need.
App won't connect	Car on, camera on. Turn the phone's Wi-Fi and Bluetooth on, forget the camera's network and reconnect, then restart the phone and the app.
Blurry or hazy picture	Clean the lens with a soft cloth, and clean the inside of the windshield in front of it. Peel off any protective film left on the lens.
Wrong date or time	Set it in the menu or app. If it resets every time, the camera may need a firmware update.
Car battery dying	Turn parking mode off and see Chapter 15. Have the battery tested.
Camera fell off	Clean the glass and use a fresh adhesive pad from the maker; let it set before driving.

TIP

Restart before anything else

Many cameras have a tiny reset hole or a long-press on the power button. Restarting fixes a surprising number of glitches. Your manual shows where the reset is.

GOOD TO KNOW

Warranty and support

Before you buy a replacement, check the maker's support website. Many dash cams come with a one-year or longer warranty, and support can often fix the problem by phone or chat.

PART 8

When to Call Bill & Your Cheat-Sheet

An honest word about when a hand is worth it, and a one-page summary to keep in the glove box.

CHAPTER 24

When to Call Bill

I've written this guide so you can handle most of a dash cam on your own. But part of being helpful is being honest about when a hand saves you time and worry. Here's my straight advice, with no pressure.

Times it's well worth a call

- **Choosing a camera** — I'll ask how you drive and park and point you to a sensible model, with no commission from anyone.
- **Setting up the phone app**, pairing it, and showing you how to save and download a clip.
- **After an accident**, when you need the video copied safely and sent to your insurer or the police.
- **Card errors or missing video** that formatting didn't fix.
- **Parking mode** — I'll set up the camera side and help you find a reputable installer for the fuse-box wiring.
- **A gift for someone else**, set up and ready before you hand it over.
- **You'd simply rather have a patient person show you.** That's always reason enough.

What working with me is like

I work at your pace — no rushing, no talking down, and no jargon. I explain what I'm doing in plain words, and I'll tell you honestly when an add-on or subscription isn't worth your money. I bring 30+ years of professional experience to every visit, and Bill's Home Tech serves Portage County, Ohio. I can often help over a remote session, or come to you.

FROM BILL

How to reach me

Call or text **(330) 200-8042**, or book a time at **billshometech.com/book**. My help is **$49 remote · $99 in your home**. This guide is free to keep and share.

GOOD TO KNOW

You may meet Sophie first

When you call or visit billshometech.com, you may be greeted by **Sophie**, my AI receptionist. She can answer quick questions and help you book a time with me. A real person — me — does the actual help.

Thank you for taking the time to understand your dash cam. I hope it rides along quietly for years and never has anything exciting to show you.

— Bill

CHAPTER 25

Your Dash Cam Cheat-Sheet

Keep this summary handy — a copy in the glove box is a good idea. The whole guide, boiled down.

The essentials

To do this	Do this
Save a clip right now	Press the save/lock button, or use the voice command (Garmin: "OK, Garmin" then "Save Video").
After a crash	Lock the clip, leave the card in, copy it to two places once you're safe (Chapter 17).
Where saved clips live	The **Saved**, **Event** or **Locked** folder in the app or on the card.
Format the card	Camera menu or app > **Format Card**. Copy off clips first. Monthly is a good habit.
Best card	A **high-endurance** microSD from a store you trust, in a size your camera supports.
Mounting spot	High on the windshield, behind the rearview mirror, clear of airbags.
Parking mode	Needs constant power and a low-voltage cutoff. Hardwiring: use a pro installer.
Ohio law	Camera allowed on a car windshield if it doesn't block your view of the road and signs. Ohio is one-party consent for audio.

Write it down once

Keep handy	
Camera make and model	_____
Phone app name	_____
Camera Wi-Fi name and password	_____
Memory card size and date installed	_____
Installer's name and phone	_____
Insurance company claims number	_____
Policy number	_____

When something's wrong, in order

1. Check the power: car on, adapter pushed in, cable connected.
2. Restart the camera.
3. Format the memory card (after copying anything you need).
4. Try a new high-endurance card.
5. Check the maker's support website for a firmware update.
6. Call Bill at (330) 200-8042 — that's what I'm here for.

Good habits

- Glance at the camera's light now and then to make sure it's recording.
- Format the card monthly and replace it every year or two.
- Never touch the camera or the app while driving.
- Tell passengers about the camera, especially audio and cabin cameras.
- Never pay anyone with gift cards, and never send your only copy of a clip.