

How Do Security Camera Wires Enter A Home?

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Why did I think a new home security system was going to be easy to install? That's what you're probably wondering, now that you're stuck and don't know what to do. Yet, even if you've read the manual and watched videos, getting it right involves more than just knowing where to run wires.

Here's an interesting fact: do you know that you should seal and waterproof the holes with materials like silicone after running wires? Moisture collects along the cable's surface and penetrates electrical connection points, which can be a costly repair. A sound installation plan also factors in types of equipment, what tools are needed, the best spots for camera placement (and why), and where to run wires without interfering with electronic signals.

What to Know When Wiring for Security Cameras

Manuals make it look simple: mount the bracket, drill the holes, install the camera, then connect it via a mobile app. However, how many times did you **not find the answers** on an instruction sheet? Don't end up in an online rabbit hole searching for solutions. Here are five basics you should know.

1. How to Prepare for Setting up Wired Cameras

- **Map out the location** and find the best place to run wires to connect the camera to the Network Video Recorder (NVR), DVR box, and power source. (NVR or routers uses Power over Ethernet (PoE) for camera cabling.)
- **Measure cables** and wires so you know how long it should be, and when drilling, leave enough space for multiple wires and cables to pass through.

- Layout the components and **test all the equipment** and cameras before installation.
- Be sure to have a clear line of sight from each camera location and chose a place at least **10 feet high** to protect against the elements and vandalism. Don't position cameras where it will be hard to maintain and clean, especially if devices have backup batteries.
- When ready to start the installation of wired cameras, **turn off the building's power supply**.
- Once you connect the input cables for multiple cameras (to the NVR/DVR box), remember to label ports and the corresponding cameras.

2. Ideal Places to Put Security Cameras Around Your Home

Many homeowners mount security cameras at the front door and porch to avoid missing packages and home deliveries. A camera shows everyone's coming and going, from lawn maintenance staff to solicitors and trespassers.

Cameras should also face back and side doors and locations away from heavy traffic. Place additional cameras at the garage door and driveway, near off-street windows, and the backyard.

As for the interior, put cameras in gathering areas, including the kitchen and living room. It's a great way to track kids' activities, pets, babysitters, and guests. Another place is at corners, hallways, and stairwells. Placed at the right angles, it can record movement from several viewpoints.

3. What to Look for with Camera Placement

The trick is to find places where cameras aren't pointing directly at the sun and one that's in a semi-protected area away from the elements. Angle it for indirect light to prevent glare in footage and images. You can either run wires through the attic and attach the camera to the soffit or run it through an exterior wall and attach the camera using a conduit. Either way, find a sheltered area to protect the device.

Also, consider securing exposed wires from intruders by using a cable run. **A visible camera is a deterrent, but it can be a target for thieves.** Some homeowners cover it with a wired casing or decoy cameras, while the actual device is more concealed. Finally, don't install cameras on the gutter — it's unnecessary weight and remains overexposed to weather changes.

If it's indoors, you already know to run wires under baseboards and carpets, especially near doorways and high traffic areas. Also, point indoor cameras away from windows to avoid light reflection issues. At night watch out for the glare of lamps and light fixtures.

4. Signal Strenght and the Location of Your Hub

Your central hub (NVR/router, DVR, hard drive, and screen) should be close to where the wiring is accessible. If it's too far from Wi-Fi-enabled devices—such as automated door locks, digital thermostats, and other electronics that are—it will interfere with the signal.

Your hub will determine how and where you need to run wires and cables. It may be wise to get a whole home tri-band Wi-Fi system or a mesh networking setup. Wi-Fi extenders can boost your hub's ability to manage all devices on your home network.

5. Tools and Supplies for Different Types of Security Cameras

The tools and materials necessary for assembly and installation of a **PoE system** include a CAT5/6, which transmits video, images, data, and power (in one cable) up to 1,500 feet. You will also need a drill, drill bits, fish tape (or a coat hanger), and PoE injectors (for distance).

An **analog system** uses Siamese cables, typically RG-59 connectors. It requires crimping and stripping tools, cable extenders, coaxial wires, BNC barrels, electrical tape, and wire cutters.

A power drill will work unless it's a brick wall, then you will need a hammer drill and masonry drill bits. You may also want to buy weatherproof and waterproof materials for holes, regardless of the type of camera.

How to Get Audio on a Doorbell Camera?

Just as important as the installation is knowing why your equipment isn't working, particularly doorbell cameras such as a Ring video doorbell. Here are a few troubleshooting steps to try if it's not working.

- If the **router is too far away** from the doorbell, you might have to move it closer. It should work if it's within 200 feet of the door. Doing so will also boost a stronger Wi-Fi signal.
- **Your modem may be outdated.** Two-way audio and other issues could be a symptom of latency issues on your network. You will need a solid Wi-Fi setup.
- **Check the voltage type.** Ring doorbells require between 16 and 24-volts. Be sure to check the volt-amps, as well. You can check the status in the app under device health. If it is underpowered, try [switching to a 30VA unit](#).
- **No audio on your iOS device?** Try the microphone on the Ring app, then go to iPhone "Settings," select "Privacy," then "Microphone," and enable the toggle button. Also, check your speakers to see if audio is enabled. Here's a great guide with pictures on [how to fix doorbell speakers](#).

There you have it: all the details you need in one place. You now know the basics of successfully installing security cameras and even how to get that pesky doorbell audio working.