

Homeowners in California are running more cables through their walls than ever before. Power for EV chargers, induction cooktops, and home offices. Data cabling for streaming, security cameras, Wi-Fi access points, and smart devices in every room.

At some point the practical question hits: can one California electrician handle both the regular power outlets and the low-voltage data cable outlets, or do you need a separate low-voltage or networking contractor?

I have spent years on job sites watching this line blur. The tools look similar, the walls are the same, and a lot of customers assume cabling is just “smaller wiring.” In practice, California licensing rules, safety codes, and performance requirements make the answer more nuanced.

This guide walks through how power and data cabling actually differ, what your electrician is legally allowed to do in California, what you can reasonably expect from them, and how to decide whether you need more than one contractor.

Power vs data: not just “thick wire” and “thin wire”

Electricians usually talk about “wiring,” IT folks talk about “cabling.” People use the terms interchangeably, so it helps to draw a clear line.

Traditional electrical wiring carries higher voltage power, typically 120 or 240 volts in a home. Its job is simple but critical: safely deliver enough current to run appliances, lighting, EV chargers, HVAC equipment, and so on, while meeting code requirements.

Data or low-voltage cabling usually carries 50 volts or less. It is built to move information, not raw power. That includes:

- Ethernet runs for networks and Wi-Fi access points
- Coax for television and some internet service
- Low-voltage lines for security cameras, alarms, audio, intercom, and controls

So, is cabling the same as wiring? Technically, cabling is a type of wiring, but in the trades we use “wiring” for power circuits and “cabling” for low-voltage and communications work. Different codes, materials, performance standards, and testing tools apply.

What does cabling actually do?

From a homeowner’s perspective, cabling quietly solves three jobs that determine how “modern” and reliable your house feels.

First, it carries data between devices at the speed your applications need. That could be a 1 gigabit Ethernet run from your router to an office, or a simple coax line from the demarcation point to your TV. The cable’s construction and terminations set the ceiling on performance.

Second, it preserves signal quality over distance. A cheap, poorly terminated cable might run 50 feet without obvious issues, but at 100 feet you start seeing video artifacts, dropped network packets, or unstable Wi-Fi backhaul. A correctly installed Cat 6 line tested to standards will maintain performance at that longer run.

Third, it provides a predictable, labeled pathway for future changes. Good cabling is not just wire in the wall. It includes patch panels, labeling, and documentation so that five years from now, someone can find “Office North

Wall, Data 2" without opening every junction box.

That last part often separates a professional job from a quick install. If you care about future resale [Cabling Services Provider California](#) value and troubleshooting, you want someone who understands the three primary components of cabling: the cable media itself, the connecting hardware, and the pathways or support system that keeps everything protected and organized.

The main types of cabling you will see at home

People ask both "What are the three types of cabling?" and "What are the 5 types of cable?" because the answer changes depending on whether you are talking broadly or just about data networks.

For most residential projects, you will see three big categories:

First, electrical branch-circuit wiring. This is usually NM-B cable (often called "Romex") such as 14/2 or 12/2, carrying 120 or 240 volt power to receptacles, switches, and appliances.

Second, structured data cabling. [Cabling Services Provider California](#) That covers twisted pair copper like Cat 5e, Cat 6, or Cat 6A, terminated on RJ-45 jacks or patch panels, connecting computers, smart TVs, Wi-Fi access points, and other IP devices.

Third, coaxial cabling, typically RG-6, for television signals and some internet providers that still rely on coax from the street to the modem.

If you zoom out to five common types of cable that show up in and around a home, they usually include twisted-pair ethernet, coaxial, fiber optic, speaker or audio cable, and the NM-B power cable that feeds outlets and lighting.

In the world of networking alone, the most common type of cabling used in networks is still twisted-pair copper. In a typical California home wired in the last decade or so, that usually means Cat 5e or Cat 6. Many contractors now default to Cat 6 because the cost difference is modest and it supports higher speeds and better noise immunity for future upgrades.

What is the best wire for home use?

There is no single "best" wire. It depends on what you are doing, but there are some standards that experienced electricians and low-voltage installers almost always follow.

For general 120 volt branch circuits in California homes, 12/2 NM-B for 20 amp circuits and 14/2 NM-B for 15 amp circuits are the workhorses. When someone asks, "What is the best wire for home use?", that is usually what they mean. It is code-accepted, widely available, and every electrician knows how to work with it.

For data outlets, most pros now recommend at least Cat 6 for new runs, especially if you are opening walls anyway. The labor is the expensive part; going slightly higher grade on the cable itself rarely adds more than a few dollars per drop.

For television and satellite, RG-6 coax with a solid copper conductor is typical. If you are in an area with long runs from the service entry to your equipment rack, better coax and clean terminations make a noticeable difference in signal quality.

For high-fidelity audio or built-in speakers, installers will specify appropriate gauge, CL-rated speaker cable for in-wall use, often 14 or 16 AWG depending on run length.

How California licensing affects who can touch what

The big question is not just whether an electrician is physically capable of installing a data outlet, but what California allows them to do.

In California, electrical contractors fall under the C-10 license. That covers most traditional electrical work, including wiring, panels, lighting, and many types of low-voltage systems. There is also a C-7 low-voltage systems contractor classification that focuses on communications and data systems under 91 volts.

Here is what that means in practice:

A C-10 electrical contractor can legally install both power and many low-voltage systems, including structured cabling, as long as they meet code and follow the relevant standards. Many full-service electrical firms in California are happy to do both power and data if they have the right tools and experience.

A C-7 low-voltage contractor can install only low-voltage systems, not full-power electrical circuits. They handle a lot of structured cabling, AV, security, and networks. On some larger jobs, a C-10 and C-7 will work side by side.

From the homeowner's perspective, the license is only half the story. Some electricians are excellent with data cabling. They carry cable certifiers, crimp high-quality connectors, and follow TIA/EIA standards. Others will "throw in a few Cat 6 lines" as an add-on while focusing on panel upgrades and receptacles.

It is completely fair to ask a California electrician, "Do you regularly install data cable outlets and structured cabling, or do you prefer to focus on power?" The honest ones will tell you.

Do electricians install cable outlets and data jacks?

Most residential electricians in California can install coax outlets and basic Cat 5e or Cat 6 jacks, especially during new construction when the walls are open. They are already on site, pulling power circuits, drilling studs, and cutting box openings, so adding a few low-voltage boxes is straightforward.

Where things diverge is in the level of networking expertise. A basic electrician-installed jack will usually work fine for a single modem, a printer, or a TV. For more complex systems, such as:

- Whole-home wired networking with a central rack
- Multiple Wi-Fi access points powered via PoE
- Security cameras running over IP and PoE
- Mixed fiber and copper backbones

You want someone who thinks like a network designer, not just a cable puller. Some C-10 electricians have that background. Others will recommend a partner who handles structured cabling full time.

On the coax side, the work is more familiar. Asking "Do electricians install cable outlets?" is like asking whether they install stove circuits. Many do. They will run RG-6 from the demarcation point to your media locations and terminate F-connectors. What they typically do not manage is your subscription or equipment from the service provider.

Who is the cheapest cable provider, and does that matter for wiring?

People sometimes mix two distinct questions: who is the cheapest cable provider and who should install my in-home cabling. Your provider (Comcast, Spectrum, AT&T, a regional fiber ISP, etc.) Sets monthly charges and sometimes offers free or low-cost basic wiring for a single outlet near the modem.

Cheapest provider depends heavily on your city, available infrastructure, and promotions at the time. A bargain package on paper can become expensive once you factor in equipment rental, fees, and speed tiers.

From a wiring standpoint, the provider's installer typically does the minimum needed to get service working. If they have to run a new coax from the side of the house to your living room, they will. They rarely design or install a full structured cabling system. For that, you are back to deciding between an electrician, a low-voltage contractor, or a hybrid shop that has both licenses.

Is cabling difficult for a homeowner to handle?

When homeowners ask, "Is cabling difficult?", they are usually thinking of pulling a couple of Ethernet lines themselves to save money. Difficulty breaks down into three parts:

Physically fishing cables through finished walls is the most frustrating step. Between insulation, fire blocking, and existing utilities, what looks like a straight shot can turn into a half-day project. Electricians and cable installers know how to read framing and have the tools for probing and pulling.

Terminating and testing is the second hurdle. Punching down a keystone jack is not complex, but doing it consistently clean, with proper twists preserved and strain relief applied, takes practice. Without testing tools, you might not notice marginal terminations until you start pushing higher speeds.

Code and separation rules are the third and often overlooked part. Power and low-voltage cables should not share certain raceways, and there are fire-rating requirements for cable jackets in some locations. An electrician or licensed low-voltage installer is expected to know and follow these rules.

For a single drop in a low-risk spot, a careful DIYer can absolutely run a line. For a full-house network or anything tied into life-safety systems, hiring someone who does this daily is usually worth the cost.

How much does cabling cost in a typical California home?

Cost is always the next question: how much does cabling cost, and at what point is a separate cabling contractor worth it?

Prices vary by region and job complexity, but for residential work in California you can use some ballpark ranges.

For structured data cabling, a simple Ethernet "drop" in a house under active construction might run 75 to 150 dollars per location when bundled with other electrical work. In existing finished walls, the same drop might climb to 150 to 300 dollars or more, depending on access, distance, and whether patching and paint are included.

A modest whole-home network with a small rack, patch panel, a dozen or more Cat 6 lines, and terminations can easily reach 1,500 to 3,000 dollars, sometimes more for larger or more complicated houses.

For coax outlets only, adding a run during new construction is relatively inexpensive, often in the 50 to 100 dollar range per location. Retrofitting can double that once you add labor for fishing lines and repairing walls.

These are all broad ranges. High-end custom homes, long cable runs, and demanding clients can push prices higher. At the other extreme, a small low-voltage specialist might charge less than a large electrical firm if you only need data cabling and no power work.

Three components that separate "okay" cabling from professional work

Earlier, I mentioned the three primary components of cabling: the media, the connecting hardware, and the pathway. It is worth spelling these out, because they determine whether your network feels solid or fussy.

The cable itself has to be the right type, rating, and category for the job. That means plenum or riser rating where required, proper shielding in electrically noisy environments, and the right category (Cat 6 vs Cat 5e) for the speeds you want.

The connectors and terminations matter more than many people expect. Using certified jacks, following the T568A or T568B pinout consistently, and keeping untwisted pairs to a minimum at each end all affect performance. A cheap crimp or a reversed pair can cut a gigabit connection down to fast Ethernet or create intermittent issues that take hours to trace.

The pathway and support system keep cables safe, labeled, and accessible. Velcro instead of zip-ties to avoid crushing bundles, proper support trays where code requires them, separation from high-voltage runs to reduce interference, and clear labeling at panels and outlets. This is the unglamorous part, but when something fails, you feel the difference.

When one contractor can do both, and when you should split the work

The best situation for most homeowners is a contractor who can legally and competently handle both power and data. Many C-10 electricians in California now train teams that can install structured cabling to modern standards. You get one point of responsibility, one schedule, and a coherent design.

There are times, though, when splitting the work makes sense. A few practical guidelines help.

List 1 of 2: situations where a single California electrician is usually enough

- New construction or major remodel where the same walls are already open
- Basic needs such as a few coax and Ethernet outlets in standard locations
- Projects where power work dominates and low-voltage is a small add-on
- Jobs where the C-10 contractor has clear experience with data cabling, owns proper testing gear, and can show recent similar projects

List 2 of 2: cases where a dedicated low-voltage or network contractor is worth adding

- Whole-home structured cabling with a central rack, multiple switches, and patch panels
- Complex Wi-Fi designs with multiple access points and Power over Ethernet
- Mixed media networks that include both copper and fiber backbones
- Integrations with advanced security, automation, or AV systems that require configuration as well as cabling

On some projects, I have seen the electrician install the physical cable paths and low-voltage boxes, then hand off the actual terminations and rack work to a specialized cabling firm. That hybrid approach can save money while still giving you high-quality network infrastructure.



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How to evaluate a California electrician for data cabling work

If you are planning a project and want to know whether your electrician can handle the low-voltage side properly, a short conversation tells you a lot.

Ask about recent projects. "Have you wired homes with Cat 6 or higher in the last few years? Did you handle the terminations and patch panel, or just rough-in?" Skilled contractors will have clear, concrete examples and might even offer photos.

Ask what test equipment they use. Someone who installs structured cabling seriously will own at least a basic cable tester and, more often, a certifier that can document category performance. If all they mention is a tone generator, they may be more focused on power work.

Ask whether they follow TIA/EIA standards for structured cabling. You do not need to memorize the standards, but you want to hear that they design with those in mind instead of "We just run whatever the builder used last time."

Ask how they handle separation between power and data. In California, both code and good practice require thoughtful routing. You want to hear about physical separation, cross at right angles, and avoiding shared conduits where not allowed.

Licensing is table stakes. Judgment, experience, and pride in the craft are what make your daily experience in the home better.

The role of planning: layouts beat improvisation every time

Too many cabling jobs, even in expensive homes, are done improvisationally. Someone asks for “a data outlet there and another over there,” and the contractor runs a cable to each spot with minimal thought beyond shortest path.

A better approach starts with how you actually intend to live and work in the space. Where will the modem, router, and main switch live? Do you have a central closet or small rack location with ventilation and power? Are home offices likely to move over time? Will you ever add solar monitoring, EV chargers with network connectivity, or a whole-home audio system?

An experienced electrician or low-voltage installer will walk that path with you, draw a rough layout, and think ahead. Once the drywall is up, every change costs more.

Where power and data outlets literally meet in the wall

There are a few spots in modern homes where power and data collide in the same part of the wall and coordination really matters.

Behind wall-mounted TVs, you almost always need a power receptacle, at least one data outlet, and often a spare for future devices. Ideally, the electrician and cabling installer plan a recessed combo box or adjacent boxes that keep everything clean, with proper separation inside the wall.

At desks and workstations, a pair of duplex receptacles plus two data jacks per location is a common pattern that covers most use cases. It is painful to discover later that your desk has enough power but no wired network option, especially in homes with challenging Wi-Fi layouts.

Ceiling-mounted Wi-Fi access points and IP cameras bring another twist. Many of these are powered via PoE, which combines data and low-voltage power on the same cable. An electrician who understands PoE will route and secure those cables correctly and coordinate with where the PoE switch will live.

Bringing it together: what a capable California electrician can do for you

If you pick the right contractor, the answer to the headline question is often yes. A California electrician with a C-10 license, current code knowledge, and some training in structured cabling can handle both power and data cable outlets cleanly on many residential projects.

The limit is not usually the license, but their actual experience and the complexity of your needs. Straightforward coax and basic Ethernet jacks, pulled alongside power circuits during a remodel, are squarely in the comfort zone of many electricians. A fully documented, high-performance network backbone that will support ten-gigabit links and sophisticated AV routing pushes you toward a dedicated low-voltage firm.

The good news is that you do not have to guess. Ask the questions, look at previous work, and be clear about what you expect from your power and data systems over the next decade, not just next month. A little planning and the right mix of skills at the start will save you frustration, patch cables, and unnecessary wireless band-aids later on.