

FREE GUIDE

THE 15-MINUTE HOME EV CHARGING CHECKLIST

**Everything You Need to Know
Installing a Level 2 Charger**

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Magazine-Quality typography

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**Save Money, Avoid Mistakes &
Get It Right the First Time**

The 15-Minute Home EV Charging Checklist

Everything you need to know before installing a Level 2 EV charger at home.

This checklist walks you through every step of preparing your home for an EV charger installation—before you call an electrician. Use it to assess your electrical panel, compare Level 1 vs Level 2 charging, choose the right hardware, and ask the right questions so you never get hit with unexpected costs.

Every fact in this guide has been verified against the National Electrical Code (NEC), the IRS, the Department of Energy, and the Electric Vehicle Infrastructure Training Program (EVITP).

1. Is Your Home Ready? Electrical Assessment

Before calling an electrician, do a quick self-assessment of your home's electrical system. Here's what to look for:

- Locate your main electrical panel (breaker box). It's usually in the garage, basement, or utility room.
- Read the number on the main breaker—that's your service amperage.
 - 100A service: a Level 2 charger may require a panel upgrade.
 - 150A service: often sufficient, but a load calculation is still needed.
 - 200A service: almost always sufficient for a 48A Level 2 charger.
- Count available breaker slots. You need at least one empty two-pole slot for a 240V breaker.
- Look for double-tapped or tandem breakers—these are signs the panel may be at capacity.
- Estimate the distance from your panel to the planned charger location.
 - Under 25 feet: standard install, minimal wire cost.
 - 25–50 feet: longer wire run, moderate cost increase (\$200–\$500).
 - Over 50 feet: significant additional cost for heavier-gauge wire.

Pro Tip

If your panel is 100A or less, ask your electrician about a load-sharing device (like a DCC-9 or Splitvolt). These can add a Level 2 charger without a full panel upgrade, potentially saving \$1,500–\$3,000.

2. Level 1 vs Level 2: Which Do You Need?

Most EVs ship with a Level 1 charging cord that plugs into a standard 120V outlet. It works—but it's slow. Here's how the two levels compare:

Feature	Level 1 (120V)	Level 2 (240V)
Outlet type	Standard NEMA 5-15	NEMA 14-50 or hardwired
Typical amperage	12A	32–48A
Range added/hour	3–5 miles	20–60 miles
Full charge (60 kWh)	40–60 hours	4–10 hours
Installation	None needed	Licensed electrician
Typical total cost	\$0 (included with EV)	\$900–\$2,500 installed

Bottom Line

If you drive more than 40 miles a day or need to charge reliably overnight, Level 2 is the right choice. It fully charges most EVs in 6–8 hours—plug in when you get home, wake up to a full battery.

3. Choosing the Right Charger

Hardwired vs. Plug-In

- Hardwired: permanent installation, cleaner look, required by some local codes.
- Plug-in (NEMA 14-50): portable, easier to replace, you can take it if you move.

Key Specs to Compare

- Amperage output: 32A, 40A, or 48A. Higher = faster charging, but requires a larger breaker.
- Cable length: 18–25 feet is typical. Measure from your mounting spot to your charge port.
- Smart features: Wi-Fi connectivity, app-based scheduling, energy monitoring.
- ENERGY STAR certification (qualifies for some utility rebates).
- UL Listed—this safety certification is required by code in most jurisdictions.
- NEMA 4 or IP66 rating if installing outdoors.
- Manufacturer warranty: 3-year minimum recommended.

4. Installation Site Checklist

Where you mount the charger matters for safety, convenience, and code compliance:

General

- Mount within cable reach of your vehicle's charge port.
- Verify the wall can support mounting hardware (concrete, wood stud, or backing board).
- Confirm the route for conduit or wire from your panel to the charger location.

- Check for obstacles: plumbing, HVAC ducts, existing wiring in the wall path.

Outdoor Installations

- Mounting height must be at least 24 inches above the ground (NEC Article 625).
- GFCI protection is required by the NEC.
- Consider protection from direct rain and snow (under an eave, awning, or with a weatherproof cover).

Garage Installations

- Mounting height must be at least 18 inches above the floor (NEC Article 625).
- Ensure a clear path for the cable to reach your vehicle's port without stretching.

5. Questions to Ask Before Hiring

Ask every electrician these ten questions. A good contractor will answer all of them without hesitation:

1. Are you licensed and insured in this state?
2. Do you hold EVITP certification (Electric Vehicle Infrastructure Training Program)?
3. Will you pull the permit and schedule the city or utility inspection?
4. Have you performed a load calculation for my panel per NEC Article 220?
5. Does my panel need an upgrade? If so, what's the additional cost?
6. Is a dedicated 240V circuit included in your quote?
7. What brand and model charger do you recommend, and why?
8. Is the quote fully itemized—labor, materials, permit fees, and charger hardware?
9. What is the warranty on your installation workmanship?
10. How long will the installation take from start to inspection sign-off?

Why EVITP Matters

EVITP-certified electricians have completed specialized training in EV charger installation, NEC Article 625, and load calculations. They're trained to catch issues—like undersized wiring or missing GFCI protection—that a general electrician might miss.

6. Permits, Inspection & Code Compliance

In most jurisdictions, a permit is required before any 240V circuit work begins. Here's what to expect:

- Your electrician should pull the permit—not you. If they ask you to do it, that's a yellow flag.
- Expect a city or county electrical inspection after the installation is complete.
- The charger must be on a dedicated branch circuit (NEC Article 625).
- GFCI protection is required for all EV charging circuits (NEC 2023 and later).
- Your utility may also require notification before adding a high-draw load to your service.

NEC Article 625 Highlights

This section of the National Electrical Code specifically governs Electric Vehicle Charging Systems. It covers dedicated circuits, GFCI protection, mounting heights, disconnecting means, and load calculation requirements. Your electrician should be familiar with it.

7. Federal Tax Credit & Utility Rebates

Federal 30C Tax Credit

- Credit amount: 30% of equipment plus installation cost, capped at \$1,000 per charging port.
- Deadline: equipment must be placed in service by June 30, 2026.
- Location requirement: your home must be in an eligible census tract (low-income or non-urban area).
- Check eligibility at the DOE's 30C Tax Credit Eligibility Locator (anl.gov).
- File IRS Form 8911 with your federal tax return to claim the credit.

Utility Rebates

- Check your electric utility's website for EV charger rebates (many offer \$200–\$500).
- Ask about EV time-of-use (TOU) rates—charging off-peak can cut your per-mile cost in half.
- Some utilities offer free or discounted Level 2 chargers through enrollment programs.

Important

Tax credits and rebates change frequently. The figures above were verified as of May 2026. Confirm current amounts with your tax advisor and utility before making financial decisions.

8. Red Flags When Hiring an Electrician

Watch out for these warning signs. Any one of them is reason to get a second opinion:

- Won't pull a permit ("it saves you money"). Unpermitted work can void your insurance and reduce resale value.
- No EVITP or equivalent EV-specific training. General electrical experience isn't enough for safe EVSE installation.
- Verbal-only quote with no written, itemized breakdown of labor, materials, and permit fees.
- Skips the load calculation. Without one, you risk overloading your panel and tripping breakers.
- Price is suspiciously low. They may be cutting corners on wire gauge, breaker rating, or conduit.
- No references, reviews, or photos from previous EV charger installations.
- Asks you to buy the charger yourself online. Reputable contractors source and warranty the equipment.
- Can't clearly explain whether you need hardwired vs. plug-in and why.

Ready to get matched?

ChargeAtHomePros connects you with an EVITP-certified electrician near you who will send you a free, written, itemized installation quote. No login, no credit card, no obligation.

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Free for homeowners. No obligation.