

Our car experts choose every product we feature. We may earn money from the links on this page.

How Do I Prep My Garage for an EV?

The wiring, the outlet, and the equipment you'll need to have your own personal charging station.

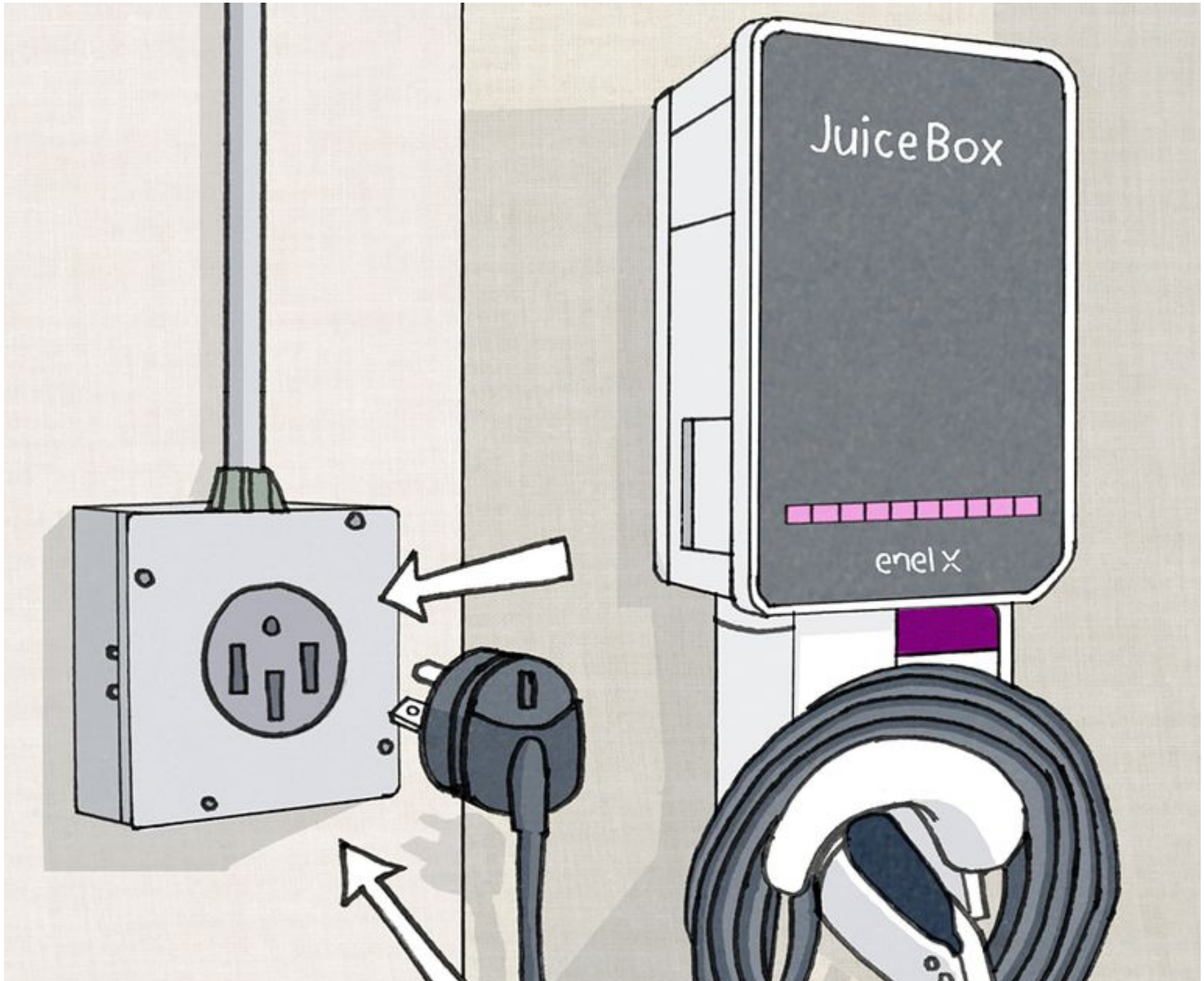
BY [DAVE VANDERWERP](#) JUL 7, 2021





EV *of the* YEAR

You'll want a dedicated 240-volt circuit for charging your car. A professional installation generally runs between \$750 and \$1750, plus the price of permits, according to [Qmerit](#), a company that specializes in this kind of work. If your current electrical supply can't handle the extra load, you'll need a new service line run to your house, pushing your cost to the high end of that range. A modest house with 150-amp or higher service can perhaps squeeze in an additional 30- or 40-amp circuit, but it depends on whether there are other large draws, such as a tankless water heater, an electric stove or dryer, or a hot tub. In addition, you may have to purchase charging equipment to connect your EV to the new circuit.



INFRASTRUCTURE



We Need to Build More EV Chargers, but Where?

Wiring

The distance from the electrical panel to the charging location can alter the cost substantially. A 40-amp circuit requires 8-gauge wire at more than \$3 per foot. Stepping up the amperage for faster charging requires thicker-gauge wire, which costs more.

Outlet

We recommend installing a NEMA 14-50 outlet rather than hardwired charging equipment. Some EVs come with portable charging cords that work on both 120- and 240-volt circuits, saving you from an additional purchase. And even if you do buy home charging equipment, having a plug-in unit means you can use the outlet for other high-draw equipment, such as a welder, and take the pricey box with you if you move.

Equipment

Because we're nerds, we like to know how much energy our EVs are using. The Wi-Fi-connected JuiceBox (\$650) has a handy app to track charging history and the amount of energy dispensed during each session. You can also schedule charging for set times—a useful feature if your electric utility offers a lower rate during off-peak hours.

**Re**

Sign up for the smartest car news out there.

What's your email address?

LET'S GO.

By signing up, I agree to Hearst Magazines' [Terms of Use](#) (including the [dispute resolution procedures](#)); my information will be used as described in the [Privacy Notice](#).

Conversation 13 Comments

What do you think?



Sort by Best ▾

jim2522 · 8 July, 2021



If you replace your existing breaker box with larger one, more than likely your service provider will need increase the size of the wire servicing the home. It won't be free.

Reply  2 

↩ 1 reply

k998 · 14 July, 2021 ...

The advice here to get an outlet installed is out of date. The current (and previous) version of NEC (the electrical code used in the majority of the United States) requires that outlets installed outdoors, in a garage, or for use with an EVSE must be installed with a GFCI circuit breaker. For a...**See more**

Reply  1 

↩ 2 replies

stjr · 13 July, 2021 ...


I kinda knew that a 240V circuit was needed; but it was all good information anyway. My question is, can your recommended wall charger support any EV or do you have to get one that is vehicle specific? And what happens if I own a Chevy Volt and my Wife owns a Mustang MachE? Can both vehicles use th...**See more**

Reply  1 

↩ 1 reply

dav9589 · 25 September, 2021 ...

Or if you drive <50 miles per day or can charge at work/publicly, there's no need for L2. All you need is an outlet that has little else on the circuit. Was hoping for more info on garaging an ev besides charging.

Reply  

Russclehman · 8 July, 2021 ...

So, not \$500 like a poster on another thread said. *(Edited)*

Reply  1 