Electric Vehicle

DRIVER FAQ's



HOW LONG WILL AN EV TAKE TO CHARGE?

Charge time depends on the vehicle, the type of charger used and how much charge was already in the battery. Typically, a home charger will fully charge a vehicle overnight. Fast chargers such as workplace charge points and public charge points, excluding motorways, will take 4-6 hours for 80% charge, while a rapid charger (at motorway service stations, for example) may take 30 minutes or less for 80% charge. The last 20% of charge (80-100%) takes longer, as it 'trickles in' to top the battery up.

WHAT IF SOMEBODY UNPLUGS THE VEHICLE WHEN IT'S BEING CHARGED IN PUBLIC?

An EV's charging lead locks into charge points when being charged. When the vehicle is locked while on charge, the lead will lock into the car as well – so nobody can unplug the vehicle without the driver being present to unlock the car or stop the charge.

CAN AN EXTENSION LEAD AND A NORMAL 3-PIN PLUG BE USED TO CHARGE AN EV?

Some cars may be provided with a 3-pin plug charging lead. We'd always recommend using only a bespoke home or workplace charge point. For occasional charging though, such as visiting a friend's house, the supplied 3-pin plug lead can be used. However it will take much longer to charge, and the cable can get warm¹, so drivers need to be careful where they put it. An extension lead must never be used to charge an EV because it places too much load on the electrics². Always refer to the vehicle manufacturer's instructions for charging.

- ¹ greentransportation.info/ev-charging/range-confidence/chap8-tech/ electric-car-extension-cords.html
- ² <u>driving.co.uk/news/three-quarters-electric-car-owners-use-extension-leads-charge-cars/</u>

IS IT DIFFICULT TO WORK OUT WHEN A RE-CHARGE IS NEEDED?

No, most electric cars have an electricity meter. Some also have a range meter showing how many miles are left on the meter. Some also have satellite navigation systems that work out whether it's possible to reach a destination without a charge — and if not, they will re-route via a public charging point. Mobile apps that connect to EVs can monitor charging activity and offer remote access. The app will let the driver know the remaining range, and it also includes remote functions such as preconditioning, scheduling charging and locking the vehicle.

ARE ALL CHARGING CABLES AND PLUGS THE SAME?

There are a number of different connectors and systems available, so it's important to use the right one. Most now feature what's known as a Type 2 connector. When ordering an EV, ask the manufacturer which type of cable is provided — some cables are optional extras which may need to be added onto the vehicle order.

Plugs at public chargers

Many apps show charge point types across the UK, and whether they are suitable for a particular vehicle. Most public charge points offer more than one tethered cable type, so are compatible with the majority of EVs (the exception is Tesla superchargers, commonly found at motorway service stations, which only work with Tesla vehicles).

Plugs on home charge points

It's important to consider whether a home charger's connector type matches a vehicle. Universal chargers cater for multiple EVs, which may come in useful.

Plugs at dedicated charge points

A tethered charge point is where a charging lead is already connected. So, if it has the right connector, you won't need your own charging lead. While these tethered charge points may be more convenient to use (at work, for example), they typically only allow certain vehicles to be charged by them.



WHAT IS THE COST PER MILE TO DRIVE AN EV?

Typically, the average cost per mile is around one third of the cost of an equivalent diesel car.

ARE EVS ACTUALLY BETTER FOR THE ENVIRONMENT THAN TRADITIONALLY FUELLED VEHICLES?

EVs are better for the environment than traditionally fuelled vehicles as they produce no emissions at the tailpipe. In fact, the entire lifecycle of an EV produces fewer carbon emissions than a traditional vehicle's tailpipe alone³. They also produce no CO_2 at the point of use, although there may be some carbon impact dependent on how the electricity is generated in the first place. More and more of the UK's energy is generated by sustainable methods though.

Even taking this into consideration, the CO_2 emissions from EVs are still significantly lower than diesel and petrol cars — and as more sustainably generated electricity is produced, the CO_2 equivalent emissions for electric cars will reduce even further.

Electric vehicles are already having a positive impact on pollution levels. Urban air quality is a particular beneficiary, and research has shown that ozone quality — one of the main components of smog — improves in direct correlation with the number of electric vehicles on the road.⁴

- ³ theicct.org/sites/default/files/publications/EV-life-cycle-GHG_ICCT-Briefing_09022018_vF.pdf
- ⁴ phys.org/news/2019-04-electric-vehicle-air-quality-climate.html



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ARE EVS COMPLICATED TO DRIVE?

No, in fact they are very easy. EVs are driven just like automatic vehicles, but without any gear changes at all, so drivers only have to use the accelerator and brake pedals. When lifting your foot off the accelerator, an EV will slow down quite quickly thanks to regenerative braking, which charges the battery. This makes city driving very easy, saves a lot of electricity and can significantly prolong the life of the brakes. Common feedback on the driving experience includes how quiet, simple, and relaxing EVs are to drive. If you, or another driver, needs any convincing we recommend booking a test drive to see first-hand how easy they are to handle.

ARF FVs SI OW?

EVs are high torque and have no gears, so typically accelerate faster than traditional vehicles. In fact, most electric cars can achieve 0-60mph in less than eight seconds⁵. There shouldn't be any negative issues concerning the speed when it comes to driving experience.

⁵ nimblefins.co.uk/fastest-electric-cars

ARE EVs SAFE?

In crash tests, EVs tend to outperform traditional vehicles as the battery packs are built into the base of the vehicle, making the structure very sturdy. Teslas have the highest crash safety score of any vehicle tested in the US. Many EVs also feature autonomous braking and accident avoidance (European NCAP tests show that Teslas have the highest level ratings for crash protection). Pedestrians can also rest easy; EVs give out audible alerts when travelling at low speeds so they can still be heard when they're approaching.⁶

⁶ <u>lv.com/car-insurance/how-safe-are-electric-cars</u>



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