The Ultimate Guide to Charging An Electric Vehicle - BLK Auto

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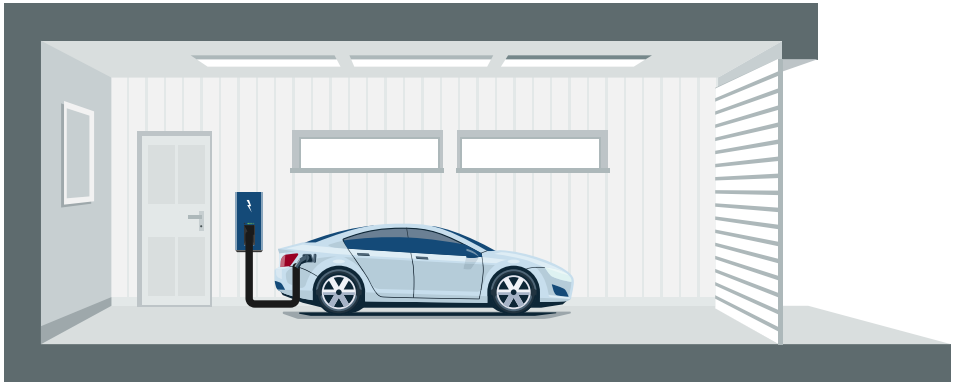
How to charge an EV

To charge an electric car, you'll need to plug it into a charge point. In Australia, there are four main places you can find these; at home, at work, at public locations and at service stations.

- You'll sometimes need to take your own detached charging cable with you.
- Most EV drivers plug in to a charge point whenever they park to stay topped up.
- Sometimes drivers need to charge en-route, using fast chargers.
- You can charge your car simply by plugging in, or by using an app, contactless card or RFID card.

Charging an EV at home



You can charge your electric car at home by having a dedicated home charger installed. Most EV drivers found it is the most convenient place to charge, particularly when you can plug in overnight.

- A home charger will allow you to charge 4 times faster than a standard power point, typically between 14km of driving range per hour of charge.
- Most home chargers have a cable attached, which you typically just plug in to your vehicle to start charging. You should also get cable holders and plug holder to prevent damage to the cable.
- Typically, electric trucks require heavy duty charging infrastructure if the vehicle is reuqired to be turned over quickly.

Electric cars can also be plugged into a standard 3-pin plug at home; however it takes longer to charge, therefore it is not considered best practice.

Charging an EV at work

It is very convenient to charge at work as your truck is often parked for an extended period during the day.

Many organizations are now installing charging stations for staff and visitors as a perk, for sustainability reasons or to facilitate the switch to an electric fleet.

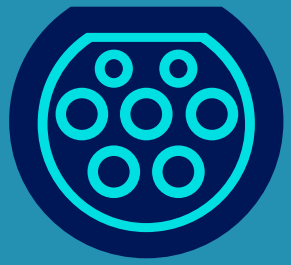
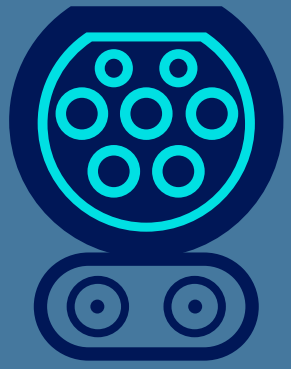
- Workplace chargers for heavy vehicles are normally DC chargers that can power the vehcile battery quickly
- AC chargers can be used however they tend to be slower

Charging an EV on long distance journeys or in emergencies

On long distance journeys you will find that there are times when the remaining range in your battery won't get you to your destination. In this situation, you can make use of the DC fast charging networks found in motorway service stations and other locations across Australia. This is known as en-route charging.

- The cables are always tethered to the units, meaning you do not need to bring your own charging cable.
- As they are expensive, and dispense a lot of electricity in a short period, rapid chargers are usually offered on a paid for basis.

Important Charging Stats for BLK - 96kWH

AC Connector Type	Typical Power Ratings	Range per Hour Charging	Features
 TYPE 2	7kW	14 km	• 7 pins • By far the most common connector on new cars • Inbuilt locking mechanism
 CCS2	82 kW	171 km	Please note the DC charger must have the ability to deliver 520V of electricty. Older Tritium units cannot deliver this power. Please use DC charger with +520V output.

Important Charging Stats for BLK - Voltage

	Charger Type	Voltage Output
 	Tritium RT 50kW Delta 25kW	Voltage Output < 500V
  	Tritium RTM Range ABB Terra Range Ocular Titan Range	Voltage Output > 520V

How to optimise the range of your electric car

Though EVs now are built to be able to run for more than 300km on a single charge, range anxiety remains a common suffering among EV owners. Even so, there are a number of ways you can maximise the range of your electric vehicle, we've compiled them into a handy list so that you can get more km from a single charge.

Tips for maximizing your range when driving

1. Gently Driving

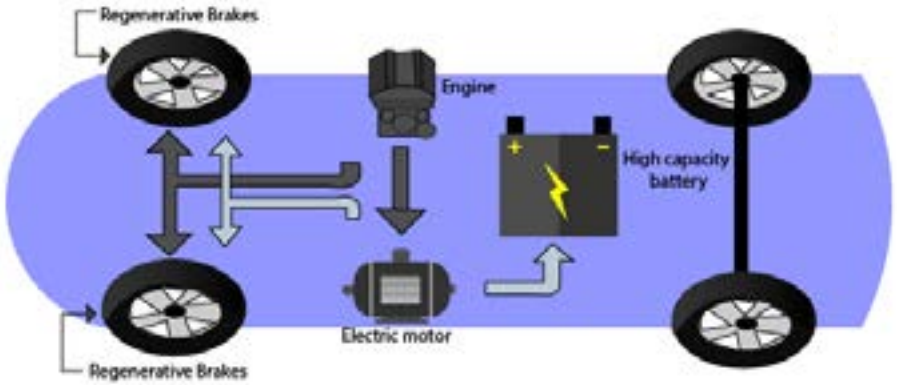
Simply put, fast acceleration is fun when driving, but it will also drain your EV's battery at an accelerated rate. Minimising this will help keep your energy consumption lower.

2. Watch Your Speed

Efficiency and speed work differently in an EV compared to a petrol or diesel car. That means the faster you go, the more energy your car consumes (power consumption jumps by about a quarter between 80 and 100km/h). Therefore, the most efficient speed for electric cars is <20km/h for most BEVs (depending on other constant consumption such as air conditioning, heating and electrical systems). However, we obviously would not recommend driving that slow.

3. Maximise Your Regenerative Braking

Most EVs feature a regenerative braking system which utilizes the electric motor as a generator to send energy back to the battery every time you lift off the accelerator or push the brakes. Even though it's not a large amount of electricity that's generated, you can actually add more km to the range than you'd think when you use the set-up effectively. Make sure you always have regenerative braking on and that you leave enough space for it to slow you down before you need to brake.



4. Conditioning Your EV

The air-conditioning system consumes a fair amount of energy from the battery power, especially when it is trying to warm or cool the cabin in extremes of temperatures. It's therefore best to get this done when the truck is plugged in and charged, then all it has to do when you're driving is maintain a set temperature which uses less energy. This feature is particularly handy in winter when the weather is at its coldest or in summer when it's scorching hot, as you can preheat or pre-cool your car while it's still charging; helping to reserve the battery's power for driving.

5. Route Planning

It might be quicker to get to a given destination by driving on the highway, but you can help maximise your car's operating range by instead choosing the route that allows you to drive steadily at lower speeds. Also avoid routes that are known for heavy traffic. Fortunately, most EVs have a navigation system that can suggest energy-efficient routes that you should use.

Plug in to go further on the road everyday

Contact

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We're ready to help.

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