



ELECTRIC VEHICLES 101

# Driving your Vehicle



Driving an EV may take a little getting used to. We've gathered some helpful information to educate you on successful, and safe, EV operation.

## Vehicle Pick Up

- Take a training course before picking up your vehicle
- Test drive the vehicle at the dealership
- Read the vehicle manual
- Get comfortable driving your vehicle in an empty parking lot

## Safety Considerations

Below are some important safety-considerations when driving an EV vs. an Internal Combustion Engine (ICE) vehicle

- **Faster Acceleration.** EVs accelerate more quickly from a stopped position than an internal combustion engine.
- **Noiseless Motors.** Electric motors are extremely quiet, which can pose a danger to pedestrians and bicyclists who use engine noise to detect danger. Most government safety agencies are now requiring that EVs be equipped with electric vehicle warning sounds.
- **One Pedal Driving.** To maximize energy utilization, EVs are equipped with a feature called One Pedal Control. The accelerator pedal controls both speeding up and slowing down. Pressing this pedal makes the vehicle move as usual but lifting the foot makes it slow down, hard, not coasting.





## Charging vs. Fueling

It is important to take time to understand the different behaviors that come when charging vs. fueling.

Here are a few tips to help ensure your EV fleet is powered for the day and beyond.

- **Plug it in.** Be sure the vehicle is plugged in wherever it “sleeps” at night.
- **Keep it charged.** Charging batteries at a level between 20 to 80% extends its life and keeps it operating at peak efficiency.
- **Don’t charge to 100%.** Fully charging an EV reduces the regenerative braking and can degrade the battery. Check your owner’s manual for guidance from the vehicle manufacturer.
- **Switch up your charging methods.** Sole use of fast chargers can have a negative effect on battery health.
- **Know where to charge.** When planning a trip, make sure there is a mechanism in place (such as an app) to easily locate a charging station.

## Vehicle Range Optimization

Vehicle range can be impacted by many factors – inside and outside of your control. One feature to take advantage of is regenerative braking. This unique EV technology converts the energy lost during deceleration back into the vehicle’s battery. Below are additional behaviors and situations that contribute to maximizing your range.

- **Terrain.** Most drivers use more of their brakes when traveling downhill and on curved roads. Since you are braking more in these terrains, you’ll convert more energy back to the vehicle’s battery.
- **Weather.** Both extremely hot and cold temperatures negatively affect battery performance. Utilize a strategy called preconditioning, where you warm up or cool down your vehicle before you depart to minimize the impact on the battery. Note that the heating and air conditioning unit uses the same battery source as the vehicle. Using air conditioner or heat while driving can reduce mileage range by 15% to 35%.
- **Technique.** How you drive your vehicle – acceleration, braking, cornering, speeding, driving with windows down – all can impact vehicle range. Follow local laws and signage and ensure you’re driving safely for all conditions.