

General information about charging

Important!



Caution: If the Battery's charge level falls to 0%, it must be plugged in immediately. Failure to do so can permanently damage the Battery and this damage is not covered by the New Vehicle Limited Warranty. Also, if you allow the Battery to fall to a critically low level it may not be possible to charge the vehicle. If you are unable to charge the vehicle, contact Tesla Motors.



WARNING: The Battery has no parts that an owner, or a non-Tesla authorized technician can service. Under no circumstances should you open or tamper with the Battery. Always contact Tesla Motors to arrange for Battery servicing.▲



At the end of its service life, the Battery will be recycled. Contact Tesla Motors for recycling arrangements.

The Battery

The Tesla Roadster's Battery provides power to the motor as well as all the other electrical systems on the vehicle, such as lights, instruments, audio system, etc.

The Battery is one of the largest and most advanced battery packs in the world, consisting of several thousand lithium-ion battery cells that store enough energy for the vehicle to travel over 200 miles (320 kms) without recharging.

Note: Actual range will vary based on driving style. The vehicle consumes more energy if you are driving aggressively, driving up hills,

or are using more resources such as air conditioning. Also, over time, the Battery experiences a gradual loss of capacity, inherent in all lithium-ion batteries. So, as your vehicle ages, the capacity of the Battery declines.

As you drive your vehicle, the level of charge in the Battery is depleted and you'll need to recharge it. The Roadster's built-in charging system allows you to easily recharge it by connecting an electrical power supply to the vehicle's charging port.

Designed to be plugged in

The Tesla Roadster is designed to be plugged in when not in use. This ensures that the next time you use the vehicle, it is fully charged and ready to go. There is no advantage to waiting until battery level is low before charging. Plugging in every night eliminates the risk of damage that could be caused by over-discharging the battery.

When plugged in, the vehicle optimizes the lifetime of the Battery by managing its charge level and temperature. The vehicle wakes up every 24 hours and, if needed, automatically initiates the charging process to keep the Battery at an optimum charge level.

If you're not driving your vehicle every day, see [Storing your vehicle](#), page 5-3.

Leaving the vehicle unplugged

Even when you're not driving the vehicle, the Battery will slowly lose its charge. Therefore, when you're not using the vehicle, you should leave it plugged in. However, situations may arise in which you must leave the vehicle unplugged for an extended time (for example, at an airport when travelling for a couple of weeks). If this is the case, it is your responsibility to ensure that the Battery does not become fully depleted. Charge the Battery to a maximum level before leaving it. Keep in mind that when the vehicle is left unplugged with a full Battery, the initial rate of decline can be significant. When fully charged, the Battery's charge level can drop as much as 7% a day and 50% within the first week. When the Battery's charge level falls below 50%, the rate of decline slows down to approximately 5% per week. Over-discharge can permanently damage the Battery.

If for some reason, you are unable to keep the vehicle plugged in when it is not being used, it is up to you to preserve battery life by paying attention to the charge level and the temperature (see bulleted list below). If leaving your vehicle unplugged for more than 24 hours, follow these do's and don'ts to avoid prematurely decreasing the life of your vehicle's Battery:

- DO leave the vehicle plugged in whenever possible.
- DO maintain at least a 15% charge level in the Battery if leaving it unplugged for more than 48 hours.