

Charging Instructions

Opening the Charge Port

The charge port is located on the left side of Model S, behind a door that is part of the rear tail light assembly. Park Model S to ensure that the charge cable easily reaches the charge port. With Model S unlocked (or a recognized key is within range) and in Park, press and release the button on the Tesla charge cable to open the charge port door.

Note

If the charge cable is close to the charge port door, you can press the button on the charge cable to open the charge port door even when Model S is locked or a recognized key is not within range.



You can also open the charge port door using any of these methods:

- On the touchscreen, touch the Charge Port icon (lightning bolt).
- On the touchscreen, navigate to **Controls > Charging > Open Charge Port**.
- Press the charge port door when Model S is unlocked.
- On the key fob, hold down the rear trunk button for 1-2 seconds.
- Use voice commands to open the charge port door (see [Voice Commands](#)). You can also use voice commands to close the charge port door, and begin or stop charging.

Note

The following image is provided for demonstration purposes only. Depending on market region and date of manufacture, your charge port may be slightly different.





Note

The charge port lights up white when you open the charge port door. If you do not insert a charge cable into the charge port within a few minutes after opening the charge port door, the charge port door closes. If this happens, use the touchscreen to open the charge port door again.

Note

In extremely cold weather or icy conditions, it is possible that your charge port latch may freeze in place. In cases where you cannot remove or insert the charge cable, or the vehicle is not Supercharging due to the latch being frozen in place, use your Tesla mobile app to precondition your vehicle on **HI** for approximately 30-45 minutes (you must use your mobile app to precondition the vehicle; setting your climate to **HI** using the touchscreen is not effective). This can help thaw ice on the charge port latch so the charge cable can be removed or inserted.

CAUTION

Do not try to force the charge port door open.

Plugging In

If desired, use the touchscreen to change the charge limit and the charging current (see [Charge Settings](#)).

To charge at a public charging station, plug the appropriate adapter into the vehicle's charging port, and then connect the station's charging connector to the adapter. The most commonly used adapter(s) for each market region are provided. Depending on the charging equipment you are using, you may need to start and stop charging using a control on the charging equipment.

If you are using the Mobile Connector, plug into the power outlet before plugging in Model S. Align the connector to the charge port and insert fully. When the connector is properly inserted, charging begins automatically after Model S:

- Engages a latch that holds the connector in place;
- Shifts into Park (if it was in any other drive mode);
- Heats or cools the Battery, if needed. If the Battery requires heating or cooling, you may notice a delay before charging begins.



Note

Whenever Model S is plugged in but not actively charging, it draws energy from the wall outlet instead of using energy stored in the Battery. For example, if you are sitting in Model S and using the touchscreen while parked and plugged in, Model S draws energy from the wall outlet instead of the Battery.

CAUTION

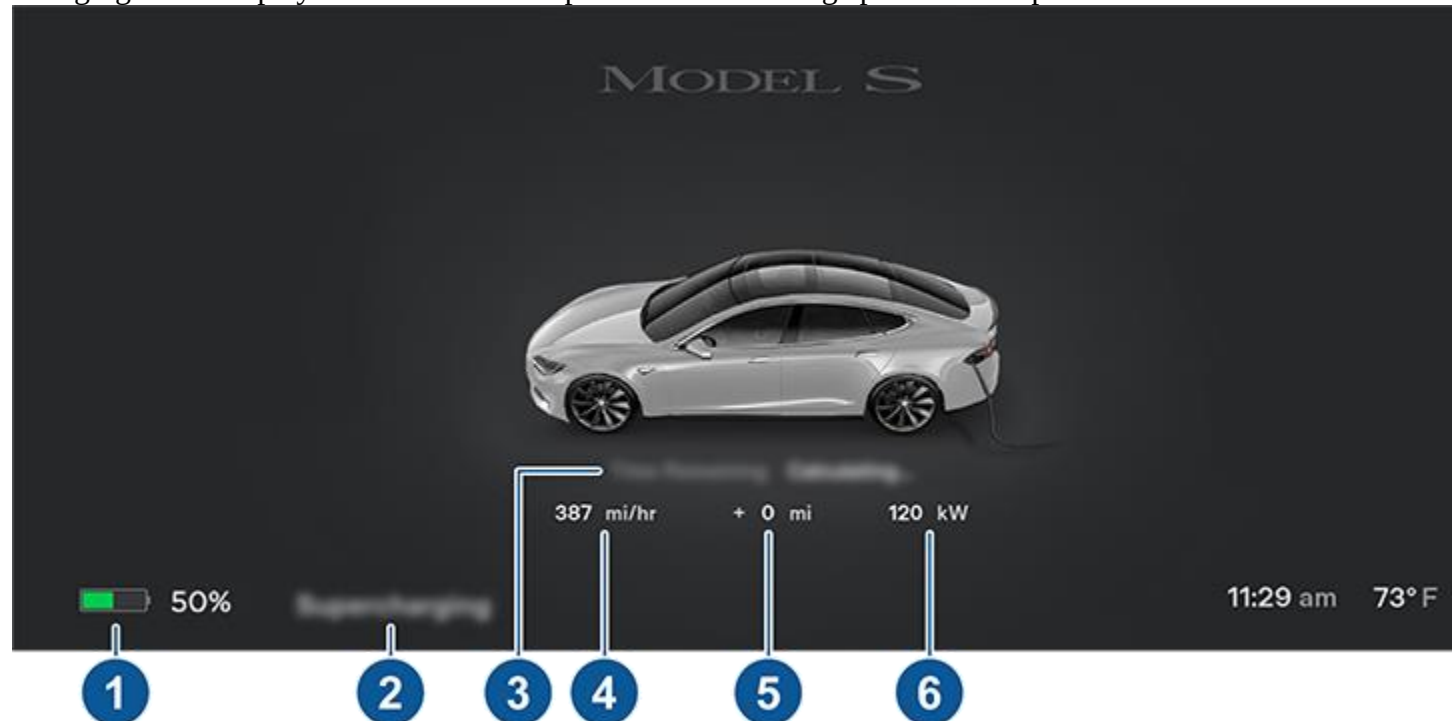
The connector end of the charge cable can damage the paint if you drop it onto Model S.

Charge Port Light

- **WHITE (OR LIGHT BLUE):** The charge port door is open. Model S is ready to charge and the connector is not inserted, or the charge port latch is unlocked and the connector is ready to be removed.
- **BLUE:** Model S detects that a connector has been plugged in.
- **BLINKING BLUE:** Model S is communicating with the connector. Either Model S is preparing to charge, or a charging session is scheduled to begin at a specified future time.
- **BLINKING GREEN:** Charging is in progress. As Model S approaches a full charge, the frequency of the blinking slows.
- **SOLID GREEN:** Charging is complete.
- **SOLID AMBER:** The connector is not fully plugged in. Realign the connector to the charge port and insert fully.
- **BLINKING AMBER:** Model S is charging at a reduced current (AC charging only).
- **RED:** A fault is detected and charging has stopped. Check the instrument panel or touchscreen for an alert.

Charging Status

Charging status displays on the instrument panel when the charge port door is open.



1. Driving distance: Displays the total estimated driving distance or energy percentage (depending on your display setting) available.



Note

To change how energy units are displayed, touch **Controls > Display > Energy Display**.

2. Charge status: Charge status messages (such as Supercharging, Scheduled Charging) display here (see [Scheduled Charging and Scheduled Departure](#)).
3. Time remaining: The estimated time remaining to charge to your set limit (see [Charge Settings](#)).

Note

When charging to 100%, the vehicle may continue to charge with low power when charging is displayed as complete. This is expected operation. Because the added energy beyond this point is low, it is usually not beneficial to continue charging.

4. Charging rate: The maximum current available from the attached charge cable.
 5. Range gained: Estimated increase in driving distance achieved in the charging session.
 6. Charging: The current power of the charger.
- 3 If connected to a 3-phase power supply (if applicable in your region), the available current represents the current per phase and the 3-phase symbol displays.

During Charging

During charging, the charge port light pulses green, and the instrument panel displays real-time charging status. The frequency at which the green charge port light pulses slows down as the charge level approaches full. When charging is complete, the light stops pulsing and is solid green.

Note

If Model S is locked, the charge port light does not light up.

If the charge port light turns red while charging, a fault is detected. Check the instrument panel or touchscreen for an alert describing the fault. A fault can occur due to something as common as a power outage. If a power outage occurs, charging resumes automatically when power is restored.

Note

It is normal to hear sounds during charging. Particularly at high currents, the refrigerant compressor and fan operate as needed to keep the Battery cool.

Note

Air conditioning performance is generally not affected by charging. However, in some circumstances (for example, charging at high currents during a particularly warm day), the air coming from the vents may not be as cool as expected and a message displays on the instrument panel. This is normal and ensures that the Battery stays within an optimum temperature range while charging to support longevity and optimum performance.

Warning

Never spray liquid at a high velocity (for example, a pressure washer) towards the charge port while charging. Doing so can result in serious injury or damage to the vehicle, charging equipment, or property.

Stopping Charging

Stop charging at any time by disconnecting the charge cable or touching **Stop Charging** on the touchscreen.

Note



To prevent unauthorized unplugging of the charge cable, the charge cable latch remains locked and Model S must be unlocked or able to recognize your key before you can disconnect the charge cable.

To disconnect the charge cable:

1. Press and hold the button on the connector handle to release the latch.

Note

You can also release the latch using the touchscreen or mobile app, or by pressing and holding the rear trunk button on the key fob. If your vehicle is equipped with a motorized charge port, you can also press the button to the left of the charge port to release the latch.

2. Pull the connector from the charge port.

To disconnect the charge cable when using an adapter at a public charge station:

1. Unlock Model S.
2. While holding the public charging handle in one hand and the adapter in the other hand, press and hold the button on the public charging handle and pull both outwards, removing the handle and adapter at the same time.

Note

If the charging station handle separates from the adapter, leaving the adapter in Model S, use the touchscreen to unlock the charge port.

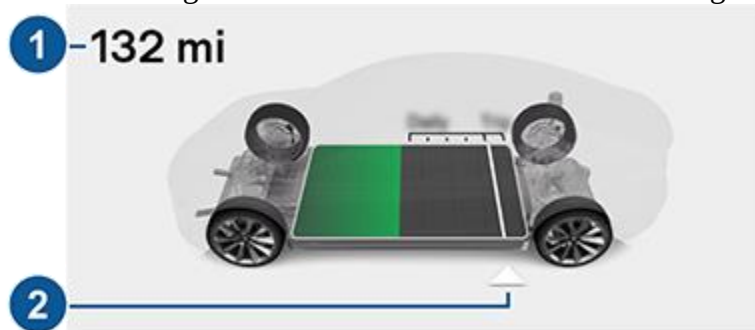
3. Press and hold the button on the charging handle again to release the adapter from the public charging handle.

CAUTION

Tesla strongly recommends leaving Model S plugged in when not in use. This maintains the Battery at the optimum level of charge.

Charge Settings

Access charge settings by touching **Controls** > **Charging** when Model S is in Park. You can also touch the charge icon on the touchscreen to access charge settings.



1. **Driving distance:** Displays the total estimated driving distance available.
2. **Set limit:** Adjust the charge limit by dragging the arrow below the battery to indicate the level of charging you want. The setting you choose applies to immediate and scheduled charging sessions.

Note

A portion of the battery image may appear blue. This indicates that a small portion of the energy stored in the battery is not available because the battery is cold. This is normal and no reason for concern. When the battery warms up, the blue portion no longer displays.

You can further adjust charge settings:



- **Open Charge Port, Unlock Charge Port and Stop Charging:** When not charging, touch **Open Charge Port** or **Unlock Charge Port** to open the charge port door or to unlock the charge cable from the charge port. Use **Stop Charging** when you are finished charging.
- **Charge current at this location:** The current automatically sets to the maximum current available from the attached charge cable, unless it was previously reduced to a lower level. If needed, touch - or + to change the current (for example, you may want to reduce the current if you are concerned about overloading a domestic wiring circuit shared by other equipment). It is not possible to set the charging current to a level that exceeds the maximum available from the attached charge cable. When you change the current, Model S remembers the location. If you charge at the same location, you do not need to change it again.

Note

For 3-phase charging, the available current represents the current per phase (up to 32A). During charging, the right status flag displays the 3-phase symbol in front of the displayed current.

Note

If Model S is charging and detects unexpected fluctuations in input power, the charging current is automatically reduced by 25%. For example, a 16 amp current is reduced to 12 amps. This automatic current reduction increases robustness and safety in situations when an external problem exists (for example, a home wiring system, receptacle, adapter or cord is unable to meet its rated current capacity). As a precaution, when Model S automatically reduces current, it saves the reduced current at the charging location. Although you can manually increase it, Tesla recommends charging at the lower current until the underlying problem is resolved and the charging location can provide consistent power.

- **Schedule:** Depending on the setting you select by touching **Switch to Scheduled Departure/Scheduled Charging**, this displays either a departure time for when the vehicle should be preconditioned and/or charged by or a time to start charging (see [Scheduled Charging and Scheduled Departure](#)).
- **Supercharging:** Displays supercharger usage fees, the location, the time that charging started, and a cost estimate for the session (see [Supercharger Usage Fees and Idle Fees](#)).

Note

To reduce congestion at high-usage supercharger sites, you may be limited to a maximum charge of 80% when not using Trip Planner (if available in your market region). See [Trip Planner](#).

Scheduled Charging and Scheduled Departure

Toggle between Scheduled Departure and Scheduled Charging by touching **Controls > Charging > Switch to Scheduled Charging/Scheduled Departure** when Model S is in Park.

Note

Scheduled Charging/Scheduled Departure settings are also available on the Climate Controls screen and in the Tesla mobile app.

Think of **Scheduled Charging** as "When do I want charging to start?" compared to **Scheduled Departure Off-Peak Charging** which is "When do I want charging to be complete?"



Scheduled Charging can be used together with **Scheduled Departure Preconditioning** but not with **Scheduled Departure Off-Peak Charging**.

Scheduled Charging/Scheduled Departure settings are automatically saved for each location.

Note

If you plug in Model S with both **Off-Peak Charging** and **Scheduled Charging** deselected, your vehicle charges immediately.

Using Scheduled Charging

Use **Scheduled Charging** to specify a daily time in which you want Model S to start charging.

With **Scheduled Charging** selected, enable the feature then set a daily time to start charging.

Note

Scheduled Charging starts charging immediately if Model S is plugged in up to 6 hours after the scheduled start time. However, if Model S is plugged in after six hours of the scheduled charging time, charging may not start until the scheduled time on the next day.

Using Scheduled Departure

Use **Scheduled Departure** to set a daily time when you want Model S to be ready to drive. Your vehicle automatically calculates when it needs to start preconditioning and/or charging. This ensures that charging is complete and/or the cabin climate and Battery are preconditioned by your departure time.

When **Scheduled Departure** is displayed, touch **Schedule** to set a daily time when you want Model S to be ready to drive. Specify a time, then touch **Settings** to enable one or both of the following departure features. When plugging in with **Off-Peak Charging** enabled, the vehicle briefly draws power (you may hear clicking) to calculate the necessary charging start time.

After you've specified your desired settings, touch **Set**. The touchscreen displays your scheduled departure time.

- **Preconditioning** warms the Battery for improved performance and ensures a comfortable cabin climate at your set departure time.

Note

When Model S is not plugged in, preconditioning operates but only when the Battery's charge level is above 20%.

- **Off-Peak Charging** delays charging and automatically starts charging in order to finish before your scheduled departure time while also ensuring to charge the Battery during off-peak hours to reduce energy costs. Touch **Change Off-Peak Hours** to customize the time when off-peak utility rates end.

Note

Choosing **Off-Peak Charging** can reduce energy costs even in market regions where off-peak utility rates are not applicable. For example, if charging starts as soon as you plug in, charging may complete much sooner. This causes the Battery to cool down to ambient temperatures and requires energy to warm it back up by your departure time. Therefore, even if off-peak utility rates are not applicable to you, it is recommended that you set Off-Peak Hours to the same time as your departure time in order to reduce energy consumption.

Note

If there is not enough time to reach the charge limit, charging starts immediately in order to charge as much as possible.

Note



Once charging has started and there is not enough time to complete charging during off-peak hours, charging continues until the charge limit is reached.

You can limit **Preconditioning** and **Off-Peak Charging** to weekdays only.

Supercharger Usage Fees and Idle Fees

When charging at a Tesla supercharger, information about the charging session displays at the bottom of the charging screen. This includes the location, the time that charging started, and a cost estimate for the session. When you stop supercharging, the estimated cost of the session displays until a new supercharging session begins. If free charging is applicable, the estimated cost displays as zero.

Note

Estimated cost may not reflect the final cost of the supercharging session. Final pricing for supercharging sessions can be found in your Tesla account.

When charging at a Tesla supercharger, you are subject to idle fees. Idle fees are designed to encourage drivers to move their vehicle from the Supercharger when charging is complete. Idle fees are in effect only when half or more of the Superchargers at a site are occupied. The Tesla mobile app notifies you when charging is almost complete, and again when charging is complete. Additional notifications are sent if idle fees are incurred. Idle fees are waived if you move your vehicle within five minutes of when charging completed.

Log into your Tesla account to view fees and details about Supercharger sessions, track the remaining balance of free credits, set up a payment method, and make payments. Once a payment method is saved, fees are automatically paid from your account.

Manually Releasing Charge Cable

If the usual methods for releasing a charge cable from the charge port (using the charge handle release button, touchscreen, or mobile app) do not work, try pressing and holding down the rear trunk button on the key fob for 1-2 seconds. If it still doesn't release, carefully follow these steps:

1. Ensure that Model S is not actively charging by displaying the charging screen on the touchscreen. If necessary, touch **Stop Charging**.
2. Open the rear trunk.



3. Open the flap on the left side of the trunk side trim.



4. Press and hold the charge port's manual release lever towards the front of the vehicle to unlatch the charge cable.

Warning

Do not touch or attempt to remove the orange high voltage cover. Failure to follow these instructions can result in electric shock and serious injury.

Note

If your vehicle does not have a charge port manual release lever, discontinue this procedure and contact your nearest Service Center.

Note

The orientation of the manual release lever may vary depending on market region.





5. Pull the charge cable from the charge port.
6. Close the flap on the left side of the trunk side trim.

CAUTION

The release lever is designed for use only in situations where the charge cable cannot be released from the charge port using the usual methods. Continuous use may result in damage to the release lever or charging equipment.

Warning

Do not perform this procedure while your vehicle is charging or if any orange high voltage conductors are exposed. Failure to follow these instructions can result in electric shock and serious injury or damage to the vehicle. If you are uncertain as to how to safely perform this procedure, contact your nearest Service Center.

Warning

Do not attempt to remove the charge cable at the same exact time as you begin to press the release lever towards the front of the vehicle. Always press the release lever towards the front of the vehicle and hold it before you begin to remove the charge cable from the charge port. Failure to follow these instructions can result in electric shock and serious injury.

