



# Braking and Stopping

conditions), you may hear a sound, feel the brake pedal pull away from your foot, and notice a strong increase in braking. Brake as you normally would and continue to press the brake pedal without releasing or pumping the brakes.



**CAUTION:** If brakes are not functioning properly, stop the vehicle when safety permits and contact Tesla Service. See [Park](#) on page 54 for information on using the Park button to stop the vehicle in case of emergency.



**WARNING:** Always maintain a safe driving distance from the vehicle in front of you and exercise caution when driving conditions are hazardous. Brake disc wiping and hydraulic fade compensation is not a substitute for adequately applying the brakes.

## Hydraulic Boost Compensation

Model Y is equipped with a brake booster that activates the brakes when the brake pedal is pressed. Hydraulic boost compensation provides mechanical assistance if the brake booster fails. If a brake booster failure is detected, the brake pedal feels stiffer to press and you may hear a sound when you press the brake pedal. To stop Model Y, apply steady force to the brake pedal without releasing or pumping. Drive cautiously and maintain a safe distance from other road users—brake pedal responsiveness and braking performance may be degraded.

## Regenerative Braking

Whenever Model Y is moving and your foot is off the accelerator, regenerative braking slows down the vehicle and feeds any surplus power back to the Battery. By anticipating your stops and reducing or removing pressure from the accelerator pedal to slow down, you can take advantage of regenerative braking to increase driving range.

Vehicle deceleration due to regenerative braking may vary depending on the current state of the Battery. For example, regenerative braking may be limited if the Battery is cold or is already fully charged.

To experience the same amount of deceleration whenever you release the accelerator pedal, regardless of the state of the Battery, you can choose to have the regular braking system automatically engage whenever regenerative braking is limited. Touch **Controls > Pedals & Steering > Apply Brakes When Regenerative Braking is Limited**.

**NOTE:** If **Apply Brakes When Regenerative Braking is Limited** is enabled and applying the brakes, the brake pedal may move and it may feel stiffer when pressed. This is expected and does not change your ability to slow down Model Y.

The power meter (a thin horizontal line centered at the top of the touchscreen's car status area) displays real-time power usage:



1. The left side of the power meter represents power generated from regenerative braking, or power that is used to slow down the vehicle. Power being fed back to the Battery displays in green whereas power used by the regular braking system displays in gray.
2. The right side of the power meter shows power that is used to accelerate the vehicle. During acceleration, the power meter fills to the right with gray to represent the amount of power being used.

**NOTE:** To ensure visibility when the display is dark, power represented by the gray color displays as white.

**NOTE:** Installing winter tires with aggressive compound and tread design may result in temporarily-reduced regenerative braking power. However, your vehicle is designed to continuously recalibrate itself, and after changing tires it will increasingly restore regenerative braking power after some straight-line accelerations. For most drivers this occurs after a short period of normal driving, but drivers who normally accelerate lightly may need to use slightly harder accelerations while the recalibration is in progress.



**WARNING:** In snowy or icy conditions, Model Y may experience loss of traction during regenerative braking.

## Stopping Mode

Regenerative braking decelerates Model Y whenever you release the accelerator pedal when driving. You can choose what you want Model Y to do once the driving speed has been reduced to a very low speed (almost at a stop) and both the accelerator pedal and brake pedal are released. While in Park, touch **Controls > Pedals & Steering > Stopping Mode** and choose from these options:

- **Creep:** When close to, or at, a complete stop, the motor continues to apply torque, moving Model Y slowly forward (in Drive) or backwards (in Reverse), similar to a conventional vehicle with an automatic transmission. In some situations, such as on a steep hill or driveway, you may need to press the accelerator pedal to continue moving or to prevent Model Y from moving in the opposite direction.



**WARNING:** Never rely on **Creep** to apply enough torque to prevent your vehicle from rolling down a hill. Always press the brake pedal to remain stopped or the accelerator pedal to proceed up the hill. Failure to do so can result in property damage and/or a collision.



- **Hold:** Maximizes range and reduces brake wear by continuing to provide regenerative braking at speeds lower than with the Creep and Roll settings. When Model Y stops, the brakes are automatically applied without you having to put your foot on the brake pedal. Whether stopped on a flat surface or a hill, Vehicle Hold keeps the brake applied, provided your foot remains off the accelerator and brake pedals. See [Vehicle Hold on page 70](#).

**WARNING:** Never rely on **Hold** to adequately decelerate or fully stop your vehicle. Many factors can contribute to a longer stopping distance, including downward slopes, and reduced or limited regenerative braking (see [Regenerative Braking on page 64](#)). Always be prepared to use the brake pedal to adequately decelerate or stop.

- **Roll:** When close to, or at, a complete stop, Model Y becomes free rolling like a vehicle in Neutral. Therefore, if stopped on a slope, Model Y will roll downward. The brake does not engage, and the motor does not apply torque (until the accelerator pedal is pressed).

**NOTE:** If you choose **Creep** or **Roll**, you can still use Vehicle Hold to apply the brakes. However, you will need to briefly press the brake pedal when the vehicle is stopped. See [Vehicle Hold on page 70](#).

**WARNING:** Press the brake pedal if Model Y moves when unsafe to do so. It is your responsibility to stay alert and be in control of the vehicle at all times. Failure to do so can result in serious damage, injury, or death.

**WARNING:** Do not rely on regenerative braking and your chosen Stopping Mode to keep you and your vehicle safe. Various factors such as driving with a heavy vehicle load, on a steep hill, or on wet or icy roads affect deceleration rate and the distance at which Model Y will come to a stop. Drive attentively and always stay prepared to use the brake pedal to stop as appropriate based on traffic and road conditions.

**WARNING:** Forward Collision Warning and Automatic Emergency Braking do not operate when driving at very low speeds (see [Collision Avoidance Assist on page 120](#)). Do not rely on these features to warn you, or to prevent or reduce the impact of a collision.

## Parking Brake

To engage the parking brake, touch **Controls > Safety > Parking Brake**. Follow the onscreen instructions. You can also engage the parking brake by pressing and holding the button on the end of the drive stalk while in Park.



Use the touchscreen to manually release the parking brake (which also shifts Model Y into Neutral):

1. Touch **Controls > Safety**.
2. Press the brake pedal, then touch **Parking Brake**. If Model Y was previously in Park, it shifts into Neutral.



When you manually apply the parking brake using the touchscreen, or by pressing and holding the button on the end of the drive stalk when in Park, the red parking brake indicator lights up on the touchscreen.



If the parking brake experiences an electrical issue, the amber parking brake indicator lights up and a fault message displays on the touchscreen.

**NOTE:** The parking brake operates on the rear wheels only, and is independent of the pedal-operated brake system.

**CAUTION:** In the unlikely event that Model Y loses electrical power, you cannot access the touchscreen and are therefore unable to release the parking brake without first jump starting Model Y (see [Instructions for Transporters on page 208](#)).

**WARNING:** In snowy or icy conditions the rear wheels may not have sufficient traction to prevent Model Y from sliding down a slope, particularly if not using winter tires. Avoid parking on hills in snowy or icy conditions. You are always responsible for parking safely.

**WARNING:** Your Model Y may display an alert if the road is too steep to safely park on, or if the parking brakes are not properly engaged. These alerts are for guidance purposes only and are not a substitute for the driver's judgment of safe parking conditions, including specific road or weather conditions. Do not depend on these alerts to determine whether or not it is safe to park at any location. You are always responsible for parking safely.