

Limitations and Warnings

Read the following warnings and limitations carefully before using Autopilot. Failure to follow all warnings and instructions can result in property damage, serious injury or death.

Note

Ensure all cameras are clean before each drive and before using Autopilot features (see [Cleaning a Camera](#)). Dirty cameras and sensors, as well as environmental conditions such as rain and faded lane markings, can affect Autopilot performance. If a camera is obstructed or blinded, Model 3 displays a message on the touchscreen and Autopilot features may not be available.

This topic includes warnings, cautions, and limitations pertaining to the following Autopilot and Full Self-Driving (Beta) features.

Note

Depending on market region, vehicle configuration, options purchased, and software version, your vehicle may not be equipped with all features listed below, or a feature may not operate as described.

- Traffic-Aware Cruise Control
- Autosteer
- Auto Lane Change
- Stop Light and Stop Sign Warning
- Navigate on Autopilot
- Full Self-Driving (Beta)
- Autopark
- Summon
- Smart Summon

Traffic-Aware Cruise Control

While using Traffic-Aware Cruise Control, **it is the driver's responsibility to stay alert, drive safely, and be in control of the vehicle at all times.** Always keep your eyes on the road when driving and be prepared to take corrective action as needed.

In addition, it is the driver's responsibility to cruise at a safe speed and maintain a safe following distance based on road conditions and applicable speed limits. Be aware of the following limitations while Traffic-Aware Cruise Control is active.

- There may be situations where the cruising speed may not change when the speed limit changes.
- Traffic-Aware Cruise Control does not adapt driving speed based on road and driving conditions. Do not use Traffic-Aware Cruise Control on winding roads with sharp curves, on icy or slippery road surfaces, or when weather conditions (such as heavy rain, snow, fog, etc.) make it inappropriate to drive at a consistent speed.
- Do not rely on Traffic-Aware Cruise Control to maintain an accurate or appropriate following distance.
- Traffic-Aware Cruise Control may be unable to provide adequate speed control because of limited braking capability and hills. It can also misjudge the distance from a vehicle ahead. Driving downhill can increase driving speed, causing Model 3 to exceed your set speed (and potentially the road's speed limit).
- Traffic-Aware Cruise Control may occasionally cause Model 3 to brake when not required or when you are not expecting it. This can be caused by closely following a vehicle ahead, detecting vehicles or objects in adjacent lanes (especially on curves), etc.
- Due to limitations inherent in the onboard GPS (Global Positioning System), you may experience situations in which Model 3 slows down, especially near exits or off-ramps where a curve is detected and/or you are navigating to a destination and not following the route.
- In some cases (such as having insufficient data), Traffic-Aware Cruise Control may not automatically reduce the set speed on the highway interchange or off-ramp.
- Traffic-Aware Cruise Control may not detect all objects and, especially when cruising over 50 mph (80 km/h), may not brake/decelerate when a vehicle or object is only partially in the driving lane or when a vehicle you are following moves out of your driving path and a stationary or slow-moving vehicle or object is in front of you.
- Traffic-Aware Cruise Control may react to vehicles or objects that either do not exist, or are not in your lane of travel, causing Model 3 to slow down unnecessarily or inappropriately.

Warning

Traffic-Aware Cruise Control is particularly unlikely to operate as intended in the following types of situations:

- The road has sharp curves.
- Visibility is poor (due to heavy rain, snow, fog, etc.).
- Bright light (such as from oncoming headlights or direct sunlight) is interfering with the view of the camera(s).
- A camera or sensor (if equipped) is obstructed (fogged over, dirty, covered by a sticker, etc.).


Warning

The list above does not represent an exhaustive list of situations that may interfere with proper operation of Traffic-Aware Cruise Control. Traffic-Aware Cruise Control can cancel unexpectedly at any time for unforeseen reasons. Always watch the road in front of you

and stay prepared to take appropriate action. It is the driver's responsibility to be in control of Model 3 at all times.


 **Warning**

Traffic-Aware Cruise Control is designed for your driving comfort and convenience and is not a collision warning or avoidance system. Never depend on Traffic-Aware Cruise Control to adequately slow down Model 3. Always watch the road in front of you and be prepared to take corrective action at all times. Failure to do so can result in serious injury or death.


 **Warning**

Although Traffic-Aware Cruise Control is capable of detecting pedestrians and cyclists, never depend on Traffic-Aware Cruise Control to adequately slow Model 3 down for them. Failure to do so can result in serious injury or death.

Autosteer

 **Warning**

Autosteer is a hands-on feature. Keep your hands on the steering wheel at all times, be mindful of road conditions and surrounding traffic, and always be prepared to take immediate action. Failure to follow these instructions could cause damage, serious injury or death.

 **Warning**

Autosteer is intended for use on controlled-access highways with a fully attentive driver. Do not use Autosteer in construction zones, or in areas where bicyclists or pedestrians may be present.

Never depend on Autosteer to determine an appropriate driving path. Autosteer and its associated functions are particularly unlikely to operate as intended when:

- Autosteer is unable to accurately determine lane markings. For example, lane markings are excessively worn, have visible previous markings, have been adjusted due to road construction, are changing quickly (lanes branching off, crossing over, or merging), objects or landscape features are casting strong shadows on the lane markings, or the road surface contains pavement seams or other high-contrast lines.
- Visibility is poor (heavy rain, snow, fog, etc.) or weather conditions are interfering with sensor operation.
- A camera(s) or sensor(s) is obstructed, covered, or damaged.
- Driving on hills.
- Approaching a toll booth.
- Driving on a road that has sharp curves or is excessively rough.

- Bright light (such as direct sunlight) is interfering with the view of the camera(s).
- The sensors (if equipped) are affected by other electrical equipment or devices that generate ultrasonic waves.
- A vehicle is detected in your blind spot when you engage the turn signal.
- Model 3 is being driven very close to a vehicle in front of it, which is blocking the view of the camera(s).

Many unforeseen circumstances can impair the operation of Autosteer. Always keep this in mind and remember that as a result, Autosteer may not steer Model 3 appropriately. Always drive attentively and be prepared to take immediate action.

Warning

Autosteer is not designed to, and will not, steer Model 3 around objects partially in a driving lane and in some cases, may not stop for objects that are completely blocking the driving lane. Always watch the road in front of you and stay prepared to take immediate action. It is the driver's responsibility to be in control of Model 3 at all times.

Auto Lane Change

CAUTION

When changing lanes using Auto Lane Change, It is the driver's responsibility to determine whether a lane change is safe and appropriate. Therefore, before initiating a lane change, always check blind spots, lane markings, and the surrounding roadway to confirm it is safe and appropriate to move into the target lane.

Be aware of the following limitations while using Auto Lane Change.

- Never depend on Auto Lane Change to determine an appropriate driving path. Drive attentively by watching the road and traffic ahead of you, checking the surrounding area, and monitoring the touchscreen for warnings. Always be prepared to take immediate action.
- Do not use Auto Lane Change on roads where traffic conditions are constantly changing and where bicycles and pedestrians are present.
- The performance of Auto Lane Change depends on the ability of the camera(s) to recognize lane markings.
- Do not use Auto Lane Change on winding roads with sharp curves, on icy or slippery roads, or when weather conditions (such as heavy rain, snow, fog, etc.) may be obstructing the view from the camera(s) or sensors (if equipped).
- Overtake Acceleration can cancel for many unforeseen reasons in addition to those listed above (for example, lack of GPS data). Stay alert and never depend on Overtake Acceleration to increase your driving speed.
- Overtake Acceleration increases your driving speed whenever the appropriate turn signal is engaged, and accelerates Model 3 closer to the vehicle ahead. Although Traffic-Aware Cruise Control continues to maintain distance from the vehicle ahead, it is important to be aware that your selected following distance is reduced when Overtake Acceleration is active,

particularly in cases where it may not be your intention to overtake the vehicle you are following.

Stop Light and Stop Sign Warning

Warning

Stop Light and Stop Sign Warning requires on-board maps to know that a particular stop light or stop sign exists at a location. In some cases, map data is inaccurate or outdated and may not include all stop lights or stop signs. Therefore, Stop Light and Stop Sign Warning may not detect all stop lights and stop signs.

Warning

The Stop Light and Stop Sign Warning feature does not apply the brakes or decelerate Model 3 and may not detect all stop lights and stop signs. Stop Light and Stop Sign Warning is designed for guidance purposes only and is not a substitute for attentive driving and sound judgment. Keep your eyes on the road when driving and never depend on Stop Light and Stop Sign Warning to warn you of a stop light or stop sign.

Warning

Stop Light and Stop Sign Warning is designed to warn you only when approaching a visible red stop sign, solid red or later portion of a yellow traffic light. It may not warn you of intersections with flashing lights and it does not warn you of yield signs or temporary stop and yield signs (such as those used in construction areas). Additionally, Stop Light and Stop Sign Warning does not warn you of approaching stop lights or stop signs when you are pressing the accelerator pedal or brake pedal (which disables Autosteer).

Full Self-Driving (Beta)

Always remember that Full Self-Driving (Beta) (also known as Autosteer on City Streets) does not make Model 3 autonomous and requires a fully attentive driver who is ready to take immediate action at all times.

Warning

Full Self-Driving (Beta) is a hands-on feature. Keep your hands on the steering wheel at all times, be mindful of road conditions and surrounding traffic, and always be prepared to take immediate action. Failure to follow these instructions could cause damage, serious injury or death. It is your responsibility to familiarize yourself with the limitations of Full Self-Driving (Beta) and the situations in which it may not work as expected. For more information, see [Limitations and Warnings](#).

Warning

Failure to follow all warnings and instructions can result in property damage, serious injury or death.

Full Self-Driving (Beta) and its associated functions may not operate as intended and there are numerous situations in which driver intervention may be needed. Examples include (but are not limited to):

- Interactions with pedestrians, bicyclists, and other road users.
- Unprotected turns with high-speed cross traffic.
- Multi-lane turns.
- Simultaneous lane changes.
- Narrow roads with oncoming cars or double-parked vehicles.
- Rare objects such as trailers, ramps, cargo, open doors, etc. protruding from vehicles.
- Merges onto high-traffic, high-speed roads.
- Debris in the road.
- Construction zones.
- High curvature roads, particularly at fast driving speeds.

Visibility is critical for Full Self-Driving (Beta) to operate. Low visibility, such as low light or poor weather conditions (rain, snow, direct sun, fog, etc.) can significantly degrade performance.

Model 3 may quickly and suddenly make unexpected maneuvers or mistakes that require immediate driver intervention. The list above represents only a fraction of the possible scenarios that can cause Full Self-Driving (Beta) to make sudden maneuvers and behave unexpectedly. In fact, Model 3 can suddenly swerve even when driving conditions appear normal and straight-forward. Stay alert and always pay attention to the roadway so you can anticipate the need to take corrective action as early as possible. Remember that this is an early access feature that must be used with extra caution.

CAUTION

As Full Self-Driving (Beta) deployment expands, Tesla will gradually make it available to eligible customers in select countries outside the United States. Because every country contains unique infrastructure, driving behaviors, and traffic patterns that Full Self-Driving (Beta) must adapt to over time, it is essential for drivers using Full Self-Driving (Beta) in newly eligible countries to be extra attentive and overly cautious. You must be ready to take over safely at any time.

Autopark

Autopark's performance depends on the ability of the cameras and sensors (if equipped) to determine the vehicle's proximity to curbs, objects, and other vehicles.

- Be aware of the following warnings before and while using Autopark:
- Do not use Autopark if anything, such as a ball hitch, bike rack, or trailer, is attached to the tow hitch. Autopark may not stop for hitches when parking between or in front of other vehicles.

- Never depend on Autopark to find a parking space that is legal, suitable, and safe. Autopark may not always detect objects in the parking space. Always perform visual checks to confirm that a parking space is appropriate and safe.
- When Autopark is actively steering Model 3, the steering wheel moves in accordance with Autopark's adjustments. Do not interfere with the movement of the steering wheel. Doing so cancels Autopark.
- During the parking sequence, continually check your surroundings. Be prepared to apply the brakes to avoid vehicles, pedestrians, or objects.
- When Autopark is active, monitor the touchscreen to ensure that you are aware of the instructions that Autopark is providing.

Autopark is particularly unlikely to operate as intended in these situations:

- The road is sloped. Autopark is designed to operate on flat roads only.
- Visibility is poor (due to heavy rain, snow, fog, etc.).
- The curb is constructed of material other than stone, or the curb cannot be detected.
- The target parking space is directly adjacent to a wall or pillar (for example, the last parking space of a row in an underground parking structure).
- One or more of the sensors (if equipped) or cameras is damaged, dirty, or obstructed (such as by mud, ice, or snow, or by a vehicle bra, excessive paint, or adhesive products such as wraps, stickers, rubber coating, etc.).
- Weather conditions (heavy rain, snow, fog, or extremely hot or cold temperatures) are interfering with sensor (if equipped) operation.
- The sensors (if equipped) are affected by other electrical equipment or electrical interference.

Warning

Many unforeseen circumstances can impair Autopark's ability to park Model 3. Keep this in mind and remember that as a result, Autopark may not steer Model 3 appropriately. Pay attention when parking Model 3 and stay prepared to immediately take control.

Summon

Summon's performance depends on the ability of the cameras and sensors (if equipped) to determine the vehicle's proximity to objects, people, animals, and other vehicles. Summon is unlikely to operate as intended in the following types of situations:

- The driving path is sloped. Summon is designed to operate on flat roads only (up to 10% grade).
- A raised concrete edge is detected. Summon does not move Model 3 over an edge that is higher than approximately 1 in (2.5 cm).
- One or more of the sensors (if equipped) or cameras is damaged, dirty, or obstructed (such as by mud, ice, or snow, or by a vehicle bra, excessive paint, or adhesive products such as wraps, stickers, rubber coating, etc.).
- Weather conditions (heavy rain, snow, fog, or extremely hot or cold temperatures) are interfering with sensor operation.
- The sensors (if equipped) are affected by other electrical equipment or devices that generate ultrasonic waves.

- Model 3 is in Trailer Mode or an accessory is attached.

Warning

The list above does not represent an exhaustive list of situations that may interfere with proper operation of Summon. It is the driver's responsibility to remain in control of Model 3 at all times. Pay close attention whenever Summon is actively moving Model 3 and stay prepared to take immediate action. Failure to do so can result in serious property damage, injury or death.

Warning

Model 3 cannot detect obstacles that are located lower than the bumper, are very narrow, or are hanging from a ceiling (for example, bicycles). In addition, many unforeseen circumstances can impair Summon's ability to move in or out of a parking space and, as a result, Summon may not move Model 3 appropriately. Therefore, you must continually monitor the vehicle's movement and its surroundings and remain prepared to stop Model 3 at any time.

Smart Summon

Smart Summon is a BETA feature. You must continually monitor the vehicle and its surroundings and stay prepared to take immediate action at any time. It is the driver's responsibility to use Smart Summon safely, responsibly, and as intended.

Smart Summon is designed and intended for use only on parking lots and driveways located on private property where the surrounding area is familiar and predictable. Do not use Smart Summon on public roads.

Note

Smart Summon is disabled if Model 3 is in Valet mode (see [Valet Mode](#)).

Smart Summon is unlikely to operate as intended in the following types of situations:

- GPS data is unavailable due to poor cellular coverage.
- The driving path is sloped. Smart Summon is designed to operate on flat roads only (up to 10% grade).
- A raised concrete edge is detected. Depending on the height of the concrete edge, Smart Summon may not move Model 3 over it.
- One or more of the sensors (if equipped) or cameras is damaged, dirty, or obstructed (such as by mud, ice, or snow, or by a vehicle bra, excessive paint, or adhesive products such as wraps, stickers, rubber coating, etc.).
- Weather conditions (heavy rain, snow, fog, or extremely hot or cold temperatures) are interfering with sensor (if equipped) or camera operation.
- The sensors (if equipped) are affected by other electrical equipment or devices that generate ultrasonic waves.
- Model 3 is in Trailer Mode or an accessory is attached.

The list above does not represent an exhaustive list of situations that may interfere with proper operation of Smart Summon. It is the driver's responsibility to remain in control of Model 3 at all times. Pay close attention whenever Smart Summon is actively moving Model 3 and stay prepared to take immediate action. Failure to do so can result in serious property damage, injury or death.

**Warning**

Smart Summon must only be used on paved surfaces.

**Warning**

Smart Summon may not stop for all objects (especially very low objects such as some curbs, or very high objects such as a shelf) and may not react to all traffic. Smart Summon does not recognize the direction of traffic, does not navigate around empty parking spaces, and may not anticipate crossing traffic.

**Warning**

When using Smart Summon, you must maintain a clear line of sight between you and Model 3 and stay prepared to stop the vehicle at any time by releasing the button on the mobile app.

**Warning**

When you release the button to stop Model 3, a slight delay occurs before the vehicle stops. Therefore, it is critical that you pay close attention to the vehicle's driving path at all times and proactively anticipate obstacles that the vehicle may be unable to detect.

**Warning**

Use extreme caution when using Smart Summon in environments where movement of obstacles can be unpredictable. For example, where people, children or animals are present.

**Warning**

Smart Summon may not stop for all objects (especially very low objects such as some curbs, or very high objects such as a shelf) and may not react to all oncoming or side traffic. Pay attention and be ready to stop Model 3 at all times by releasing the button on the mobile app.