

I downloaded the app, what do I do next?

The app will run in the background and should automatically detect your trips. Once a trip has finished, it will be uploaded and classified then scored. The scored trip will appear back in the app in a few minutes.

If it incorrectly classifies your trip (e.g., says "Driver" when it should be "Bus") tap on the trip in the trip list to relabel it. This will help the classifier do a better job for your future trips.

Is an internet connection required to run the app?

An active internet connection is not required to record a drive or to view the results of prior drives. An active internet connection is required to upload the drive to the servers to be processed and scored. It is required in order for the app to download new scored trips.

Do I need to keep the app open and active while driving?

No, the app runs in the background and records drives automatically by detecting that you are driving.

What is the criteria for speeding?

The criteria for speeding is approximately 9MPH over the speed limit.

I got a bad score for "hard braking," but I needed to brake hard to avoid hitting an animal. Why am I penalized for this?

The app will flag a hard-braking event when your phone registers about 1/3G or more. An example would be dropping speed suddenly from highway speed, or slamming on the brakes in a lower-speed zone.

Hard braking is danger sign, even at low speeds, because slamming on the brakes multiple times is statistically linked to tailgating or not paying attention. Sometimes hard braking is unavoidable, but it still is a considerable factor in automobile crashes.

The app can't know the circumstances when an individual incident is flagged, such as hard braking, but the overall score takes in to account the number of times an incident occurs.

When a driver hard brakes once or twice, it is assumed to be due to things like avoiding a pedestrian or animal, or reacting to getting cut off by someone. These rare occurrences incur little penalty. Frequent hard braking, associated with things like tailgating or not paying attention, affects your overall score more significantly.

The stars assigned to the drive don't reflect that difference between rare and frequent incidents. They're intended to give you a measure of what happened on that drive. The

overall score is designed to reflect the difference between rare and frequent incidents, penalizing you only if it happens a lot.

Recently a lot of my trips were missing. What could cause that?

On Android, if you have Power Save Mode on for most of your drive, the app is prevented from running in the background reliably. So, trips taken while your phone is in Power Save Mode will only be recorded when you have the app open and running in the foreground.

It looks like GPS is only recording when the screen is on, which suggests that you have "MID" power saving mode on. On a Samsung, the MID mode will block GPS unless the screen is on.

Having location services turned off will also prevent the app from collecting data.

Power Save Mode can be turned on or off under the Settings app.

Different Android manufacturers also have individual power-saving modes that can affect trip recording:

Samsung

Settings → Battery → Power saving mode (should be off)

Settings → Battery → Ultra Power saving mode (should be off)

Settings → Battery → App power saving (on/off)

Settings → Battery → App power saving → Details → Safest Driver (If App power saving is on, Safest Driver must be set to "never sleep")

Huawei

Settings → Battery → Protected Apps (Safest Driver app must be listed as "protected")

If I turn my phone off, will the app still capture the trip data?

No. Phone apps cannot run if the phone is powered off. Turning the screen off is fine.

Are there other factors that can impact recording?

Various things can impact recording:

- **Sensor problems** – The phone cannot get a GPS lock, or the accelerometer or gyroscope isn't working.
- **Memory issues** – The phone is running a lot of apps and doesn't give the app many background resources.

- **iOS app glitches**– Force quitting right before going on a drive can prevent the trip from recording, or it can significantly delay recording; force quitting right afterwards can delay a recorded trip from being uploaded and scored.
- **Android app glitches** – A force quit will prevent recording.

How does the app know that a trip is over? I stopped for a short time between two trips, walked around during the stop, and the two trips were recorded as one trip.

We use a number of different sensor inputs to figure out if something was one trip or two. We don't want to break your trip up if you're stopped at a really long stop light or stuck in rush hour traffic.

How does the app know when I'm a passenger in a car, bus, train, or other form of public transit? I don't want my score to be negatively affected by someone else's bad driving.

At first, if the app detects you are in a moving car, it will assume you are the driver. If you are a passenger, tap on the "driver" icon in the trip list and change it to "passenger." Then, it won't count against your score.

Making these trip corrections will train the app to determine when you are the driver and when you are not.

The app will try to detect if you are on a bus, but sometimes it's mistaken. In this case, change the icon to "bus" and the trip won't count against your score.

I was stopped when I picked up my phone, but my score went down for “distracted driving.” Why?

If you were stopped when you picked up your phone, but then you started accelerating forward and were in motion when you put the phone down, that is a distracted driver event. The distraction penalty only gets applied at the end, when the car is moving at a faster speed, not at the beginning when you're stopped.

The distraction penalty applies when:

- The screen is on,
- The phone is being moved around, or
- The car is in motion.

This is because that's when a driver's eyes and attention are likely to be off of the road. It's safest to finish with the phone while you're still stopped. Then, start moving only after you're finished with the phone.

It isn't specifically detecting phone calls. The app is detecting when the phone is being used in a way that seems to be taking the driver's eyes and attention off the road.

If you put the phone in a dashboard mount before you start driving, and don't pick it up to look at it or adjust anything during the drive (unless the car is stopped), you should not receive a distraction penalty.

What is "standby mode"?

Standby mode is to tell the app "Don't record any drives during this time period." You might set your app to standby if:

- You're travelling and all your trips are going to be via taxi, bus, or train
- Your day job is an ambulance driver and you don't want those trips recorded
- You're going to be a passenger in a friend's car

What is the difference between the stars and the scores?

The stars are an approximate representation of how safely you drove on a given trip. For longer drives, which may incur more penalized events, you may lose a star or two. Your overall bi-weekly score, not the stars, is what determines who wins the Colorado Safest Driver contest.

How is the overall score calculated?

The overall score is calculated using the number of captured risky events compared against the overall drive time. The overall drive time is the average of all trips taken, whether the trips are short or long.

The score is calculated on a rolling two-week basis. So, if you have a particular set of bad drives, they will fall off your score once two weeks pass.

What does the app measure?

This app is a smartphone app for iOS and Android that gives you feedback about your driving, helping you become a safer and better driver. CMT provides smartphone-based, end-to-end telematics solutions, with an optional hardware Tag enhancement, to customers around the world.

It gathers data from position and inertial sensors and measures driving quality based on

- Hard acceleration
- Hard braking
- Hard cornering
- Speeding
- Phone usage while driving

What information does the app display?

It shows you the following information about your driving habits:

- **Dashboard** - The top of the dashboard shows your overall score computed over the last two weeks of driving. Tapping on the score shows information about how your score was calculated. The rest of the dashboard has four panels: the latest scored trip, your achievements, your rank on the leaderboard, and how well you have done in avoiding phone distraction.
- **Trips** - This section shows a list of all your trips. Each trip is scored on a scale from 1 to 5.
- **Map View** - Selecting a particular trip takes you to a map view of the trip and summarizes important events and score for the trip. Only the most significant events from a drive are shown on the map. The map also shows any excessive speeding and significant phone distraction.
- **Driver Status** - The app also classifies your trip as "Driver" or "Not driving" (passenger or another mode of transport). If the automatic classification is incorrect, you can change it by selecting the icon located next to the mode classified by the app. By keeping your transport modes accurate, the app learns your driving habits and classifies future trips more accurately.
- **Driving Tips** - The app shows personalized tips to improve your driving; these tips depend on the factors that are most responsible for lowering your score.
- **Achievements** - Drive well and accumulate badges for achieving safety milestones!
- **Leaderboard** - Win bragging rights over your friends and leaderboard competitors!
- **Profile** - change your nickname or email; your nickname can include emojis too!
- **Settings** - Want to use only Wi-Fi to upload sensor data for a trip? Or get notified when results are available?

What does "not driving" mean?

Some recorded trips are suppressed by the app, if they are short or don't involve much driving, while some may be shown but flagged as "not driving" based on our classification algorithms. If this classification is inaccurate, you can change it by selecting the circular icon showing the mode. You can also label several trips at once with the "Edit trips" option.

Does the app use my phone battery?

Yes, this app has a limited effect on your phone's battery. The effect varies from one smartphone model to another, and on the age of the phone, but battery consumption is highest when the app uses the GPS. For this reason, we use a variety of sensors to maximize battery efficiency. Note that when the phone's battery is less than 10%, the app will not record any data.

Why do I need to accept permission requests?

You will receive permission requests from your phone's operating system once you've downloaded the app. You must accept these requests to use the app's features and benefit from them. These permissions requests allow us to accurately measure your driving and calculate your score.

Do I need to open the app for each trip so it can collect my driving data?

No, the app works in the background and will collect your data any time a drive is detected. However, make sure that your device is charged and turned on during your trips.

What happens if I downloaded the app but have to change phones?

If you ever have to change phones or reinstall the app, you simply login under existing users. A PIN code will be sent to the email address you provided during initial registration.

What are the differences between Android and iOS?

There are some minor cosmetic differences within the UI & Design of the Safest Driver app, between Android and iOS, however the app retains full functionality and runs largely the same across both operating systems.

Why does my Samsung phone not record all my trips?

Samsung has several different power save settings that can interfere with automatic (background) trip detection. Power save mode must be set to "Off" (not "Mid" or "Max") in order for the app to access GPS in the background. The app also must be in the "unmonitored" app; monitored apps will be put to sleep unless you keep opening them manually, and "always sleeping" apps will never record trips in the background.

Why does my Huawei phone not record all my trips?

Huawei phones must list the app in the "protected" category under Battery settings. Unprotected apps cannot run in the background.

Why does my OnePlus phone not record all my trips?

OnePlus phones have an option for "Advanced optimization" of the battery, which can prevent apps from using GPS in order to minimize battery usage. The Safest Driver app must be set to "Don't optimize" in the Battery settings, in order to allow it to launch and use GPS in the background.

What data is collected?

This app records:

- Location, speed, and heading
- Accelerometer data
- Gyroscope data
- Magnetometer data
- Barometer data

- Time
- Information about use of the app

Does Cambridge Mobile Telematics share my data?

Respecting your privacy is an important part of our commitment to providing an excellent service and product. Your personal information and individually collected data is confidential and will not be shared with third parties.

How does my driving affect my score?

This app collects and analyzes driving data and displays an overall driving score assessed by combining hard braking, hard acceleration, hard cornering, speeding, and phone use.

It calculates your score (out of 100) over the last two weeks of drives based on:

- Driving "smoothness": hard braking, acceleration intensity, and hard cornering. These factors are correlated with accidents.
- Speeding: Respecting the speed limit decreases the risk of an accident, helps improve road safety, and improves your score. Depending on program requirements, custom parameters can be set to allow for a small margin over the legal speed limit without compromising safety.
- Phone use while driving:
The Safest Driver app measures phone distraction on a trip. Drivers who use their phone while driving are 8x more likely to get into an accident because they are distracted and cannot react in time.

What does 'inference' mean?

"Inference" is the app's estimate of your trip between the actual starting point of your trip and the moment when the app starts recording data. The route illustrated on the map may have errors and may not reflect your actual trip. The inferred parts of your trip are not taken in to account when calculating your score.

How is phone usage calculated?

This app classifies distracted driving based on phone movement and screen activation. When the car is moving at least 9 mph (not stopped), if your screen unlocked and on, and it determines that the phone is being handled, your score will be negatively affected.

Why did my scored distance/scored trips go down?

This app calculates your score based on the last two weeks of your drives, so the scored distance and number of scored trips is just the amount driven in the past two weeks.

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