

Identifying the data you want to track is a pivotal step in creating and maintaining a fleet safety program that works for your fleet. Measure what matters to you and your fleet by configuring thresholds on your devices. Sounds simple enough, right? But wait! You have a range of vehicles, so uniform thresholds cannot be applied to the entire fleet. Did this just get complicated? Not for you!

## We are here to help!

The following thresholds can be applied to **PNP-3000** devices by utilizing the **Device Configuration Page** in the Portal:

- Rapid acceleration
- Harsh braking
- Hard left/right turning
- Idling
- Speeding

## How are Thresholds Measured?

**DEFINITION:** G-force, (“G” as in gravitational) is not really a force; it is a felt weight based on acceleration or deceleration. Acceleration is the increase in rate of velocity/speed; deceleration is the decrease of rate of velocity/speed. The measurement involves location, speed, and time.

Here are some real-world g-force examples:

- Decent rollercoasters reach between 3-6g.
- Top fuel dragsters reach an average of 4g.
- Formula One cars during extreme braking maneuvers reach 5g.
- A high performance sports car jamming 0-60 in 2.5 seconds, only reaches 1.5g.
- DOT defines harsh (not dangerous) braking as .45g (Think of your average NYC cab driver).
- >25g means probable death or serious injury.

**Tip! Pro and Enterprise Only:** Still unsure about what g-force is? See the [How Do I Detect A Crash?](#) article.

## Recommended G-Force Thresholds

We’ve done the research for you and here are some recommended default thresholds (in g-force) based on types of vehicles by weight class\*:

Weight Class	Recommended Thresholds
Class 1  6,000 lbs or less	Rapid Acceleration 0.37g Harsh Braking 0.38g Hard Turning Events 0.38g
Class 2  6,001 - 10,000 lbs	Rapid Acceleration 0.35g Harsh Braking 0.36g Hard Turning Events 0.35g
Class 3  10,001 - 14,000 lbs	Rapid Acceleration 0.33g Harsh Braking 0.34g Hard Turning Events 0.33g
Class 4  14,001 - 16,000 lbs	Rapid Acceleration 0.30g Harsh Braking 0.31g Hard Turning Events 0.30g
Class 5  16,001 - 19,500 lbs	Rapid Acceleration 0.28g Harsh Braking 0.29g Hard Turning Events 0.28g

**Note.** \*The above threshold settings are estimates and should be used as a starting point. You'll need to adjust these settings to gather data that really works for your fleet. In addition, please note that the thresholds for a truck at empty or full cargo status (i.e., a delivery truck at the beginning of the day and at the end of the day) may significantly differ and it's important to understand which violations you want to catch.