How Truck Black Box Data Can Prove a Pennsylvania Accident Claim

What Truck Data Can Reveal After a Pennsylvania Crash

Truck black box data can make or break a Pennsylvania truck accident claim. A truck driver may insist the truck was under the speed limit, that the brakes went on immediately, or that another motorist caused the collision, and electronic data from the truck can confirm or contradict that account.

Commercial trucks may record speed, braking, engine activity, driving time, location, and mechanical warnings. At Romanow Law Group, our Pittsburgh truck accident lawyers use that information to reconstruct a collision and show whether the driver or trucking company was negligent.

Getting that evidence requires quick action. A truck may be repaired and back on the road while the injured person is still in the hospital, and continued use, repairs, or system resets can make some electronic information impossible to recover.

At a Glance

- **Trucks Record More Than One Kind of Data:** Engine modules, crash recorders, logging devices, telematics, and cameras can each capture different details about a crash.
- **Some Data Disappears Quickly:** Driving the truck again, repairing it, or resetting its systems can overwrite the information that shows what happened.
- **A Preservation Letter Comes First:** A formal letter notifies the trucking company of the need to preserve potentially relevant electronic data and related records.
- **Objective Data Shapes Fault:** Under Pennsylvania's comparative negligence rule, clear proof of fault can decide whether and how much you recover.

A Truck May Have Several Sources of Electronic Data

"Black box" is an informal term. A commercial truck may have several systems that record different information, and the table below shows what each one may capture.

System	What It May Record
Engine control module (ECM)	Engine performance, hard braking, sudden slowdowns, and mechanical fault conditions
Event data recorder (EDR)	Information from the moments immediately before and after a collision
Electronic logging device (ELD)	Driving time, duty status, engine hours, and location for hours-of-service rules
Fleet telematics system	GPS location, speed alerts, harsh-braking notices, and vehicle diagnostics
Safety and camera systems	Dashcam video, collision warnings, and automatic emergency braking activity

An ELD shouldn't be confused with a crash recorder. The Federal Motor Carrier Safety Administration (FMCSA) does not require ELDs to record speed, braking, or steering data, so those details may come from the ECM, the telematics platform, a camera system, or another onboard module.

No truck necessarily records every category of information. What's available depends on the vehicle's manufacturer, engine, model year, equipment, and the trucking company's own systems, which is why an early inspection by a qualified specialist matters. The sooner someone identifies which systems the truck carries, the sooner the right data can be secured.

What the Data Actually Shows

Black box data can give investigators a factual record of the truck's condition and the driver's actions in the critical moments before a crash. Investigators don't have to rely only on memory or a police report written after the fact:

- **Vehicle Speed at Impact:** The truck's speed in the seconds leading up to and during the collision, often recorded more precisely than any witness could estimate.
- **Braking and Deceleration:** Whether braking occurred, how the truck slowed, and what the available records reveal about braking before the collision.

- **Hours-of-Service Violations:** ELD records can help reveal whether a driver exceeded federal driving limits, raising questions about possible fatigue.
- **Throttle and Steering Input:** What the driver was doing with the accelerator and, on some trucks, the steering wheel right before impact.

This data can confirm or contradict a driver's version of events with far more precision than eyewitness accounts. A driver who claims to have braked in time, or says another vehicle cut in front, can be supported or undermined by what the truck itself recorded. That precision is exactly why insurance companies and trucking companies don't always volunteer this information without a fight. An injured person usually needs a lawyer to demand it.

Why This Evidence Disappears Fast

Federal regulations generally do not require trucking companies to retain all engine or crash-recorder data for a specific period, although electronic logging device (ELD) records generally must be kept for six months under 49 CFR 395.8. Separate duties to preserve evidence may arise when litigation is reasonably anticipated.

A trucking company under pressure to keep its fleet running has little reason to pull a truck out of service while a claim gets sorted out. Routine maintenance, an engine computer reset, or simply putting the truck back on the road can erase the exact data that would prove what happened.

For an injured person, the clock starts running the moment the crash occurs, not when a lawsuit gets filed. Waiting even a short time can mean the difference between a case built on hard data and one built on conflicting accounts.

How Attorneys Preserve Black Box Data

The main tool for protecting this evidence is a spoliation letter, also called an evidence preservation letter. This formal written notice goes to the trucking company and its insurance company, demanding that the ECM, EDR, and ELD records, maintenance logs, and dashcam footage be kept exactly as they exist.

A well-drafted letter puts the company on notice that a lawsuit may follow. Pennsylvania courts can sanction a party that destroys evidence it had a duty to keep, including telling jurors they may assume the missing evidence would have hurt that party, and that risk gives the letter real weight.

If a trucking company ignores the letter or resists access, an attorney can ask a court to order an inspection and download of the data. In serious cases, this process can move within days of the crash, because both sides know how little time remains before the data is lost.

How Black Box Data Affects a Pennsylvania Claim

Pennsylvania follows a modified comparative negligence rule. An injured person found 51% or more at fault recovers nothing, and any smaller share of fault reduces the final award by that percentage, which makes objective proof of fault one of the most valuable tools in a claim.

Picture a rear-end collision where the truck driver claims the car ahead stopped short without warning. If the truck's available electronic records show no braking in the seconds before impact, that evidence could undermine the driver's account and support a finding of negligence.

Insurance companies value cases very differently once a dispute over fault is settled by data instead of competing testimony. Strong electronic evidence can push an insurance company toward a fair settlement and away from blaming the victim.

Make the Trucking Company Preserve the Evidence

Trucking companies begin protecting themselves immediately after a serious crash. Our legal team acts just as quickly to preserve the truck, secure electronic records, investigate the carrier, and identify every party that may be responsible. We have recovered millions of dollars for injured accident victims and families. We have the resources to work with qualified electronic-data and accident-reconstruction specialists when a truck crash requires a technical investigation.

If a commercial truck caused an accident in Pittsburgh or elsewhere in Pennsylvania, contact us for a free consultation. We are available 24/7, and there is no fee unless we win. Put the Romanow Difference to work and make the insurance company pay.