

Why a Truck's Black Box Data Can Make or Break a Tennessee Injury Claim

Electronic Truck Data Can Reveal What Happened Before a Tennessee Crash

A collision with a tractor-trailer on a Tennessee highway can turn into a dispute over facts that happened in seconds. When a commercial truck hits a smaller vehicle, onboard electronic systems may preserve speed, throttle, brake, engine, and diagnostic information that helps reconstruct what the truck was doing before impact. That data can become critical in a [truck accident](#) claim when the drivers, witnesses, and physical evidence tell different stories.

The phrase “black box” is useful shorthand, but it can oversimplify what investigators are actually looking for. The [National Highway Traffic Safety Administration](#) notes that event data recorders can take different forms, and heavy commercial vehicles may preserve useful crash information in engine control modules, electronic control units, telematics systems, or other onboard devices. The exact data available depends on the truck, the system, and the event.

The Law Office of Eric Beasley has spent 25 years handling injury cases in Tennessee, including serious truck crashes where electronic evidence can change the liability analysis. The sooner the truck and its data sources are identified, the better the chance of preserving information before repair, continued operation, routine data cycling, or other changes make the investigation harder.

<https://www.youtube.com/watch?v=4618JSIBvHw>

A Truck's “Black Box” May Be an ECM, EDR, or Another Electronic System

There is no single standardized “black box” installed in every tractor-trailer. In many heavy trucks, useful crash data comes from the engine control module (ECM) or electronic control unit (ECU). Other trucks may also have separate event-recording functions, telematics, collision-avoidance systems, electronic logging devices, or cameras that preserve different information.

That distinction matters because the systems do not all record the same things or keep them for the same amount of time. Some preserve a snapshot associated with a hard-brake event, fault, or sudden deceleration. Others maintain operating histories or fleet data. A proper investigation starts by identifying the truck's make, model, engine, electronic systems, and available download tools rather than assuming every truck stores the same dataset.

The Available Data Depends on the Truck and the System

Depending on the equipment involved, an electronic download may contain information such as:

- **Vehicle speed** – Speed at particular points before or around the event, depending on the system and how it stores data.
- **Brake status** – Whether a brake switch or braking event was recorded and when it occurred.

- **Throttle or accelerator position** – Whether the driver was accelerating, maintaining throttle, or reducing input before impact.
- **Engine RPM and cruise-control status** – Information that can help place the truck's operation in context immediately before a collision.
- **Diagnostic and fault codes** – Mechanical or electronic warnings recorded by the truck's systems before or during the event.
- **Event timestamps or sequence data** – Information that can help line up the truck's electronic record with dashcam footage, police reports, 911 calls, or other evidence.

Some systems record more, while others record less. That is why a lawyer and a qualified download or reconstruction expert should determine what the particular truck can provide before anyone treats a generic list of “black box data” as complete.

Tennessee Comparative Fault Makes Objective Data Especially Important

Tennessee uses modified comparative fault. The [Tennessee Supreme Court](#), applying the rule adopted in *McIntyre v. Balentine*, has explained that an injured person can recover when their share of fault is less than the combined fault of the responsible parties, but the recovery is reduced by the injured person's percentage of fault. A person who is 50 percent or more at fault is barred from recovering damages.

Electronic truck data can therefore matter on both liability and value. A driver may say they braked before impact, stayed within the speed limit, or had no warning that traffic had stopped. A reliable download may support that account, contradict it, or show that the electronic evidence is too limited to answer the question by itself.

The same evidence can also help accident reconstruction experts compare the truck's movement with skid marks, vehicle damage, dashcam footage, and witness accounts. The goal is not to treat the data as infallible. It is to understand exactly what the system recorded and how that evidence fits with the rest of the crash investigation.

A Real Tennessee Case Shows Why the Download Can Change Everything

In one Tennessee case handled by attorney Eric Beasley, a fatal head-on collision with a work truck left the physical crash scene too chaotic to clearly establish fault. The vehicles had been displaced and the debris pattern did not provide a reliable answer about how the collision occurred. A [black box download from the work truck](#) revealed that the truck was traveling 90 mph in a 55 mph zone. The case ultimately resolved for \$400,000 in policy limits from three insurance policies.

That result did not come from the black box in isolation. The electronic data became meaningful because it was compared with the unusual physical evidence and the available insurance coverage. Prior results do not guarantee a similar outcome, but the case shows why a download can answer a question that the crash scene alone cannot.

Electronic Truck Data Can Be Lost or Changed Over Time

The trucking company or vehicle owner often controls the truck immediately after a collision. That means it may also control access to the ECM, telematics account, onboard cameras, maintenance systems, and other electronic sources.

Not every system preserves crash information indefinitely. Depending on the hardware and software, continued operation, later events, repairs, module replacement, power loss, or routine data-management practices may affect what remains available. Dashcam and fleet-platform data can also have retention periods that are completely different from the truck's engine-module data.

That is why an early investigation should identify each potential source separately instead of sending a generic request for “the black box.” The relevant evidence may be spread across the truck, the carrier's servers, a third-party telematics vendor, and the driver's logging device.

A Preservation Letter Helps Put the Carrier on Notice

A preservation letter identifies evidence that may be relevant to a reasonably foreseeable claim and tells the carrier, insurer, and other recipients not to discard, overwrite, alter, or destroy it. The letter itself is not a magic switch that automatically guarantees a sanction if something later goes missing, but it can become important evidence that the recipient knew the information mattered.

The Tennessee Supreme Court addressed spoliation sanctions in [*Tatham v. Bridgestone Americas Holding, Inc.*](#) The court explained that judges consider the totality of the circumstances, including the party's culpability, the prejudice caused by the missing evidence, whether the party knew or should have known the evidence was relevant to pending or reasonably foreseeable litigation, and the least severe sanction that can remedy the prejudice. A negative inference is possible in an appropriate case, but it is not automatic.

A truck-crash preservation demand may identify evidence such as:

- **ECM, ECU, or event data** – The modules and electronic files that may contain speed, throttle, braking, fault, or event information.
- **Electronic logging device records** – Records of duty status and related information that may help establish how long the driver had been working or driving.
- **Dashcam, telematics, and fleet-platform data** – Video, GPS, alerts, hard-brake events, or other information stored in the truck or with an outside vendor.
- **Maintenance and inspection records** – Documents concerning brakes, tires, warning systems, repairs, and other vehicle conditions that may relate to the crash.
- **Dispatch and electronic communications** – Messages and trip records that can help reconstruct the driver's schedule, route, and instructions before the collision.
- **Driver qualification and training records** – Documents that may become relevant when the claim involves training, licensing, supervision, or safety history.

Federal ELD Rules Preserve Different Data From the Truck's ECM

An electronic logging device is not the same thing as a truck's crash-data module. ELDs are primarily used to record a commercial driver's hours of service. Many interstate motor carriers and drivers subject to the federal hours-of-service rules must use them, although exemptions apply.

The [Federal Motor Carrier Safety Administration](#) states that motor carriers must retain drivers' records of duty status and supporting documents for six months. The rules also require a separate backup copy of ELD records for that period. Supporting records can include dispatch records, bills of lading, electronic mobile communications, expense receipts, and payroll or settlement records.

Those federal retention rules can be useful in a fatigue or hours-of-service investigation, but they do not create one universal six-month retention rule for every ECM, telematics event, dashcam recording, or other piece of electronic crash data. Each source has to be identified and preserved on its own terms.

Black Box Evidence Can Cut Both Ways

Electronic evidence does not automatically favor the injured person. A passenger vehicle may have its own event data recorder, and that data may become part of the same fault analysis. The truck's records may also support the driver's account in some cases rather than contradict it.

That matters under Tennessee's comparative fault rule because insurers may try to assign part of the responsibility to the injured driver. A complete review should look at all available electronic and physical evidence before either side assumes what a single download proves.

The Best Time to Preserve Truck Data Is Before It Changes or Disappears

Truck accident cases can involve several electronic systems, different retention periods, and evidence controlled by the carrier or outside vendors. Acting early gives a lawyer more opportunities to identify the truck, send targeted preservation demands, coordinate a download, and compare the electronic record with the physical crash evidence.

Attorney [Eric Beasley](#) has spent 25 years representing injured people in Tennessee. Our team can investigate what electronic systems were involved, determine what records should be requested, and work with qualified experts when a truck-data download or reconstruction is necessary.

If a commercial truck hit you or someone you love in Nashville or anywhere in Tennessee, don't assume the most important evidence will still be there months from now. [Contact us](#) for a free consultation. We can review the crash, identify the evidence that may matter, and explain the next steps for protecting your Tennessee injury claim.