

# Introduction to ELDs: Understanding the Basics

● **BLUE STAR ELD**

- **Description:** This lesson provides a foundational overview of Electronic Logging Devices (ELDs), including their purpose, key components, and the regulatory requirements surrounding their use. Ideal for beginners, this lesson sets the stage for a deeper understanding of ELD operations.

## Lesson Outline:

[Part 1: What is an ELD?](#)

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[Part 3: Who Needs to Use ELDs?](#)

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## Part 1: What is an ELD?



An Electronic Logging Device (ELD) is a technology that automatically records a commercial vehicle's driving time and hours of service (HOS). These devices connect to a vehicle's engine to monitor its operation and accurately capture data on driving duration, vehicle movement, and rest periods. ELDs help ensure that drivers comply with federal regulations regarding HOS, which are crucial for preventing fatigue-related accidents on the road.

By using ELDs, trucking companies can reduce paperwork, enhance efficiency, and improve compliance with safety regulations. The implementation of ELDs is mandated by the Federal Motor Carrier Safety Administration (FMCSA) for most commercial motor vehicle operators in the U.S., making them an essential tool in modern logistics.

### NOTE:



**ELD** - Electronic Logging Device

**HOS** - Hours of service

**FMCSA** - Federal Motor Carrier Safety Administration

## Part 2: What is a Logbook?



A logbook, often referred to as a paper log or driver log, is a historical method used by commercial drivers to manually record their hours of service and other relevant information related to their driving activities. Traditionally, logbooks were essential for documenting compliance with HOS regulations before the advent of ELDs.

The use of logbooks dates back to the early 20th century, around the time when the U.S. government began regulating trucking to enhance safety. As the trucking industry grew, the need for standardized reporting of driver hours became apparent, leading to the establishment of logbooks. These records allowed both drivers and regulatory authorities to monitor compliance with HOS rules and ensure that drivers were not operating under fatigue.

While logbooks served their purpose for many years, they were often prone to inaccuracies and manipulation. The introduction of ELDs significantly improved the reliability and efficiency of recording driving time, making logbooks largely obsolete in many contexts.

## Part:3 Who Needs to Use ELDs?

ELDs are required for most commercial motor vehicle (CMV) operators who are subject to the hours of service regulations set forth by the FMCSA. Specifically, the following groups must use ELDs:

- **Drivers of Commercial Motor Vehicles:** This includes drivers operating vehicles that weigh 10,001 pounds or more, transport hazardous materials, or carry more than 8 passengers (including the driver) for compensation.
- **Long-Haul Truck Drivers:** Those who operate beyond a 100-air-mile radius from their home base and who do not qualify for the short-haul exemption must utilize ELDs to monitor their driving hours.
- **Fleet Operators:** Companies that manage a fleet of vehicles subject to HOS regulations must equip their trucks with ELDs to ensure compliance and streamline record-keeping.

### EXCEPTIONS:



For instance, drivers who operate within a 100-air-mile radius and meet certain conditions can still use paper logbooks instead of ELDs. Additionally, drivers of vehicles manufactured before the year 2000 are also exempt from using ELDs.

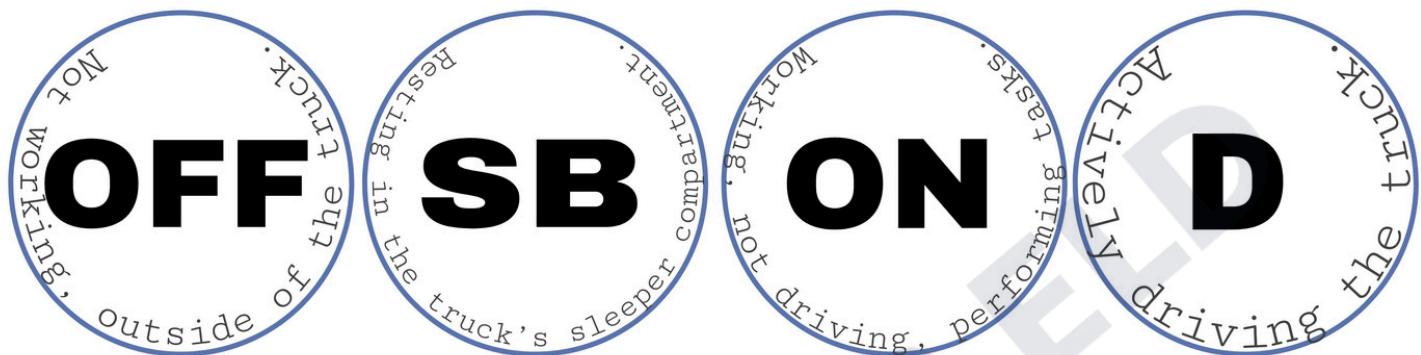


### NOTE:

**CMV** - Commercial motor vehicle

In summary, ELDs are a vital tool for ensuring compliance and safety in the transportation industry, particularly for those operating commercial motor vehicles under HOS regulations.

## Part:4 How Do ELDs Work?



### a) Driver Statuses: What Do They Mean?

ELDs categorize a driver's activity into four primary statuses. These statuses are crucial for accurately monitoring a driver's working and resting hours.

#### 1. Off-Duty

**Meaning:** This status indicates that the driver is not working and has no responsibility to operate the vehicle. It includes rest periods, meals, and any time when the driver is free from work obligations.

**Example:** When a driver takes a rest break at a truck stop or is sleeping at the end of the day, they are considered "Off-Duty."

## **2. Sleeper Berth (SB)**

Meaning: This status refers to time spent in the vehicle's sleeper berth, where the driver is resting but remains in the vehicle.

Example: If the driver takes a nap or sleeps in the truck's sleeper berth during a long haul, they log this time under "Sleeper Berth."

## **3. Driving (D)**

Meaning: This status is automatically recorded when the vehicle is moving. The ELD detects when the vehicle surpasses a certain speed (typically 5 mph) and automatically sets the status to "Driving."

Example: While the driver is actively operating the vehicle on the highway or any other road, they are in "Driving" status.

## **4. On-Duty, Not Driving (ON)**

Meaning: This status represents time when the driver is working but not driving. It includes tasks like fueling, loading/unloading, completing paperwork, or performing vehicle inspections.

Example: When the driver stops to refuel the truck or is engaged in vehicle maintenance, they are "On-Duty, Not Driving."

### **b) How Do ELDs Work?**

Now that we've covered the different driver statuses, let's explore how ELDs track and record this information automatically.

## **1. Connection to the Vehicle's Engine**

The ELD connects directly to the vehicle's engine to monitor its operation and capture data in real-time. By doing this, the device knows when the vehicle starts, moves, or stops, allowing it to automatically switch between driver statuses like "Driving" or "On-Duty, Not Driving."

## **2. Automatic Status Updates**

When the vehicle moves above 5 mph, the ELD switches the status to Driving. If the vehicle stops and remains stationary for a certain period, the driver can manually switch to Off-Duty or On-Duty, Not Driving, depending on the activity.

## **3. Recording HOS and Rest Breaks**

ELDs also help drivers stay compliant with HOS regulations by tracking driving time and breaks. For example, drivers are required to take rest periods after driving for a certain number of hours, and ELDs help ensure these rules are followed by accurately logging all statuses.

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## **Part 5: Understanding Time Limits and Their Relationship to Driver Statuses**

In this section, we will explore the various time limits that govern the operation of Electronic Logging Devices (ELDs) and how these limits interact with the different driver statuses: Off-Duty, Sleeper Berth, Driving, and On-Duty, Not Driving.



## Time Limits Overview

Understanding these time limits is crucial for compliance with Hours of Service (HOS) regulations. The primary limits include:

### NOTE:

**Driving Time Limit:** 11 hours



**Break Time Limit:** 30 minutes after 8 hours of driving

**Shift Time Limit:** 14 hours

**Cycle Time Limit:** 70 hours

## 1. Driving Time Limit

Definition: Drivers are limited to a maximum of 11 hours of driving after taking 10 consecutive hours off.

### Relation to Statuses:

When a driver is in Driving status, this time counts against the 11-hour limit.

Once the driver reaches the 11-hour threshold, they must switch to Off-Duty or Sleeper Berth status to reset their driving time.

## **2. Break Time Limit**

Definition: Drivers must take a 30-minute break after accumulating 8 hours of driving time. Breaks can be taken in any status except Driving, allowing for flexibility in managing rest.

### **Relation to Statuses:**

During the break, the driver can log time as Off-Duty, Sleeper Berth, or On-Duty, Not Driving.

This flexibility ensures that drivers can rest adequately without affecting their driving status directly.

## **3. Shift Time Limit**

Definition: A driver's shift is defined as the period they are on-duty, which can include both driving and non-driving activities. The maximum limit for a driving shift is 14 hours after coming on-duty.

### **Relation to Statuses:**

The time spent in On-Duty, Not Driving (such as fueling or unloading) counts towards the 14-hour shift limit.

After reaching the 14-hour limit, the driver must take a minimum of 10 consecutive hours off before they can begin a new shift.

## **4. Cycle Time Limit**

Definition: The cycle refers to the total time a driver can be on-duty within a specified period. Drivers can only work a maximum of 70 hours in 8 days.

## Relation to Statuses:

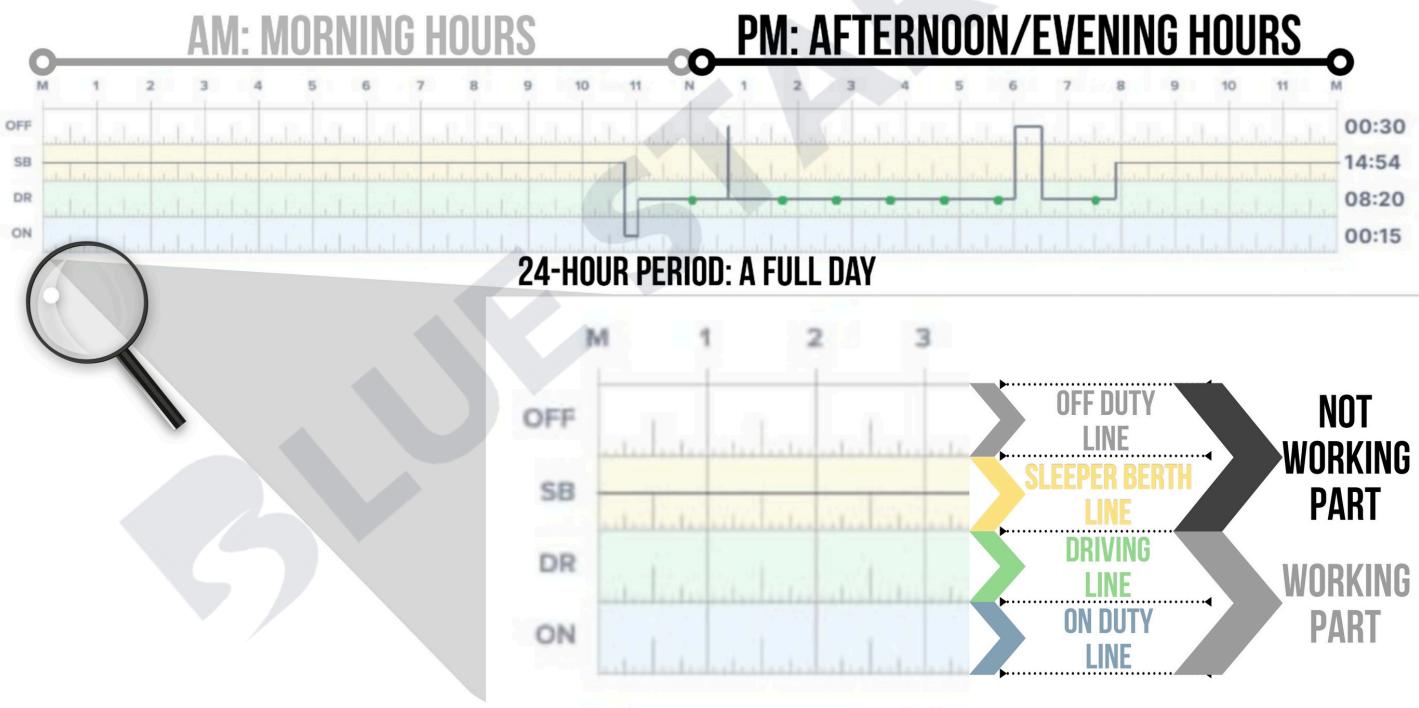
The cycle limit is based on total on-duty time, which includes driving and non-driving activities but does not include time logged as Off-Duty or Sleeper Berth.

Once the 70-hour cycle limit is reached, the driver must take a 34-hour reset to begin a new cycle.

### INFORMATION:



ELD specialists monitor these time limits and driver statuses using graphics and events displayed on the ELD website interface. This oversight helps ensure compliance with regulations and enables timely intervention if a driver approaches any limits.



Understanding these time limits and how they interact with each driver status is essential for compliance with federal regulations and ensuring safety on the road. In the next lesson, we will discuss features like Split Sleep and Recap, which offer further flexibility in managing driving time and rest periods.

## **FMCSA ELD Regulations: Short-Haul vs. Long-Haul**

The FMCSA regulations regarding Electronic Logging Devices (ELDs) primarily fall into two categories:

### **1. Short-Haul Drivers:**

- Operate within a 150 air-mile radius from their work reporting location.
- Must return to their reporting location and complete their work within 14 hours.
- Exempt from ELD requirements but must maintain paper logs or time records if they exceed these limits.

### **2. Long-Haul Drivers:**

- Operate beyond the 150 air-mile radius or do not return to their reporting location within 14 hours.
- Required to use ELDs to record Hours of Service (HOS) accurately.

Drivers should determine their operational radius and hours to ensure compliance with these regulations.

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## **Part 6: Advanced ELD Features**

### **a) Split Sleep**

The Split Sleeper Berth Rule allows drivers to split their mandatory 10-hour rest period into two parts: one longer period of 7 or 8 hours in the sleeper berth, and a shorter period of 2 or 3 hours, either off-duty or in the sleeper berth.

Here's how it works:

The longer rest period (7 or 8 hours) pauses the 14-hour work window but doesn't reset it.

After the first rest period, the driver can continue driving with the remaining hours left in their 14-hour window.

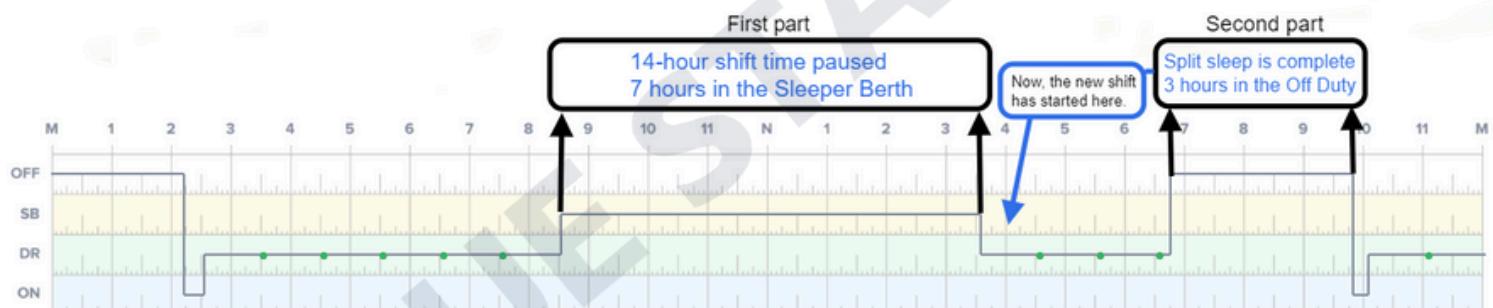
Once the shorter rest period (2 or 3 hours) is completed, a new 14-hour work window starts, beginning from the end of the longer rest period.

#### INFORMATION



Drivers can use combinations such as 7/3, 8/2, 3/7, or 2/8 hours for their rest periods, depending on their needs.

#### Example of Split Sleep Application:



#### When Can Drivers Use the Split Sleep Feature?:

**Long Haul Operations:** The split sleep feature is typically used during long-haul trips, especially when drivers face scheduling disruptions.

**Unforeseen Circumstances:** Drivers can utilize this option when unexpected delays arise, such as traffic jams or adverse weather conditions.

## **When Can Drivers Not Use the Split Sleep Feature?:**

Short Haul Exemptions: Drivers operating within a 100-air-mile radius may not need to use split sleep as they can use paper logs or different hours of service rules.

After 14-Hour Shift Limit: Once a driver has reached the 14-hour on-duty limit, they cannot use split sleep to reset their driving time and must take a full 10-hour break.

### **b) Recap Feature**

Definition: The Recap feature helps drivers manage their hours by showing how many hours they have available to work based on their past 7 or 8 days of driving. This feature is essential for ensuring compliance with the FMCSA 60/70-hour rule over a rolling period.

### **There are two main limits under the Hours of Service (HOS) regulations:**

60-hour/7-day rule: Drivers cannot drive after accumulating 60 hours on-duty within any 7 consecutive days, used typically by carriers operating 6 days a week.

70-hour/8-day rule: Drivers cannot drive after accumulating 70 hours on-duty within any 8 consecutive days, typically for carriers that operate every day of the week.

The Recap feature works by calculating your remaining available hours from previous workdays, allowing you to continue driving without exceeding the limit.

## How Recap Works

Each day, the ELD looks back at the previous 7 or 8 days (depending on the rule you are following) to total how many hours you've worked during that period.

The hours you worked 8 days ago will "drop off" each day, and you'll regain those hours, making them available for use on the current day.

### Example of Recap Calculation:

Let's say you are following the 70-hour/8-day rule.

Here's how your past 8 days of work look like:

Day	Hours Worked
Day 1	10 hours
Day 2	9 hours
Day 3	8 hours
Day 4	11 hours
Day 5	9 hours
Day 6	10 hours
Day 7	8 hours
Day 8	7 hours

Total Hours for Past 8 Days: 72 hours.

Now, on Day 9, you're calculating your available hours. You've already worked 72 hours in the past 8 days, which exceeds the 70-hour limit, so you cannot drive yet.

However, on Day 10, the hours you worked on Day 1 (10 hours) drop off, leaving you with 62 hours worked over the past 8 days (Days 2-9). That gives you 8 available hours to work on Day 10 before hitting the 70-hour limit.

#### **EXCEPTIONS:**



When a driver opts for a 34-hour restart, they essentially reset their available hours. During this period, the recap feature is not applicable since the driver is starting fresh and the hours worked in the previous week are irrelevant.

## **Part 7: What Data Do ELDs Capture?**

### **1. Company Information**

Required Records:

- Motor Carrier Name: The legal name of the motor carrier.
- Principal Place of Business Address: The primary location where the company operates.
- USDOT Number: A unique identifier assigned by FMCSA to each registered motor carrier.

#### **NOTE:**



**USDOT** - United States Department of Transportation

**MC** - Motor Carrier

## INFORMATION:

The **USDOT number** is a unique identifier assigned by the Federal Motor Carrier Safety Administration (FMCSA) to commercial motor carriers operating in the United States. It is used to track safety records, compliance with federal regulations, and operational data. Companies must display their USDOT number on their vehicles and register for one if they operate commercial vehicles weighing over 10,000 pounds or transport hazardous materials.

An **MC number** is a unique identifier assigned by the FMCSA (Federal Motor Carrier Safety Administration) to motor carriers operating in interstate commerce. This number is part of the registration process required for carriers to legally operate across state lines.

## VERIFICATION RESOURCES:



FMCSA Resources: Company information can be verified at the [FMCSA Company Snapshot](#)

Registration Documents: The above information can typically be found in the motor carrier's registration documents, such as the Motor Carrier Authority Certificate or the Application for USDOT Number.

## Sample:



U.S. Department of Transportation  
Federal Motor Carrier Safety Administration

1200 New Jersey Ave., S.E.  
Washington, DC 20590

**SERVICE DATE**  
January 1, 2000

**CERTIFICATE**  
**MC- 0000001**  
**U.S. DOT No. 1000001**  
Sample Company Name  
Sample City, State

This Certificate is evidence of the carrier's authority to engage in transportation as a common carrier of property (except household goods) by motor vehicle in interstate or foreign commerce.

This authority will be effective as long as the carrier maintains compliance with the requirements pertaining to insurance coverage for the protection of the public (49 CFR 387) and the designation of agents upon whom process may be served (49 CFR 366). The carrier shall also render reasonably continuous and adequate service to the public. Failure to maintain compliance will constitute sufficient grounds for revocation of this authority.

Jeffrey L. Scerist, Chief  
Information Technology Operations Division

**NOTE:** Willful and persistent noncompliance with applicable safety fitness regulations as evidenced by a DOT safety fitness rating of "Unsatisfactory" or by other indicators, could result in a proceeding requiring the holder of this certificate or permit to show cause why this authority should not be suspended or revoked.

CMO

## 2. Driver Information

### Required Records:

- Driver's Name: As on the Commercial Driver's License (CDL).
- Driver's License Number: Shown on the CDL.
- Issuing State: The state that issued the CDL.

## Sample



### NOTE:



**CDL** - Commercial Driver's License

**DL** - Driver's License

### INFORMATION:

A **Commercial Driver's License (CDL)** is a special license required to operate commercial motor vehicles (CMVs) in the United States. There are different classes of CDLs, which determine the type of vehicles a driver is authorized to operate.



- **Class A:** For operating combination vehicles (e.g., tractor-trailers).
- **Class B:** For driving single vehicles (e.g., large buses, dump trucks).
- **Class C:** For smaller vehicles that transport hazardous materials or carry 16 or more passengers.

A **Driver's License (DL)** is a standard license issued by a state or local government that allows an individual to operate a personal vehicle on public roads.

### 3. Truck Information

#### Required Records:

- Vehicle Identification Number (VIN): A 17-character alphanumeric code.
- License Plate Number: Registration number assigned by the state.
- Vehicle Registration Details: Found on the Cab Card.
- Make and model of the vehicle.

#### Sample

State Form 4953 (R/3-03)

#### INDIANA REGISTRATION CAB CARD ORIGINAL

NAME OF REGISTRANT IRP TESTING JURISDICTIONS				ACCOUNT NO. 1	FLEET NO. 1002
DBA NAME IRP TESTING SITE BUSINESS STREET ADDRESS 5252 DECATUR				VALIDITY PERIOD 16-SEP-2014 TO NO EXPIRY	
CITY INDIANAPOLIS		STATE IN	ZIP CODE 46113-0000	CAB CARD NO. 1309625073	
UNIT NO. 757	VEHICLE IDENTIFICATION NO. SF6S64F4TYTEST2		CARRIER TYPE FOR HIRE		TRANSACTION NO. 3
VEHICLE MAKE FRU	VEHICLE YEAR 2015	VEHICLE TYPE ST	APPORTIONED LICENSE PLATE NO. P000123		GROSS WEIGHT
ENFORCEMENT CONTROL NUMBER:				1924723154	
<p><u>Issued by the Indiana Department of Revenue</u> - For inquiries regarding the validity of this registration cab card, please call Indiana's Voice Response Unit twenty four hours a day at (866) 615-7340.</p>					



### NOTE:

VIN - Vehicle Identification Number

### VERIFICATION RESOURCES:



Check truck information at [NHTSA VIN Decoder](#).

For VIN check digit verification, visit [NHTSA Check Digit](#).

## 4. Event Information

### Required Records:

- Date and Time of Driving Events: Accurate timestamps for status changes.
- Status Changes: Records of transitions between Off-Duty, Sleeper Berth, Driving, and On-Duty, Not Driving.
- Location Data: Latitude and longitude for each status change.
- Odometer Reading: The total distance driven, recorded at the start and end of each driving period.
- Engine Hours: Total engine running time, which helps track usage and maintenance needs.

How Engine Hours Are Calculated: Engine hours are typically recorded in minutes and then converted to decimal hours.

Here's a simple conversion chart:

Minutes	Engine Hours
6 min	0.1 hrs
12 min	0.2 hrs
30 min	0.5 hrs
60 min	1.0 hrs
120 min	2.0 hrs

## **5. Form Information**

Load ID:

- This identifier is typically found on the Bill of Lading or shipping documents. It serves as a reference for the specific load being transported and is critical for tracking and verification during transit.
- The Load ID ensures that the cargo is properly documented and matched with the delivery instructions.

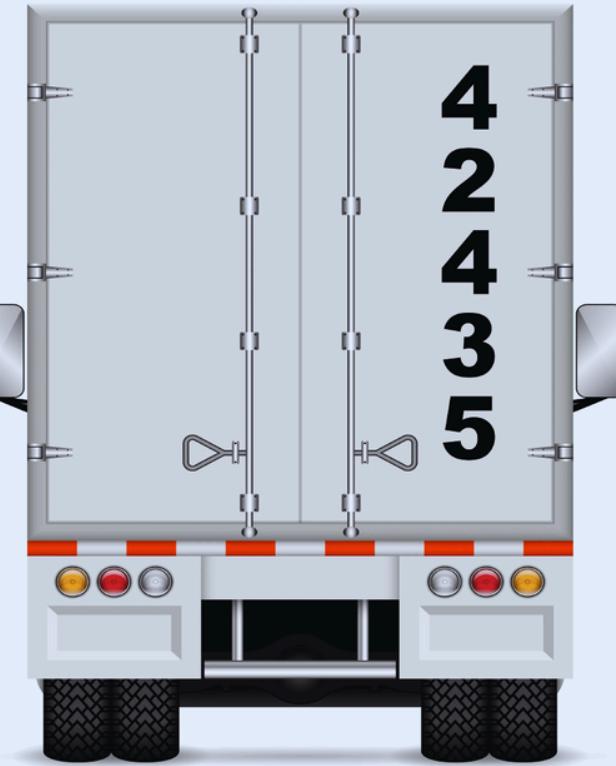
Trailer Number:

- The trailer number is a unique identifier for the trailer used to transport the load. This number can usually be found on the exterior of the trailer and is also documented in shipping paperwork. It is essential for tracking the vehicle associated with the shipment, ensuring that the correct trailer is used for delivery, and maintaining accountability throughout the transportation process.

**Documentation Sources:**

- Bill of Lading: This document includes essential details about the shipment, including the Load ID, which provides information on the consignor, consignee, and a description of the goods being transported.

# Sample



BILL OF LADING										Page 1 of _____	
SHIP FROM										Bill of Lading Number: _____	
Name:										BAR CODE SPACE	
Address:											
City/State/Zip:											
SID#:										FOB: <input type="checkbox"/>	
SHIP TO										CARRIER NAME: _____	
Name:	Location #: _____									Trailer number: _____	
Address:										Seal number(s): _____	
City/State/Zip:										SCAC: _____	
CID#:										Pro number: _____	
THIRD PARTY FREIGHT CHARGES BILL TO:										BAR CODE SPACE	
Name:										Freight Charge Terms: (freight charges are prepaid unless marked otherwise)	
Address:										Prepaid      Collect      3rd Party	
City/State/Zip:										<input type="checkbox"/> Master Bill of Lading: with attached underlying Bills of Lading	
SPECIAL INSTRUCTIONS:										(check box)	
CUSTOMER ORDER NUMBER		# PKGS	WEIGHT	PALLET/SKID INCLUDES ONE		ADDITIONAL SHIPPER INFO					
				Y	N						
				Y	N						
				Y	N						
				Y	N						
				Y	N						
				Y	N						
				Y	N						
GRAND TOTAL										CARRIER INFORMATION	
HANDLING UNIT		PACKAGE		WEIGHT		H.M.		COMMODITY DESCRIPTION		LTL ONLY	
QTY	TYPE	QTY	TYPE	WEIGHT	(X)	Description regarding handling unit and package size to be used in shipping must be as marked and packaged as to ensure safe transportation with ordinary care. See Section 209 of MHPV Act 2000.		NMFC #	CLASS		
RECEIVING STAMP SPACE											
GRAND TOTAL										COD Amount: \$ _____	
Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____"										Fee Terms: Collect: <input type="checkbox"/> Prepaid: <input type="checkbox"/> Customer check acceptable: <input type="checkbox"/>	
NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. § 14706(c)(1)(A) and (B).										The carrier shall make delivery of this shipment without payment of freight and all other lawful charges.	
RECORDED, INDIVIDUALLY IDENTIFIED ITEMS OR COMMODITIES THAT HAVE BEEN AGREED UPON IN WRITING BETWEEN THE CARRIER AND SHIPPER, IF APPLICABLE, OTHERWISE TO THE RATES, CLASSIFICATIONS AND RULES THAT HAVE BEEN ESTABLISHED BY THE CARRIER AND ARE AVAILABLE TO THE SHIPPER, ON REQUEST, AND TO ALL APPLICABLE STATE AND FEDERAL REGULATIONS.										Shipper Signature	
SHIPPER SIGNATURE / DATE					Trailer Loaded:		Freight Counted:		CARRIER SIGNATURE / PICKUP DATE		
This is to certify that the above named materials are properly classified, packed and labeled in accordance with the applicable regulations of the DOT.					<input type="checkbox"/> By Shipper		<input type="checkbox"/> By Shipper		Carrier acknowledges receipt of packages and required placards. Carrier certifies that packages are properly secured and labeled in accordance with the applicable regulations of the DOT.		
					<input type="checkbox"/> By Driver		<input type="checkbox"/> By Driver		Emergencies require quick action or emergency response guidelines or required documentation in the vehicle.		
					<input type="checkbox"/> Pallets said to contain		<input type="checkbox"/> Pallets said to contain		Property described above is required to your order, except as noted.		
					<input type="checkbox"/> By Driver/Pieces		<input type="checkbox"/> By Driver/Pieces				

## 6. Understanding IFTA

### What is IFTA?

The International Fuel Tax Agreement (IFTA) is an agreement between the U.S. states and Canadian provinces that simplifies the reporting of fuel taxes by interstate commercial carriers. It allows carriers to report and pay fuel taxes based on the miles driven in each jurisdiction.

### Key Components of IFTA Reports:

1. Fuel Purchases: Total gallons of fuel purchased in each jurisdiction.
2. Miles Traveled: Total miles driven in each jurisdiction.
3. Tax Rates: The applicable fuel tax rates for each state or province.

4. Tax Owed/Refunds: Calculation of taxes owed or refunds due based on miles and fuel purchased.

## 6. Understanding DVIR

What is DVIR?

The Driver Vehicle Inspection Report (DVIR) is a document that drivers must complete to record the condition of their vehicle before and after operation. This ensures that the vehicle is safe and compliant with Department of Transportation (DOT) regulations.

**Key Components of DVIR:**

1. Inspection Details: Date, time, vehicle identification, and driver information.
2. Pre-Trip Inspection: Checklist of components (e.g., brakes, lights, tires) that must be inspected.
3. Defects Identified: Any defects or issues noted during the inspection.
4. Corrective Actions: Actions taken to address any defects found.

**NOTE:**



IFTA - The International Fuel Tax Agreement

DVIR - The Driver Vehicle Inspection Report

## **Part 8: Additional ELD Statuses and Their Usage Rules**

### **1. Personal Conveyance (PC)**

**Description:** This status is used when a driver operates a CMV for personal use, while off duty, without advancing any business-related activities.

#### **Usage Rules:**

**Distance and Time:** FMCSA does not specify mileage or time limits for personal conveyance, but its use must be reasonable and must not advance the business interests of the motor carrier. Misuse may result in a violation of Hours of Service (HOS) rules.

#### **Examples of Valid Use:**

Traveling from a terminal or drop yard to a nearby rest stop, hotel, or restaurant for personal rest, food, or lodging.

Commuting from the driver's home or lodging to the motor carrier's terminal for a duty shift, assuming the driver is off-duty.

#### **Examples of Invalid Use:**

Driving the CMV to reposition it for the next load or unload.

Using the CMV after a shift to travel to a facility for repairs or maintenance.

**Motor Carrier Policy:** While FMCSA sets the federal standards, motor carriers can establish stricter personal conveyance policies. For example, a carrier may limit personal conveyance mileage. Regulatory Reference: FMCSA § 395.8 (PC)

## **2. Yard Move (YM)**

Description: Yard Move is a status used when a CMV is moved within a defined area, such as private property, for operational purposes but not on a public road. The driver is still ON-duty but not considered Driving.

### **Usage Rules:**

Location Restrictions: Yard moves are restricted to private property and not permitted on public roadways.

Driver Status: The driver remains ON-duty while performing yard moves.

### **Examples of Valid Use:**

Moving the truck within a company yard, loading/unloading facility, or terminal.

Relocating the CMV in a parking lot, garage, or non-public road for logistical purposes.

### **Examples of Invalid Use:**

Moving a vehicle on public roads, even for short distances.

Using yard move status to avoid logging on-road driving time.

**ELD Configuration:** The ELD must have specific yard move settings. The carrier should train drivers on how to enable/disable yard move status.

Regulatory Reference: FMCSA § 395.8 (Yard Move)

## **3. Unassigned Driving Time**

Description: This refers to driving time that is recorded on the ELD but not assigned to any driver because no one was logged in during the driving event.

## **Usage Rules:**

**Driver and Carrier Responsibility:** Unassigned driving time must be reviewed and assigned to the correct driver. If the time cannot be assigned, the carrier must annotate the log to explain why.

**Consequences of Non-compliance:** Failing to review or assign unassigned driving time can result in violations during inspections or audits.

## **Examples of Valid Use:**

A mechanic moves a vehicle within the yard without logging in.

Unassigned driving occurs during team driving if one driver forgets to log out before the other starts driving.

**Regulatory Reference:** FMCSA § 395.32 (Unassigned Driving Time)

## **4. Malfunction and Data Diagnostic Events**

**Description:** ELDs are required to track and report any system malfunctions or diagnostic events, which could impact accurate logging of HOS.

## **Usage Rules:**

**Diagnostic Events:** These occur when the ELD system identifies an issue, such as a loss of GPS signal, engine synchronization issues, or a failure to detect required data inputs.

**Driver Responsibility:** The driver must manually record their duty status when an ELD malfunction occurs.

**Carrier Responsibility:** Carriers have up to 8 days to repair or replace a malfunctioning ELD. If not addressed within this timeframe, carriers must revert to paper logs until the issue is resolved.

## **Examples of Valid Use:**

A driver temporarily switches to paper logs due to an ELD malfunction.

Recording a manual log when ELD synchronization with the vehicle's engine fails.

## **Key Considerations:**

Documentation: Drivers must notify carriers when malfunctions occur, and carriers must provide guidance on how to maintain accurate logs during the malfunction period.

Regulatory Reference: FMCSA § 395.34 (Malfunction Reporting)

## **5. Editing ELD Records**

Description: FMCSA allows limited editing of ELD records to correct mistakes. However, edits must not affect the driving time recorded by the ELD.

## **Usage Rules:**

Driver and Carrier Edits: Drivers can suggest edits to their records (e.g., correcting a misclassified duty status), but driving time cannot be changed. The motor carrier can propose edits, but the driver must approve them.

## **Examples of Valid Use:**

A driver corrects an "ON-duty" status to "SB" if they mistakenly logged it wrong.

A motor carrier suggests edits when a driver mistakenly logged ON status for a yard move.

## **Key Considerations:**

Driver Approval: The driver is responsible for approving or rejecting any edits made by the carrier.

**ELD Requirements:** The ELD system must maintain the original log data, even after edits are made.

**Regulatory Reference:** FMCSA § 395.30 (Editing ELD Records)

## **6. Other automatically logged events.**

### **1. Intermediate Event**

Automatically recorded event that tracks vehicle motion data if no other status change has occurred within an hour.

### **2. Power Up/Power Down Event**

This refers to events triggered when the engine is turned on or off.

### **3. Certification Event**

This event logs when a driver certifies or verifies the accuracy of their daily records for compliance.

According to the Federal Motor Carrier Safety Administration (FMCSA), only the driver themselves is responsible for certifying the accuracy of their record of duty status (RODS) or logbooks. The certification must be done by the driver and cannot be delegated to another person, even if someone else enters data into the system. Drivers are required to sign and certify the RODS to confirm that all entries are correct and comply with Hours of Service (HOS) regulations.



#### **NOTE**

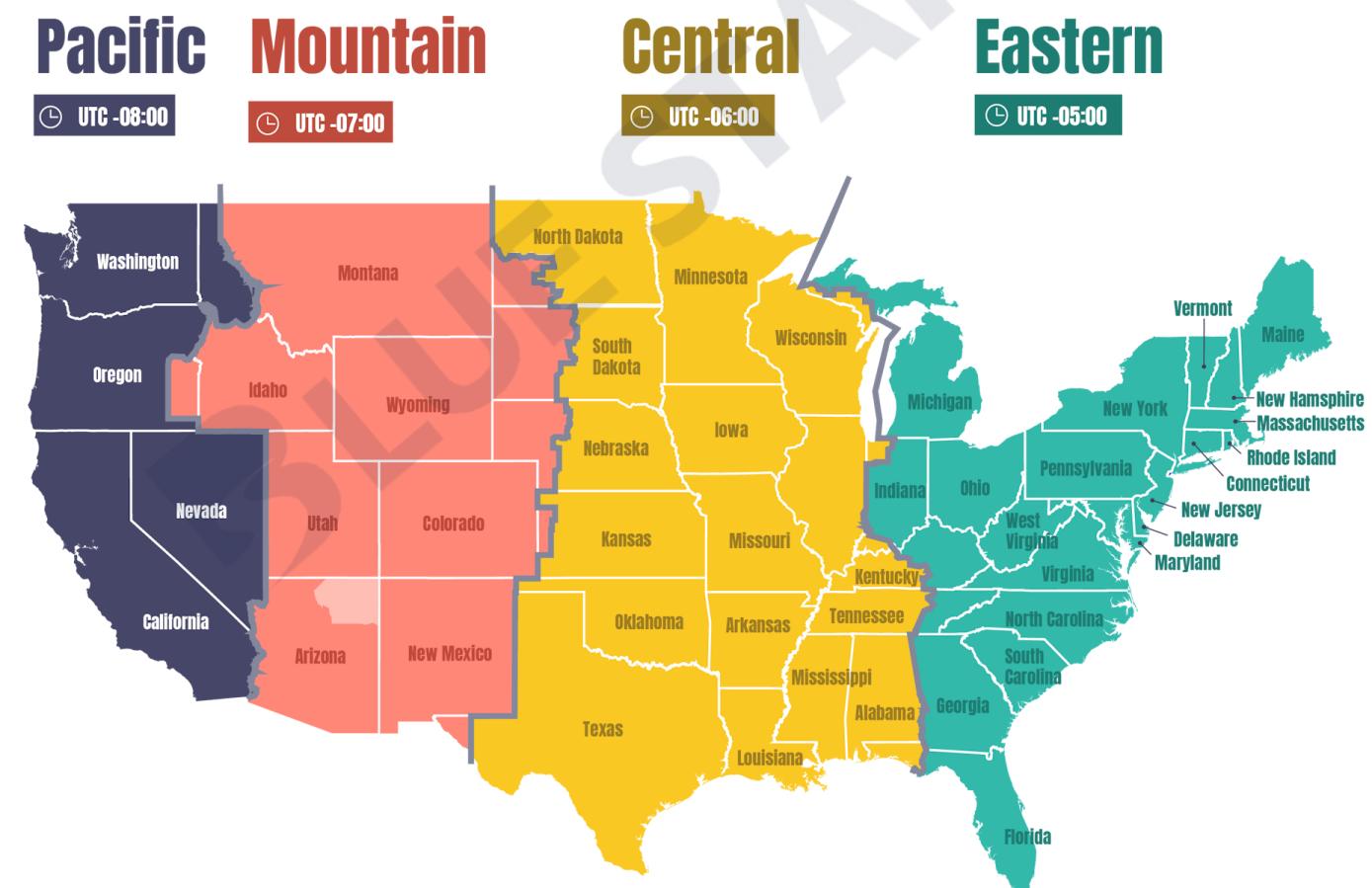
RODS - Record of duty status

## Part 9: Time Zones, Speed Limits, and Daylight Saving Time (DST)

### 1. Understanding Time Zones for ELD Records

ELDs are required to record all events using the time zone of the motor carrier's home terminal, according to FMCSA regulations. This ensures consistency in record-keeping, even when the driver is operating across different time zones.

In the United States, the four primary time zones affecting carriers are:



## 2. Speed Limits Across States and Estimated Driving Time

Speed limits vary across states, depending on the road type (interstate highways, rural roads, urban areas). Below is a general guideline for speed limits by state, followed by an approximation of how long it takes to travel different distances based on average driving speeds:

State	Interstate Speed Limit (mph)	Urban Areas (mph)	Rural Areas (mph)
California	65-70 mph	55 mph	65 mph
Texas	75-85 mph	65 mph	70 mph
Florida	70 mph	55 mph	65 mph
New York	65 mph	55 mph	55-65 mph
Colorado	75 mph	55-65 mph	65-75 mph

### Estimated Driving Time Based on Distance

The following table provides approximate driving times for different distances at various speeds:

Miles Driven	Speed (mph)	Approximate Driving Time
60 miles	60 mph	1 hour
120 miles	60 mph	2 hours
480 miles	60 mph	8 hours
660 miles	60 mph	11 hours

These estimates assume continuous driving under ideal conditions (no traffic, construction, or weather delays) and average speeds. Actual mileage or time may vary depending on various factors such as terrain, congestion, and road conditions.

### 3. Daylight Saving Time (DST)

Daylight Saving Time (DST) is observed in most U.S. states, typically starting on the second Sunday in March and ending on the first Sunday in November. During DST, clocks are adjusted forward by one hour to extend evening daylight.

**Frequency of Changes:** DST begins in the spring (March) and ends in the fall (November), resulting in two adjustments each year:

**Spring Forward:** Clocks are set forward one hour at 2:00 AM on the second Sunday in March.

**Fall Back:** Clocks are set back one hour at 2:00 AM on the first Sunday in November.

**States Not Observing DST:** Arizona (except for the Navajo Nation) and Hawaii do not observe Daylight Saving Time.

**Impacts on ELD:** ELDs automatically adjust to DST by synchronizing to Coordinated Universal Time (UTC) and applying the relevant time zone offsets. Drivers should be aware that their Hours of Service (HOS) remain consistent, regardless of the clock change. The changes in DST should not affect the total hours a driver has available under HOS regulations.

## Part 10: Overview of the PT30 ELD Device

### PT30 ELD Device: Full Information

The PT30 ELD (Electronic Logging Device) is used for electronic logging of driver hours and complies with FMCSA (Federal Motor Carrier Safety Administration) regulations. It helps track a driver's Hours of Service (HOS), automatically logs data such as driving hours, engine hours, vehicle movement, and miles driven, ensuring compliance with HOS rules. It syncs with a mobile app via Bluetooth to store and review data in real time.



## PT30 Lights: Overview

The PT30 device has three key lights (LED indicators) on its side:

- Red Light: Indicates error or malfunction.
- Green Light: Indicates normal operation and successful connection.
- Orange Light: Indicates a connection or synchronization process.



## PT30 Lights Functioning: What Each Light Means

- **Red Light:**
  - Flashing: There is an issue with the device, such as a connection or data transmission problem.
  - Solid: A critical error has occurred, and the device is not functioning properly.
- **Green Light:**
  - Flashing: The device is connected to the vehicle and functioning normally, actively transmitting data.
  - Solid: The device is powered on and connected but not currently transmitting data (e.g., vehicle is stationary).
- **Orange Light:**
  - Flashing: The device is in the process of syncing with the vehicle or the mobile app.
  - Solid: The connection or synchronization is incomplete or experiencing issues.

- **All Lights Flashing Rapidly:**

- If all lights (red, green, and orange) are flashing at the same time, this indicates a critical error with the device. The device needs to be restarted or serviced.

## PT30 Restart: Proper Procedure

To properly restart the PT30 ELD device:

- Disconnect the device:
  - Unplug the PT30 from the vehicle's OBD-II port (usually located under the dashboard).
- Wait:
  - Leave the device unplugged for 10-15 seconds to allow it to fully power down.
- Reconnect the device:
  - Plug the PT30 back into the OBD-II port securely.
- Check the indicators:
  - After restarting, the green light should blink or stay solid, indicating normal operation. If other lights continue to flash, further troubleshooting may be needed, or technical support should be contacted.

### VERIFICATION RESOURCES:



For more information about the PT30 ELD and its features, you can visit the official website of [Pacific Track](#).

## What to Do if Malfunction Occurs

If the PT30 ELD malfunctions, the driver should switch to using a paper log to maintain compliance with HOS regulations. The ELD provider or carrier is required to supply a malfunction letter detailing the issue and the time frame for resolving it.

## Sample

To: Company Name  
D.O.T #:  
Re: Driver Name  
Date:

This letter is to inform that *Company Name* has reported an issue with driver:  
and that the driver is experiencing a malfunction with his ELD device.

In accordance with 395.34, the driver is authorized to manually prepare a record of duty status and can revert to manual rods until the ELD is brought back into compliance with this subpart.

Mandate 395, ELD Malfunctions and Data Diagnostic Events, states: Motor Carrier must correct the malfunction within 8 days of discovery of the condition of driver's notification to the Motor Carrier, whichever occurs first.

If you need further assistance or anything else regarding this matter, please let us know and we can provide more detail

Respectfully,  
Support Team

## Recommended Cables for the PT30 ELD

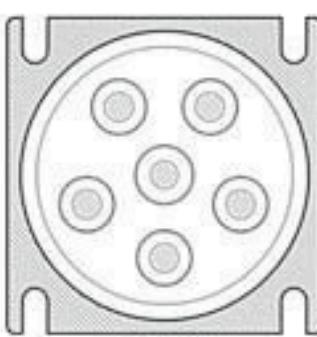
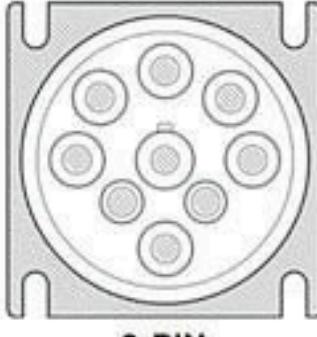
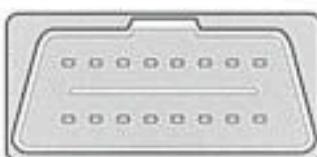
### OBD-II Standards:

- Light/Medium Duty Vehicles
- Heavy Duty Vehicles

J1939 Protocol

J1708 Protocol

## Vehicle Cable Guide

Diagnostic Port	Maker	Year	Engine
 <b>6-PIN (J1708) (Gray Port)</b>	Freightliner	2005 & older	All
	Kenworth	2005 & older	All
	Peterbilt	2005 & older	All
	International	2005 & older	CAT
	International	2006 & older	Cummins
	Volvo	2000 & older	Volvo
	Mack	2000 & older	Volvo
 <b>9-PIN (J1939) (Black &amp; Green Port)</b>	Freightliner	2006 & newer	All
	Kenworth	2006 & newer (2017-2018 Requires 9-PIN Adapter)	All
	Peterbilt	2006 & newer (2017-2018 Requires 9-PIN Adapter)	All
	International	2006 & newer	All
	Volvo	2001-2014	Volvo
	Volvo	2006 & newer	Cummins
	Mack	2001-2014	Volvo
	Western Star	2006 & newer	All
 <b>OBDII (Heavy Duty)</b>	Volvo	2014 & newer	Volvo
	Mack	2014 & newer	Volvo
 <b>OBDII (Light/Medium Duty)</b>	Light/Medium Duty Vehicles  (Pick up trucks, Vans, Day cabs, Cars & etc.)	2008 & newer	All Diesel and Gas

## **Common Malfunctions of the PT30 ELD and Solutions**

### **Device Not Connecting:**

- Solution: Check cable connections and ensure the device is properly plugged into the OBD-II port. Restart the device if necessary.

### **Data Transmission Errors:**

- Solution: Verify Bluetooth settings on the mobile app. Ensure that the app is up to date.

### **Critical Errors Indicated by Red Light:**

- Solution: Follow the restart procedure. If the problem persists, contact technical support for further assistance.
- 

## **Part 11: DOT Inspections and Compliance**

### **1. Overview of DOT Inspections**

DOT inspections are a critical component of maintaining safety and compliance within the commercial trucking industry. These inspections often occur at weigh stations, rest areas, or roadside checkpoints. ELD specialists must understand the regulations and procedures associated with these inspections to effectively support drivers and carriers.

- Duration of Log Review: During a DOT inspection, inspectors will review the driver's logs for the previous seven days of operation, including the current day. This review ensures compliance with Hours of Service (HOS) regulations as established by the FMCSA.



## Data Transfer During Inspections

During inspections, ELD data can be reviewed directly by inspectors using the device or printed logs. The inspector may request to view the last seven days of driving records, which should be easily accessible to ensure compliance with HOS regulations.

**ELD data can be transferred to the inspector through several methods:**

- Provided Code: The inspector may issue a specific code for data transfer.
- Email: Logs can be emailed directly to the inspector if requested.

### VERIFICATION RESOURCES:

The FMCSA provides an official platform where motor carriers and ELD providers can upload ELD files to the eRODS (Electronic Record of Duty Status) application. This tool allows users to test how hours-of-service data from an ELD will appear to safety officials. You can access the web-based eRODS application through the FMCSA's ELD website at [eld.fmcsa.dot.gov](http://eld.fmcsa.dot.gov).



## **2. Types of Inspections**

- Level I Inspection: A comprehensive inspection that includes a review of the vehicle, driver's credentials, and ELD records.
- Level II Inspection: Similar to Level I but does not include a physical inspection of the vehicle.
- Level III Inspection: Focuses solely on the driver's paperwork, including HOS logs.

## **3. Pre/Post Trip Inspections (PTI)**

- Importance: Conducting Pre-Trip and Post-Trip Inspections is essential for ensuring vehicle safety and compliance. These inspections must be recorded under On Duty status, accompanied by a PTI note.
- Documentation: Drivers must document the results of their PTI, including any issues found and actions taken.

## **4. States with Rigorous Inspections**

Certain states are known for their stringent inspection processes, often referred to as "Red States." These include:

- California
- Idaho
- Washington
- Oregon
- Utah
- Arizona
- Wyoming
- New Mexico

Drivers should exercise additional caution when operating in these states due to the likelihood of inspections.

## **5. Audits and Compliance Reviews**

**Audit Duration:** During compliance reviews or audits by the Motor Carrier (MC), inspectors may request documentation for the previous six months to ensure adherence to regulations.

**Data Requirements:** ELD providers must ensure that all data, including logs, are readily accessible for audits.

**Record Accessibility:** ELD systems must be capable of displaying driver logs, vehicle movement, and compliance with HOS regulations upon request.

**Documentation Needed:** During an audit, inspectors may review:

- Driver's HOS logs
- Vehicle maintenance records
- Inspection reports
- Driver qualifications and training records

**Consequences of Non-Compliance:** Failure to maintain accurate logs or provide required documentation can lead to penalties, fines, or potential disqualification of the carrier.

Inspectors typically give advance notice of an upcoming audit. Data can be reviewed at the carrier's home terminal, or the inspector may request that records be sent directly.

ELD data must be retained of six months and should be readily accessible for audits. Audit data can also be transferred to inspectors via a provided code or in printed format.

# BLUE STAR ELD

## Conclusion

In conclusion, the successful implementation of the [Blue Star ELD](#) system is essential for enhancing compliance and operational efficiency within our organization. This guide has equipped ELD Specialists and Logbook Specialists with the necessary tools and knowledge to navigate the complexities of electronic logging and reporting. By adhering to best practices and utilizing the resources provided, you can ensure accurate data management, improve safety standards, and streamline communication across all levels of operation.

As we move forward, continuous training and adaptation to evolving regulations will be key. We encourage all specialists to collaborate, share insights, and support one another in this journey. Together, we can leverage the capabilities of the Blue Star ELD system to achieve our goals and drive excellence in our fleet management practices.

Thank you for your commitment to this initiative and for playing a vital role in our success.

M.A

Date: September 30, 2024