**Electronic Logging Devices and Hours of Service -Training**

1. **ELD Carrier-Driver Training**

Welcome to ELD carrier and driver training. This training is intended to educate carriers and drivers using electronic logging devices, or ELDs.

# The ELD Rule

## *Introduction*

FMCSA aims to make highways safer for all drivers. One danger on the road is fatigued driving, which leads to hundreds of crashes and deaths each year.

The ELD rule, which requires the adoption of electronic logging devices, is the latest step to address fatigued driving among drivers of large trucks and buses. ELDs will make it easier to enforce existing HOS regulations, which remain unchanged.

Before we begin, let’s quickly review some terms we’ll be using throughout:

* + - ELD stands for electronic logging device. An ELD synchronizes with a vehicle’s engine to automatically record a driver’s off-duty and on-duty time, and securely transfers this HOS data to a safety official for review.
    - CMV refers to a commercial motor vehicle.
    - And HOS stands for hours-of-service. Hours-of-service regulations specify how long a driver can operate a CMV, and how long drivers must rest before operating again.

## *Exceptions and Exemptions*

As specified in the ELD rule, some drivers are not required to use ELDs. It's important to note that carriers or drivers may choose to use ELDs even if they are not required. The following are not required to use ELDs:

1. Drivers who use paper logs no more than 8 days during any 30-day period.
2. Driveaway-towaway drivers, where the vehicle driven is the commodity, or the vehicle being transported is a motor home or a recreation vehicle trailer. In this last case, remember that at least one set of wheels of the vehicle being transported must be on the surface while being transported.
3. And finally, drivers of vehicles manufactured before model year 2000.

FMCSA has also issued some specific exemptions to the ELD rule. For more information on these, see [https://www.fmcsa.dot.gov/hours-service/elds/electronic-logging-device-eld-exemptions-](https://www.fmcsa.dot.gov/hours-service/elds/electronic-logging-device-eld-exemptions-and-waivers) [and-waivers](https://www.fmcsa.dot.gov/hours-service/elds/electronic-logging-device-eld-exemptions-and-waivers).

# About ELDs

## *What is an ELD and what does it do?*

An ELD automatically records a driver’s driving time and other aspects of the HOS records. This allows easier, more accurate HOS recordkeeping.

An ELD synchronizes with a vehicle’s engine to automatically capture data on whether the

engine is running, whether the vehicle is moving, miles driven, and duration of engine operation, or engine hours.

Before transferring data to a safety official upon request, drivers will certify the records, making any necessary annotations.

Once a driver starts the data transfer, ELDs securely transfer HOS data to a safety official for review. Let’s take a closer look at this data transfer process.

## *Telematics vs Local Transfer*

There are four possible methods by which an ELD may transfer data to a safety official. In this section, we will walk through how to transfer data via each method. A visor card with this information is also available.

The four data transfer methods are broken down into two categories: Telematics, which includes web services and email, and Local Transfer, which includes Bluetooth and USB.

To be considered compliant, ELDs must support either *both methods* of the telematics transfer option, or *both methods* of the local transfer option. It’s important to note that these data transfer options will only work for ELDs that are on FMCSA’s list of self-certified devices.

Because it is the fastest and most efficient method, web services is FMCSA’s preferred method of data transfer.

## *Web Services*

Let’s take a look at the data transfer process using web services, which is FMCSA’s preferred data transfer method.

### Request

First, the safety official will request that you initiate data transfer via web services and provide a safety official code or investigation code. Entering one of these codes tells

your ELD to “tag” your file with the code, helping the safety official locate the file quickly.

The ELD rule requires devices to give you the option to enter this—just look for a field called “Comment,” “Note,” or something similar.

### Select

You’ll select web services, then enter the safety official code or investigation code and initiate data transfer. The ELD will send the file to FMCSA’s server.

### Locate

The safety official will locate the ELD file in FMCSA’s server using eRODS and review the driver log for HOS violations.

### Email

If the safety official requests email data transfer, select email and follow the same steps. Emailed files will also be sent to FMCSA’s server.

## *Bluetooth*

If you are using the Bluetooth data transfer method, you will not need to have Internet connectivity. The safety official will provide an internet connection via a Bluetooth-enabled device, such as a smartphone. Let’s take a look at the data transfer process using Bluetooth.

### Request

First, the safety official will request that you initiate data transfer via Bluetooth. They will activate Bluetooth on their enforcement equipment and confirm pairing with the ELD.

### Select

Next, you’ll select Bluetooth data transfer on the ELD and confirm pairing with the safety official’s equipment.

### Provide

The safety official will provide a safety official code or investigation code.

### Enter

You will enter the code and initiate data transfer.

### Locate

The safety official will locate the ELD file in FMCSA’s server using eRODS, and review the driver log for HOS violations.

### Having Trouble?

If your ELD can’t pair with the safety official’s device, request that the safety official activate Bluetooth on their device and make it discoverable.

If your device is asking for a PIN, your ELD may require the safety official to enter a passcode before confirming pairing with your device. The ELD should provide you with this passcode to share with the safety official. Similarly, your device may produce this passcode for the safety official to enter.

## *USB*

Let’s take a look at the data transfer process using USB.

### Request

First, the safety official will request that you initiate data transfer via USB. They will unlock their secure USB drive and provide it to you.

### Driver Inserts USB

You’ll insert the unlocked USB drive into ELD and initiate data transfer. Hand the USB drive back to safety official once transfer is complete.

### Safety Official Inserts USB

The safety official will insert the USB into their computer and use eRODS to locate and open the file, and review the driver log for HOS violations.

### Having Trouble?

The ELD rule requires a USB drive to be set up with a configuration file before an ELD transfers data to it. Confirm with the safety official that the USB drive has been set up.

If your ELD still won’t accept the USB drive, the USB may be in a different file format from the one your ELD accepts. The safety official may update the file format and try again, or proceed using the on-screen display or printout.

# ELDs and AOBRDs

## *What is the difference?*

Automatic On-Board Recording Devices (AOBRDs) are a precursor to ELDs. It is important for motor carriers and drivers to understand the difference between these types of devices and accurately report to safety officials which type of device they are using in order to expedite the HOS review process.

While AOBRDs also synchronize with the CMV engine to record data, the main difference is that AOBRDs cannot support the electronic data transfer methods outlined in the ELD rule— Telematics (web services and email) and Local Transfer (Bluetooth and USB). AOBRDs also do not record all of the information required of compliant ELDs. The ELD rule compares the technical specifications of AOBRDs and ELDs.

## *Can I use an AOBRD?*

AOBRD use is permitted for devices that were purchased and in-use prior to December 18, 2017. These “grandfathered” AOBRDs can be used until December 16, 2019, after which only compliant ELDs are permitted. Grandfathered AOBRDs replaced by a manufacturer’s warranty are also permitted until December 16, 2019.

If you are using an AOBRD that does not meet the requirements of the grandfather clause, you may be cited for failure to record a record of duty status.

If you are using a grandfathered AOBRD, be sure to tell the safety official this so he or she knows not to request data transfer via telematics or local transfer. This will make your inspection or investigation go much more smoothly.

## *ELDs in AOBRD Mode*

Some registered ELDs support an AOBRD mode, and can be switched from ELDs to AOBRDs and vice versa. If you have a registered ELD that supports an AOBRD mode, you may use your device in AOBRD mode if you have AOBRDs in your fleet that were purchased and in-use prior to December 18, 2017. After December 16, 2019, all devices must operate in ELD mode.

For more information on AOBRDs and ELDs, see the ELD FAQs on FMCSA’s website at [https://www.fmcsa.dot.gov/hours-service/elds/faqs.](https://www.fmcsa.dot.gov/hours-service/elds/faqs)

## *Full Compliance: After December 16, 2019*

The extension to allow motor carriers to continue using AOBRDs expires on December 16, 2019, at which time all carriers and drivers subject to the ELD rule are required to use ELDs to record and transfer HOS data. Start preparing for this compliance deadline now.

* Step 1: Contact your AOBRD providers about options to convert your devices to ELDs. This may include updating software and upgrading hardware.
* Step 2: Research ELDs using FMCSA’s list of registered, self-certified devices on the ELD website.
* Step 3: Train drivers and administrative staff on how to use the selected ELDs to record, certify, and transfer HOS data. Reference the training checklist available in the resources dropdown, or on the Motor Carriers section of the ELD website.

# Using ELDs

## *The ELD List*

ELD manufacturers must self-certify that ELDs meet technical standards in the ELD rule and register with the FMCSA. Motor carriers and drivers must choose only ELDs that are certified and registered on FMCSA’s website, as other devices may not be compliant. You can find the list of registered, self-certified ELDs online at eld.fmcsa.dot.gov/List.

## *Choosing a Compliant ELD*

Here are a few quick tips on how to choose the best ELD for your fleet.

### How many vehicles do you manage?

Whether you have one or 100 vehicles, ELD providers offer a wide range of options that can address your needs. Some devices operate as stand-alone units, some have the capability to connect to a system where you can monitor and supervise a large fleet of vehicles. If you have one or two vehicles, you could consider purchasing a stand-alone unit-just be sure it supports all the minimum requirements in the ELD rule. For guidance on choosing a compliant ELD, see FMCSA’s ELD Checklist for Carriers.

### Do your vehicles operate in remote areas?

Some ELDs rely on cellular connectivity to relay information to the smartphone or tablet. This is true of many portable or “BYOD” devices. Consider all factors, including the locations you drive and your ability to connect to cellular networks when selecting a device.

## *Training Your Staff*

No matter which ELD you choose, everyone on your staff needs to be knowledgeable about how to operate the device, or devices, to record, certify, and share hours-of-service data. FMCSA has created a checklist to guide you in ensuring that you and your staff are well-versed in the various functions of the ELD you have selected, purchased, and installed. For complete details on the motor carrier and driver roles, see 49 CFR 395 Subpart B.

# Technical Issues

## *What are malfunctions?*

An ELD must monitor its compliance with the ELD technical requirements and detect malfunctions and data inconsistencies related to power, data synchronization, missing data, timing, positioning, data recording, data transfer, and unidentified driver records requirements.

For example, if an ELD does not become powered and fully functional within one minute, the ELD will record a “Power data diagnostic” event. If this continues over 30 minutes or more of drive time over a 24-hour period, the ELD will record a “Power Compliance” malfunction.

Thresholds for each type of data diagnostic event and malfunction are outlined in the technical specifications of the ELD rule.

The ELD output will identify these data diagnostic and malfunction events and their status as either “detected” or “cleared.” Typically, a driver can follow the ELD provider’s and the motor carrier’s recommendations to resolve the data inconsistencies that generate an ELD data diagnostic event, while a motor carrier must correct a malfunction.

## *Things to Consider*

ELD providers that discover bugs or other issues in their devices can often resolve these by fixing the issue in the software and pushing out a software update to their users. To be sure your ELD’s software is working as needed, be sure to download and install any software updates as soon as possible after being prompted by the device or notified by your ELD provider.

## *What do I do?*

If you’ve ensured that your software is updated but you are still having issues, there are specific steps that you must take. Click the dialogue boxes to hear more about what to do if you experience an ELD malfunction for drivers and for carriers.

### Driver

If an ELD malfunctions, a driver must:

* + - * Note the malfunction of the ELD and provide written notice of the malfunction to the motor carrier within 24 hours.
      * If the ELD malfunction hinders the accurate recording of the driver’s HOS data, reconstruct the record of duty status (RODS) for the current 24-hour period and the previous 7 consecutive days, and record the records of duty status on graph- grid paper logs, or electronic logging software, that comply with 49 CFR 395.8, unless the driver already has the records or retrieves them from the ELD.
      * If the ELD malfunction hinders the accurate recording of the driver’s HOS data, continue to manually prepare RODS in accordance with 49 CFR 395.8 until the ELD is serviced and back in compliance. The recording of the driver’s hours of

service on a paper log, or electronic logging software, cannot continue for more than 8 days after the malfunction; a driver that continues to record his or her hours of service on a paper log beyond 8 days risk being placed out of service.

### Carrier

If an ELD malfunctions, a motor carrier must:

* + - * Correct, repair, replace, or service the malfunctioning ELD within eight days of discovering the condition or a driver’s notification to the motor carrier, whichever occurs first.
      * Require the driver to maintain paper records of duty status (RODS) until the ELD is back in service.

## *Request an Extension*

Motor carriers seeking to extend the period of time permitted for repair, replacement, or service of one or more ELDs may request an extension via email by submitting the extension request to [ELDTech@dot.gov](mailto:ELDTech@dot.gov). Include the legal name, principal place of business address and USDOT number of the motor carrier. The extension request must also include the following information listed here.

To request an extension from the FMCSA Division Administrator in the Field Office in your state, you may contact the office directly. FMCSA Division Administrator contact information can be found online at [https://www.fmcsa.dot.gov/mission/field-offices#Field-Offices.](https://www.fmcsa.dot.gov/mission/field-offices#Field-Offices)

## *Submit a Complaint*

You can submit complaints regarding coercion or harassment, or regarding non-compliant ELD providers, through FMCSA’s National Consumer Complaint Database. Visit <https://nccdb.fmcsa.dot.gov/nccdb/home.aspx>for more information, or to submit a complaint.

# Help and Resources

## *We're here for you!*

We hope that this eLearning course has given you some great information to help you work with ELDs. ELDs will improve efficiency by allowing you to spend less time on paperwork and more time transporting passengers and moving essential goods across our Nation’s roadways.

For more information on ELDs and the ELD rule, visit us online at [eld.fmcsa.dot.gov/Industry.](https://eld.fmcsa.dot.gov/Industry) You can also download several factsheets and job aids from the Resources dropdown in the top right of the screen.