FMCSA-ELD-Malfunctions-Data-Diagnostics-FAQs(2018-04-09)

**ELD Malfunctions and Data Diagnostic Events**

**Q1. Is an ELD required to monitor its compliance with the ELD technical requirements?  
  
A1.**Yes. 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. 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.

**Q2. When do electronic logging device (ELD) “power data diagnostic events” and “power compliance malfunctions” occur?  
  
A2. “**Power data diagnostic events” occur when an ELD is not powered and fully functional within one minute of the vehicle’s engine receiving power and does not remain powered for as long as the vehicle’s engine stays powered.

“Power compliance malfunctions” occur when an ELD is not powered for an aggregated in-motion driving time of 30 minutes or more over a 24-hour period across all driver profiles.

**Q3. When do electronic logging device (ELD) “engine synchronization data diagnostic events” and “engine synchronization compliance malfunctions” occur?  
  
A3**. “Engine synchronization data diagnostic events” occur when an ELD loses ECM connectivity to any of the required data sources (engine power status, vehicle motion status, miles driven, and engine hours) and can no longer acquire updated values for the required ELD parameters within five seconds of the need.

“Engine synchronization compliance malfunctions” occur when ECM connectivity to any of the required data sources (engine power status, vehicle motion status, miles driven, and engine hours) is lost for more than 30 minutes during a 24-hour period aggregated across all driver profiles.

**Q4. When does an electronic logging device (ELD) “timing compliance malfunction” occur?  
  
A4**. A “timing compliance malfunction” occurs when the ELD can no longer meet the underlying compliance requirement to record Coordinated Universal Time (UTC), where ELD time must be synchronized with UTC, not to exceed an absolute deviation of 10 minutes at any time.

**Q5. When does an electronic logging device (ELD) “****positioning compliance malfunction” occur?**

**A5**. When an ELD fails to acquire a valid position measurement within 5 miles of the commercial motor vehicle moving and 60 minutes has passed, a “position compliance malfunction” will be recorded in the data diagnostic.

**Q6. When does an electronic logging device (ELD) “data recording compliance malfunction” occur?  
  
A6**. A “data recording compliance malfunction” occurs when an ELD can no longer record or retain required events or retrieve recorded logs that are not kept remotely by the motor carrier.

**Q7. When does an electronic logging device (ELD) “missing required data elements data diagnostic event” occur?  
  
A7**. A “missing required data elements data diagnostic event” occurs when any required data field is missing at the time of its recording.  
   
**Q8. When do electronic logging device (ELD) “****data transfer data diagnostic events” and “data transfer compliance malfunctions” occur?  
  
A8**. A “data transfer data diagnostic event” occurs when the operation of the data transfer mechanism(s) is not confirmed.

A “data transfer compliance” malfunction occurs when the ELD stays in the unconfirmed data transfer mode following the next three consecutive monitoring checks.

**Q9. When does an electronic logging device (ELD) “unidentified driving records data diagnostic event” occur?  
  
A9**. An “unidentified driving records data diagnostic event” occurs when more than 30 minutes of driving time for an unidentified driver is recorded within a 24-hour period.

**Q10. What must a driver do if there is an electronic logging device (ELD) malfunction?  
  
A10**. If an ELD malfunctions, a driver must:

1. Note the malfunction of the ELD and provide written notice of the malfunction to the motor carrier within 24 hours;
2. 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 that comply with 49 CFR 395.8, unless the driver already has the records or retrieves them from the ELD; and
3. 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 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.

**Q11.****What must a motor carrier do if there is an electronic logging device (ELD) malfunction?  
  
A11**. If an ELD malfunctions, a motor carrier must:

1. 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; and
2. Require the driver to maintain paper record of duty status (RODS) until the ELD is back in service.

**Q12. When should a driver certify his or her record of duty status (RODS) on the electronic logging device (ELD) to avoid malfunction codes?  
  
A12**. FMCSA recommends that drivers first certify their RODS before logging off the ELDs and then shutting down their CMVs’ engines. If drivers don’t follow this recommendation, malfunction codes may occur, such as indicating unaccounted odometer changes and suspicious driving activity.

**Q13.****What types of visual indicators must be displayed by an ELD?  
  
A13**. An ELD must display a single visual malfunction indicator on the ELD’s display or on a stand-alone indicator for all drivers using the ELD. The visual signal must be visible to the driver, be continuously communicated to the driver when the ELD is powered, and clearly illuminate an active malfunction.

An ELD must also display a single visual data diagnostics indicator, apart from the malfunction indicator, for active data diagnostics events. The ELD may also provide an audible signal for the data diagnostics indicator.

**Q14. In the event of a malfunction that requires a driver to reconstruct his/her previous 7 days, can a driver use a printed copy of their previous 7 days, such as a PDF copy, instead of manually recording their previous 7 days?  
  
A14**. Yes. In the event that the driver experiences a malfunction that impairs the ELD ability to present the driver’s previous 7 days, the driver may present their previous 7 days by way of any printed copy, or in an electronic form, such as a PDF.  
   
**Q15. If an ELD malfunction corrects itself after the driver has reconstructed his or her records of duty status, must the driver present their reconstructed records of duty status during an inspection?  
  
A15**. Yes, the reconstructed records of duty status along with ELD data must be presented to a safety official during a roadside inspection in order to satisfy the requirement to display the current day and the previous seven days of duty status.

**Regulatory Topic: ELD Guidance**

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