FMCSA-ELD-395-Q048(2022-03-10)

**Question:** Under section 4.6.1.2 of 49 CFR part 395, subpart B, Appendix A, the engine synchronization compliance monitoring requires the electronic logging device (ELD) to record an engine synchronization diagnostics event when it cannot acquire values for the ELD parameters within 5 seconds of the need. How are these events recorded during the commercial motor vehicle (CMV) power up cycle when the electronic control module (ECM) connection cannot become fully functional within 5 seconds of the engine receiving power?

**Guidance**: Engine synchronization in section 4.2 of [49 CFR part 395, subpart B, Appendix A](https://www.ecfr.gov/current/title-49/subtitle-B/chapter-III/subchapter-B/part-395#Appendix-A-to-Subpart-B-of-Part-395), for purposes of ELD compliance, is defined as the monitoring of the vehicle’s engine operation to automatically capture the engine’s power status, vehicle’s motion status, miles driven value, and engine hours value when the CMV’s engine is powered. As described in section 4.3.1.1, the ELD must be powered and become fully functional within one (1) minute of the vehicle’s engine receiving power and must remain powered for as long as the vehicle’s engine stays powered. Additionally, section 4.5.1.6 allows up to one (1) minute for the ELD to establish a link to the ECM or ECM connection and record all the required data elements during the power up event.  Therefore, during the power-up cycle, an ELD has one minute to establish the synchronization required by section 4.2 and record the power up event. The specification is designed to capture when the CMV is put into a state where it can be driven. When the engine is not powered, the ELD does not have to capture data. An engine synchronization diagnostic event should not be recorded by the ELD during the power up cycle until one of the following occurs.

* Five seconds elapses after the power up cycle is completed and recorded; or
* Five seconds elapses after the ELD has not established a link to the ECM or ECM connection within one minute of the engine receiving power.

**Contact Info:** FMCSA ELD Information, 1-800-832-5660 or [ELD@dot.gov](mailto:ELD@dot.gov).

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*Note: This guidance document does not have the force and effect of law and is not meant to bind the public in any way.  It is intended only to provide information and clarity regarding existing requirements under the law or agency policies.*

**Regulatory Topic: ELD Guidance**

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