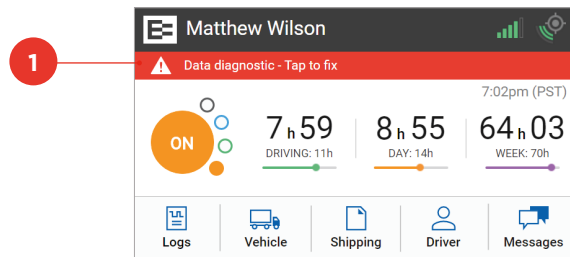# EROAD
ELD

Resolving Data Diagnostics

A red banner appears across the Home screen under the driver's name if a data diagnostic issue is present. You must examine your logs and enter the required information to resolve the issue.

1. Tap the **red banner** on the Home screen.

2. Tap the **Details** icon on the Current Issues screen to see more information about the Data Diagnostic issue.
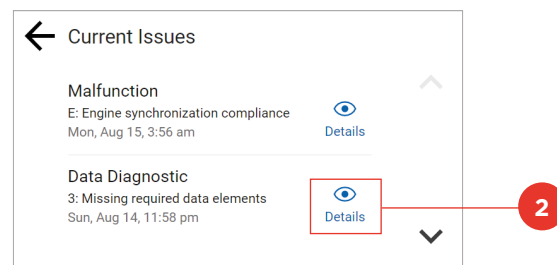
3. Follow the system instructions to correct the issue.
   Locate the data diagnostic issue code in the table on the right side of this card, and follow the instructions in the **Response / Resolution** field.

   Note: You can also access the Current Issues screen from the menu on the Logs screen. These steps are described under the malfunctions section of this card.

Troubleshooting for Malfunctions and Data Diagnostic Events

An ELD must have the capability to monitor its compliance with the technical requirements. It must detect and record events related to malfunctions and data inconsistencies. (Subpart B, section 4.6)

## EROAD ELD Meets Federal Requirements

Data Diagnostic Events: These events are when an ELD indicates there is a data inconsistency. The driver must follow the recommendations by the ELD provider to resolve the inconsistency, if it occurs. [Section 49 CFR 395.34(c)]

| Code	Description	Cause	Driver can resolve	Response / Resolution
1	**Power data diagnostic:** An ELD must monitor the data it receives from the engine ECM or alternative sources, and data record history to identify instances when it may not have complied with the power requirements.	• ELD not fully functional within one minute of the engine turning on • Wiring or power source fault	✓	Drivers must check that their logs are correct by reviewing them on the ELD. Then, they can resolve the diagnostic event by selecting it on the screen and entering an explanation. The driver should notify the carrier, if these events become a regular occurrence.
2	**Engine synchronization diagnostic:** An ELD is required to establish a link to the engine ECM, and must record an engine synchronization data diagnostics event, when it no longer can acquire values for the ELD parameters required for records within five seconds.	• Wiring or connection fault	✓	Drivers must notify the carrier as soon as possible and arrange for the ECM link to be restored. Once the ECM link is restored, drivers must thoroughly review their logs and edit, as necessary, to ensure they are correct. Then, they can resolve the diagnostic event by selecting it on the screen and entering an explanation.
3	**Missing required data elements data diagnostic:** An ELD must monitor the completeness of the ELD event record information in relation to the required data elements for each event type, and must record a missing data element and data diagnostics event for the driver, if any required field is missing at the time of recording.	• Temporary or permanent loss of GPS • Intermittent or disconnected link to the vehicle ECM	✓	Drivers can resolve this data diagnostic by manually entering the missing data associated with their records along with an explanation.
4	**Data transfer data diagnostic:** An ELD must implement in-service monitoring functions to verify that the data transfer mechanism(s) are continuing to function properly. An ELD must verify this functionality at least once every seven days.	• ELD fails to communicate records to EROAD Depot for seven continuous days	✕ *Might auto-resolve*	Unless driving in an area with known cellular coverage issues, drivers should notify their carrier immediately. This fault auto-resolves, if the device begins to communicate successfully again.
5	**Unidentified driving records data diagnostic:** If more than 30 minutes of driving in a 24-hour period shows unidentified driver on the ELD, the ELD must detect and record an unidentified driving record data diagnostic event, and the data diagnostic indicator must be turned on for all drivers logged in to that ELD for the current 24-hour period and the following seven days.	• More than 30 minutes combined vehicle use without a logged-in driver	✓	Drivers must review the unidentified journeys recorded on the ELD and accept any periods of drive time recorded, while they were driving and not logged in to the ELD system.

Managing Malfunctions

The EROAD ELD is fully compliant with the Federal Motor Carrier Safety Administration (FMCSA) requirements. It generates data diagnostic events and malfunctions, if there is missing data or a fault that affects the completeness of the logs or accuracy of the device. A red LED illuminates at the top of the ELD when a malfunction is present.
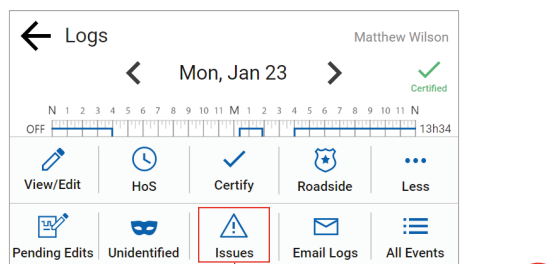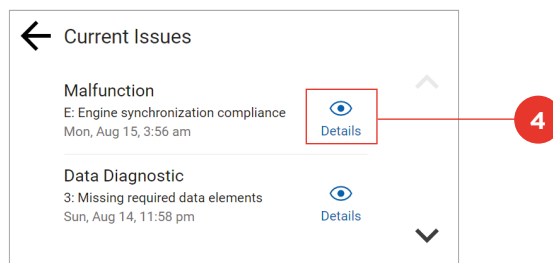
1. Tap the **Logs** icon.
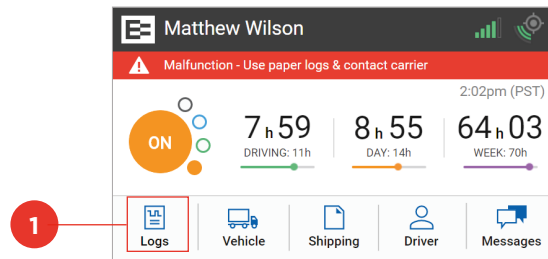
2. Tap the **More** icon.
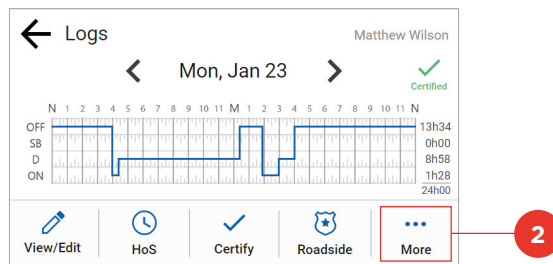
3. Tap the **Issues** icon.

4. Tap the **Details** icon.

5. Follow the system instructions to correct the issue. Locate the malfunction issue code in the table on the right side of this card, and follow the instructions in the **Response / Resolution** field.

   Note: You can also access the Current Issues screen directly from the home screen by tapping the red banner.

Malfunction Events

Malfunction events are when the ELD detects technical compliance issues. The driver must: (1) notify the motor carrier within 24 hours, (2) reconstruct the record of duty status for the current 24 hours and the last seven days on graph -grid paper logs that comply with Section 49 CFR 395.8. Keep paper logs until the ELD is serviced and brought back into compliance. [Section 395.34(a)]

Code	Description	Cause	Driver can resolve	Response / Resolution
P	**Power compliance:** An ELD must monitor the data it receives from the engine ECM or alternative sources, and data record history to identify instances when it might not have complied with the power requirements.	• More than 30 minutes of driving time lost in a 24-hour period	✓	Drivers should review and correct their logs, and notify their carrier of the fault. Once the fault has been corrected, the malfunction is cleared by explaining the fault and resolution.
E	**Engine synchronization:** An ELD must set an engine synchronization compliance malfunction, if connectivity to any of the re-quired data sources is lost for more than 30 minutes during a 24-hour period aggregated across all driver profiles.	• More than 30 minutes without ECM engine synchronization over a 24-hour period	✓	Drivers must notify their carrier as soon as possible and arrange for the ECM link to be restored. Once the ECM link is restored, drivers must thoroughly review their logs and edit, as necessary, to ensure they are correct. Then, they can resolve the diagnostic event by selecting it on the malfunction screen and entering a remark.
T	**Timing compliance:** The ELD must period-ically cross-check its time with an external UTC source, and must record a timing com-pliance malfunction when it can no longer meet the underlying timing requirement of less than 10 minutes' time deviation.	• Vehicle has been out of service for sufficient time that the internal clock is no longer accurate, and the ELD has not yet synchronised its time	✓	Once the internal clock has been corrected, drivers are prompted to review their logs before resolving the malfunction.
L	**Positioning compliance:** An ELD must monitor elapsed time during periods when the ELD fails to acquire a valid position measurement within five miles of the CMV's movement. When such elapsed time exceeds a cumulative 60 minutes over a 24-hour period, the ELD must set and record a positioning compliance malfunction.	• More than 60 min-utes without a valid GPS fix in a 24-hour period	✗ *Might auto-resolve*	This malfunction might appear during a temporary loss of a valid GPS fix, but it auto-resolves once GPS is re-stored. If this malfunction persists or appears frequently, the driver should notify the carrier, so that they can contact EROAD support.
R	**Data recording compliance:** An ELD must monitor its storage capacity and integrity and must detect a data recording compliance malfunction if it can no longer record or retain required events, or retrieve recorded logs that are not otherwise cataloged remotely by the motor carrier.	• Hardware fault	✗	Driver must contact the carrier as soon as possible, so that they can contact EROAD support.
S	**Data Transfer compliance:** After an ELD records a data transfer data diagnostic event, the ELD must increase the frequency of the monitoring function to check at least once every 24-hour period. If the ELD stays in the unconfirmed data transfer mode following the next three consecutive monitoring checks, the ELD must detect a data transfer compliance malfunction.	• Failure to communicate for three days following a data transfer data diagnostic event	✗ *Might auto-resolve*	Unless driving in an area with known cellular coverage issues, drivers should notify the carrier immediate-ly, so they can contact EROAD Support. This fault auto-resolves, when the device begins to communicate successfully.