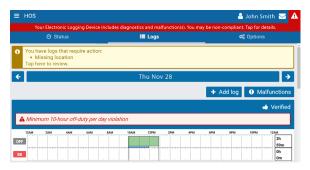
# **Data Diagnostic and Malfunction Events for USA**



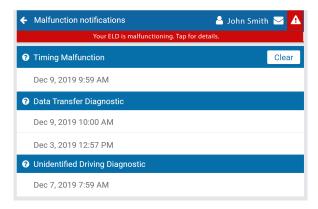
Note: Data Diagnostic events cannot be cleared by the driver, these will auto-clear once the issue is resolved.

Diagnostic Code	Data Diagnostic Event	What should I do next?
1	Power data diagnostic: The ELD records a power data diagnostic event when an ELD is not powered and fully functional within one minute of the vehicle's engine turning on, and does not remain powered for as long as the vehicle's engine stays powered.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This could be due to an installation issue with the telematics device.  When the problem is resolved, the system will auto-clear the event.
2	Engine synchronization data diagnostic: The ELD records an engine synchronization data diagnostic event when an ELD loses ECM connectivity to any of the required data sources (i.e. engine power status, vehicle motion status, miles driven, engine hours), and can no longer retrieve updated values for the required ELD parameters within five seconds of the request.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This could be due to an installation issue with the telematics device. This may also occur if the ELD is unable to record the required engine data from the vehicle ECM. Contact your motor carrier if the problem persists.
3	Missing required data elements data diagnostic: The ELD records a missing required data elements data diagnostic event when any required data field is missing at the time of its recording.	This may be caused by a manual log created by the driver when there is a temporary loss of GPS on the telematics device.  If the driver does not enter an address manually when prompted by the "Where was this?" message, this diagnostic is created.  This can be resolved by selecting the "Where was this?" message associated with the record, and manually entering the missing data.
4	Data transfer data diagnostic: The ELD records a data transfer data diagnostic when the operation of the data transfer mechanism(s) cannot be confirmed. The ELD verifies this operation at least once every seven days.	<ul> <li>Check your Internet connection.</li> <li>Contact your wireless carrier if the problem persists.</li> <li>When the problem is resolved, the system will auto-clear the event.</li> </ul>
5	Unidentified driving records data diagnostic:  The ELD records an unidentified driving record diagnostic event when more than 30 minutes of driving time by an unidentified driver is recorded within a 24-hour period.  When the diagnostic is recorded, the ELD turns on the data diagnostic indicator for all drivers logged into the ELD for the current 24-hour period, and the seven days that follow.	<ul> <li>Review all unassigned logs when logging in or out of the vehicle to ensure you have claimed any applicable logs.</li> <li>If the unassigned logs do not belong to you, you can ignore this diagnostic event.</li> <li>When the logs are claimed, the system will auto-clear the event.</li> </ul>
6	"Other" ELD identified diagnostic: The other ELD identified diagnostic is not supported.	The "Other" ELD identified diagnostic is not supported at this time.

1) Press the **Malfunctions Notifications** button or tap the red bar to see more details.



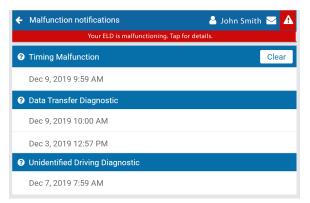
2) Review the table to the left. When you have investigated the diagnostic data, address the issue.





Malfunction Code	Malfunction Event	What should I do next?
P	Power data malfunction: The ELD records a power data malfunction when an ELD is not powered for a cumulative in-motion driving time of 30 minutes or more over a 24-hour period, for all drivers.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This could be due to an installation issue with the telematics device. Contact your motor carrier to inspect the installation if you are unable to check yourself. When the problem is resolved, you may clear this event.
E	Engine synchronization compliance malfunction: The ELD records an engine synchronization compliance malfunction when ECM connectivity to any of the required data sources (i.e. engine power status, vehicle motion status, miles driven, engine hours) is lost for more than 30 minutes during a 24-hour period, for all drivers.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This is could be due to an installation issue with the telematics device. Contact your motor carrier to inspect the installation if you are unable to check yourself. When the problem is resolved, you may clear the event.
Т	Timing compliance malfunction: The ELD records a timing compliance malfunction when it fails to synchronize with an external UTC source, and can no longer meet the underlying timing compliance requirement not to exceed an absolute deviation of 10 minutes at any time.	<ul> <li>Check the time on your mobile device to ensure it is set to acquire time automatically.</li> <li>When the problem is resolved, you may clear the event.</li> </ul>
L	Positioning Compliance malfunction: The ELD records a positioning compliance malfunction when it fails to acquire a valid position measurement within five miles of the commercial motor vehicle's movement, after 60 minutes has elapsed.	This may be caused by a temporary or permanent loss of GPS on the telematics device. Contact your motor carrier to inspect the installation. If the problem persists, replace the telematics device. When the problem is resolved, you may clear the event.
R	Data recording compliance malfunction: The ELD records a data recording compliance malfunction when it can no longer record or retain required events, or retrieve recorded logs that are not otherwise cataloged remotely by the motor carrier.	<ul> <li>Contact your motor carrier as soon as possible.</li> <li>Once the problem is resolved, you may clear the event.</li> </ul>
S	Data transfer compliance malfunction: The ELD records a data transfer compliance malfunction when the ELD stays in the unconfirmed data transfer mode following the next three consecutive monitoring checks.	<ul> <li>Check your Internet connection.</li> <li>Contact your wireless carrier if the problem persists.</li> <li>When the problem is resolved, you may clear the event.</li> </ul>
0	<b>"Other" ELD identified malfunction:</b> The other ELD identified malfunction is not supported.	The "Other" ELD identified malfunction is not supported.

3) Review the table to the left. When you have investigated the malfunction and addressed the problem, press the Clear button.





## Driver's Responsibilities Dealing with ELD Malfunctions

- Note the malfunction of the ELD and provide written notice of the malfunction to the motor carrier within 24 hours.
- · Reconstruct the record of duty status (RODS) for the current 24-hour period and the previous 7 consecutive days, on paper unless the driver already has the records or can retrieve them from the ELD.
- · Continue to manually prepare RODS on paper 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.



## Carrier's Responsibilities Dealing with ELD Malfunctions

- Correct, repair, replace, or service the malfunctioning ELD within eight days of discovering the condition or a driver's notification to the motor carrier.
- · Require the driver to maintain paper record of duty status (RODS) until the ELD is back in service.

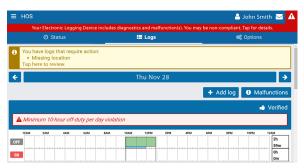
# **Data Diagnostic and Malfunction Events For Canada**



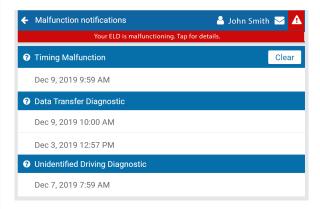
Note: Data Diagnostic events cannot be cleared by the driver, these will auto-clear once the issue is resolved.

Diagnostic Code	Data Diagnostic Event	What should I do next?
1	Power data diagnostic: The ELD records a power data diagnostic event when an ELD is not powered and fully functional within one minute of the vehicle's engine turning on, and does not remain powered for as long as the vehicle's engine stays powered.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This could be due to an installation issue with the telematics device. When the problem is resolved, the system will auto-clear the event.
2	Engine synchronization data diagnostic: The ELD records an engine synchronization data diagnostic event when an ELD loses ECM connectivity to any of the required data sources (i.e. engine power status, vehicle motion status, miles driven, engine hours), and can no longer retrieve updated values for the required ELD parameters within five seconds of the request.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This could be due to an installation issue with the telematics device. This may also occur if the ELD is unable to record the required engine data from the vehicle ECM. Contact your motor carrier if the problem persists.
3	Missing required data elements data diagnostic: The ELD records a missing required data elements data diagnostic event when any required data field is missing at the time of its recording.	This may be caused by a manual log created by the driver when there is a temporary loss of GPS on the telematics device.  If the driver does not enter an address manually when prompted by the "Where was this?" message, this diagnostic is created.  This can be resolved by selecting the "Where was this?" message associated with the record, and manually entering the missing data.
4	Data transfer data diagnostic: The ELD records a data transfer data diagnostic when the operation of the data transfer mechanism(s) cannot be confirmed. The ELD verifies this operation at least once every seven days.	<ul> <li>Check your Internet connection.</li> <li>Contact your wireless carrier if the problem persists.</li> <li>When the problem is resolved, the system will auto-clear the event.</li> </ul>
5	Unidentified driving records data diagnostic: The ELD records an unidentified driving record diagnostic event when more than 30 minutes of driving time by an unidentified driver is recorded within a 24-hour period. When the diagnostic is recorded, the ELD turns on the data diagnostic indicator for all drivers logged into the ELD for the current 24-hour period, and the seven days that follow.	<ul> <li>Review all unassigned logs when logging in or out of the vehicle to ensure you have claimed any applicable logs.</li> <li>If the unassigned logs do not belong to you, you can ignore this diagnostic event.</li> <li>When the logs are claimed, the system will auto-clear the event.</li> </ul>
6	"Other" ELD identified diagnostic: The other ELD identified diagnostic is not supported.	The "Other" ELD identified diagnostic is not supported at this time.

1) Press the **Malfunctions Notifications** button or tap the red bar to see more details.



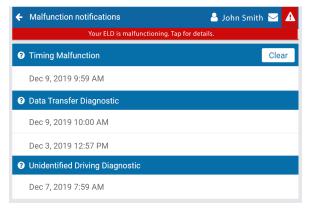
2) Review the table to the left. When you have investigated the diagnostic data, address the issue.





Malfunction Code	Malfunction Event	What should I do next?
P	Power data malfunction: The ELD records a power data malfunction when an ELD is not powered for a cumulative in-motion driving time of 30 minutes or more over a 24-hour period, for all drivers.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This could be due to an installation issue with the telematics device. Contact your motor carrier to inspect the installation if you are unable to check yourself. When the problem is resolved, you may clear this event.
E	Engine synchronization compliance malfunction: The ELD records an engine synchronization compliance malfunction when ECM connectivity to any of the required data sources (i.e. engine power status, vehicle motion status, miles driven, engine hours) is lost for more than 30 minutes during a 24-hour period, for all drivers.	This may be caused by an intermittent or full disconnection from the vehicle ECM. This is could be due to an installation issue with the telematics device. Contact your motor carrier to inspect the installation if you are unable to check yourself. When the problem is resolved, you may clear the event.
Т	Timing compliance malfunction: The ELD records a timing compliance malfunction when it fails to synchronize with an external UTC source, and can no longer meet the underlying timing compliance requirement not to exceed an absolute deviation of 10 minutes at any time.	<ul> <li>Check the time on your mobile device to ensure it is set to acquire time automatically.</li> <li>When the problem is resolved, you may clear the event.</li> </ul>
L	Positioning Compliance malfunction: The ELD records a positioning compliance malfunction when it fails to acquire a valid position measurement within five miles of the commercial motor vehicle's movement, after 60 minutes has elapsed.	This may be caused by a temporary or permanent loss of GPS on the telematics device. Contact your motor carrier to inspect the installation. If the problem persists, replace the telematics device. When the problem is resolved, you may clear the event.
R	Data recording compliance malfunction: The ELD records a data recording compliance malfunction when it can no longer record or retain required events, or retrieve recorded logs that are not otherwise cataloged remotely by the motor carrier.	<ul> <li>Contact your motor carrier as soon as possible.</li> <li>Once the problem is resolved, you may clear the event.</li> </ul>
s	Data transfer compliance malfunction: The ELD records a data transfer compliance malfunction when the ELD stays in the unconfirmed data transfer mode following the next three consecutive monitoring checks.	<ul> <li>Check your Internet connection.</li> <li>Contact your wireless carrier if the problem persists.</li> <li>When the problem is resolved, you may clear the event.</li> </ul>
0	<b>"Other" ELD identified malfunction:</b> The other ELD identified malfunction is not supported.	The "Other" ELD identified malfunction is not supported.

3) Review the table to the left. When you have investigated the malfunction and addressed the problem, press the Clear button.



### Driver's Responsibilities for ELD Malfunctions

- · Notify the motor carrier as soon as the vehicle is parked.
- · Reconstruct the record of duty status (RODS) for the current 24-hour period on paper, as well as the previous 14 consecutive days unless the driver already has the records, or can retrieve them from the ELD.
- Continue to prepare RODS manually on paper until the ELD is serviced and back in compliance. Recording the driver's hours of service on a paper log cannot continue for more than 14 days after the malfunction.
- On the day the malfunction or data diagnostic code is discovered, record the malfunction or data diagnostic code in the RODS; including the date and time it was noticed, and the time when the malfunction or data diagnostic code was transmitted to the motor carrier.
- Include the code from the adjoining tables in every RODS following the day the malfunction was noticed, until the ELD is back in service.



#### Carrier's Responsibilities for ELD Malfunctions

- · Correct, repair, replace, or service the malfunctioning ELD within 14 days of discovering the condition, or receiving the driver's notification.
- · Require the driver to maintain paper record of duty status (RODS) until the ELD is back in service.
- · Maintain a register of ELD malfunctions or data diagnostic codes for ELDs installed or used including: 1) name of the driver who reported the malfunction or data diagnostic code, 2) name of every driver that used the vehicle from date of malfunction or data diagnostic code to the date of repair, 3) make, model, and serial number of the ELD, 4) license plate or vehicle identification number, 5) date and location the malfunction or data diagnostic code occurred, 6) date notified of malfunction or data diagnostic code, 7) date of repair; and 8) a description of actions taken to repair the ELD.
- · Retain information in subsection (6) for each ELD with a reported malfunction, for a period of 6 months from the day the ELD is back in service.