



Azuga

eLog/ELD
User Manual



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Warning

While driving, keep your full attention on driving. The eLog/ELD app features a Lock Screen that removes the ability to interact with the app while the truck is in motion. However, on occasion, other message dialog screens may appear on the screen. There are no messages or dialog screens in this app that require immediate attention. Any and all messages can be addressed sometime later when the truck has come to a safe stop.

Always drive safely. Do not be concerned about what your device is doing or what message might appear on the screen while you are driving. Any issue with the device or app can be reviewed and/or fixed later when the truck is safely stopped.

Only contact TrackM2M support when the truck is stopped. Most support issues require some interaction with the device that can only be performed while the truck is stopped.



Contact TrackM2M.com Inc.

Website: trackm2m.com

Phone: 416 259 9842

SMS (Text): 416 554 4821

Local Service Regions*:

Toronto, Ontario: 416 259 9842 / 416 554 4821

Windsor, Ontario

Detroit, Michigan

* Customers can book appointments to have vehicles serviced or to pick up parts at these locations.

Disclaimer

The technical descriptions, procedures, and computer programs in this document have been developed with the greatest of care and they have been useful to the authors in a broad range of applications; however, they are provided as is, without warranty of any kind. TrackM2M.com Inc. and the authors of the document titled *Azuga eLog/ELD User Manual* make no warranties, expressed or implied, that the equations, programs, and procedures in this document or its associated software are free of error, or are consistent with any particular standard of merchantability, or will meet your requirements for any particular application. They should not be relied upon for solving a problem whose incorrect solution could result in injury to a person or loss of property. Any use of the programs or procedures in such a manner is at the user's own risk. The authors and publisher disclaim all liability for direct, incidental, or consequent damages resulting from use of the programs or procedures in this document or the associated software.

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1 Introduction

This guide covers eLog/ELD essential training to provide a driver with required knowledge to use most features of the eLog app properly. Please see VisTracks HOS Quick Start Guide and VisTracks HOS User Guide for further details regarding all features of the software. These documents are available for download from:

https://trackm2m.com/support/VisTracks_HOS_Quick_Reference_Guide.pdf

https://trackm2m.com/support/VisTracks_HOS_User_Guide.pdf

Also see Help & Support in the main menu of the app.

Your eLog/ELD service, support, questions, installation and billing is provided by **TrackM2M.com Inc.** Always contact TrackM2M directly (Phone: 416-259-9842) for any concerns regarding your eLog/ELD system.







The eLog/ELD software is developed by **Azuga, Inc.** You may notice this name referenced in various documentation. Azuga does not directly provide end user support.



This manual may reference Samsung, Garmin and TomTom Android tablets. In general, the eLog/ELD app will support any Android tablet or phone (Android 6 and up). There is also a version of the app that supports Apple iPads and iPhones.

2 Recommended Daily Routine Check List

- ✓ At the beginning of a work shift, enter the cab, start the truck engine and turn on lights with 4 way flashers for vehicle inspection purposes.
- ✓ Power up the Garmin/TomTom or tablet used for eLog (the Garmin/TomTom/tablet may power up automatically when starting the truck). See Sections 8.1/9.1/10.1.
- ✓ Login to eLog app (see Section 3.1) and check that correct driver name, truck name and trailer name are displayed on the main screen. Switch vehicle(s) as necessary if these are not shown correctly (see Sections 3.2 and 3.3).
- ✓ Change duty status to On Duty ND (see Section 3.5).
- ✓  Check that eLog app is properly connected to the VBUS. Manually connect if necessary (see Section 3.4)
- ✓ Tap the DVIR button, tap Inspect button and tap Pass All button to begin vehicle inspection. For trailer, tap back button and also tap Inspect button next to trailer followed by Pass All button. Do not tap Finish button at this time. Tap back button and you should see one or two vehicle inspection reports listed with "In progress..." status (see Section 3.6.1).
- ✓ Go outside and perform a circle check on the vehicle(s) (see Section 3.6.2).
- ✓  Tap LOGS button and check if all recent logs are certified (not including today). Certify all logs up to and including yesterday (see Section 3.8).
- ✓ After circle check is completed, tap 3 vertical dots to the right of "In progress..." and tap View selection from menu. Add notes to items on vehicle inspection check list as necessary and finally tap Finish button. Complete remaining questions for vehicle inspection to certify the report. Repeat vehicle inspection certification steps for trailer if necessary (see Sections 3.6.2 and 3.6.3).
- ✓ For travel in Canada, after inspecting load, select OPTIONS >> INSPECTED CARGO.
- ✓ Start driving. Duty status will automatically change to Driving.
- ✓ Optional: When stopping truck for more than several minutes, change duty status to On Duty ND (this will occur automatically after 5 minutes). Or, change to Off Duty status if you are taking a break from work duties (see Section 3.5).
- ✓ For travel in USA, tap START BREAK button at the time you will be taking required 1/2 hour break (see Section 3.10). This is the same as 30 minutes of Off Duty status.
- ✓ At the end of work shift, change status to Off Duty or Sleeper (see Section 3.11).
- ✓  Refresh/Synchronize to update your office staff (connect hotspot if necessary).
- ✓  If truck may be used by another driver, be sure to log out (see Table 1).

3 Azuga eLog/ELD

3.1 Login

From home screen of the tablet, tap the Azuga ELD icon, shown in Fig. 3.1, to start the eLog/ELD app.

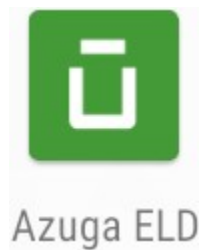


Fig. 3.1: The Azuga ELD app icon.

If you are not already logged in, you will see the login screen as shown in Fig. 3.3.

Username: Appears in the format of an email address, but may not be a real email address. Your manager will provide this information.

Password: Your manager will provide this information. To protect the integrity of your eLog/ELD account, NEVER share your password with co-workers or anyone else.

Finally, tap the Login button.

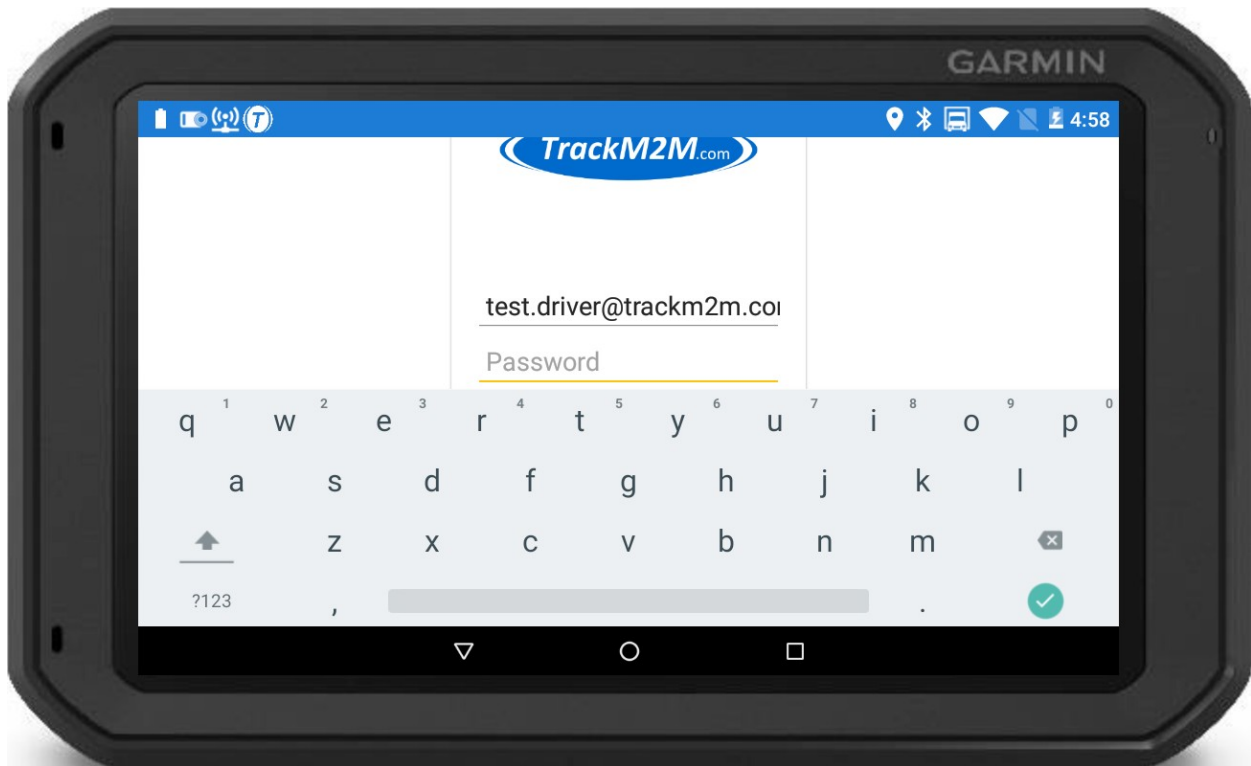


Fig. 3.3: Azuga eLog/ELD login screen.

Note: If you are logging in for the very first time, the Garmin or tablet/phone must have internet connectivity and the login process will take longer than normal as the account is being initialized (20 to 40 seconds).

Show Password: This checkbox on the login screen will allow you to view your password as you have entered it to check for possible typing errors.

Save Password: This checkbox will allow you to login next time without entering your password. If you are sharing this truck with other drivers, it is recommended not to use this option.

The next time you login, your username will be saved by default. If another driver used the truck after you logged out, then their username will appear. When you start typing your username, the tablet keyboard hints may recall your username to help you enter it faster by tapping on your username hint.

After logging in, you will see the home screen of the eLog/ELD app as shown in Fig. 3.4.

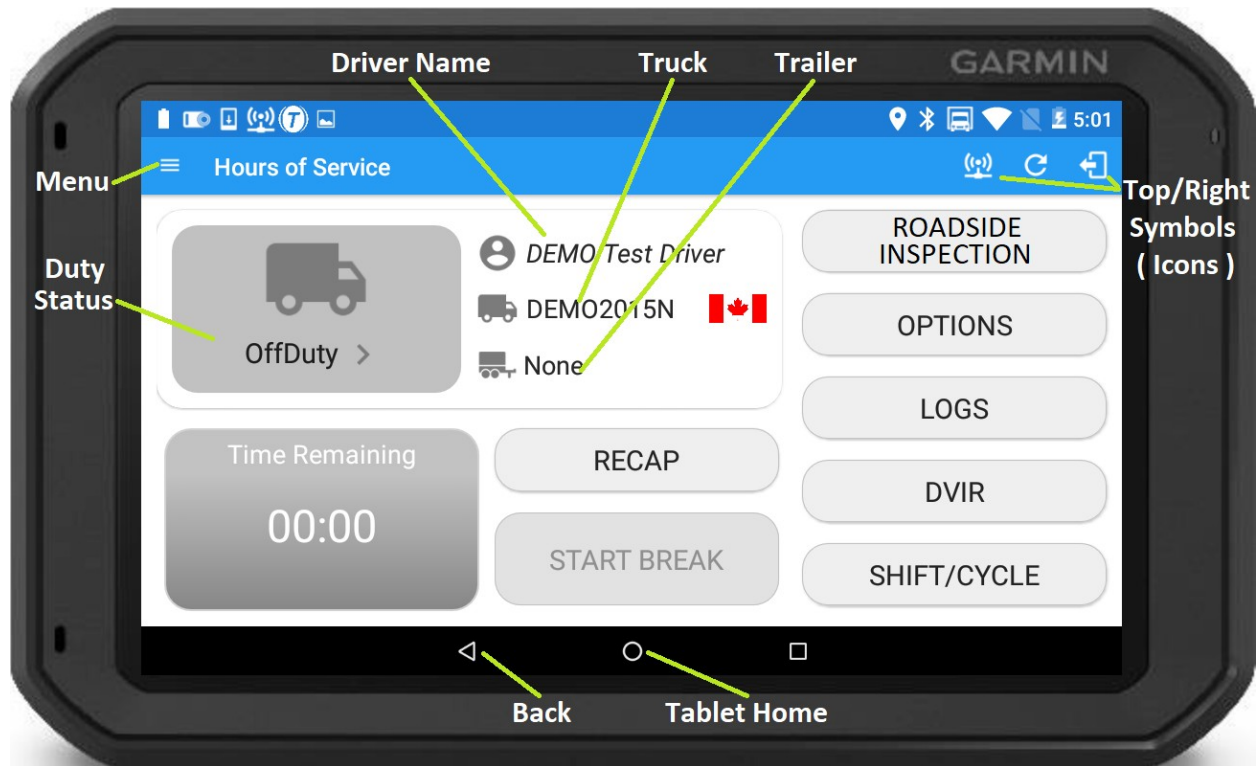


Fig. 3.4: Azuga eLog/ELD home screen. Tablet Back and Home buttons may be in different positions for different types of tablets.

3.1.1 Setting up the eLog/ELD App for the First Time

If this is your first time using the eLog app, there are a few items to set up to get started.

Signature: You need to create a graphic of your signature on first use of the app. Tap the menu icon shown in Fig. 3.4, then scroll down to Settings, tap Settings followed by Hours of Service. Scroll down to find the large white signature box and tap the pencil icon in the corner to open a full screen signature box. Use your finger or stylus to write your signature on the white screen. Tap DONE button when complete. If you are unsatisfied with the appearance of your signature, tap the pencil icon again to repeat.

Lock Screen Style: Continue scrolling through Hours of Service settings to find a field named Lock Screen Style. Change the "Remaining to violation" setting to "4 Clock". The 4 Clock lock screen style is more pleasant and informative than the default setting.

While on the Hours of Service settings, generally review other settings for correctness such as the Home Terminal Time Zone. Contact TrackM2M support if the time zone is set incorrectly.

Unit of Distance: From the home screen menu, select Settings >> Device >> Unit of Distance. Select miles or kilometers. Typically, USA drivers will select miles and Canadian drivers will select kilometers. However, if you drive for a fleet, your supervisor may impose a specific choice for Unit of Distance for consistency in their reporting methods.

Font Size: From the home screen menu, select Settings >> Device >> Font Size. The default is set to Normal which is a good starting point because app messages are easier to read. After some time of getting used to the app, you may want to try Small font size to achieve improved fitting and layout on several app screens. Some experimentation is encouraged to find what works best for you.

There are many other settings where some of these are a matter of personal preference while others require specific values for proper operation and/or compliance. Contact TrackM2M support if you want to try certain settings, but are not sure the effect they might have on the eLog system.

3.2 Selection of Truck/Tractor

To select a truck/tractor or switch to a different truck/tractor, tap the truck icon/name below the driver icon/name or tap the OPTIONS button followed by the SWITCH EQUIPMENT button. Tap into the Vehicle Name field to open the tablet keyboard and start entering the name of the truck (typically the truck number); use backspace to remove a former truck name as necessary. After entering the first few characters of the truck name, you will see a list of trucks presented in a drop down list. Tap the appropriate truck/tractor to select it. Finally, tap SAVE in the lower right corner.

A "Switch Equipment" dialog is presented asking if you want to proceed with DVIR at this time. Select NO or YES (NO is fine since you can easily access the DVIR at any time; YES may be convenient when you are just switching the truck or trailer).

3.3 Selection of Trailer

This is a similar procedure to selecting the truck/tractor, except you need to apply the following steps:










1. Select trailer from drop down list as explained in Section 3.2.
2. Tap the +ADD button.
3. In list of Attached Trailers, remove any trailers that are not presently hooked up to the truck by tapping red X to the right of the trailer ID to be removed.
4. Tap SAVE button.

3.4 Connection to ECM/VBUS

For compliant ELD logging, the app must connect properly to the signals of the engine control module (ECM) of the vehicle. Behind the dashboard, a small computer called the Geometris whereQube 84 (or 87, or IOSiX) is installed which facilitates communication between the Azuga eLog/ELD app on the Garmin/tablet and the ECM of the vehicle. The ECM is connected to communication wiring known as the VBUS. For the purposes of ELD, the terms ECM and VBUS may be used interchangeably.

The current state of the Bluetooth (BLE: Bluetooth Low Energy) connection between the Azuga/Garmin/tablet and Geometris/ECM is indicated by the 3rd icon from the top right corner of the action bar (see Table 1 icons related to VBUS connection). The square icon with an X indicates no connection. A flashing radio signal icon indicates a connection is being attempted, but not complete. A solid radio signal icon indicates the Bluetooth connection is completed.

Table 1: Action Bar Icon/Symbol Definitions

Icon	Description	Notes
	Logout: Tap to logout of app.	
	Refresh/Synchronize: Tap to refresh data / synchronize with database.	Once per day.
	Solid: VBUS Connected: Vehicle computer connected to tablet/phone.	Required
	Flashing: VBUS Attempting Connection, but not connected.	
	VBUS Not Connected: Vehicle computer not connected to tablet/phone. Flashing: Trying to connect, but not succeeding if flashing persists. Tap to initiate manual connection process.	Need to connect. Tap to connect.
	Pending Edit Request: Tap to view/accept pending edit request(s).	Need to approve.
	Data Diagnostics: Tap to view data diagnostics events dialog.	
	Malfunction: Tap to view malfunction events dialog.	
	Main "Hamburger" Menu: Access to more options and settings.	

When you have a disconnected status, the third icon from top right corner will display a square with X or flashing radio signal icon.

The disconnected status may also be indicated by a yellow bar across the top of the app displaying the message "Vehicle disconnected" as shown in Fig. 3.5.

The eLog/ELD app needs to be connected to the ECM/VBUS.

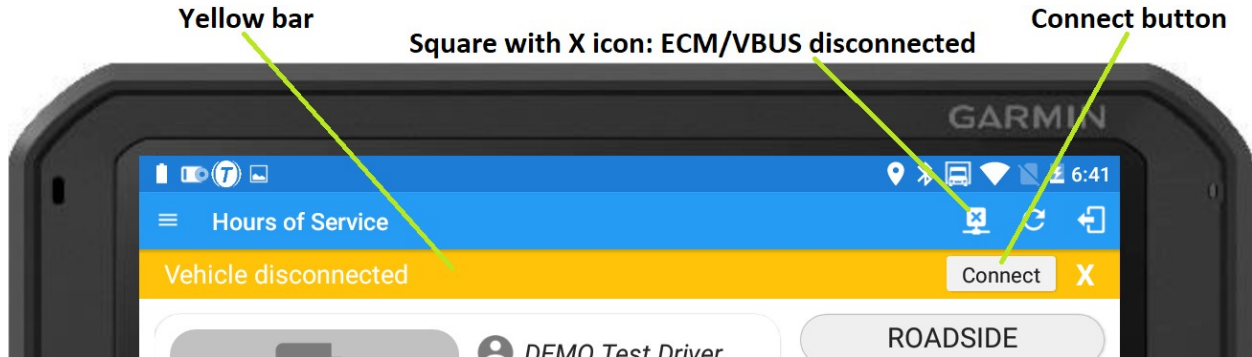


Fig. 3.5: ECM/VBUS disconnected status.

If the app is not able to connect automatically (flashing square with X icon), apply the following procedure for manual connection.

Tap the Connect button (see Fig. 3.5) if available or tap square with X icon.

If you see the VBUS Progress dialog trying to automatically connect for more than several seconds, tap "STOP CONNECTION" in lower left corner of dialog.

Tap the Connect button or VBUS connection icon (square with X icon), see Fig. 3.5.

Tap "MANUAL CONNECTION" in the lower left corner of the dialog.

The next dialog may show a list of device types (or may automatically skip ahead to the next dialog if there is only one device type). Typically, the only type in the list is Geometris. Tap NEXT button in lower right corner of dialog. On Apple devices, you may need to tap on Geometris type to select it with a checkmark, before tapping NEXT button.

The next dialog will list available devices for Bluetooth connection as shown in Fig. 3.6. Normally, you will see only one serial number listing starting with the characters WQ-84X... (or WQ-87X...); **tap on this serial number to connect**. If you see more than one Bluetooth device listing, usually the device at the top of the list is the one you need to connect with (has the strongest signal).

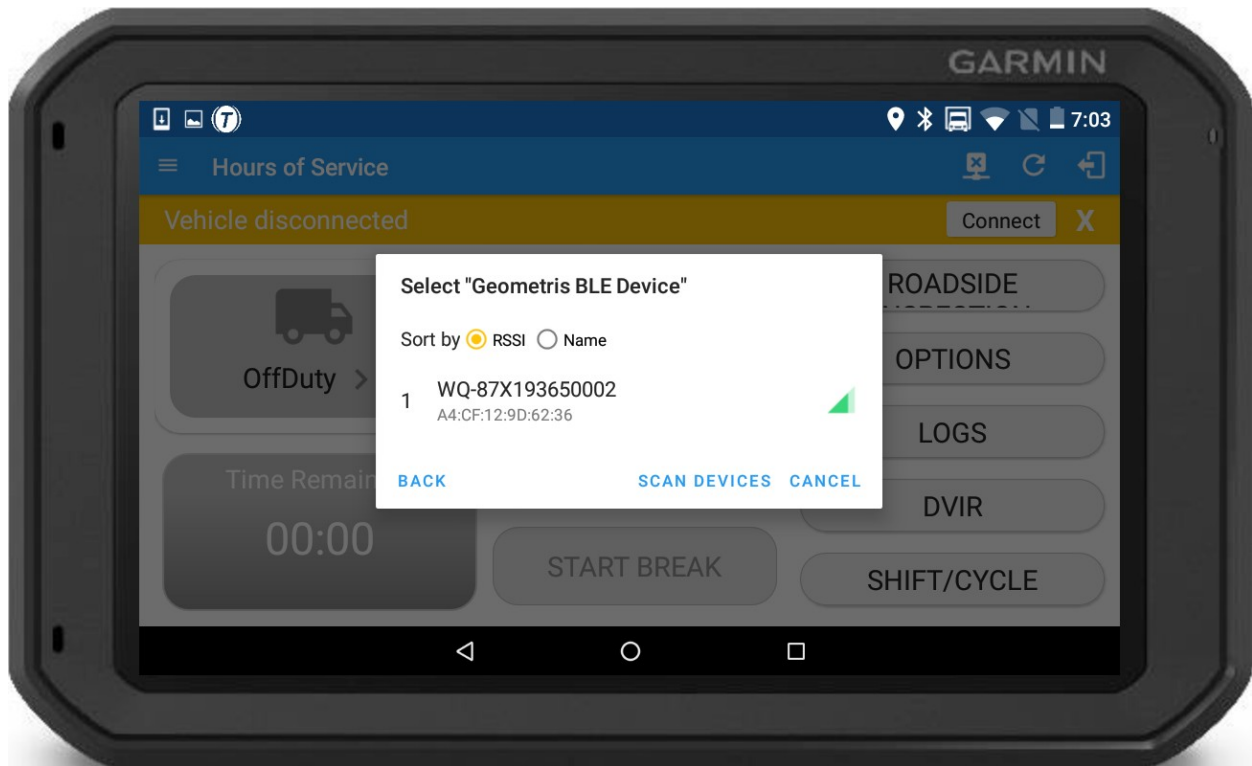


Fig. 3.6: Tap Bluetooth device serial number WQ-84X... (or WQ-87X...) to complete connection.

Note: If there are 2 or more WQ devices with similar signal strength, you may need to know the last 2 or 3 numbers for your Geometris whereQube (WQ) device serial number. You can get this number from your manager or TrackM2M support.

Note: If you are in a truck with a Geometris device installed and there are no WQ devices listed, try tapping SCAN DEVICES to refresh the list. If after scanning, no devices show, try restarting the Garmin/TomTom/tablet. Also check if you are running the app from another device such as a phone; you may need to turn off Bluetooth on this other device. Start the engine if engine is not running.

Note: If the VBUS connection status becomes disconnected while driving, do not be concerned. Do not attempt to interact with the tablet while driving; just continue driving normally. Usually the VBUS will reconnect itself automatically within a few minutes. Wait until the truck is stopped before performing any troubleshooting.

3.5 Selecting Duty Status

Duty status can be manually selected from the eLog Home Screen by tapping the large Duty Status button shown in Fig. 3.4. After tapping the Duty Status button, the Change Current Status screen in Fig. 3.7 will be displayed.

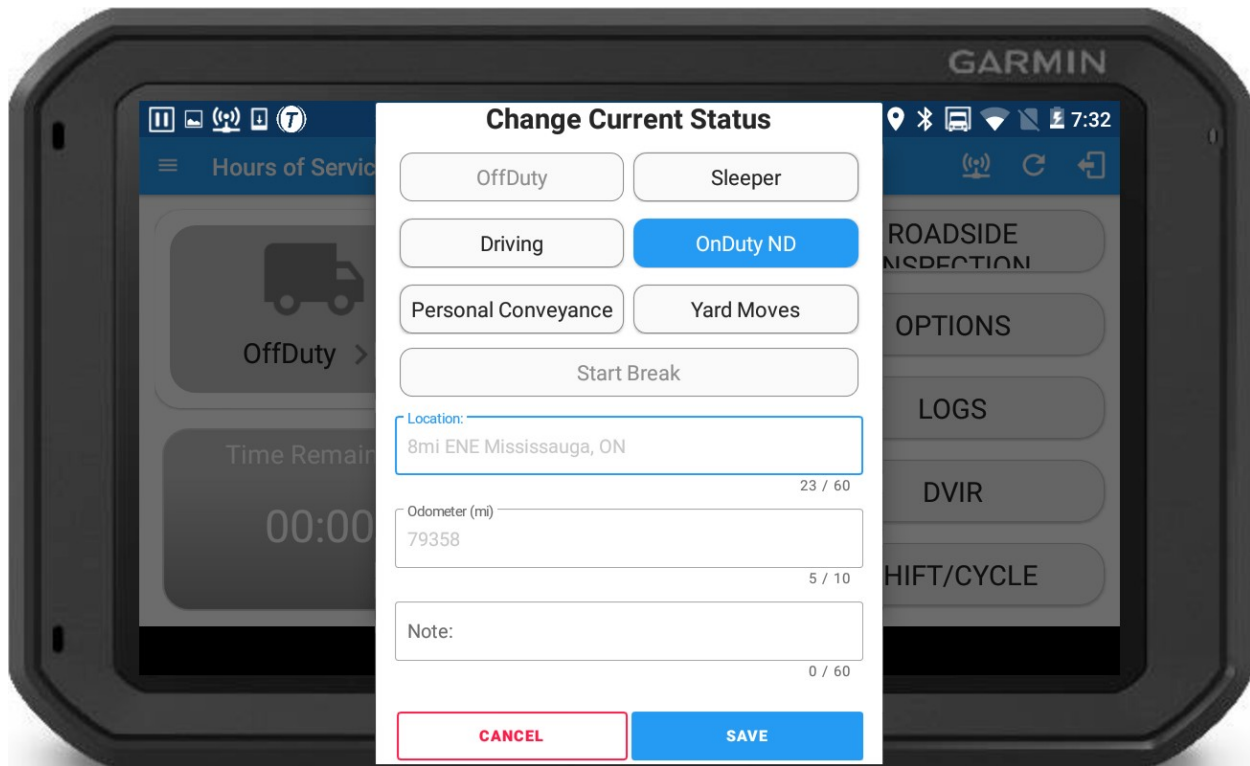


Fig. 3.7: Change Current Status screen.

From the Change Current Status screen shown in Fig. 3.7, select the desired status at the top. Personal Conveyance and Yard Moves may or may not be available for your account; if you require these capabilities, but do not see them listed, ask your manager or contact TrackM2M support. Optionally, you may tap on the Note field to create a note that will be inserted into the log (Note is required for Personal Conveyance and Yard Moves). Location and Odometer fields should be filled automatically. Scroll to the bottom of this screen and tap SAVE button to change status (or CANCEL button to make no changes).

3.5.1 OffDuty

Off Duty is the default status when no other status applies. This indicates the driver is not performing any work related activity in their capacity as a truck driver.

3.5.2 Sleeper

The driver is taking time off resting in the qualified sleeper berth of a truck. This status is very similar to Off Duty; however, Sleeper status is generally required instead of Off Duty status when splitting off duty hours in USA.

3.5.3 OnDuty ND (Not Driving)

On Duty Not Driving (ND) or just "On Duty" status indicates any work, other than driving, the driver may be performing that is regarded as related to their work in their capacity as a truck driver. Some examples include vehicle inspections, loading/unloading the truck, fueling the truck and repair/maintenance of the truck.

When a driver arrives at their workplace to begin a work shift, they are expected to start the shift by changing status to On Duty ND status before beginning the vehicle pre-trip inspection.

When the truck stops moving, the duty status will automatically change from Driving to On Duty ND after 5 minutes. The driver has the option to manually switch from Driving status to any other status immediately after the truck stops moving.

3.5.4 Driving

The truck is being driven for work purposes. The eLog/ELD system detects movement of the truck greater than 5 mph in USA (8 km/h in Canada) and will switch to this status automatically.

3.5.5 Personal Conveyance

Personal Conveyance (referred to as Personal Use in Canada) status will be effectively recorded as Off Duty status even though the truck is being driven. This generally covers non-work related usage of the truck. Some examples include a driver using the truck to travel from their residence to their workplace terminal (or vice versa), using the truck to travel to have dinner during 10 hour Off Duty time or moving to a different parking spot during 10 hour Off Duty time.

In USA, there are no specified time/distance limitations. In Canada, distance is limited to 75 km per day.

When the truck stops moving after completing Personal Conveyance/Use, the driver must change duty status back to Off Duty (or Sleeper).

3.5.6 Yard Moves

With Yard Move status, the truck will only show OnDuty ND status even though it is being driven.

3.6 DVIR (Driver-Vehicle Inspection Report)

Note: The following procedure ensures that the DVIR report will indicate how many minutes were spent performing the DVIR:

Important: Before starting the vehicle inspection, enter the cab, turn on the eLog/ELD system and log into the system if necessary. Next, switch to On Duty status (if you forget to switch to On Duty status, the system will remind and enforce this step as you follow this procedure, see Section 3.6.1, "Initiating DVIR Session(s)" step 3).

3.6.1 Initiating DVIR Session(s):

1. Tap the DVIR button to initiate the Driver-Vehicle Inspection Report (DVIR).
2. Optional: The default settings in the DVIR Details section are Type: Pre-trip and Inspector: Driver. Change these settings using the drop down selections if necessary.
3. Tap the INSPECT button to the right of the Tractor/Truck ID. Note: If you are not in On Duty status, the app will present a dialog question asking if you would like to switch to On Duty at this time. Tap YES button to proceed with DVIR.
4. Tap the Pass All button to show every item in the list as passed. Note for Apple devices...when you get to the screen that shows the list of inspection areas, tap the Inspect Areas back button in the top left corner and you will find the Pass All button.
5. Tap the back button (left pointing arrow in top left corner of screen or tablet back button). Note that the truck/tractor DVIR session you started is listed as "In progress" in the Current DVIR section.
6. If a trailer is hooked up, tap the INSPECT button to the right of the Trailer ID which will be listed below the truck/tractor (you may need to scroll down below the truck/tractor to find the trailer).
7. If a trailer is hooked up, tap the Pass All button to show every item in the list as passed.
8. If a trailer is hooked up, tap the back button (left pointing arrow in top left corner of screen or tablet back button). Note that the trailer DVIR session you started is listed as "In progress" in the Current DVIR section.

3.6.2 Performing Physical Inspection (Circle Check):

1. Go outside of the vehicle and perform the physical circle check inspecting each component of the tractor/truck and trailer (if a trailer is hooked up). Optional: Bring the Garmin/TomTom/tablet with you during the physical circle check to change the pass status for items on the list (if items don't pass), to make notes about specific items and/or take photos of specific items. To open one of the current DVIR reports, tap the 3 vertical dots to the right of "In progress" and tap "View". See Fig 3.8 for an example of an item with noted issues.
2. Return to cab after physical circle check is completed.
3. For tractor/truck DVIR, tap 3 vertical dots to the right of "In progress" and tap "View".
4. If there are any issues to be noted for specific items, use the search tool to find the item(s) or scroll down the DVIR list to find the item(s). Tap on the green "thumbs up" icon to toggle to a red "thumbs down" icon if necessary. Tap once again to toggle icon to N/A and tap again to return to green "thumbs up" icon. Continue toggling to select the appropriate icon. See Fig. 3.8 for example. Tap the severity level (triangle with ! icon) to toggle between yellow (minor) and red (major). Note: Major indicates the vehicle requires repair before it can be driven.
5. Optional: Tap the camera icon for an item to take a photo of the item to document its condition for the purpose of showing a defect. After taking photo, tap the checkmark icon to save photo (tap the X icon to discard a photo). See Fig. 3.8 for example of how a photo is indicated in the list.
6. Optional: Tap the comment icon to enter a comment for a specific item. After entering comment, tap back button in lower left and finally the OK button to save the comment. See Fig. 3.8 for example.
7. If a trailer is hooked up, repeat the above steps for the trailer.

3.6.3 Completing DVIR Session(s):

1. While viewing the DVIR list for the tractor, tap the "Finish" button (lower, left).
2. Optional: Tap in the General Comments section to insert any general comments.
3. Select one of the radio button selections: () Defects Corrected, () No Defect Found, () Condition Satisfactory, or () Condition Unsatisfactory.
4. Scroll down and tap the FINISH DVIR button.
5. Tap YES button on "Certify DVIR" dialog message to certify the DVIR. Note that the listing in Current DVIR section changes from "In progress" to "Certified".
6. If a trailer is hooked up, repeat the above steps for the trailer.

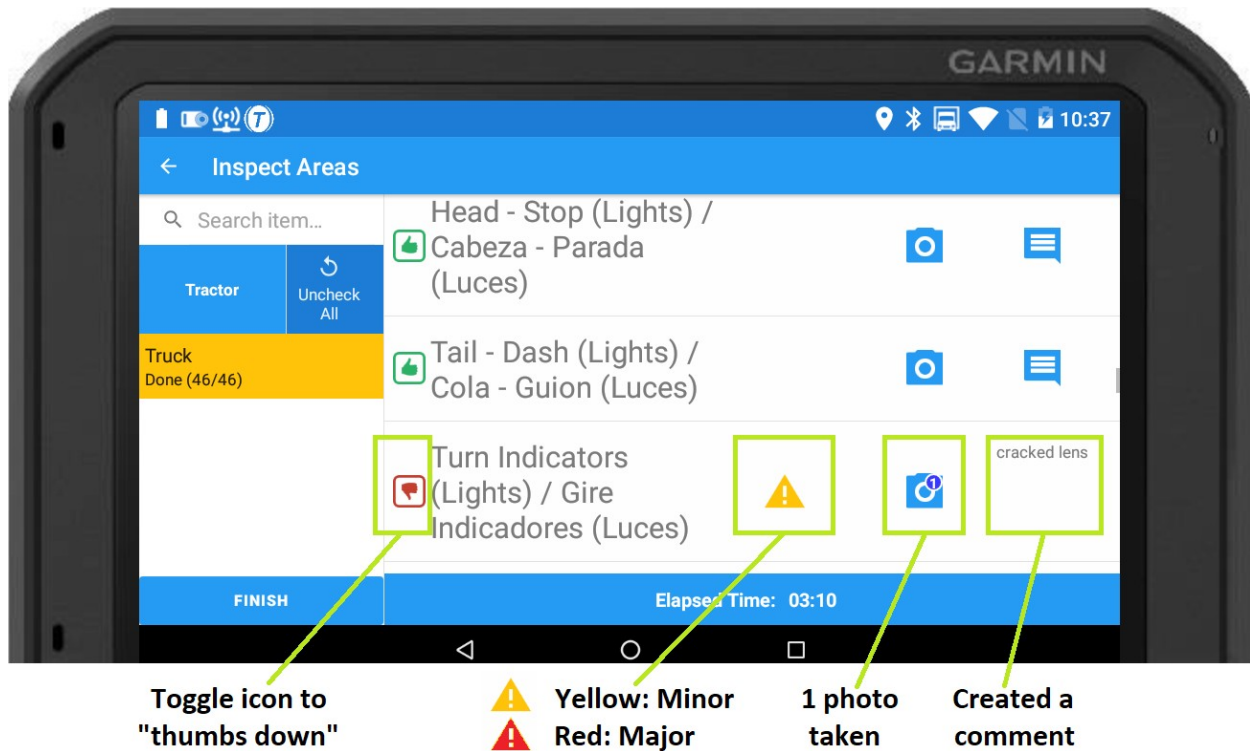


Fig. 3.8: Example of specifying a DVIR defect.

Note: It is possible to completely start and finish the DVIR after the physical inspection, but the duration of the inspection will not be calculated and will just show zero minutes. By following the recommended procedures in this section, the duration of the whole inspection process is recorded in the DVIR report. Inspectors will generally observe the On Duty time at the beginning of a shift to determine if sufficient time was taken for vehicle inspection, rather than looking the DVIR recorded inspection time which is just a specialized feature of this particular eLog/ELD app.

Note: Photos are not part of the printed/PDF DVIR report, but are available for viewing by carrier office staff. These photos may be helpful in documenting and assessing repair requirements for the vehicle.

Note: The carrier office has an option to connect alerts to DVIR reports such that the office will receive an email whenever a defect is noted.

3.7 Shipping Documents / Bill of Lading

eLog records require a reference to shipping documents such as bill of lading or other associated reference number for the shipment.

From the eLog/ELD home screen, tap OPTIONS button followed by SHIPPING DOCS button. You will be prompted with a dialog box where the reference number can be input. Tap OK button once reference number has been input. This entry will stay in place until it is replaced with a new reference number or replaced with a blank.

3.8 Certifying Logs

Logs need to be certified because:

- This is how the driver shows that logs have been reviewed and are complete.
- Email and other data transfer methods will only send certified logs.
- Suggested edits by office administrators can only be performed on certified logs.

It is highly recommended to have a routine for certifying today’s log at the end of each work shift or certifying yesterday’s log at the start of each work day. Note that it is possible to un-certify a daily log at any time if further edits are required.

Tap the LOGS button to display the view shown in Fig. 3.9.

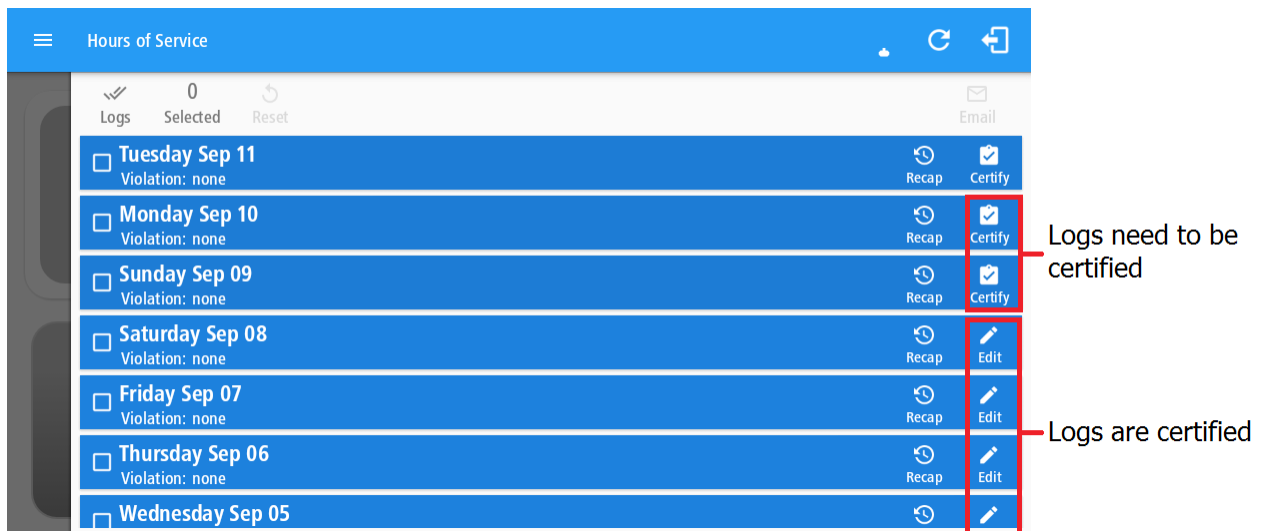


Fig. 3.9: Checking logs to see if they have been certified.

To certify a log, start with the oldest log that needs to be certified and tap on the Certify icon at the far right side of a day’s log as shown in Fig. 3.9. Answer the question affirmatively “I hereby certify that my data entries...” by tapping AGREE button. The

"Email log?" checkbox is generally not required since logs can be accessed by web portal. The web portal will make available the past 6 months of certified logs for downloading.

Note: The "Generating certified log PDF" message can take several seconds to complete.

3.9 Roadside Inspection

This topic is covered in more detail in Section 4 of this manual. A quick description of the procedures will be presented here.

On-screen: When an inspector asks to see your logs on the tablet, tap the ROADSIDE INSPECTION button, followed by tapping the START REVIEW button for an on-screen review of logs.

The screen will show the date near the top with arrows on either side of the date. The inspector can tap the arrows to move to the prior day or next day (up to 8 or 14 days of history depending on country and cycle). The inspector can scroll up and down on each day's log to review the details which includes the hours of service graph.

Note: The app will not allow the inspector to leave the Roadside Inspection section. To return to the main screen of the app, you will be prompted for the password.

3.9.1 Data Transfer

There are two modes of data transfer supported by this eLog app. An inspector requesting a data transfer will specify which mode to use:

Email: This approach only requires a recipient email address to complete the transfer. Tap the ROADSIDE INSPECTION button, followed by the EMAIL LOGS button and fill in the Add Comment box; the inspector may provide the comment. Tap YES button, then fill in the recipient email address in the "To" box. Finally, tap SEND button. A driver can fill in their own email address to test the transfer or get copies of their own logs. Only certified logs will be emailed.

Data Transfer: Tap the ROADSIDE INSPECTION button, followed by the DATA TRANSFER button to initiate a USA/FMCSA eRODS data transfer protocol. A recipient email address will be required. For the

Comment box, be sure to ask the inspector what should be specified as the "output file comment".

Note: Violation marks shown on logs are a software tool intended to help drivers and carriers identify issues with the logs. These **violation marks do not appear on any roadside inspection reports** that appear on-screen, by email or by data transfer. There is no requirement for drivers to show violation marks to inspectors or even make inspectors aware that such marks may exist.

3.10 Half Hour Break (USA Only)

Driving in the USA requires a 30 minute break before the first 8 hours of the shift has elapsed. Tap the **START BREAK** button to start a 30 minute countdown clock. This time will appear as Off Duty on the logs. It is also acceptable to simply show 30 minutes of Off Duty status for the purpose to complying with the half hour break rule, without using the START BREAK button.

3.11 Ending a Work Shift

At the end of the work shift select Off Duty status (or Sleeper status, if resting will occur in a qualified sleeper berth). Your company may have a policy or your manager will instruct you whether you should also log out of the system at the end of your shift; this is often a policy for companies where drivers often use different trucks at different times or different drivers use the same truck.

If a driver forgets to change status to Off Duty or Sleeper at the end of a shift and the eLog/ELD system has automatically changed the status to On Duty ND, the log will eventually show a violation of Off Duty requirements and an edit will be required to show the correct Off Duty / Sleeper start time.

If a driver forgets to change status to Off Duty or Sleeper at the end of a shift and the device is powered off before the system has a chance to automatically switch to On Duty ND status, the status will be stuck in Driving status. It is not possible to edit a Driving status and this improper driving event will stay on the log. This improper driving event will cause subsequent calculations of remaining hours for the following day and cycle hours for the remainder of the cycle, to be incorrect. The only way to workaround these incorrect calculations is to perform a so-called Incorrect Driving Event Annotation as explained in Section 7.2.3.

3.12 Moving Truck During Off Duty / Sleeper Event

If the truck needs to move a small distance during the driver's Off Duty or Sleeper time, for example, to move from one parking spot to another, be aware that the software will detect the movement of the truck and automatically change the status from Off Duty / Sleeper to Driving. The threshold speed for detecting movement of the truck is **5 MPH** (or **8 km/h** in Canada). It is generally impractical to reliably move a truck at this slow speed to avoid recording a driving event.

If you need to move the truck to a different parking spot during the 10 hours Off Duty / Sleeper time, use the Personal Conveyance/Use status by this procedure:

1. Before moving the truck, switch status to Personal Conveyance.
2. Drive the truck to new parking spot. Do not be concerned about exceeding the 5 MPH / 8 km/h speed threshold; the speed does not matter.
3. After the truck has come to a stop, switch the status back to Off Duty or Sleeper status.

3.13 Driving Rules Country

There are different federally mandated hours of service rules for USA and Canada. The Azuga app is designed to automatically detect international border crossings and apply the appropriate national rule set. However, due to various circumstances, it is possible that this automatic detection can fail on some rare occasions.

The rule set and associated cycle currently being applied is shown by the national flag icon near the middle of the home screen as shown in Fig. 3.4. This flag icon should always match the country where you are currently located/driving.

The flag icon should change appropriately whenever crossing international borders.

If the flag icon does not change automatically at the border crossing or is showing incorrectly for the country you are presently located/driving, you can change the driving rule country by tapping on the flag icon and selecting the correct country. The system will warn and ask for confirmation that the cycle is being changed.

If you drive in both USA and Canada, learn the rules in both countries. USA rules are oriented around the 24 hours following the arbitrary time of starting a shift. Canadian rules are oriented around the 24 hours between a fixed start and end of a day. In general, apply the most restrictive rules of both countries for all your driving.

3.14 Team Driving

Two approaches to team driving are possible:

1. Each driver uses their own account independently as if they are driving alone.
2. The Co-driver Login method built into app.

3.14.1 Independent Drivers

This can work perfectly well and the drivers should share the same device because this guarantees that only one driver is logged in at a time. Also, only one device can occupy the VBUS connection at one time; using multiple devices can be confusing and cause unexpected problems as each device is trying to secure the VBUS connection.

3.14.2 Co-driver Login

This approach is best because it allows for some extra functionality that is not possible using the independent driver approach. Further, this approach manages the team of drivers as a group and enforces sensible rules across the team. A major advantage of this approach is that log editing allows for the possibility to transfer driving events between the drivers; this type of edit is not possible if the drivers are logging independently.

The first driver to login is regarded as the "primary" driver and has more control over certain processes than the secondary driver. Some functions can only be performed by the primary driver and these will be indicated by messages.

The primary driver logs in first using the typical login method. The secondary driver logs in second by tapping the OPTIONS button followed by the MANAGE CO-DRIVER(S) button. Next, tap the LOGIN CO-DRIVER button to bring up the login screen for the secondary driver.

Be aware of which driver's name is displayed on the home screen. This is the driver who is currently logging.

3.15 ELD has malfunctioned. Revert to using paper logs

There are numerous Data Diagnostic and Malfunction messages. The complete list is given in the VisTracks Hours of Service User Guide available for download from the trackm2m.com website.

One particular system message will be mentioned here because you will see this message from time to time:

Warning!

ELD has malfunctioned. Revert to using paper logs.

[OK]

Normally, **you can safely disregard this message**, tap OK button and continue on with electronic logging. You will see an "M" icon appear in the title section of the app. The FMCSA rules require that this message is displayed under certain conditions. However, if the eLog system appears to be functioning normally, continue using the eLog system without regard for this message.

3.16 D and M Messages

Occasionally, the app will accumulate D (Data Diagnostics) and M (Malfunction) messages. These messages are required by ELD regulation and generally correspond to small deviations from required signal timing. For example, these deviations often occur when starting the vehicle's ignition and the computers are starting up.

You may see the D and/or M icons in the top right of the app. You can tap these icons to read the actual messages. The technical details that cause these messages are generally of no concern to the driver. However, if you notice these messages being generating very frequently (several times each hour), please contact TrackM2M as this may indicate hardware issues that require review.

3.17 When Can I Start Driving Again?

During Off Duty or Sleeper status, tap the OPTIONS button followed by the **GAIN TIME** button. A date/time will be displayed indicating when new shift/driving hours will become available. For example, this helps you to calculate when the required 10 hours of off duty / sleeper time has elapsed.

Note: In practice, whatever time is showing as gain time, add 1 minute to this time before starting a new shift. Occasionally the calculation of time to the nearest second causes an issue; waiting one more minute avoids this potential problem.

3.18 Adding Remarks to Log

You can add a remark/note to the log at any time by tapping OPTIONS button followed by the **REMARK** button.

Remarks are used in situations where the log exhibits some unusual pattern that may require additional explanation.

3.19 Exceptions

You may specify an exception such as adverse driving conditions to add 2 hours of driving time. Tap the OPTIONS button followed by the **EXCEPTION** button to open a list of possible exceptions. Select the "2 Hour Driving Extension for Adverse Driving Conditions" exception and tap OK button. This will add 2 hours of available driving time for today.

Note: Other exceptions are also available, but these are typically oriented towards specialized types of hauling.

Note: Inspectors may question the reasoning for specifying exceptions. Be prepared to explain the particular circumstances for an exception; actual evidence of the circumstances may be helpful. Using exceptions more often may attract more attention and scrutiny from inspectors. It is helpful to also add a remark to the log at the time an exception is being applied.

Note: When the exception no longer applies, go to the list of exceptions again and remove the exception to avoid the exception from being applied repeatedly.

3.20 Recap

To see a listing of hours used on each day of the cycle, tap RECAP button on home screen of app. This summary will also show how many hours of the current cycle have been used.

3.21 Cargo Inspection (Canada Only)

Tap OPTIONS button followed by INSPECTED CARGO button to place a remark on the log that cargo was inspected. This is only required in Canada. The cargo inspection reminder messages will only display in Canada and can be disabled in settings.

4 Viewing Log History

To view log history, the following methods will be explained:

For an 8 day history in USA or 14 day history in Canada, use one of these methods:

- View logs on app using LOGS button (for drivers)
- View logs on app using ROADSIDE INSPECTION button (for inspectors)
- Download logs from app using ROADSIDE INSPECTION button

For a 6 month history of logs, use one of these methods:

- View logs on web portal
- Download logs from web portal

View Logs on App using LOGS button (Drivers)

For drivers, tap the **LOGS** button. You will see a list of recent dates. Tap to the right of the log date you wish to view as shown in Fig. 4.1. This view is for drivers, not inspectors, because it may contain marks that help the driver identify potential issues with the log; these marks are not required by inspectors.

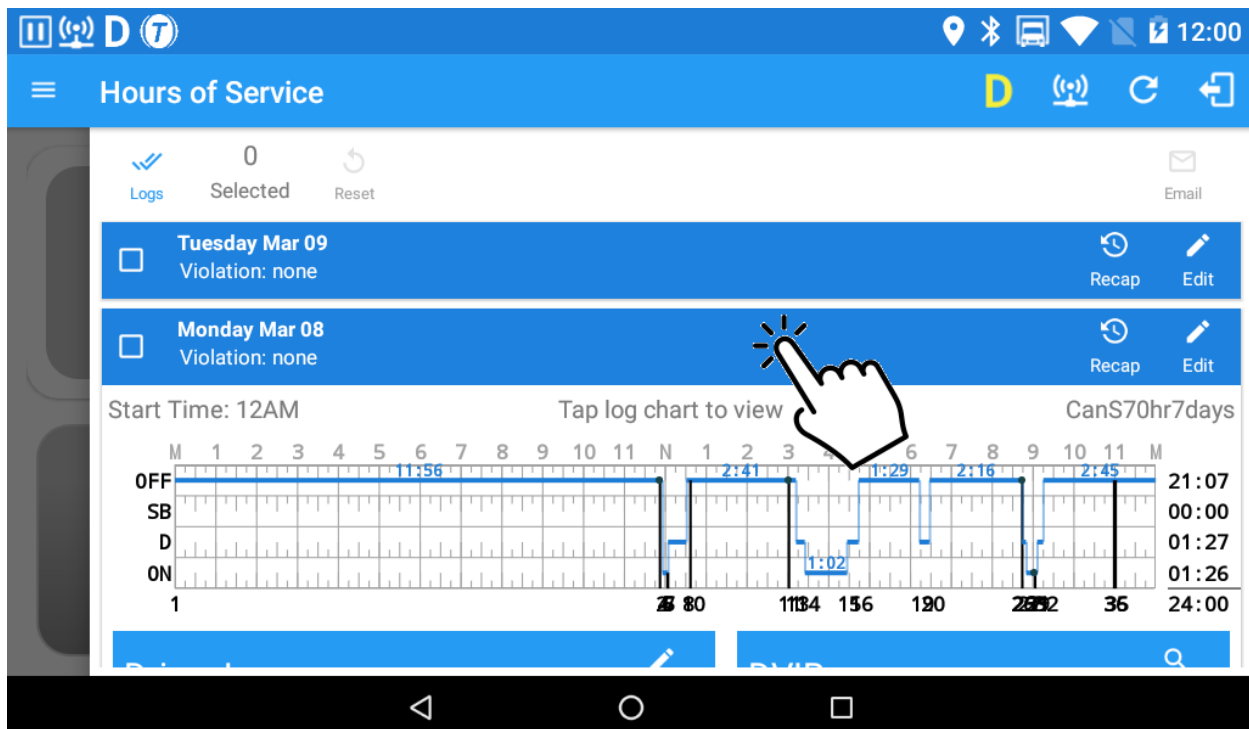


Fig. 4.1: View a log by tapping to the right of the date.

To see the log events list, tap anywhere on the graph and the events will appear below the graph. The events list usually displays better when the tablet is tilted vertically (portrait position).

View Logs on App using ROADSIDE INSPECTION button (Inspectors)

For inspectors, tap the **ROADSIDE INSPECTION** button, enter an output file comment supplied by the inspector if required and tap the **START REVIEW** button. This view of logs is optimized for the requirements of inspectors. The inspector may tap the arrows to the left and right of the date to move to different dates. The inspector can scroll down to view more information for each log day.

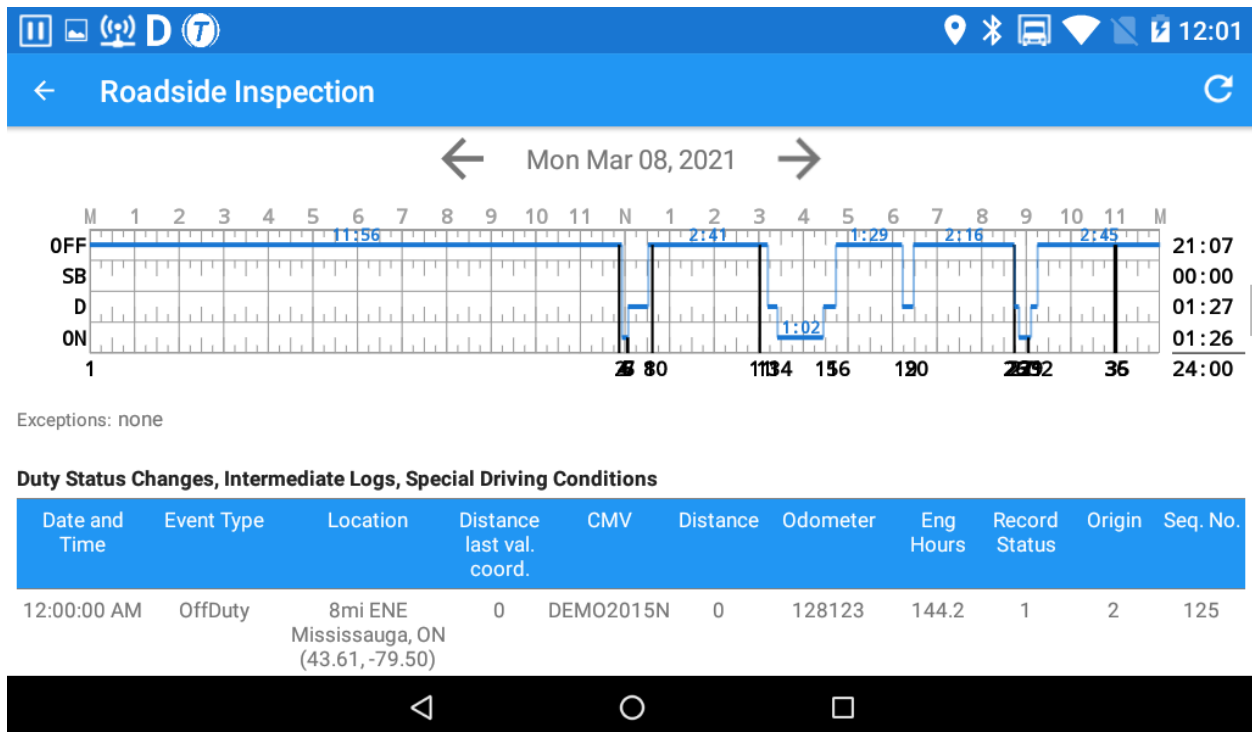


Fig. 4.2: Roadside inspection: View logs for different dates by tapping left/right arrows.

Note: You will need your password to exit the roadside inspection section of app.

Download Logs from App using ROADSIDE INSPECTION button

Tap ROADSIDE INSPECTION button followed by EMAIL LOGS button. Enter an email address and tap SEND button. You can send logs to an inspector or to yourself if you want a copy of certified log PDF files.

View Logs on Web Portal

You can access a 6 month history of logs by visiting this website portal:

<https://hos.vistracks.com/portal/login.html>

The website will ask for username and password. This is the same username and password used for the eLog/ELD app.

Click on the date to change the log date. From the web portal, you can also certify older logs that are not yet certified.

Download Logs from Web Portal

You may want to keep a copy of your logs for mileage reports or other purposes. The eLog system will only store the past 6 months of logs. If you want to keep more than 6 months of logs for other purposes, you will need to download copies of logs periodically. You can download logs one day at a time by clicking the button shown in Fig. 4.3.

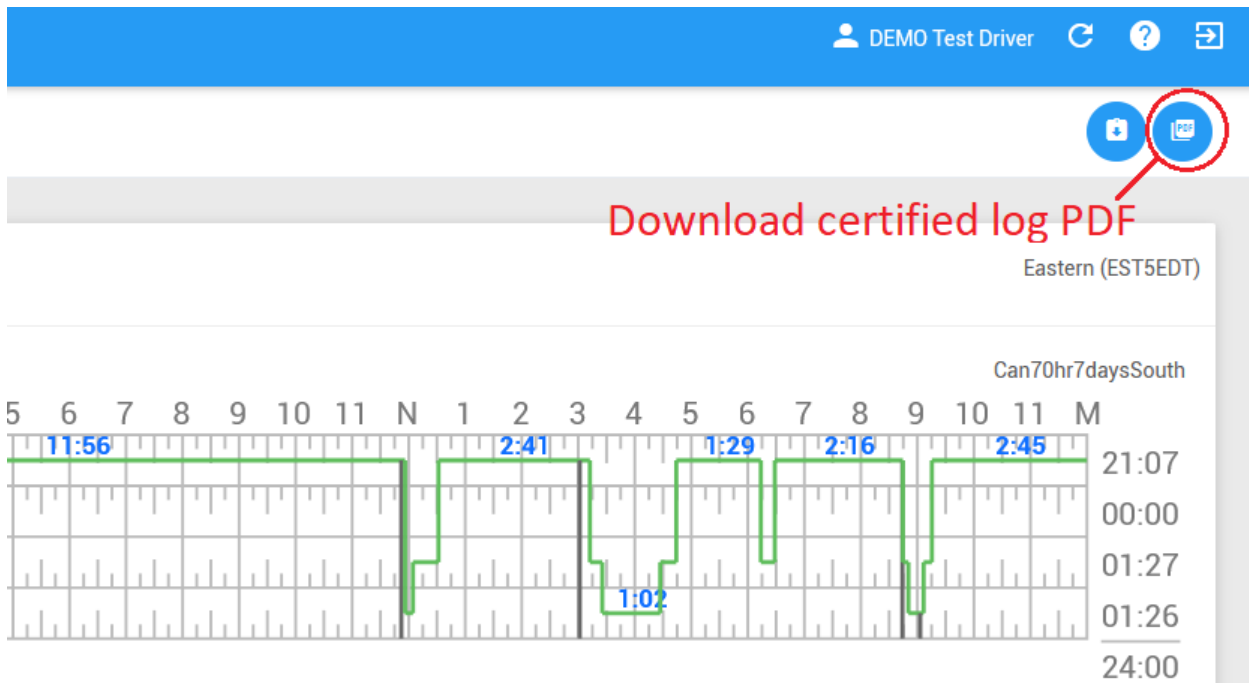


Fig. 4.3: Downloading certified log PDF from website portal.

5 Data Transfer for Inspections

Inspectors may require a data transfer of hours of service logs. This section explains how to perform data transfer. Always start by tapping the ROADSIDE INSPECTION button. The inspector may provide you with an "output file comment" that can be filled in when prompted by the roadside inspection section. Fig. 5.1 shows the screen that lists different data transfer methods.

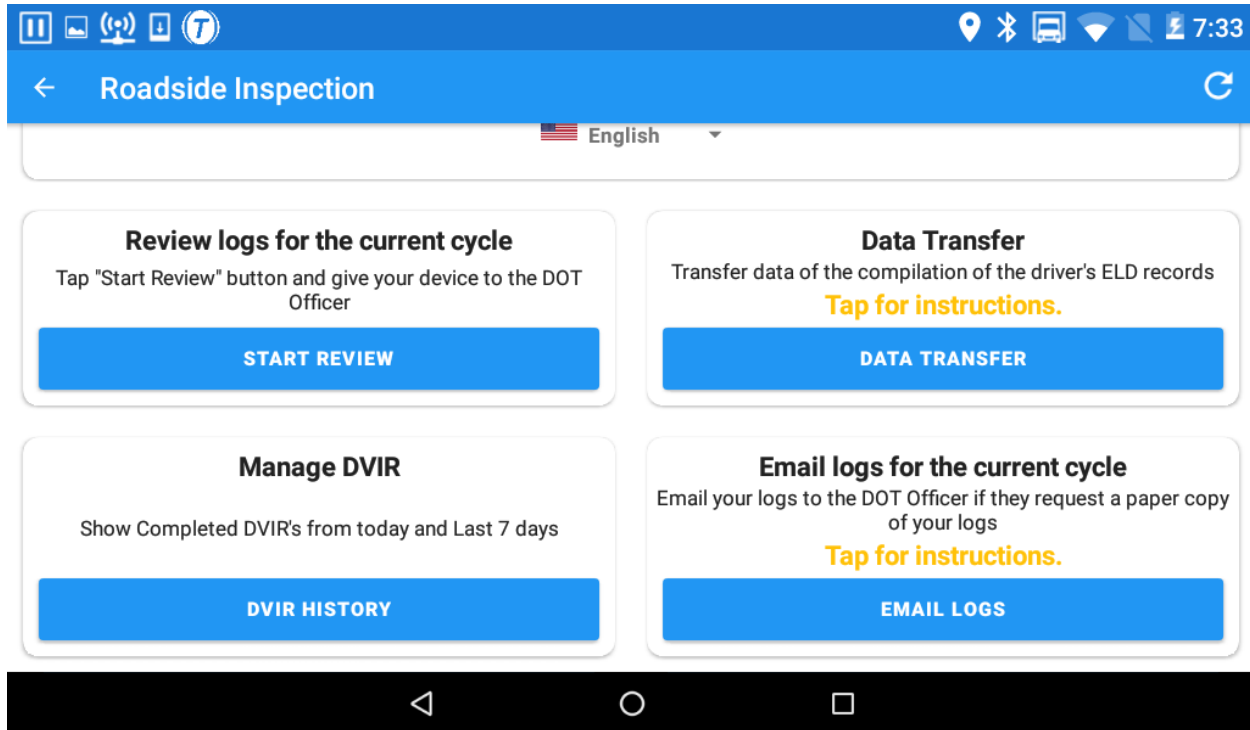


Fig. 5.1: Data transfer methods available in Roadside Inspection.

Tap **START REVIEW** for an on-screen review of logs. Tap on left/right arrows next to date to switch to different log days. Scroll down to see more information for each day.

Tap **DATA TRANSFER** for USA/FMCSA eRODS data transfer protocol or Transport Canada ELD RODS data transfer protocol (the protocol will be automatically selected based on the current location and/or current country rule set). This transfer may require an "output file comment" provided by the inspector.

Tap **EMAIL LOGS** button to email logs to an email address that you will provide or is provided by the inspector. Fill in the Add Comment box; the inspector may provide the comment. Tap YES button, then fill in the recipient email address in the "To" box. Finally, tap SEND button. A driver can fill in their own email address to test the transfer or get copies of their own logs. Only certified logs will be emailed.

6 Troubleshooting eLog/ELD Malfunctions

Table 2: Troubleshooting

Problem	Description/Details	Action
Any aspect of the eLog app exhibits unusual behaviour that just does not make sense	All hardware, operating systems and software can become unstable under some sequences of circumstances.	<ul style="list-style-type: none"> Restart the tablet/device. No need to logout of app. Check if app needs to be updated (see Section 7.1). Contact TrackM2M support if issue persists.
The VBUS becomes disconnected and will not reconnect automatically	Proper VBUS connection is required for compliant ELD. This app uses Bluetooth to connect VBUS.	<ul style="list-style-type: none"> Perform manual connection. Review Section 3.4 of User Manual and try suggestions. Start truck engine (if it is off). Be sure there is not a second device with app installed that is occupying the Bluetooth.
D (Diagnostics) and M (Malfunction) messages	These occur when VBUS misses some communication and for other system failures.	It is common to see a few of these messages each week; just ignore these messages if eLog is otherwise functioning normally. If messages are generated several times per hour, contact TrackM2M support for possible hardware troubleshooting.
Message appears: ELD has malfunctioned. Revert to using paper logs.	This message is required for some internal conditions of software.	If eLog appears to be functioning normally, ignore this message.
Hardware is damaged or lost		Make arrangements to purchase replacement hardware as needed.
On-screen keyboard is blocking view of screen	On-screen keyboard pops up when user input is required, but in many cases the input is optional and can be left blank. Sometime keyboard blocks input box, so user is not sure what to input.	Tap back button of tablet/device to remove on-screen keyboard. Tap into input box to bring keyboard back on screen if needed.
An incorrect or accidental driving event is causing improper calculations of remaining hours in day and/or cycle.	There are several scenarios that can cause a driving event that should not be part of the log.	See Section 7.2.3 of User Manual to annotate driving event such that it does not impact remaining hours calculations.

Table 2: Troubleshooting...continued

Problem	Description/Details	Action
There is a problem that makes the eLog system unusable	There are some possible failure modes whereby it is not possible to use the eLog system.	<ul style="list-style-type: none"> • Use paper logs. • Contact TrackM2M support to initiate the process of fixing the underlying problem.
No internet connection	The tablet/device may be continuously connected to internet via SIM card or the tablet/device may be occasionally hotspot tethered to a smart phone with a data plan. Internet connection is required for some functions such as Refreshing/Syncing and updating the app.	<ul style="list-style-type: none"> • If data plan for tablet is provided by TrackM2M, contact TrackM2M support. • Contact data plan provider to check data usage and geographical coverage. • Contact smart phone provider to check for possible limitations with hotspot tethering. • Drive truck for a while and check connection again later. • The eLog app can run for several days without internet connection if needed.
Pulling a customer trailer that is not in the trailer list	The trailer list only contains trailers that have been previously entered into the list. If you are pulling some customer trailer that you have never pulled before, this trailer will not be in the list. The carrier will decide whether to allow drivers to add new trailers to the list.	<ul style="list-style-type: none"> • If available, use Switch Equipment >> Manage button to add new trailer. • Contact your office to have trailer added, then Refresh/Synchronize app (see Table 1 in Section 3.4). • Contact TrackM2M support. • Use a generic trailer from list and add trailer number and/or license plate as a remark to log.
Just came back to work after being off work for several months	The app will fall behind in updates and driver may forget how to use the eLog system.	<ul style="list-style-type: none"> • Install latest update for app (see Section 7.1). • Review User Manual as needed.

7 Advanced eLog/ELD Procedures

This section covers more advanced topics on using the eLog/ELD system.

7.1 Finding/Downloading the App and Updating the App

Android Devices with Playstore

Visit Google Playstore and search on "azuga eld" (without quotation marks). Visit the Playstore every few months to check for updates to the app.

Apple Devices

Search Apple Store for "azuga eld" (without quotation marks) to find the app symbolized by a red truck. Visit the Apple Store every few months to check for updates to the app.

7.2 Editing Logs

Note: Editing of logs is limited to some specific, allowable types edits that can fix some types of incorrect entries with log events. All edits are available to inspectors to see what edits were performed. Editing of logs is NOT a way to undo actual violations of Hours of Service rules; drivers, carriers and customers all share the responsibility to support compliance with Hours of Service rules.

In some cases, the recorded logs are incorrect and need to be corrected. Logs can be edited by the driver using the app or office staff using the portal website. Edits done by office staff can only be performed on certified logs and must be "accepted" by the driver using the app before these edits are inserted into the logs. See Pending Edit Request icon/symbol in Table 1. Tap this icon to review suggested edits.

Note: Automatically recorded driving events in the logs cannot be edited per FMCSA. For driving events that are clearly incorrect, use the method of Section 7.2.3.

Tip: When multiple sequential edits are required (more than one edit that are one after another in time), start with the last edit in the time frame and work your way backwards to the beginning of the time frame.

This section will cover three of the most common edit scenarios:

- Update/Change an Event Status for Non-driving Event
- Insert an Event Status
- Annotating an Incorrect Driving Event

For all types of edits using the app, start by tapping the LOGS button. Look for the date when the edit is required. If a non-driving event requiring an edit straddles two (or more) days, use the date of the first day of the event. Tap to the right of this date (see Fig. 4.1) and then tap on the graph to open the event list below the graph.

Tip: The event list is easier to see if you hold the tablet vertically (portrait position).

You may need to certify a log before you can edit. When you edit a certified log, there will be a prompt to un-certify the log before proceeding with the edit; tap YES/OK. If you need to edit an existing non-driving event, scroll down the event list to find the event requiring the edit. Tap the pencil icon to the right of the event (see Fig. 7.1).

If you need to insert a new event or annotate an incorrect driving event, tap the yellow circle containing a plus sign in the lower-right of the screen as shown in Fig. 7.1. More yellow circles will be presented with various choices including "Insert Past Status" to insert a new event and "Annotate Incorrect Driving" as shown in Fig. 7.3.

Note: This eLog system performs calculations of log events to the nearest second, but normally only displays minutes (there is an optional setting that can display seconds). It is possible in some cases that a non-driving event overlaps a driving event by a few seconds. Even though your edit may be logically correct, you may see the following error message preventing you from completing the edit:

Shortening of prior driving event is not allowed. Select a time before or after the driving event

If this occurs, you may need to adjust the time of the event a minute or more away from the adjacent driving event or you may need to consider adding a new event on top of the existing event to workaround the error message.

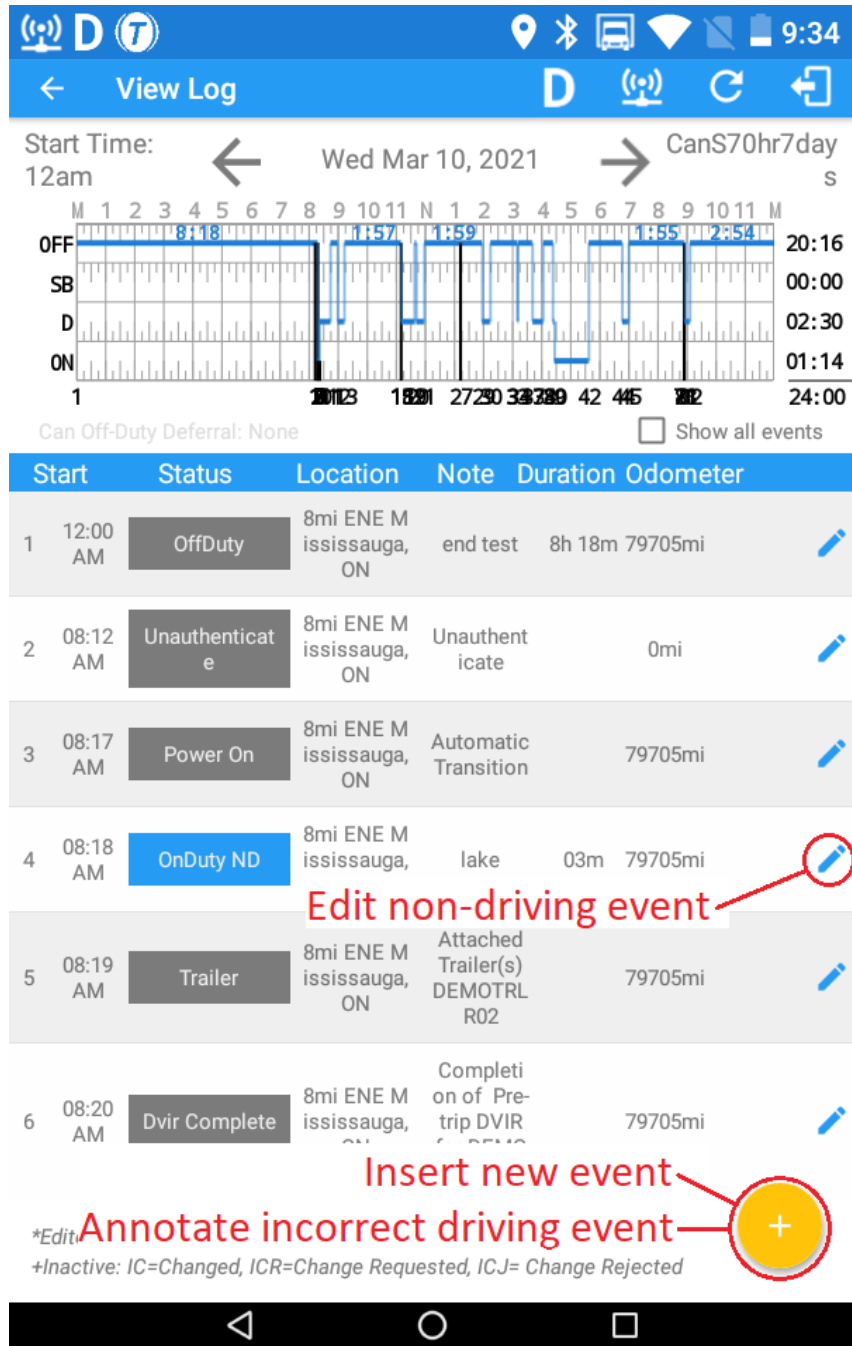


Fig. 7.1: Initiating different types of edits.

7.2.1 Update/Change an Event Status for Non-driving Event

Non-driving status events include Off Duty, On Duty ND and Sleeper. Usually these status events can be edited from one status to another. You can also change the start and end times for these events as long as the new time points do not overlap any automatic driving events. The event edit screen is shown in Fig. 7.2.

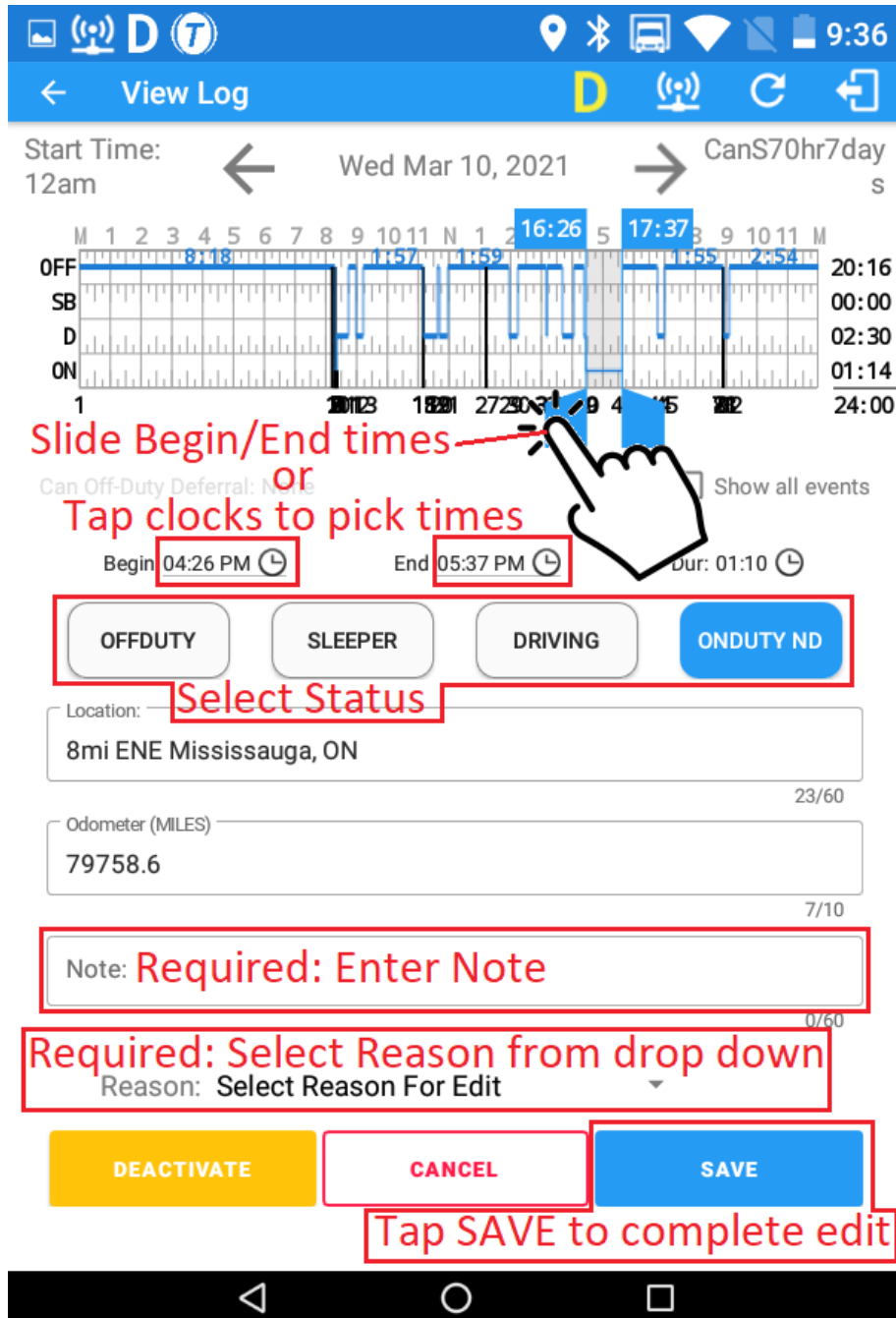


Fig. 7.2: Editing a non-driving status event.

7.2.2 Insert an Event Status

Unlike editing an existing event, a newly created event has no prior knowledge of the intended location or odometer reading. Review the log and write down the best estimate of location, odometer reading and the time of the beginning of the new event. You will need to specify at least the beginning time for a new event and you may need to fill in location and odometer as well.

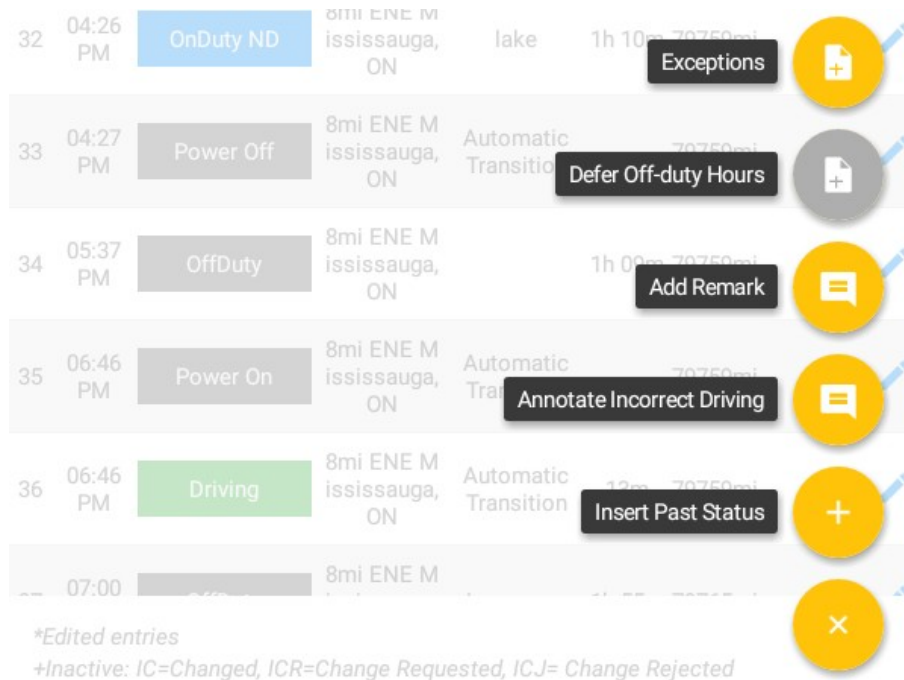


Fig. 7.3: Tap yellow circle with plus sign to view more editing options.

Start by tapping the yellow circle with plus sign as shown in Fig. 7.1. Next, tap the yellow circle with plus sign again; this time it has a caption "Insert Past Status", as shown in Fig. 7.3. The next screen will appear similar to event editor shown in Fig. 7.2. Fill in the boxes as shown in Fig. 7.2 and fill in location and odometer boxes as necessary.

7.2.3 Annotating an Incorrect Driving Event (USA Only)

Incorrect driving events are any driving events that should not be part of the log for a logical reason. For example, a driver may have finished a work shift and powered down the device before the system had a chance to automatically transition to On Duty status. Another example is moving parking spots during the off duty time and the driver forgot to use Personal Conveyance status for this movement of the truck.

It is not possible to remove automatic driving events from a log. However, an incorrect driving event can cause serious problems with calculations of available hours. It is

possible to “annotate” a driving event such that this driving event will not be included in subsequent calculations of available hours. The driving event will remain on the log and inspectors may ask questions about it. You should be prepared to explain the reason why the driving event should not be included on the log.

Tap the yellow circle with plus sign as shown in Fig. 7.1. Next, tap the yellow circle with the caption “Annotate Incorrect Driving”, as shown in Fig. 7.3.

The next step requires a little practice to get used to it. On the graph, you need to select the whole driving event or portion of a driving event that is to be marked as incorrect. Referring to Fig. 7.4, you need to drag the time bar across the graph until the incorrect portion of the driving event (or entire driving event) is highlighted gray.

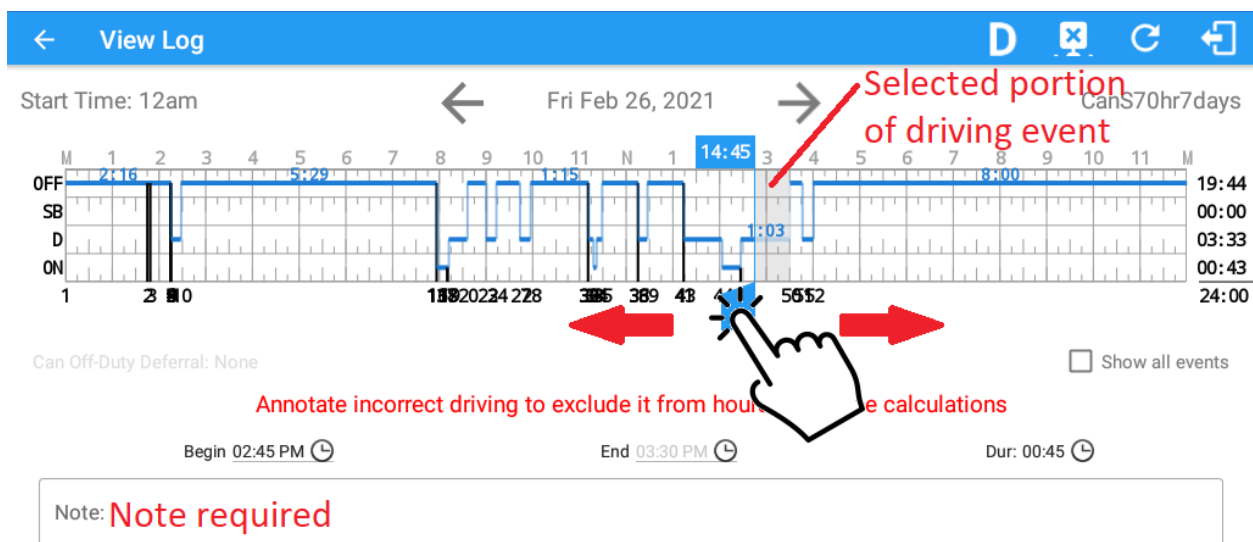


Fig. 7.4: Selecting a driving event or portion of driving event to mark as incorrect.

You may need to try dragging across the graph several times to get just the right selection.

Once the incorrect driving event or incorrect portion of driving event is selected, fill in the Note box, select a Reason from drop down choices and tap SAVE button.

7.3 Defer Off Duty Hours (Canada Only)

The entry point for deferral of Off Duty hours is shown in Fig. 7.3. Tap the yellow circle with plus sign to open the input screen. Select deferral hours from drop down and select last drop down item to specify if the date you are modifying is day 1 or day 2 of deferral period.

Glossary

BLE (Bluetooth Low Energy): A wireless personal area network technology which allows small computers and devices to communicate.

CAN (Controller Area Network) or CAN-BUS or VBUS: An electrical wire bundle that connects all of the vehicle's main computers together such that they can communicate with each other.

ECM (Engine Control Module): The main vehicle computer responsible for controlling engine and transmission functions.

ELD (Electronic Logging Device): A combination of hardware devices and software that perform the function of logging a truck driver's hours of service.

FMCSA (Federal Motor Carrier Safety Administration): A United States federal level government department under Department of Transportation (DOT) which oversees implementation and enforcement of legislation applying to trucks and commercial vehicles.

GPS (Global Positioning System): L1/L2 bands 1575.42/1227.60 MHz

hex (hexadecimal): Base 16 number representation.

HoS (Hours of Service): A recorded log of truck driver's time spent driving and performing other related events each day. In the case of ELD, this log is stored in a computer database system.

IoT (Internet of Things): The general concept of having many small, autonomous computers connected to the internet, typically performing various data acquisition activities and forwarding this data to database servers. These small computers may also perform remote control functions over the internet.

ICCID (integrated circuit card identifier): A unique identification for each SIM card.

ID (Identification): A number or character string used to identify an item.

IMEI (International Mobile Station Equipment Identity): A unique identification for each mobility hardware device consisting of 15 digits.

I/O (Input/Output): Interface to a machine usually including several channels whereby some of those channels are designated to accept input to the machine and other channels are designated to provide output from the machine. This term may also be referred to as I/O Bus or General Purpose I/O (GPIO).

LTE (Long Term Evolution): A standard for wireless broadband communication for mobile devices.

M2M (Machine to Machine): Generic description of any communication system involving a substantially autonomous machine on each end.

SIM (Subscriber Identity/Identification Module): Electronic hardware "card" inserted into device that identifies device to surrounding mobility networks.

SMS (Short Message Service): A text messaging protocol.

Azuga: The Azuga eLog/ELD app and system.

VBUS (Vehicle Bus): See CAN.

VDC (Volts of Direct Current): Continuous constant voltage level.

VisTracks: A company that developed an Android/Apple app for performing FMCSA compliant electronic logging device (ELD) and/or hours of service (HoS) with backend database hosting to support this service. The VisTracks software/system has been renamed as Azuga.