# ELECTRONIC LOGGING DEVICE

User Manual - TeraHub

UPDATE: 10/22/2021



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#### **ELD Mandate Overview**

It is important to know that ELDs do not fully automate driver logs. For example, drivers still have to manually set their duty statuses to "Off Duty", "Sleeper Berth", and so on. They also have to manually certify their records. The ELD is a tool to simplify the process of data collection for a driver's logs.

The GPS connector allows your vehicle to communicate with the GPS app over a wireless connection. To support compliance with the FMCSA's ELD mandate, it automates the collection of the following data items:

- 1. Vehicle Identification Number (VIN) it is used to automatically associate your records with a specific vehicle. If you move your ELD1 to a different vehicle, it will automatically read the new VIN and use the new VIN in your logs.
- 2. Odometer mileage it is used to automatically fill-in fields in your driver logs.
- 3. Engine hours it is used to automatically fill-in fields in your driver logs.
- 4. Engine on/off status it is used as triggers to automatically record events. A record will be automatically added to the ELD's logs when the engine is turned on or turned off.
- 5. Vehicle in-motion status it is used as triggers to automatically record events. A record will be automatically added to the ELD's logs when the engine is turned on or turned off. When the vehicle's wheel speed exceeds 5mph, a duty status of "Driving" will be automatically recorded. If the vehicle is no longer in motion, the ELD will automatically record a duty status change to "On Duty Not Driving" after 6 minutes if the driver does not manually change their duty status. When the ELD adapter detects that the vehicle is in motion, the time must be recorded as either driving, personal use of the commercial vehicle, or a yard move. The time when the vehicle is in motion cannot be shortened or reassigned to a status of "Off Duty", "Sleeper Berth", or "On Duty Not Driving".
- 6. Location it is used to automatically fill-in fields in your driver logs.

Your records are collected and stored in a database on your smartphone or tablet with the TeraHub app. However, the ELD (model: GDELD1000) has internal memory to store events when not connected to the TeraHub app. These records will be associated with the "Unidentified Driver" account and will be visible to all drivers of that vehicle on the main page of the TeraHub app.

# Installing the TeraHub App on your Phone or Tablet

Install the TeraHub application from Google Play on Android. Using your android device, go the Play Store and search for "TeraHub".

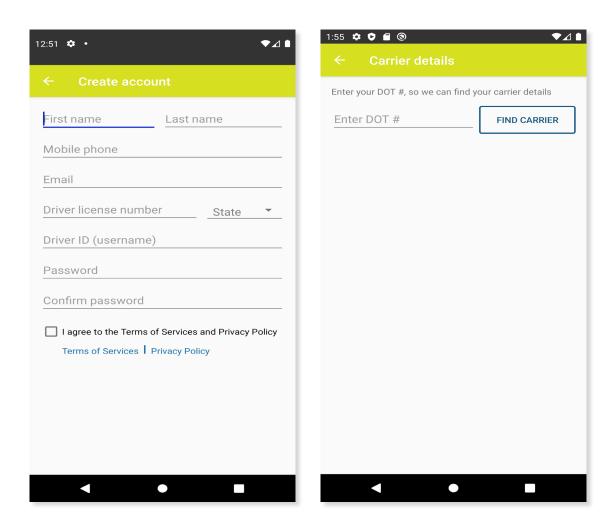
# Setting Up a New Account

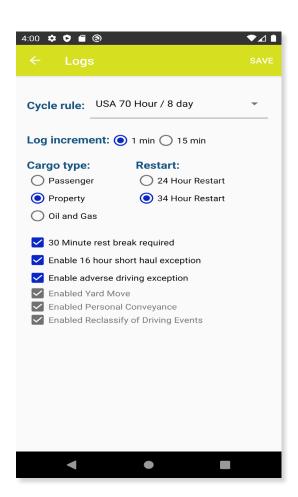
After downloading and opening the app, the login screen is open. To create a new account, press create account at the bottom of the screen. Enter all required information.

When you sign up for your account, the administrator for the carrier will be notified and accept you to the carrier's team. Once accepted, you will have access to all of that carrier's fleet of vehicles and can select from those vehicles for the day's work.

When you sign up for your account, the administrator for the carrier will be notified.

Note: Driver account can also be created from TeraHub web application <a href="https://tera-hub.com/">https://tera-hub.com/</a>

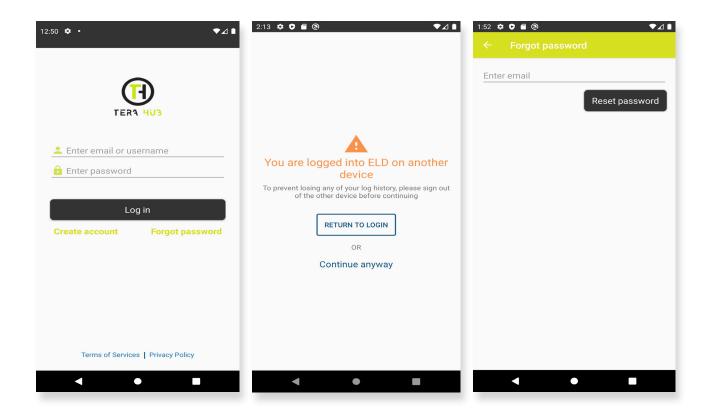




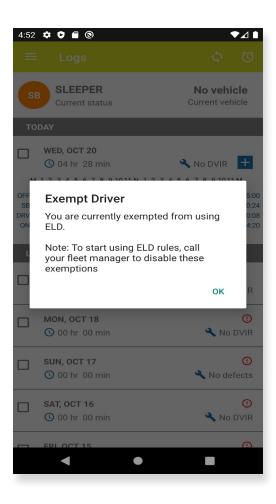
# Login

Login using your unique Driver ID or your email and your password.

If you forget your password, press forgot password option. Forgot password page opens. Enter your email and press Reset password button. Password reset link will be sent on your email address.



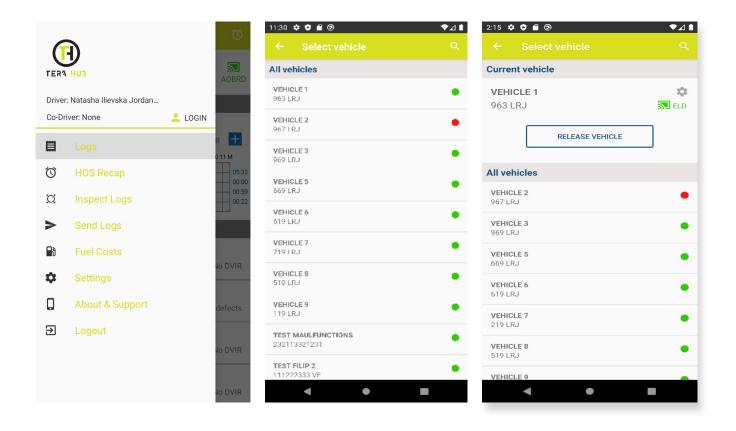
Note: If a motor carrier configures a driver account as exempt from ELD use, the TeraHub will advise the driver of this during the login / logout process.



#### Select vehicle

After successfully login, Logs page is open. On this page, press "No vehicle" option to open Select vehicle page. Select vehicle from the vehicle's list. You can only select vehicle that is not used by other driver (marked with a green circle).

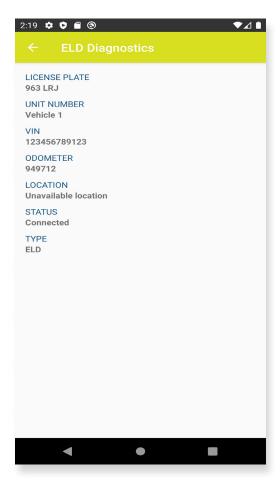
Note: When using the TeraHub app to record your drive time, remember to disconnect from the ELD when you are finished driving for the day. This is the best way to ensure that other drivers will be able to connect to the vehicle and that the drive time recorded by the ELD appears on the appropriate driver's logs. To release vehicle, select "Release Vehicle" button after which this vehicle can be used by other driver.



#### **ELD DIAGNOSTIC**

The ELD Diagnostics feature is a useful tool that allows drivers to view the properties of the ELD device installed in their vehicle. Once you have selected vehicle, you can access this feature from Select vehicle page, pressing the con.

The ELD Diagnostics screen will appear, displaying various attributes of the TeraHub device and selected vehicle that may be useful when contacting TeraHub Support.



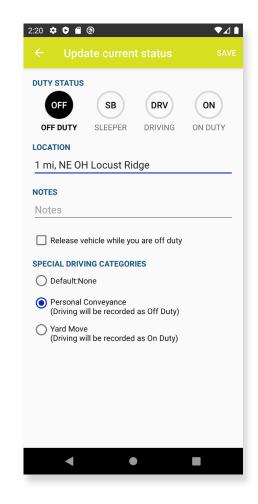
# Change your current duty status

On the main Logs screen, tap Current status bar. Update current duty status page opens. Select duty status and enter required fields.

#### Duty status options are:

- Driving This option changes the activity to Driving status and the Driver Log begins to record the driving time. It can be started manually or automatically (If the driver begins driving the truck without changing the status, the TeraHub device will sense the movement. After exceeding five miles per hour, the status will automatically change to Driving).
- On Duty (Not Driving) After logging on for the first time that day, the driver selects this button to indicate the beginning of a shift. A Start of Day note is made in the logs.
- Off Duty Moves the driver status to off duty for any type of break except time in the sleeper berth.
   To begin recording on-duty activities again, the driver must select a different status.
- Sleeper Berth This option changes the driver status to Sleeper Berth for off-duty time during

longer shifts. According to FMCSA Regulations, drivers on long shifts must have specific break and rest times.



When the TeraHub gateway is able to obtain a valid GPS fix, the Location field will be automatically populated with the current location information of the user. If there is no GPS fix, the Location field will remain blank, in this instance and you must manually input the relevant details.

From this screen, driver also has the option to choose one of the special driving conditions:

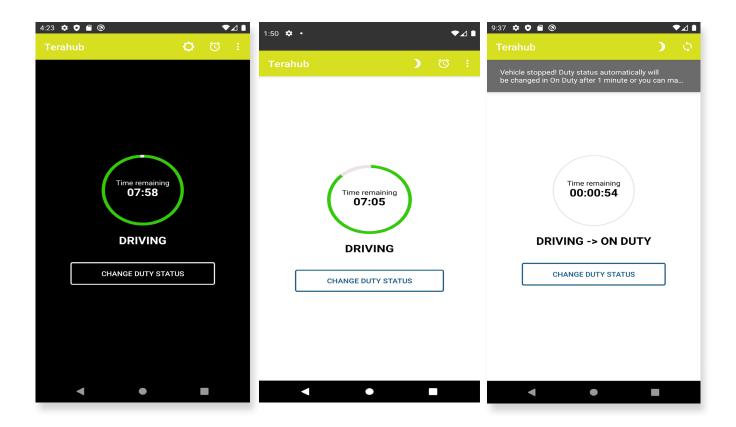
- Personal Conveyance If personal conveyance is selected, the status will be set to Off
  Duty automatically and will disable the other options. Selection of this option will be
  recorded within the events history.
- Yard Move If Yard move is selected, the status will be set to On Duty automatically and will disable the other options. Selection of this option will be recorded within the events history.

Note: You will only see the Yard Moves and Personal Use of a CMV option if the Fleet Manager has allowed these options from the TeraHub web application.

#### **AUTOMATIC DRIVING DUTY STATUS CHANGES**

If the driver begins driving the truck without changing the status and after exceeding five miles per hour, the duty status will automatically change to Driving. When duty status is changed to Driving, then new screen opens with clock at the center of the screen that displays remaining drive time. When using TeraHub app to record your hours of services at night, you can use night mode feature to darken the background of the screen.

When the truck stops, the driver can change to a non-driving status. If there is no change within five minutes, a prompt displays for the driver to change the status. If the driver does not respond to the prompt within one minute, the status automatically changes to On Duty (Not Driving).

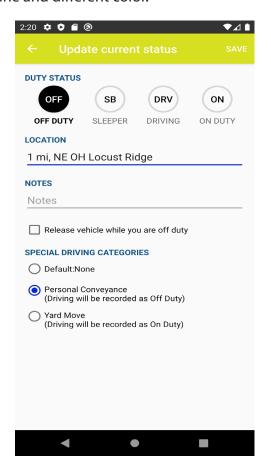


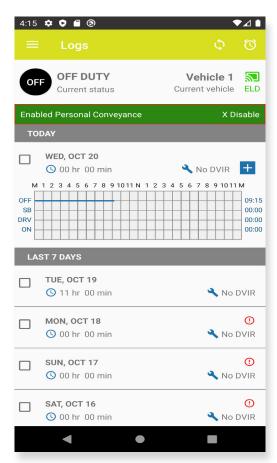
#### PERSONAL CONVEYANCE

The TeraHub app allows drivers enabled for ELD mode to select Personal Conveyance (Off Duty - Driving) for Driving Events that should not be appearing as Driving on their record of duty status. Personal Conveyance must be selected before the Driving Event is recorded by the ELD.

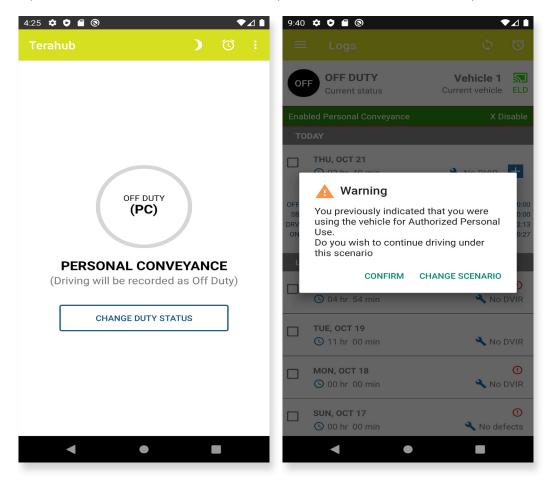
On the main Logs screen, tap Current status bar. Update current duty status page opens and select Personal Conveyance from the special driving categories. When personal conveyance is selected, the status will be set to Off Duty automatically and will disable the other options. You may also add notes in the Notes field to explain the purpose of selecting Personal Conveyance and press the SAVE button.

On the main page, a green bar will appear that indicates Personal Conveyance is enabled. When vehicle is in motion, you will see that the Driving Event is being recorded as Personal Conveyance. Personal Conveyance duty status event in log graph is represented like Off Duty event, but with dotted line and different color.





When vehicle stops, you can manually change your duty status by tapping and selecting one of the alternate duty statuses listed. You can also disable yourself from Personal Conveyance. If driver, don't



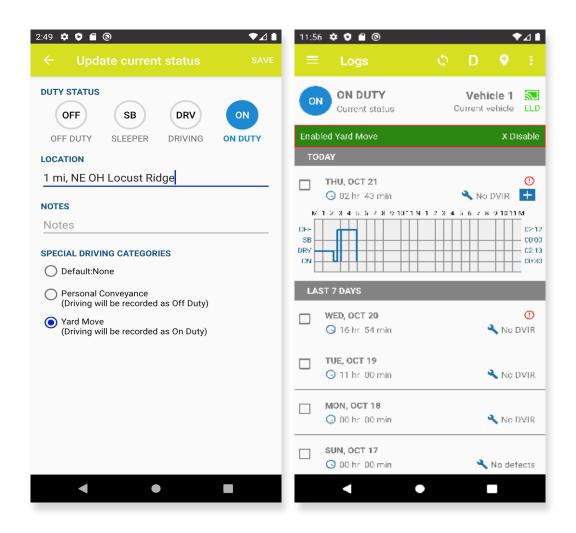
change duty status manually it will be automatically changed to Off Duty. Also popup dialog will be shown, asking the driver if he wants to continue to use this special driving scenario.

Note: When vehicle is used for personal conveyance, vehicle miles and engine hours will be omitted for all recorded events, except for Power On and Shut Down events. Also location will be generated at a lower precision level.

#### YARD MOVE

The TeraHub app allows drivers enabled for ELD mode to select Yard Move (On Duty - Driving) for Driving Events that should not be appearing as Driving on their record of duty status. Yard move is designed for those moments when you're moving your truck, but you're not really "driving". An example of this is when you've been asked to move a few metres in a parking lot or you're picking up a load and you need to get a bit closer to the loading dock. Yard Move must be selected before the Driving Event is recorded by the ELD.

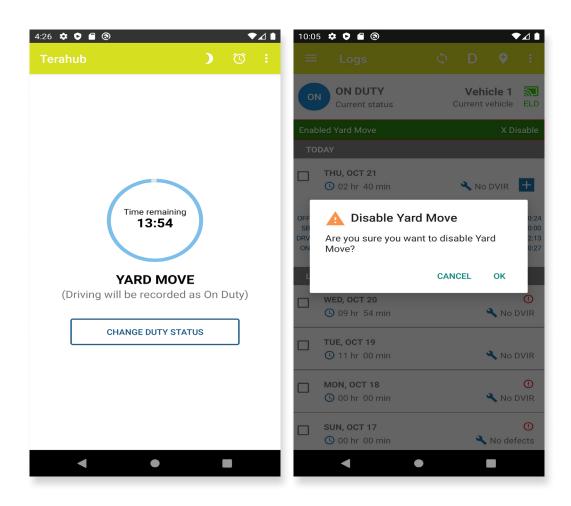
On the main Logs screen, tap Current status bar. Update current duty status page opens and select Yard Move from the special driving categories. When yard move is selected, the status will be set to On Duty automatically and will disable the other options.



You may also add notes in the Notes field to explain the purpose of selecting Yard Move and press the SAVE button.

On the main page, a green bar will appear that indicates Yard Move is enabled. When vehicle is in motion, you will see that the Driving Event is being recorded as Yard Move. Yard Move duty status event in log graph is represented like On Duty event, but with dotted line and different color.

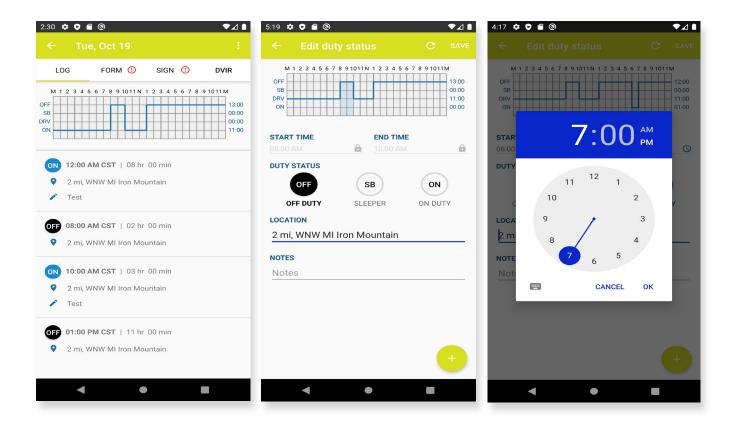
When vehicle stops, you can manually change your duty status by tapping and selecting one of the alternate duty statuses listed. You can also disable yourself from Yard Move driving scenario. If driver, don't change duty status manually it will be automatically changed to On Duty.



# Edit a past duty status

On the main Logs screen, select the day you want to change. Select Log tab and choose duty status that you want to edit. From the Edit duty status page you can set Start and End time by selecting appropriate fields and choose time from Set time dialog. To change duty status, select OFF DUTY, SLEEPER or ON DUTY buttons. To change location, tap on Location field and enter new location. Location must contain minimum 5 characters. To finish editing duty status event, you have to enter a note, explaining the reason of editing. To add notes, tap on Notes field and enter minimum 4 characters. After making appropriate changes, press SAVE to finish. Your log graph will display the new changes.

Note: ELD driving events CANNOT BE EDITED. In addition, any other duty status edit that would cause any subsequent reduction of recorded Driving time is not permitted.

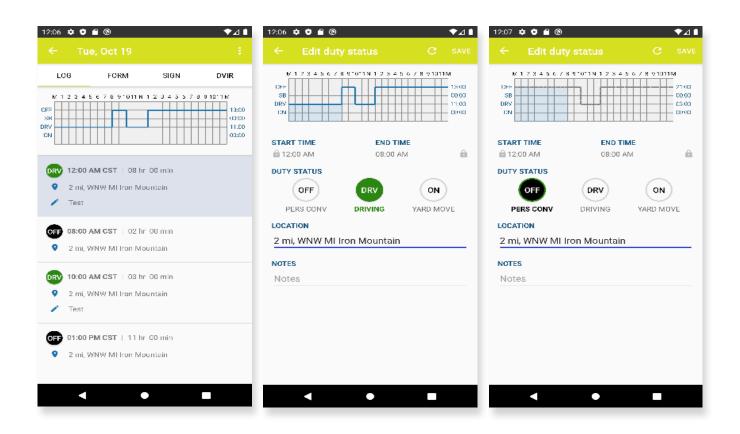


#### **INSERT A PAST DUTY STATUS**

Same steps like editing past duty status are included when you want to insert a past duty status. After edit page is opened, to insert a duty status into the selected duty status event, press the + button at the bottom right corner of the screen and select duty status that you want to insert, choose start and end time, add location and notes and press SAVE to finish, after which log graph will display the new changes.

# RECLASSIFY DRIVING AS PERSONAL CONVEYANCE / YARD MOVE

The TeraHub App allows drivers to reclassify the recorded driving period as Personal Conveyance or Yard Move and vice versa, but these special driving categories should be allowed from fleet manager.

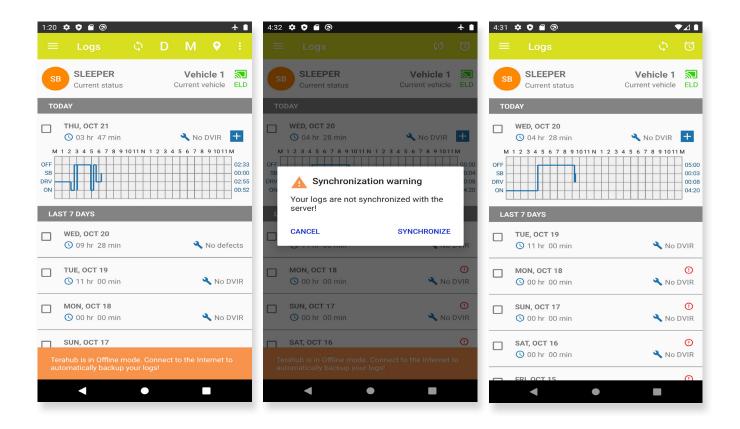


On the main Logs screen, select the day that you would like to reclassify Driving as Personal Conveyance or Yard Move. Select the Driving period from the Log Event List below the Log Graph. You'll be able to reclassify Driving as Personal Conveyance or Yard Move. You may also add notes in the Notes field to explain the purpose of reclassifying your duty status. Tap SAVE button to finish. Your log graph will display the new changes.

#### **OFF-LINE MODE**

If your device is temporarily off-line, the app will switch to off-line mode. You will receive a notification at the bottom of the screen. Even in off-line mode, you can still edit duty status and make log changes. These changes will sync as soon as you go online again. You can press the "Sync" icon in the action bar to try to manually synchronize data with the Server.

Data is sent immediately to the Motor Carrier's server from the device when the device has an internet connection (good cell coverage or wifi). However, if the internet connection is poor, the information may not make it to the server.



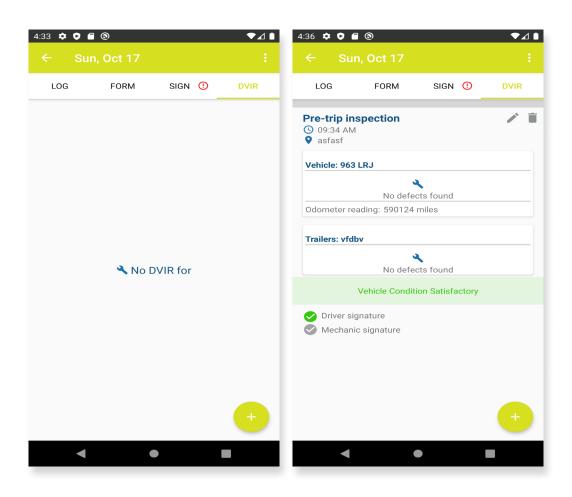
1. When this occurs, an "Un-sync" status icon will appear instead of "Sync" icon. This indicates a failure to synchronize with the server. This icon will also appear when there is no internet connection and the device has records that need to be sent to the server.

2. The driver can manually initiate the synchronization process by tapping on the Sync icon from the action bar. If it is successful, then the exclamation icon will disappear.

# Create a Vehicle Inspection Report (DVIR)

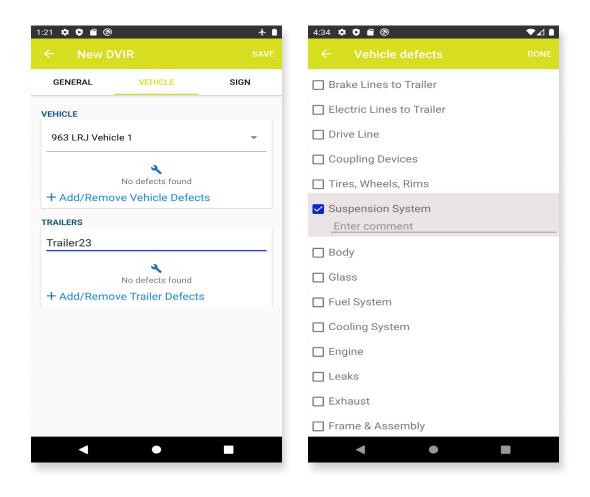
The DVIR feature provides a way for you to create online vehicle DVIR reports (Vehicle Inspection Report) while in the field. This helps to ensure that your vehicle confirms to the FMCSA's safety regulations.

On the main Logs screen, you can check if a DVIR is already created or not. Next to the wrench icon you can see 3 statuses: No DVIR, No Defects, or number of Defects. If you want to add DVIR first select the day for which you want to create the report. Select DVIR tab and press plus button at the bottom. New DVIR page opens. At the General tab, add all required fields and select type of DVIR that will be created:

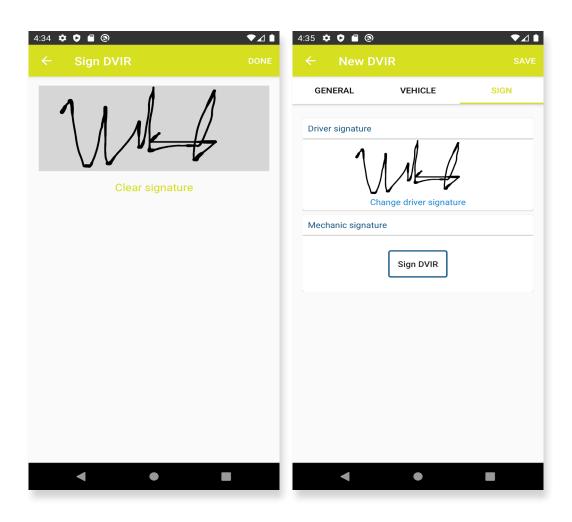


- a. Pre-trip: A DVIR conducted before driving the CMV
- b. Post-trip: A DVIR conducted after driving a CMV
- c. Other: Any DVIR conducted in any other period that the ones specified in points a & b

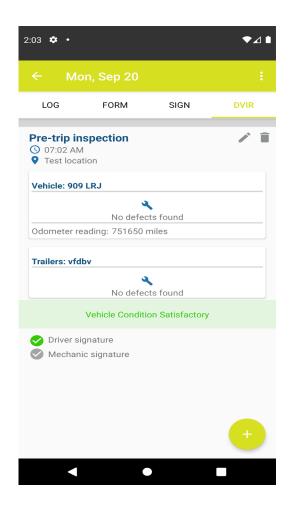
At the Vehicle tab you can add / remove vehicle defects. Choose the defects that apply from the available options on the Vehicle Defects screen.



Select the tab Sign to sign the DVIR. Tap the Sign DVIR button to electronically sign the report. Enter your signature in the marked field on the Sign DVIR screen and click Done. After you sign it tap Save.



When you return to the main DVIR tab, on the selected Log, the inspection report that you have created will be shown. Also, on the main Logs screen, the Wrench icon will reflect the changes made, i.e. if you have reported 2 defects, it will change from No DVIR to 2 Defects.

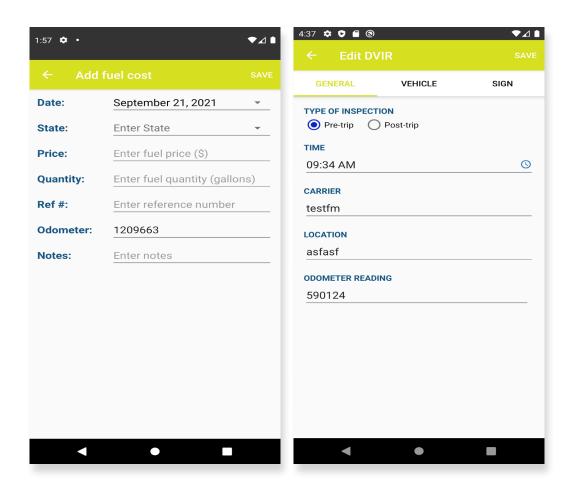


# Change Vehicle Inspection Report (DVIR)

In this section you can edit and change the vehicle inspection report.

#### **EDIT DVIR**

If you want to make a change to your inspection report, you can edit it. Tap the Edit icon (pencil) to open the Edit DVIR screen. You can change the general info on the General tab, or you can edit defects on the Vehicle tab. Tap Save to finish.



#### **DELETE DVIR**

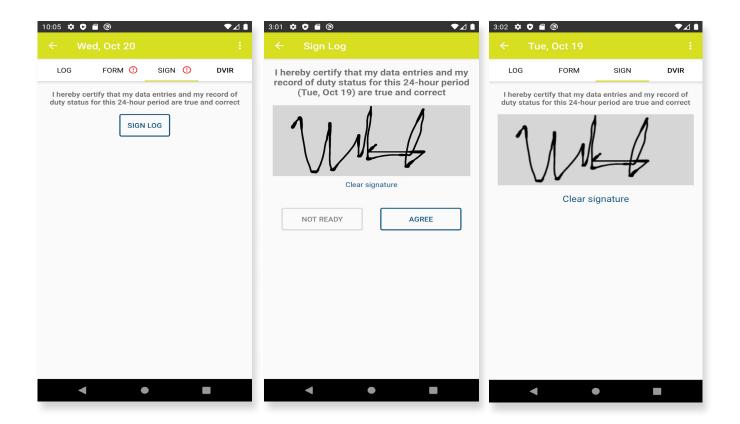
If you want to delete a report tap the Delete icon (trash can) on the DVIR tab. A pop-up window will appear to confirm if you want to delete the report.

### Sign your Logs

Drivers are responsible for signing (certifying) their day logs for every 24 hour period. If they, or their fleet managers make any edits to the information that is already signed, they will need to recertify the logs again.

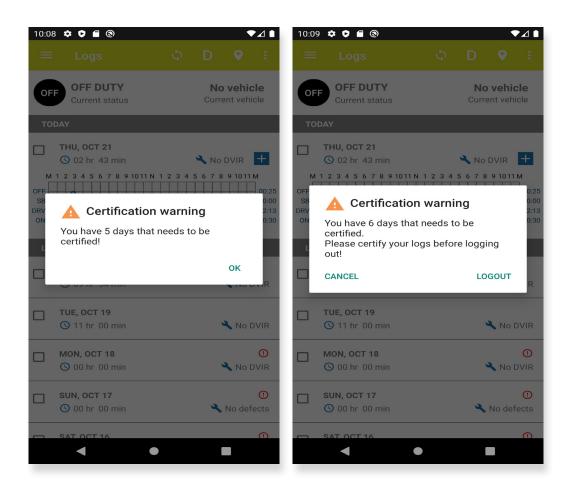
From the main Logs screen, tap the day you want to sign. Select the Sign tab on top. Select Sign log button and enter your signature with the finger. Press Agree to finish.

Note: Driver can only sign log if all information is filled in FORM section



Note: Driver certification of the daily logs is REQUIRED BY LAW. If there any records that need certification or recertification, the TeraHub app will indicate the required action by the driver when logged-in or logged-out.

If the driver has not certified all the daily logs, the ELD will prompt the driver regarding non-certified logs upon logging-in or logging-out from the app.



# **HOS** recap

From the main menu, select "Hos recap" to bring up the recap information and corresponding cycle data for the specified duty day.

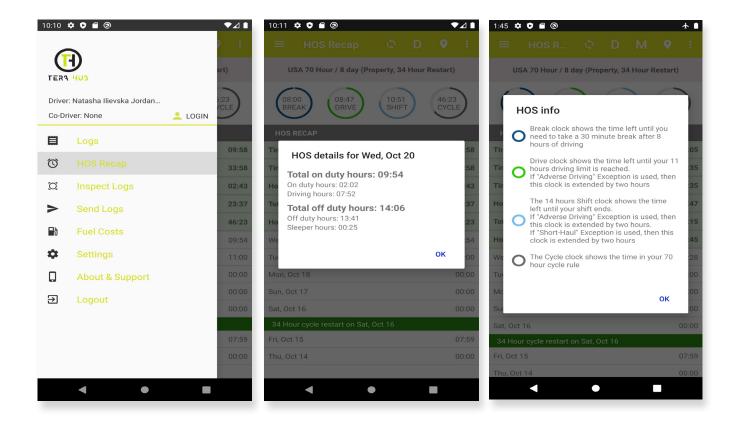
On this screen you can see complete recap for the last 7 days including current day with total on-duty hours (On duty & Driving Hours). If you want to see details about some specific day, select the day from the given list and HOS details dialog will appear. All cycle restarts during these days will be included in the recap.

TeraHub allows drivers to view how many hours they have left in their Hours of Services. At the top of the screen four clocks are shown, which automatically calculate your break, drive, shift and cycle time from your log information.

- 1. The BREAK clock shows the time left until you need to take a 30 minute rest break;
- 2. The DRIVE clock shows the time left until your driving limit is reached;
- 3. The SHIFT clock shows the time left until your shift ends;
- 4. The CYCLE clock shows the time left in your 60 or 70 hour cycle.

#### Below four clocks, you can see:

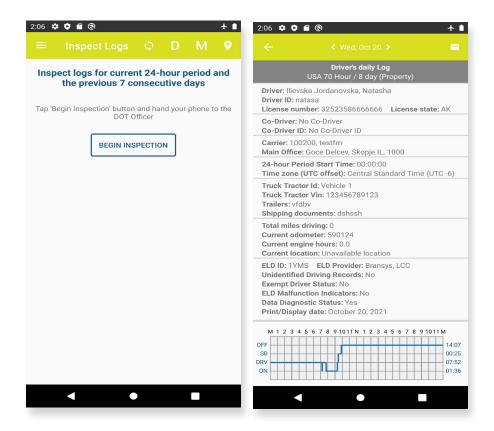
- 1. Hours worked today;
- 2. Total hours since last restart;
- 3. Hours available tomorrow.

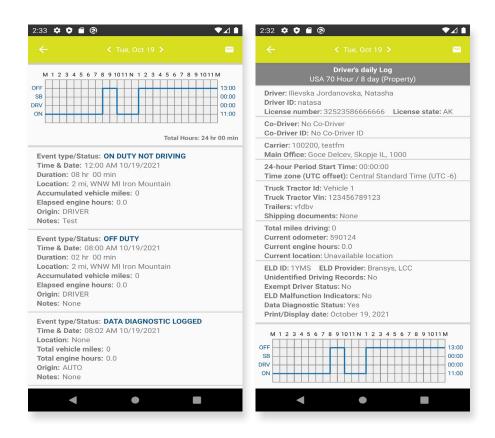


# Allow for an officer to inspect your logs

The Inspection logs feature provides the ability to view the driver daily logs for current 24-hour period and the past one week. It includes all of the information necessary for a safety inspection, like vehicle used, shipments, all types of events, including unidentified driving events esc.

From the main menu, select Inspect Logs. This will allow the officer to inspect your logs directly from the device, tap "Begin inspection" button and hand your phone to the DOT officer.





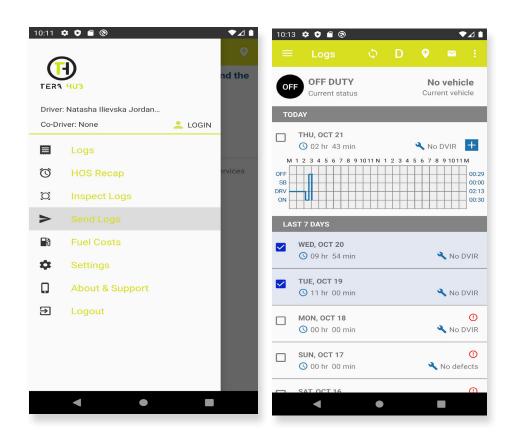
If for some reason the inspector needs logs more than 8 days old, the carrier can provide this data by logging into the web portal at

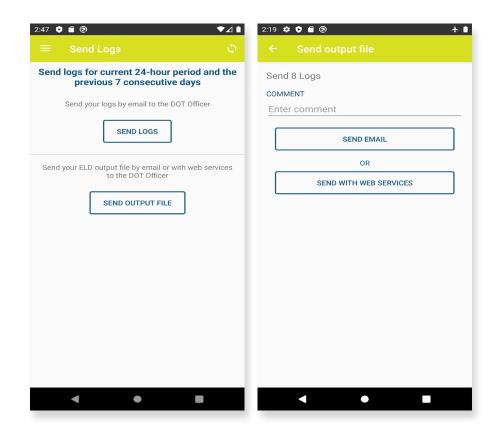
https://tera-hub.com/

# Send logs

The driver's ELD records can be transmitted to an enforcement agent, or to a personal email, through selection of the "Send logs" option from the main menu button inside the ELD menu.

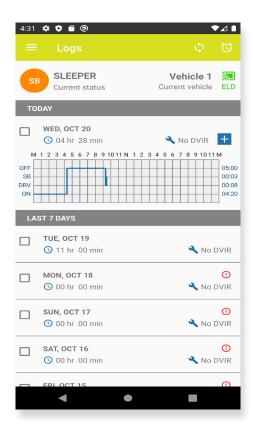
- 1. To send your logs to a personal email in word format press button "Send logs". On this way, you will send 8 logs (for current 24-hour period and the previous 7 consecutive days). If you want to send specific log, from the main Logs screen select the day that you want to send (select checkbox) and press on message icon which is shown at the top of the screen.
- 2. To send your logs to an officer, from the main menu, press button Send output file and choose one of the given options (Send email or send with web services). The ELD output file transferred is encrypted using AES-256. Before sending, the driver can enter output file comment which is optional. Maximum number of characters that can be entered in the comment is 60.





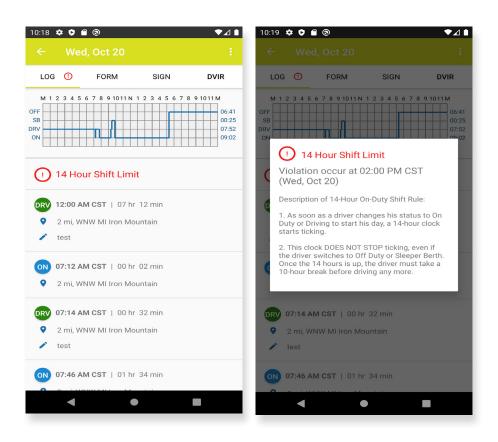
# Violations and warnings

The TeraHub app alerts you on potential and active violations and gives warnings about missing log's data. On the main logs screen, the red exclamation icon indicates that your log has a HOS violation or gives a Form or Certification warning.



#### **HOS VIOLATIONS**

The HOS Violations are listed below the log-graph. Tap on the violation to check the details. The HOS Violations include: Cycle, Shift, Driving and Break Violations.



#### **HOS RULES**

Hours of service violations are the number one cited violation during roadside inspections. It's the principle reason for the ELD mandate, which requires commercial drivers keeping a Record of Duty Status to switch from paper logs to an electronic logging device by December 2017. Avoiding these violations is easy if you know the HOS rules, but many drivers and fleet managers are misinformed. Main HOS Rules to avoid violations are:

- 1. Know your cycle: Driving cycles depend on how many days of the week your carrier operates. If your carrier operates every day of the week, you are eligible to operate under the 70-hours/8-days cycle, which limits a driver to 70 hrs on-duty over any 8-days period. If your carrier operates for fewer than 7 days in a week, you are eligible to operate under the 60-hours/7-days cycle, which limits a driver to 60 on-duty hours over any 7-days window.
- 2. Restarting your drive cycle: If you want to completely refresh your driving cycle, you must take 34 consecutive hours off-duty and/or Sleeper Berth time. The 34-hour restart has undergone recent changes over the past year, but this is the most up-to-date requirement for a restart and the only one you need to know.
- 3. The 14-hour rule: When a driver comes on-duty after taking at least 10 consecutive hours off-duty, he or she has a 14-hour window to complete driving for the day. Although driving is not permitted after the 14th hour, other work-related tasks may still be performed.
- 4. The 11-hour rule: Within the 14-hour driving window, you are allowed to drive a maximum of 11 hours.
- 5. The 30-minute break: No driving is allowed after any 8-hour on-duty period (On Duty or Driving) until a driver has taken the mandatory 30-minute off-duty break.
- 6. The 10 hour break: If time on the 11-hour or 14-hour clock has expired, the driver must take at least 10 consecutive hours in Off Duty and/or Sleeper Berth status to reset those clocks.
- 7. Split sleeper berth: The split sleeper berth allows drivers to split the required 10 hour off-duty break into two shifts. One of those shifts must be between 8-10 hours, spent entirely in the sleeper. The second shift can be between 2-8 hours and completed in the sleeper berth, off-duty, or as a combination of sleeper berth and off-duty. Regardless of the order in which a driver takes these breaks, successful completion of both will

give the driver a new 11-hour drive time and 14-hour driving window, which begins after completion of the first qualifying break.

These seven rules cover the major HOS rules for property carrying vehicles. Familiarizing yourself with the HOS basics can help you avoid fines and keep your fleet out of trouble.

#### **HOS EXCEPTIONS**

There are many different exemptions and exceptions that extend or change main HOS rules. TeraHub app allows use of the following exemptions.

#### **16-HOUR SHORT HAUL EXCEPTION**

The 16-hour short-haul exception allows drivers on US 70/8 or US 60/7 cycles to extend their 14-hour window by 2 hours every week. To be able to take the short-haul exception, this exception must be enabled in logs settings.

On the main Logs screen, select the day that when you would like to take the Short-Haul exception. Select "Take 16 Hour Exception" from the action bar menu. You can see the 16 Hour Short Haul Exception below the log graph.

You can also reject the short-haul exception. To reject the exception, select "Reject 16 Hour Exception" from the action bar menu.

Note: Drivers can have 16-hour short-haul exception once per cycle. You will only see the option for short-haul exception if you have not used this 16-hour exception in the previous 6 consecutive days (unless you have utilized the 34-hour break to restart your weekly cycle).

#### ADVERSE DRIVING CONDITIONS EXCEPTION

Adverse Driving Conditions Exception extends the driving limit / ON-Duty limit by up to 2 hours due to unforeseen driving conditions. This exception is allowed for all drivers.

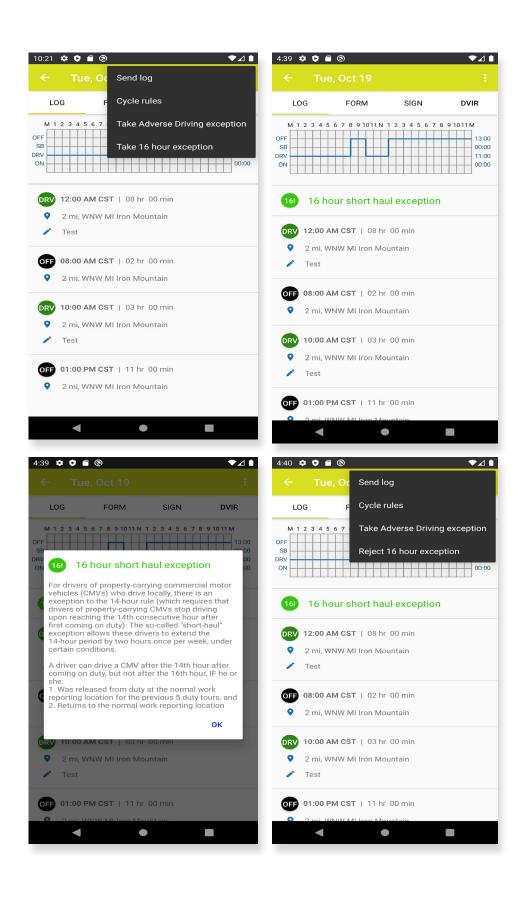
The FMCSA defines adverse driving conditions as: "snow, sleet, fog, other adverse weather conditions, a highway covered with snow or ice, or unusual road and traffic conditions, none of which were apparent on the basis of information known to the person dispatching the run at the time it was begun." So, while this may include an unexpected snow storm or a traffic delay due to a crash, it doesn't include time sitting in traffic due to normal, rush hour congestion.

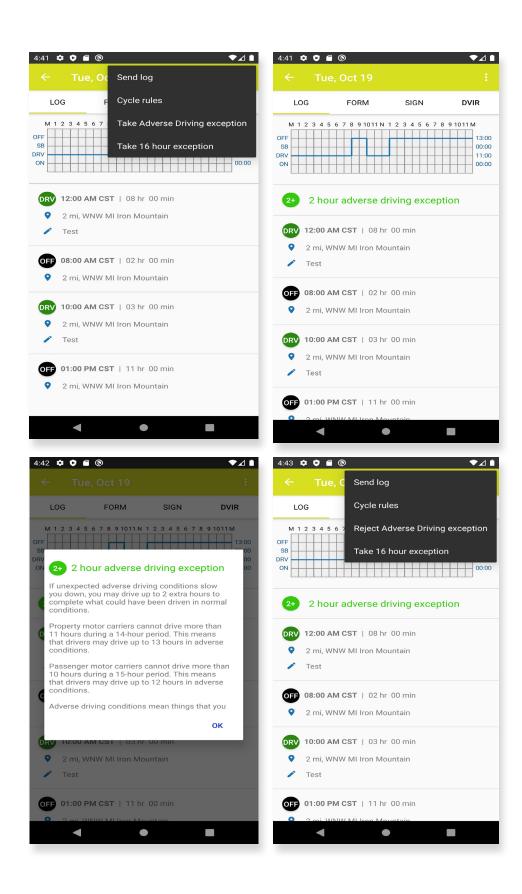
If any of the conditions described above exist, drivers may continue driving until the intended destination is reached or until they are able to safely reach a secure location, but for no more than two extra hours.

It is important that drivers note their log when using the exemption. They must also provide as much detail as possible.

On the main Logs screen, select the day that when you would like to take the Adverse Driving Conditions exception. Select "Take Adverse Driving Exception" from the action bar menu. You can see the Adverse Driving Exception below the log graph.

You can also reject the Adverse Driving exception. To reject the exception, select "Reject Adverse Driving Exception" from the action bar menu.





### WELLSITE WAIT TIME EXCEPTION

Drivers in oil-well transportation service can use time spent waiting at oil well site as OFF-Duty time or to satisfy the 30-minute break. To be able to take the Wellsite Wait Time exception, this exception must be enabled in logs settings.

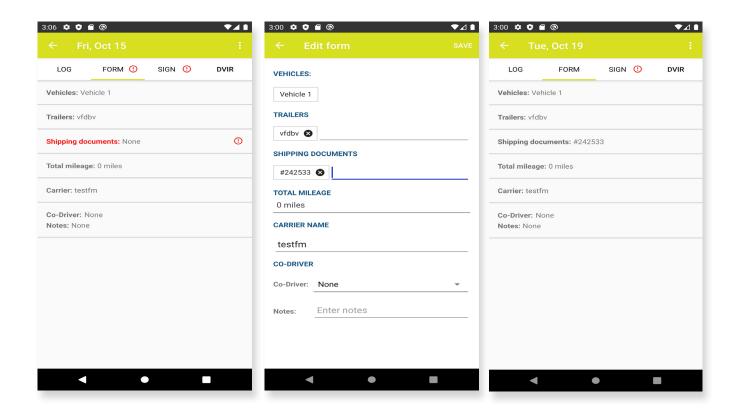
On the main Logs screen, select current status. Update current duty status page opens. From here, select Waiting time, which automatically set duty status to off duty. Add Location if it is not automatically entered by the system, add notes and press SAVE to finish.

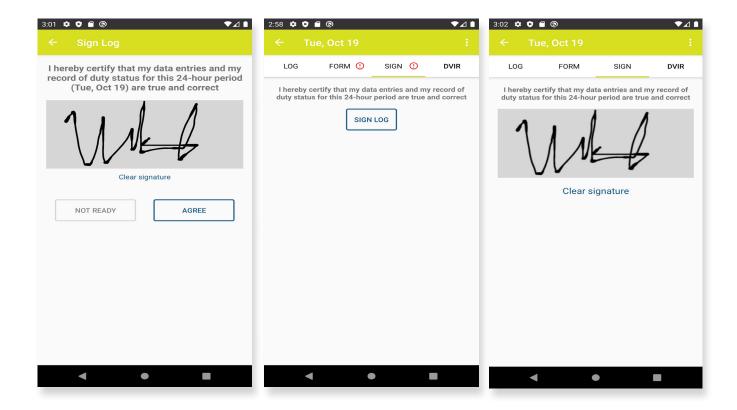
#### FORM AND CERTIFICATION WARNINGS

From the main Logs screen, select the day you would like to view with the red exclamation. A red exclamation on the Form tab indicates that you are missing required information such as shipping document numbers. The red text indicates the required information that is missing.

Tap on each text separately to enter the required information. Once all the fields are completed, the text will change color. The red exclamation in the Form tab will disappear when all of the required items are completed.

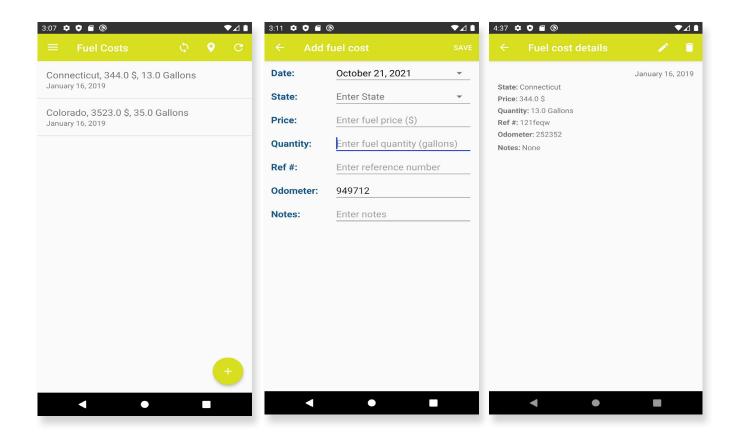
To sign log, first you'll have to enter the required information in log's form and then sign the log. After signing the log red exclamation in the Sign tab will disappear.

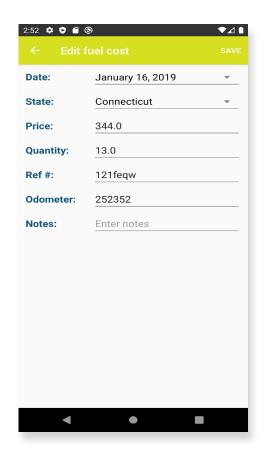




### **Fuel Costs**

From the main menu, select "Fuel costs". The screen with a list of all fuel costs is displayed. To add new fuel cost press the plus button at the bottom of the screen. Add fuel cost page will open. Fill out all required fields and press SAVE. New fuel cost log will be added. To see details about the fuel cost press on fuel cost item from the "Fuel costs" list. Fuel cost details page will open. On this page you can see all details about selected fuel cost. Also here you can edit or delete selected fuel cost logs. Press on edit or delete icon which are on the top of the screen to do appropriate action.

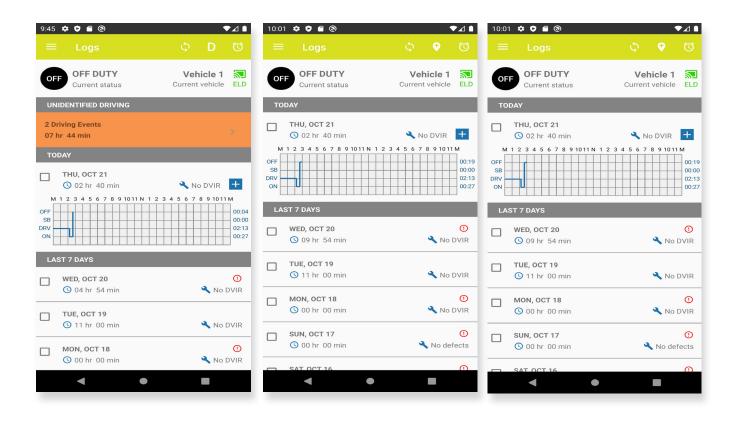


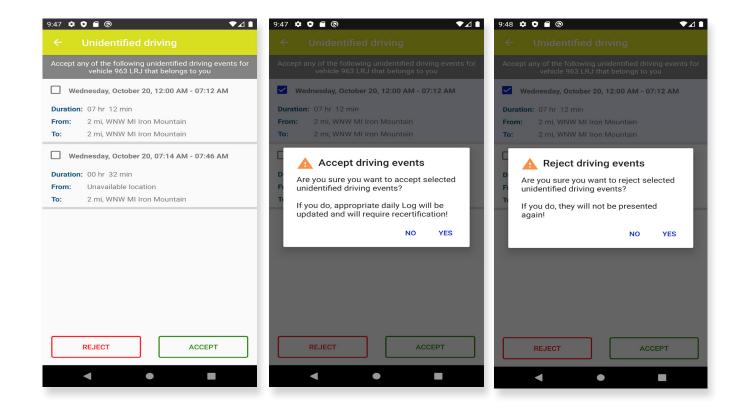


# Accept or reject your fleet manager's log edits

A properly credentialed manager can edit your logs using TeraHub web portal for managers, but those edits will not affect your logs unless you choose to accept them. If you disagree with the manager's suggested changes, you may reject them. If you accept the changes, your logs will be altered, but a copy of the original log will be kept for reference.

The driver will be notified about the edits done by the fleet manager. On the main Logs screen, Log Edit suggestions will be shown. Select day in this section, to approve or reject the changes. Your fleet manager's edits will be in the Edited Log tab with different color. To view the original log, tap on the Current Log tab. To approve or reject the suggested edits by fleet manager, tap on the or the button, located at the bottom of the log.



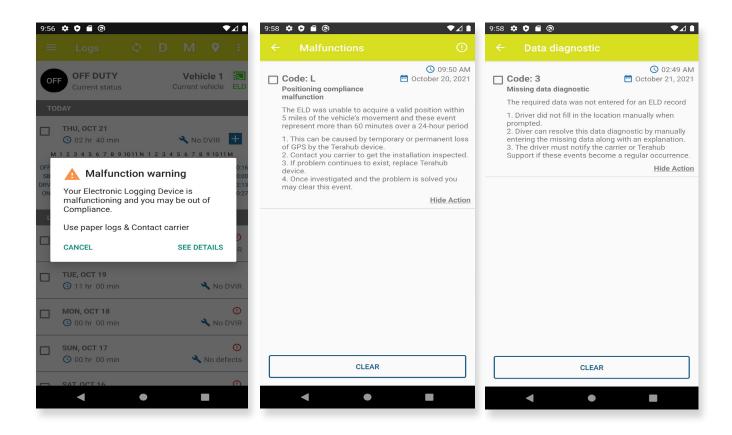


## **ELD Malfunctions & Data Diagnostics**

The TeraHub app include a Self-Monitoring function which not only relays malfunctions to the server, but also notifies the driver in the event of a malfunction.

When an ELD malfunction or data diagnostic event is detected or cleared by the ELD, the ELD records the event. The recorded malfunctions and data diagnostic events are inconsistencies found while monitoring the app/ELD against FMCSA compliance requirements. When a malfunction or data diagnostic is detected, the app will notify the user by displaying a pop-up alert. Also in the application toolbar, letters M and D will indicate these events, respectively.

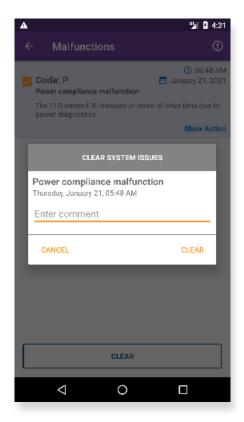
When you see the data diagnostic indicator, you should view the data diagnostic details by tapping the indicator. This opens the 'Data diagnostics' screen that lists data diagnostic events recorded on the ELD. You can view the details of a data diagnostic and clear it from the list.

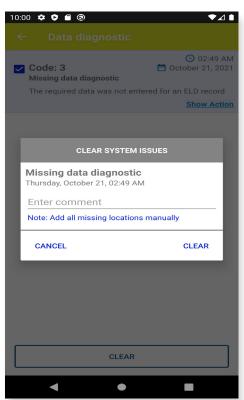


When you see the malfunction indicator, you should view the malfunction details by tapping the indicator. This opens the 'Malfunctions' screen that lists malfunction events recorded on the ELD. You can view the details of a malfunction and clear it.

ELD needs to capture when a malfunction or data diagnostic event has been cleared by the driver.

Note: Unidentified driving records data diagnostic will be cleared automatically if unidentified driving events drop to 15 minutes or less during the current 24hr period and previous 7 days.





## Malfunctions & Data Diagnostics Manual

TeraHub provides ELD Malfunction Diagnostic Manual for drivers, which they can present to a DOT officer during an inspection incase of an ELD malfunction. As per FMCSA rules, this manual must be kept in the vehicle at all times.

How does the driver know if the ELD is malfunctioning?

Neither of the LED lights on the device are turned on (green or red) when the device is plugged into the truck's diagnostic port, and the power is on.

What does the driver need to do if the ELD is malfunctioning?

- Contact TeraHub at +1 630-339-3121 or email support@tera-hub.com to troubleshoot the issue immediately.
- Note the malfunction and inform your fleet company within 24 hours with a written notice.
- Keep a paper log for that day and until ELD is repaired or replaced. In the event of an inspection, display the previous 7 days logs from the TeraHub app.

### **DATA DIAGNOSTIC AND MALFUNCTION EVENTS**



TeraHub provides ELD Malfunction Manual for drivers, which they can present to a DOT officer during an inspection in case of an ELD malfunction. As per FMCSA rules, this manual must be kept in the vehicle at all times.

### How does the driver know if the ELD is malfunctioning?

Neither of the LED lights on the device are turned on (green or red) when the device is plugged into the truck's diagnostic port, and the power is on.

Code	Event	Message	Advisable actions
1	Power diagnostic	The ELD was not fully powered in less than one minute	<ul> <li>Please check your logs to see if they are correct by reviewing them on the mobile application.</li> <li>Check all cables connecting TeraHub connector to the vehicle diagnostics port.</li> <li>Try to resolve the diagnostic event by turning off the vehicle engine and restart.</li> <li>Manually dear the event.</li> <li>The driver must notify the carrier and TeraHub support if these events are repeatable.</li> </ul>
2	Engine synchronization diagnostic	The necessary vehicle information was not read within 5 seconds of the last data reading from the vehicle's data CAN bus	<ul> <li>Please check your logs to see if they are correct by reviewing them on the mobile application.</li> <li>Check all cables connecting TeraHub connector to the vehicle diagnostics port.</li> <li>Try to resolve the diagnostic event by turning off the vehicle engine and restart.</li> <li>Manually dear the event.</li> <li>The driver must notify the carrier and TeraHub support if these events are repeatable.</li> </ul>
3	Missing data diagnostic	The required data was not entered for an ELD record	<ul> <li>Driver did not fill in the location manually when prompted.</li> <li>Diver can resolve this data diagnostic by manually entering the missing data along with an explanation.</li> <li>The driver must notify the carrier and TeraHub support if these events are repeatable.</li> </ul>
4	Data transfer diagnostic	Tests of the roadside inspection of data transfer failed	<ul> <li>Verify if the ELD has network connectivity. You may be operating in a location with poor network coverage.</li> <li>This event auto-resolves, if the device begins to communicate successfully again.</li> <li>The driver must notify the carrier and TeraHub support if these events are repeatable.</li> </ul>
5	Unidentified driving data diagnostic	Unidentified driver records	<ul> <li>Please review the unidentified driving events recorded on the ELD and accept any periods of drive time recorded, while you were driving and not logged into the ELD system.</li> <li>Verify that if the data diagnostics event has been deared.</li> </ul>

In order to improve our products, TeraHub may, at any time, and without warning, change the design, presentation, or functionality of the software.

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### What does the driver need to do if the ELD is malfunctioning?

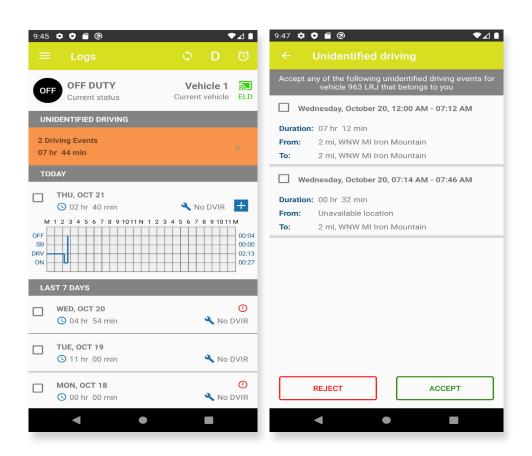
- Contact TeraHub Support at +1 630 339 3121 or email support@tera-hub.com to troubleshoot the issue immediately.
- Note the malfunction and inform your fleet company within 24 hours with a written notice.
- Keep a paper log for that day and until ELD is repaired or replaced. In the event of an inspection, display the previous 7 days logs from the TeraHub app.

Code	Event	Message	Advisable actions	
Р	Power compliance malfunction	The ELD missed 30 minutes or more of drive time due to power diagnostics	Please check if the TeraHub connector is properly installed. If the error continues to exist, please contact TeraHub support.	
E	Engine synchronization compliance malfunction	The ELD was not able to communicate with the vehicle for more than 30 minutes during a 24-hour period	Please check that the TeraHub connector is properly installed. If the error continues to exist, please contact TeraHub support.	
т	Timing compliance malfunction	The ELD detected that its time was inaccurate by 10 minutes or more	<ul> <li>Please, check your mobile phone time. Ensure it is set to acquire time automatically.</li> <li>Once investigated and the problem is found you may clear this event.</li> <li>If this malfunction does not auto-resolve, contact your motor carrier or TeraHub support</li> </ul>	
L	Positioning compliance malfunction	The ELD was unable to acquire a valid position within 5 miles of the vehide's movement and this event represent more than 60 minutes over a 24-hour period	This can be caused by temporary or permanent loss of GPS by the TeraHub device.  Contact you carrier to get the installation inspected.  If problem continues to exist, replace TeraHub device.  Once investigated and the problem is solved you may clear this event.	
R	Data recording compliance malfunction	The ELD ran out of storage space for ELD records	Please contact your motor carrier or TeraHub support. You should revert to paper logs	
s	Data transfer compliance malfunction	The Data Transfer Diagnostic occurred 4 times in a row	<ul> <li>Verify the BLD has network connectivity. You may be operating in a location with poor network coverage.</li> <li>If this malfunction is not auto-resolve within 24hrs, contact your motor carrier or TeraHub support.</li> </ul>	
v	Unidentified VIN Malfunction	Incorrect VIN number for GPS gateway device	<ul> <li>Please contact ASAP fleet manager to edit the VIN number for the device.</li> <li>Contact you carrier to get the installation inspected.</li> <li>If problem continues to exist, replace TeraHub device.</li> <li>Once investigated and the problem is solved you may clear this event.</li> </ul>	

## Unidentified driving events

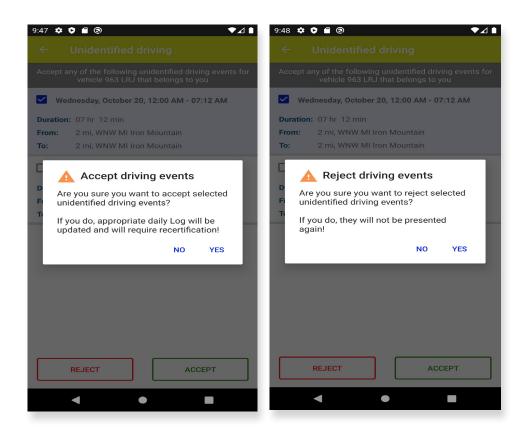
If you are using the TeraHub ELD, it is important to connect to the ELD from the TeraHub app before you start driving. If you do not connect with the ELD before driving the vehicle, driving time will be recorded as an Unidentified Driving Event until assigned to or accepted by a driver. The US Department of Transportation has provided specific guidelines for unidentified driving recorded by an ELD.

To comply with guidance provided by the DOT, the TeraHub ELD will notify you of any Unidentified Driving Events after connecting to the ELD (after logging in to the app and selecting appropriate vehicle). Once you have connected to the vehicle's ELD from the TeraHub app, any recent driving events will appear in the orange ribbon on the main screen under Unidentified Driving. Tap the ribbon to see the Driving Events. Then, you will be able to accept or reject these Unidentified Driving Events directly from the TeraHub app.

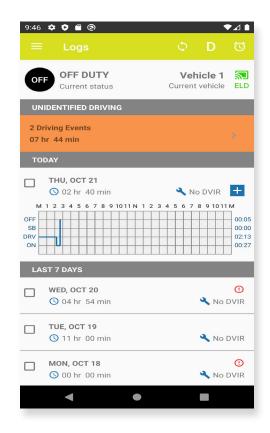


In addition to being notified of Unidentified Driving Events in the TeraHub app upon connecting to the TeraHub ELD, your fleet manager may also assign an Unidentified Driving event to you in the format of a Log Edit Suggestion. These suggestions will appear in a second orange ribbon on the main screen of your TeraHub app. (see section 16. Accept or reject your fleet manager's log edits).

If you think you have accepted an Unidentified Driving event by mistake, you can contact your fleet



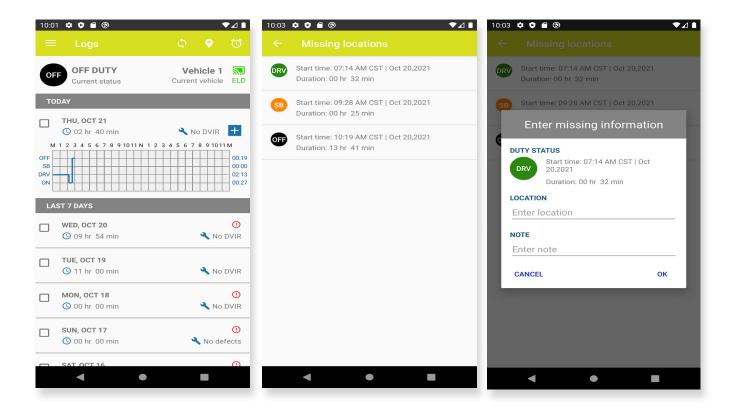
manager so that they can re-assign the driving event to the correct driver or you can edit these events and in this situation the previous unidentified driving records will be recreated and they can be accepted by other drivers.



## Missing locations

The missing location indicator occurs on main page in action bar (icon with plus sign in it) when the ELD detects a data inconsistency. It indicates there is required location information missing from your logs.

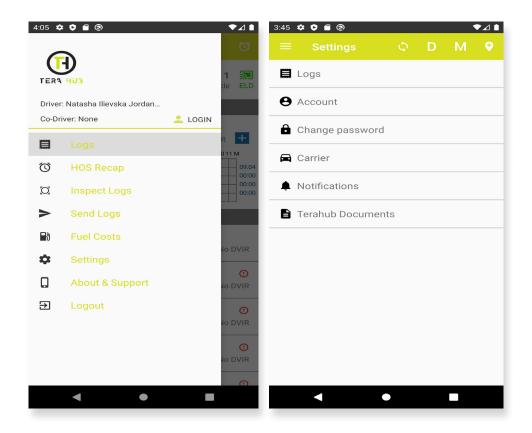
When you see the missing location indicator, you should view all missing locations by tapping the indicator. This opens the 'Missing locations' screen that lists all events with missing location recorded on the ELD. Select event to add location. Also enter note and press ok.



# Customizing the TeraHub App Settings

The app's settings and preferences can be customized in the Setting screen

To navigate to this part of the app, open main navigation menu and select the Settings option. This will display the Settings screen.



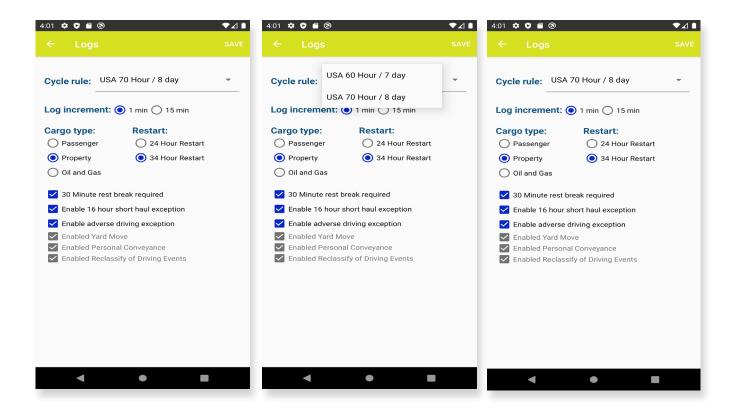
On the Settings screen, you can choose those parts you want to edit, like Logs settings, Account, Password or Notifications.

On the Carrier screen you can check the details of your carrier.

### Logs settings

This is where you change the HOS rules or the Federal Motor Carrier Safety Administration's (FMCSA) regulations that govern the hour that a commercial vehicle driver can legally accumulate driving or being on duty for a motor carrier in a working day and week. This is also where you apply the HOS rules exceptions.

Select the appropriate HOS rules that you would like the app to use from the drop down list. You can customize these options:



• Cycle rule - this is where you can set the consecutive multi-day duty period which the driver will follow. Choosing a cycle will take into effect the corresponding legal limitations on the hours that can be used by the driver in a 7 day or 8 day working cycle.

#### Available cycle rules in TeraHub app are:

	Cycle Limit	Shift Limit	Drive Limit	Break Limit
USA 60Hr/7days	7 days	14 hours	11 hours	8 hours
USA 70Hr/8days	8 days	14 hours	11 hours	8 hours
California 80Hr/8days	8 days	16 hours	12 hours	N/A
Texas 70Hr/7days	7 days	15 hours	12 hours	N/A
Alaska 70Hr/7days	7 days	20 hours	15 hours	8 hours
Alaska 80Hr/8days	8 days	30 hours	15 hours	8 hours

- Log increment edit current log in 1 or 15 minutes increment
- Cargo type set the applicable Hours of Service rules for property carrying, passenger carrying commercial vehicles or for Oil and Gas

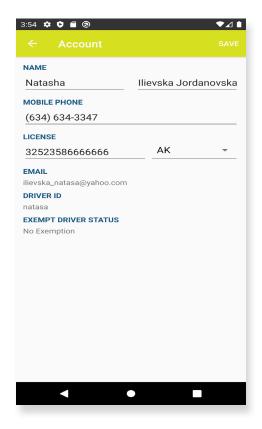
Available cargo type rules options in TeraHub app are:

- 1. Property the 11 and 14 hours rule will apply
- 2. Passenger the 10 and 15 hours rule will apply
- 3. Oil and gas the 10 and 15 hours rule will apply
- Restart 24 or 34 hours restart
- 30 Minute Rest Break
- 16 Hour Short Haul Exception
- Waiting Time Exception
- Enabled Yard Move this exception can be enabled only by fleet manager
- Enabled Personal Conveyance this exception can be enabled only by fleet manager

## **Account settings**

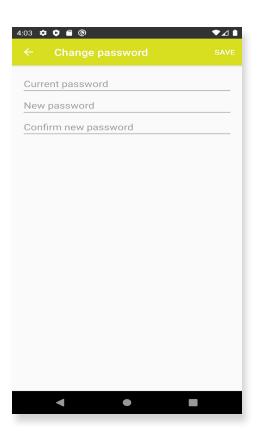
Account page lists all driver's current information. To change your account information select appropriate filed that you want to change and press SAVE.

Note: Driver can't change his email, his driver ID and his Exempt status.



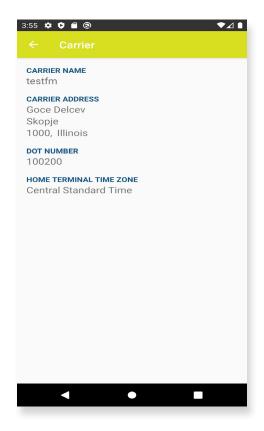
# Change password

If you want to change your password, open "Change password" page and enter your current password, under the "Current password" field enter your new password and press SAVE.



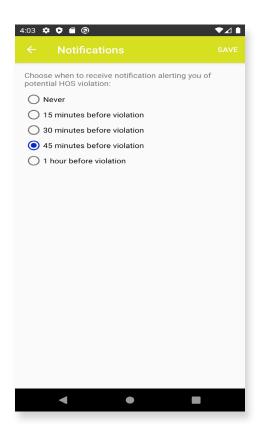
# **Carrier settings**

Carrier page list your current carrier information. Carrier information can only be changed on the website <a href="https://tera-hub.com/">https://tera-hub.com/</a> and cannot be changed using the TeraHub mobile app.



### **Notifications**

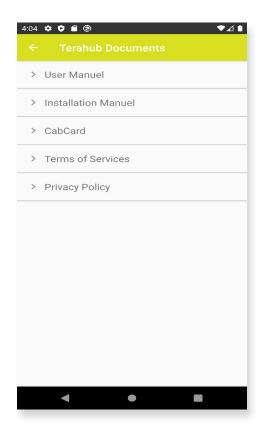
On the Notification screen you can choose when you would like to receive the alerts for potential HOS violations.



### **TeraHub Documents**

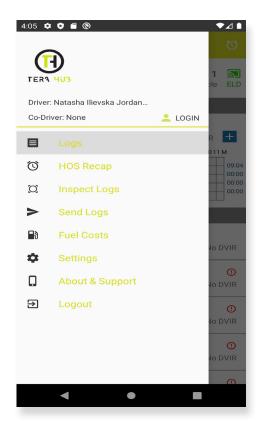
All TeraHub documents can be found on this screen:

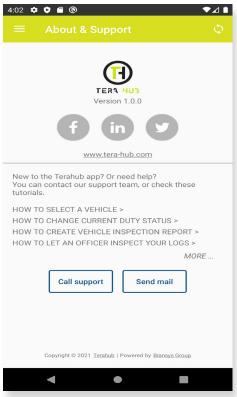
- 1. User manual
- 2. Cab Card
- 3. Terms of Services
- 4. Privacy Policy



# About & Support

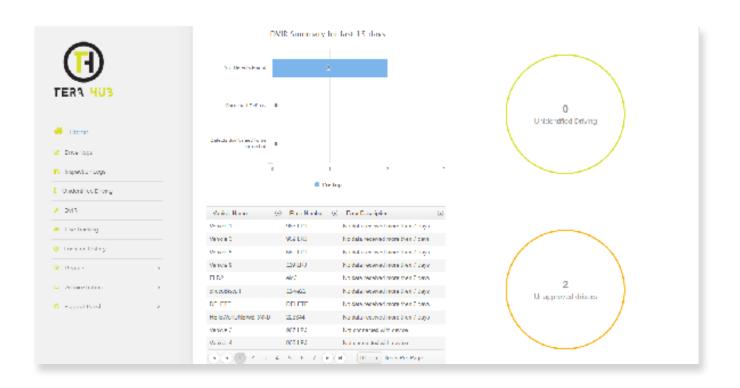
From the Main menu tap on About & Support to open this option. From here you can see app details, like which is current app version and support contact details.

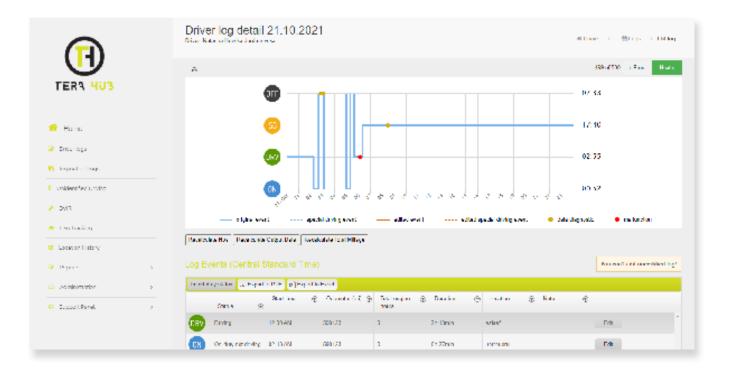




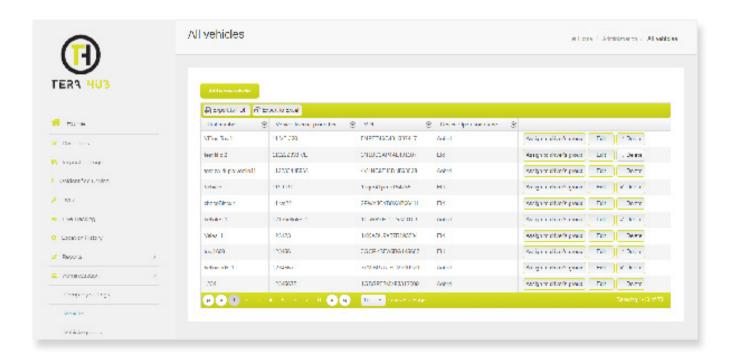
# Fleet manager web view

On the official web page <a href="https://tera-hub.com/">https://tera-hub.com/</a> a fleet manager can log in and track drivers statuses, locations and violations.





Everything from the administration point of view can be managed from the web with the fleet manager privileges, like for example vehicles, drivers, groups etc.



### Company Information:

TeraHub

 $7350\,W$  103rd Street , Bridgeview, IL 60455

Phone: 630-339-3121

Web: <a href="https://tera-hub.com/">https://tera-hub.com/</a>

E-mail: support@tera-hub.com