

Hours of Service

Getting started with Matrack ELD



Table of Contents

Login	3
After Login	4
Power On	6
Record Hours of Service	8
Record Additional On Duty Hours	9
Update Event Records for Accuracy	10
Certify and Sign that Day's Log	11
Alerts	16
DOT Inspection	17
Data Transfer	20
Settings	21
Device Malfunction	27
Device Diagnostics	29
Accept/ Reject fleet manager's suggestions	30
Unidentified Driving Profile	31
Customer Support	33
Appendix	34

Introduction

Matrack ELD solution for Hours Of Service was designed and developed according to FMCSA's ELD specification. The Matrack device connects with engine control module (ECM) of the vehicle and retrieves vehicle data including engine, speed, location using engine synchronization and Global Positioning System. Matrack ELD solution requires two components, an onboard device that connects with ECM and Matrack ELD mobile app. Refer Appendix section for device installation.

Login

Login to the app using valid username and password. User will continue to stay logged in till logout.

1

Select Login on the interface to login to the app



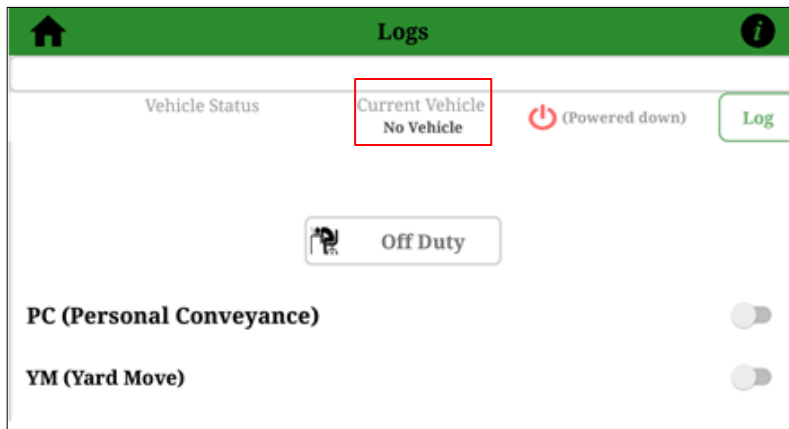
Important: Contact your Fleet manager for user credentials.

2 Enter the username and password to login. If you do not have an account, contact fleet manager.



After Login

1 Go to logs. Tap on the Current Vehicle **NO VEHICLE** to choose the vehicle from the list. Chosen vehicle will be set.

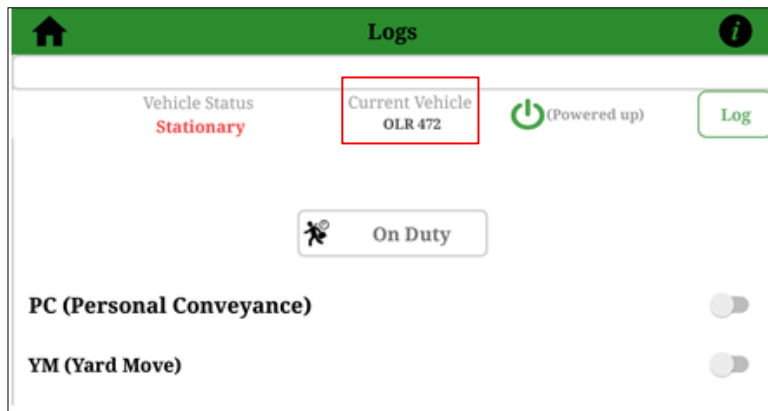


2 Select a vehicle from the list of vehicles assigned for the driver by the fleet manager.



Important: If your vehicle selection list is empty , contact your fleet manager.

3 The current status of the vehicle will be displayed on the screen.



Important: The onboard device records data even when a driver was not associated with the vehicle. Before start driving, it is recommended for drivers to select the vehicle. Otherwise it will be added to the unidentified driver profile of that vehicle. Driver can claim that later. Unidentified driver profile will be displayed to the drivers associated with that vehicle in the subsequent login.

Power On

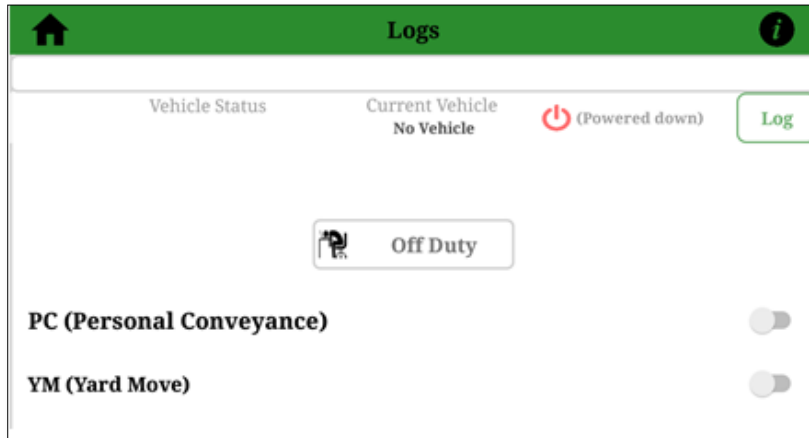
Matrack ELD device

When the Matrack ELD device is fully powered up, blue and green LEDs will blink in different time period. Refer appendix section for the ELD device installation in the vehicle.

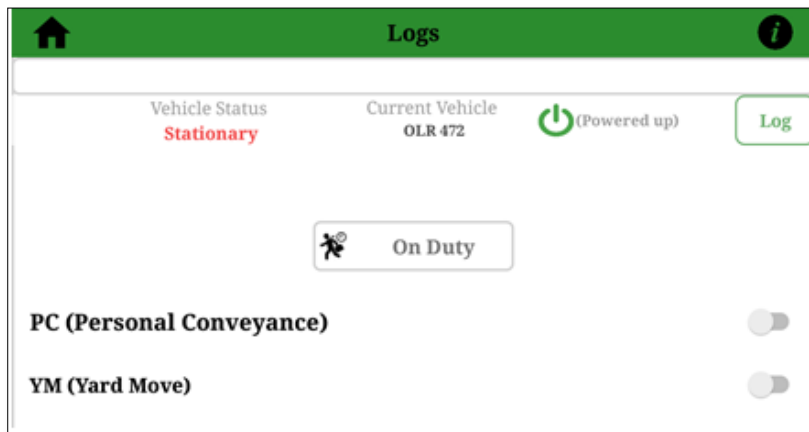


Matrack ELD App

In the Matrack ELD app, select a vehicle from the list of vehicles available under current vehicle drop down menu. Selected vehicle ELD will be connected from the Matrack ELD app. The Matrack ELD app will display the device power up state in the logs screen. The power state will be displayed next to the selected vehicle. Green ignition icon indicates powered up state and red ignition icon indicates powered off state.



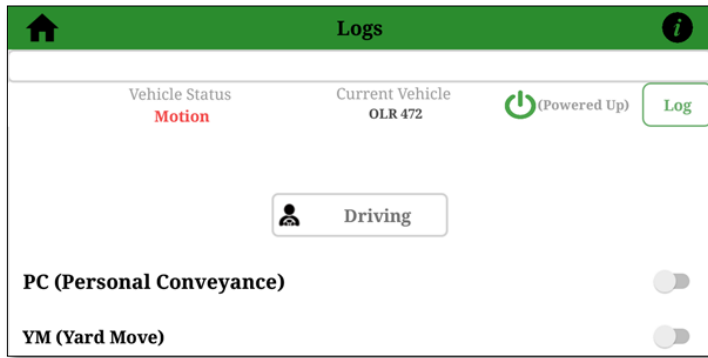
Important: Tap on Current Vehicle: NO VEHICLE to select a vehicle from the list of vehicles available under current vehicle drop down menu.



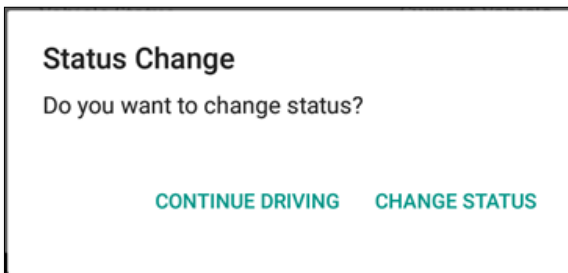
Record Hours of Service

After selecting the device, the driving status will be updated automatically.

- 1 When the vehicle starts moving at the speed 5 mph or greater, current status for the driver will automatically change to Driving. It continues to remain Driving when the vehicle is in motion. Vehicle state will display vehicle status as motion when the vehicle speed is 5 mph or greater and vehicle status as stationary when speed is 0. Driver cannot make any other operation in the app screen while the vehicle is in motion. Drivers may change the status to Off Duty for personal conveyance which will be recorded as personal conveyance in the event record. Drivers may also change the status to On Duty for yard moves which will be recorded as yard move the event records.



- 2 Once the vehicle remains stationary(speed = 0) for 5 minutes , a new screen appears in the app asking, whether you want to change the status. Driver may select continue Driving status or change to different status. If no response was received within 60 seconds, driving status will automatically change to On Duty.



Record Additional On Duty Hours

Additional on duty hours are recorded for a selected day with annotation notes. The page contains options to add, delete, and edit events for the selected date. Select Add Event button to record additional on duty hours. The event record Origin value indicates whether it was recorded automatically by the ELD device or added/edited by driver or edited by another authenticated user other than driver as per FMCSA requirement, 7.22 in Appendix A Subpart B of Part 395.



Icon to insert an event

Icon to clear all events

Update Event Records for Accuracy

Drivers can add/modify an event for selected date with annotation for accuracy. The event changes along with the event time, location, ODO, engine hours, event type/status, and origin are displayed below the graph.

- 1 In the Today's Log screen, tap on the graph or choose a date to access data log of current day or the corresponding date respectively. This would lead driver to the Edit Log screen. The following figure provides a detailed view of Log for a particular day



Icon to insert an event

Icon to clear all events

Important: All the edit by the driver must be annotated in the notes fields for accuracy.

2

Add start and end time, then select any of the events. If vehicle data for that selected period shows that the vehicle is moving, update has to be made with the annotation. Select save after the desired modifications.

The screenshot shows the 'Edit Log' screen for 03/11/2018. It features a graph at the top and a form below. The form includes fields for 'Start' and 'End' times, radio buttons for 'Off Duty', 'Driving', 'Sleeper', and 'On Duty', a 'Location' field with 'Address' as a placeholder, and a 'Notes' field. At the bottom are three buttons: 'View Change', 'Revert', and 'Save Change'.

Enter start time

Enter end time

Choose status

Save changes

Certify and Sign the Day's Log

End of the day or multiple times in the day drivers can certify and sign the logs for the day. Need to re-certify and sign again if the changes were made to past date after initial signing.

1

Tap on the Form tab in Data per Day page to fill in the form before approving the log.

Event List						
Sr.	Time	Location	ODO	Engine Hours	Event Type/Status	Origin
1	06:30:00	2mi SW CA Brookfield			on-duty/not driving	Driver
2	06:30:00				First certification	ELD
3	06:30:00		569,360	23,722	Login	ELD
4	07:00:00	2mi SW CA Brookfield			on-duty/not driving(Inactive-Changed)	Driver
5	07:00:00				Second certification	ELD
6	08:00:00	2mi SW CA Brookfield			Intermediate log	ELD
7	08:00:00				Third certification	ELD

The driver gets the form data displayed on the screen. Form data can be edited by tapping any fields in the screen which would lead to the editable tabs- General, Carrier and Other.

GENERAL
Vehicles
None
Trailers
None
Distance
None
Shipping Documents
None
Driver
None

CARRIER
Carrier Name
None
Main Office Address
Address Line 1
None
Address Line 2
None
City
None
Zip Code
None
State
None
Country
None
Home Terminal Address
Address Line 1
None
Address Line 2
None
City
None
Zip Code
None
State
None
Country
None

OTHER
Co-Driver
None
Origin
None
Destination
None
Notes
None

GENERAL

Vehicles

Vehicle A, Vehicle B

Trailers

Trailer #3

Distance

23

Shipping Documents

None

Driver

Larry Crown

CARRIER

Carrier Name

California Fleet Service

Main Office Address

Address Line 1

1234

Address Line 2

Broadwalk

City

San Ramon

Zip Code

94583

State

California

Country

USA

Home Terminal Address

Address Line 1

1234

Address Line 2

Broafmoor

City

San Ramon

Zip Code

94583

State

California

Country

USA

OTHER

Co-Driver

Ryan

Origin

San Ramon

Destination

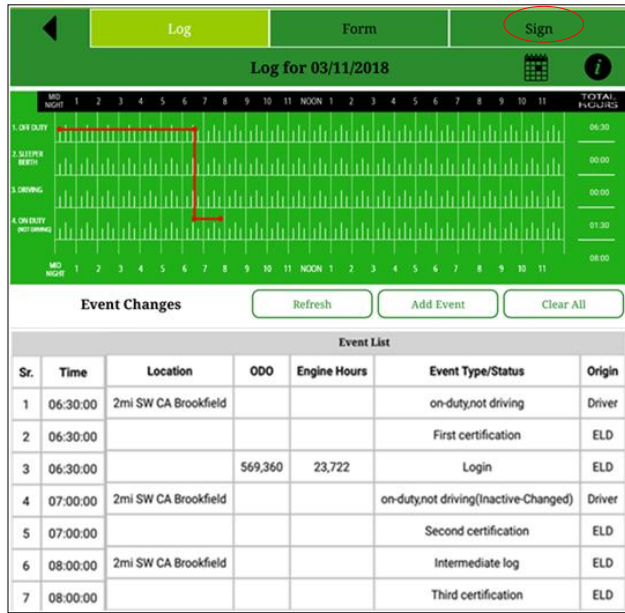
Dublin

Notes

None

3

Tap on the Sign tab to certify the logs.



4

Add your signature, if not present, then certify and approve the log using Approve Log button.

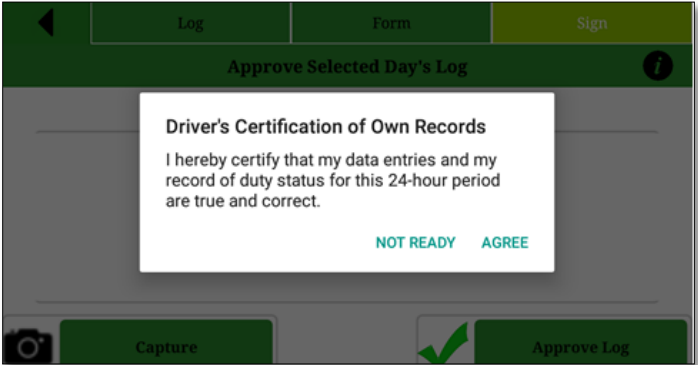
Approve Selected Day's Log

Current Date: 03/11/2018

Capture Approve Log

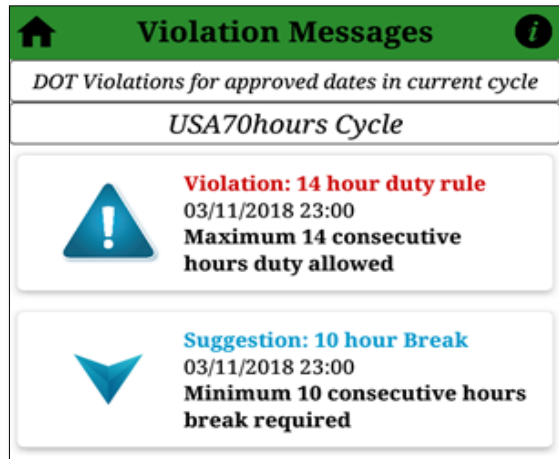
5

Once you tap the Approve Log button, the “Driver’s Certification popup” appears along with “agree” or “not ready” button. Tap agree button to approve the log. If you tap “not ready”, your logs are not authenticated by driver and will appear unauthenticated to the concerned authority.



Alerts

Alerts provide the possible list of violations made by the driver in the current cycle.



The screenshot displays a mobile application interface with a green header bar. On the left of the header is a home icon, and on the right is an information icon. The header text reads "Violation Messages". Below the header, there is a subtitle "DOT Violations for approved dates in current cycle" and a section title "USA70hours Cycle". The main content area contains two items: a violation message and a suggestion message. The violation message features a blue warning triangle icon with a white exclamation mark, followed by the text "Violation: 14 hour duty rule", the date and time "03/11/2018 23:00", and the text "Maximum 14 consecutive hours duty allowed". The suggestion message features a blue downward-pointing triangle icon, followed by the text "Suggestion: 10 hour Break", the date and time "03/11/2018 23:00", and the text "Minimum 10 consecutive hours break required".

Violation Messages

DOT Violations for approved dates in current cycle

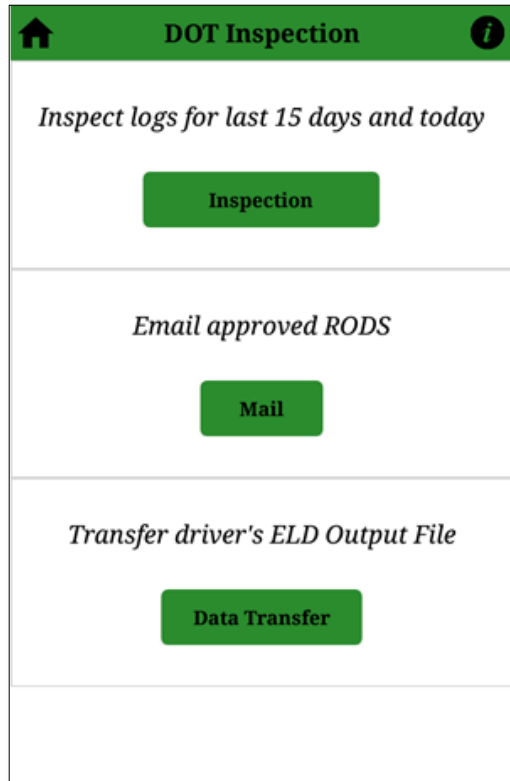
USA70hours Cycle

Violation: 14 hour duty rule
03/11/2018 23:00
Maximum 14 consecutive hours duty allowed

Suggestion: 10 hour Break
03/11/2018 23:00
Minimum 10 consecutive hours break required

DOT Inspection

DOT Inspection screen allows DOT inspectors to view Driver's RODS in the ELD display . The driver's RODS(ELD output file) can be sent to the DOT Inspector upon request as per FMCSA's data transfer requirements. Driver can use either Web service or Secure Email option to transfer ELD output files. FMCSA will make ELD output file available for the DOT inspector. The data transfer form will have an optional text field, comment, to enter any data/code provided by the DOT inspector.



1

Tap on the Inspection tab to generate the driver's RODS. The driver can choose the date for which report needs to be displayed. Use date navigator buttons to change date.

←
03/11/2018
⌵

DOT INSPECTION
!

Driver	Harry D	Cycle	USA 70 hours/8 days
Distance	10	Timezone	PST
Carrier	California Fleet service	Restart hours	34
Vehicles	OLR 473	Trailer	HP 3192
Codriver	Michel	Shipping Doc No.	doc.net
Hours available in cycle	40:00	Restart date	03/11/2018 06:15
Main Office Address: 1234 Broadmoor dr-San Ramon-CA-US-94584			

MD	1 2 3 4 5 6 7 8 9 10 11 NOON											1 2 3 4 5 6 7 8 9 10 11											TOTAL
1. ON DUTY	[Bar chart showing duty status]																						06:30
2. SLEEPING	[Bar chart showing sleeping status]																						00:00
3. OFF DUTY	[Bar chart showing off-duty status]																						00:00
4. ON DUTY (OFF DUTY)	[Bar chart showing off-duty while on-duty status]																						01:30
MD	1 2 3 4 5 6 7 8 9 10 11 NOON											1 2 3 4 5 6 7 8 9 10 11											

Event List						
Sr.	Time	Location	ODO	Engine Hours	Event Type/Status	Origin
1	06:30:00	2mi SW CA Brookfield			on-duty/not driving	Driver
2	06:30:00				First certification	ELD
3	06:30:00		569,360	23,722	Login	ELD
4	07:00:00	2mi SW CA Brookfield			on-duty/not driving/(inactive-Changed)	Driver
5	07:00:00				Second certification	ELD
6	08:00:00	2mi SW CA Brookfield			Intermediate log	ELD
7	08:00:00				Third certification	ELD

Recap						
03/04 00:00	03/05 00:00	03/06 00:00	03/07 00:00	03/08 00:00	03/09 00:00	03/10 00:00

I certify that these entries are true and correct.

Tap on the Mail option to send RODS directly to Fleet manager or other authorized person in the carrier.

← Send Logs

To *

Cc

* To enter multiple emails add ; at the end of each email address

Message

DOT Inspection report for 11/03/2018

Number of Days *

7
 8
 14

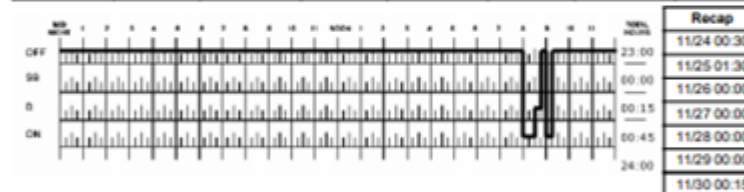
Send DOT logs



DRIVER'S DAILY LOG

12-01-2017

Driver:	Smith, Plaza	Carrier:	Matrack Inc	Distance:	50	Vehicles	Mike121
Cycle:	USA 60 hours/7 days	Main Office:	334 Clain St, Redding CA	Co-driver:	Ed Burrell	Trailer	1234 7654
Shipping Doc No:	77568A	ELD Malfunction Indicators	No	Start-End Engine Hrs	758 2-760	US DOT#:	6657456
Total Hours Worked today	1 hr:0 mins			Start-End Odometer	39564-39576		
Driver License#	D0001344	Timezone:	CST	Driver License State:	CA	Driver ID:	124434
Co-Driver ID	D3444456	Data Diagnostic Indicators	Yes	ELD ID:	10001	ELD Manufacturer:	Matrack ELD
Shipping ID	BL1123444	24 Period Starting Time	Midnight	Truck Tractor Unit#		Unidentified Driver Records:	No
Truck Tractor VIN	1FUJGHDV OCLBP6834	Exempt Driver Status	No	Record Date:	1-Dec-17	Current Location:	Tracy, CA
File Comments:		Print/Display Date:		1-Dec-17			

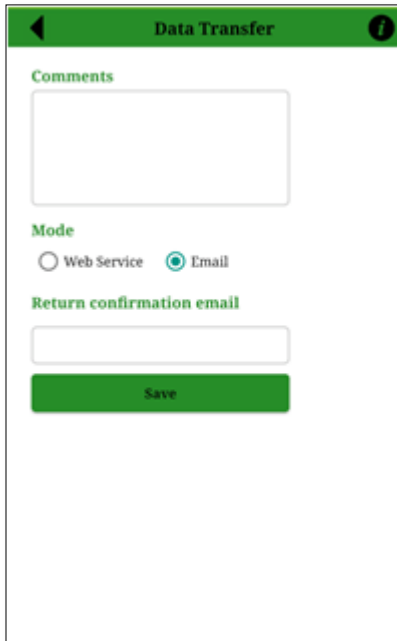


S.No	Event Type/Status	Start	Duration	Odometer	Eng Hours	Location	Notes	Origin
1	Off Duty	12 AM	20 hrs:0 mins	39564	758.2	2mi SW CA San Ramon	NA	ELD
2	Login	12 AM		39564	758.2		NA	Driver
3	On Duty/not driving	8 PM	0 hrs:30 mins	39570	759	4mi SW CA Castro Valley	NA	ELD
4	Driving	8:30 PM	0 hrs:15 mins	39572	759.3	3mi SW CA San Ramon	NA	ELD
5	First Certification	8:30 PM					NA	Driver
6	PC	8:45 PM	0 hrs:15 mins	39574	759.8	1mi NW CA San Ramon	NA	Driver
7	Second Certification	8:45 PM					NA	Driver
8	YM	9 PM	0 hrs:15 mins	39576	760	2mi SW San Ramon	NA	Driver
9	LogOut	9:15 PM		39576	760		NA	Driver
10	Off Duty	9:15 PM	2 hrs:45 mins	39576	760	2mi SW San Ramon	NA	ELD

Data Transfer

ELD output files can be transferred to the concerned authorities using ELD's Data Transfer Feature. Matrack ELD supports FMCSA's Option-1 Telematics for data transfer. Driver can select either Web Service or Email option for data transfer. During road side inspection, DOT Inspector may provide optional text to be sent along with ELD output file. Enter the optional text in the comments.

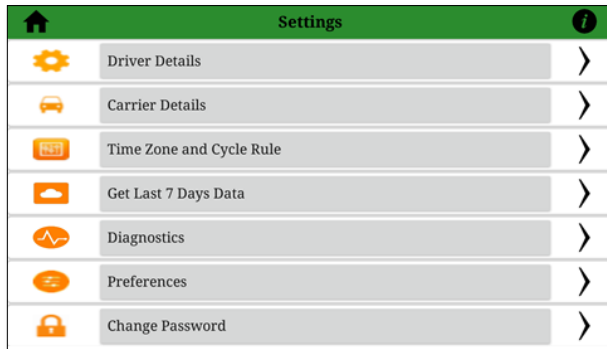
- 1 Select Data transfer option in the Dot Inspection to initiate Date transfer to FMCSA using Web Service or Secure Email.



The screenshot shows a mobile application interface for data transfer. At the top, there is a green header bar with a back arrow on the left, the text "Data Transfer" in the center, and a help icon on the right. Below the header, the screen is divided into several sections. The first section is labeled "Comments" and contains a large, empty white text box. The second section is labeled "Mode" and contains two radio button options: "Web Service" (which is unselected) and "Email" (which is selected). The third section is labeled "Return confirmation email" and contains a smaller, empty white text box. At the bottom of the form, there is a prominent green button with the word "Save" written in white text.

Settings

Settings allow the driver to view/ edit the driver details, carrier details, time zone and cycle rule and preferences. The driver can reset password from the settings page.



1

Enter/Edit driver name, license number, dot number, email and phone number.

Driver Details

First Name
Harry

Last Name
Jude

Driver ID
TestID

Driver License Number
B4 JNN

License Issuing State
California

License Issuing Country
USA

Email
harryjude@abctrucking.com

Phone Number
123456789

Save

2

Enter/Edit Carrier name, office and home terminal address.

Carrier Details

Carrier Name *

US DOT Number

US DOT Number _____

Main Office Address

Address line 1 *

Address line 1 _____

Address line 2 *

Address line 2 _____

City *

City _____

Zip Code *

Zip _____

State *

Select state _____

Country *

Select Country _____

Home Terminal Address

Address line 1 *

Address line 1 _____

Address line 2 *

Address line 2 _____

City *

City _____

Zip Code *

Zip _____

State *

Select state _____

Country *

Select Country _____

Save

Carrier Details

Carrier Name
California Fleet Service *

US DOT Number
123456

Main Office Address

Address line 1
1234 *

Address line 2
Broadwalk *

City
San Ramon *

Zip Code
94583 *

State
California *

Country
USA *

Home Terminal Address

Address line 1
1234 *

Address line 2
Broafmoor *

City
San Ramon *

Zip Code
94583 *

State
California *

Country
USA *

Save

3

Enter/Edit time zone, cycle, cargo type, restart hours, rest break mins.

The screenshot shows a mobile application screen titled "TimeZone and Cycle Rule". It features several input fields, each with a red asterisk indicating a required field. The fields are: "Select Time Zone" with the value "Pacific Standard Time (PST)", "Select Cycle Zone" with the value "USA 70 hours/8 days", "Cargo Type" with the value "Property Carrying", "Restart (in Hours)" with the value "34", "Rest Break (in Minutes)" with the value "30", and "Odometer Unit" with the value "Miles". A green "Save" button is located at the bottom of the form.

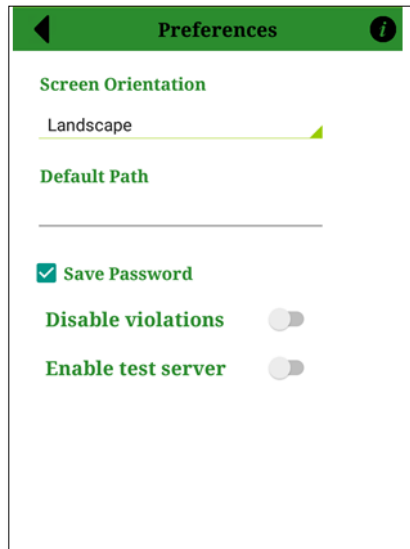
5

Reset the password.

The screenshot shows a mobile application screen titled "Change Password". It features three input fields, each with a red asterisk indicating a required field. The fields are: "Old Password", "New Password", and "Confirm New Password". A green "Change password" button is located at the bottom of the form.

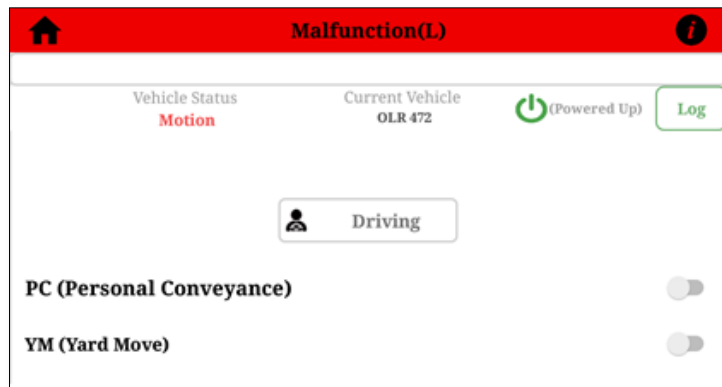
6

Set preferences for the app.



Device Malfunction

Malfunction and diagnostics events of the ELD device were visually indicated in the ELD display. Malfunction was indicated with red banner instead of regular green banner in the logs screen and red dot on the top right for all other screens. When a malfunction was found during the diagnostic event, the banner in the log screen will turn to red color with a text “Malfunction” including the malfunction code in parenthesis. For instance, Malfunction(P). The values of malfunction code contain values ‘P’, ‘E’, ‘T’, ‘L’, ‘R’, ‘S’, or ‘O’ as per FMCSA requirement. When clicked on the malfunction banner, it will take the driver to malfunction screen where additional details about the malfunction with malfunction code description highlighted. In the event of malfunction, drivers are required to maintain Driver’s Daily Logs manually and report about the malfunction to the carrier within 24 hours. The problem should be resolved within 8 days. Contact your fleet manager and Matrack customer support for assistance. Customer support details are available at the end of this document and in app’s Help and Support screen.



Important: Tap on the red banner for additional details about the malfunction. The malfunction screen will display the malfunction code and highlight the malfunction description.

← Malfunction
ⓘ

P **Power Compliance Malfunction**
Indicates that an ELD is not powered for an aggregated in-motion driving time of 30 minutes or more

E **Engine Synchronization Compliance Malfunction**
Indicates that the ECM connectivity is lost to any of the required data sources for more than 30 minutes

T **Timing Compliance Malfunction**
Indicates that the ELD time is not synchronized with UTC. It should not exceed an absolute deviation of 10 minutes any time

L **Positioning Compliance Malfunction**
Indicates that an ELD fails to do a valid position measurement within 5 miles of the commercial motor vehicle moving within 60 minutes

R **Data Record Compliance Malfunction**
Indicates that an ELD can no longer record or retain required events or retrieve recorded logs

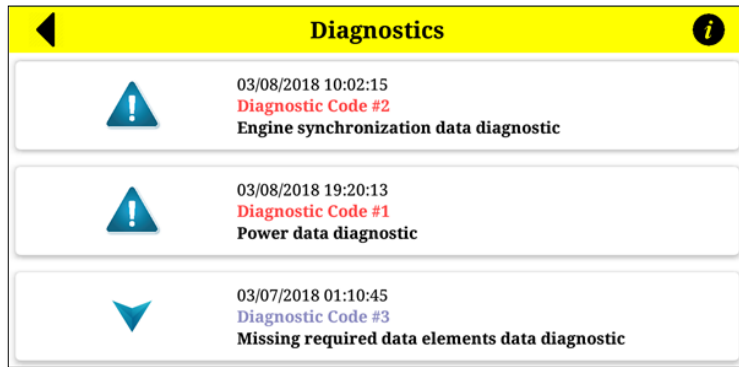
S **Data Transfer Compliance Malfunction**
Indicates that the ELD remains in the unconfirmed data transfer mode for next three consecutive monitoring checks

O **Other ELD Detected Malfunction**
Indicates the other ELD detected malfunction

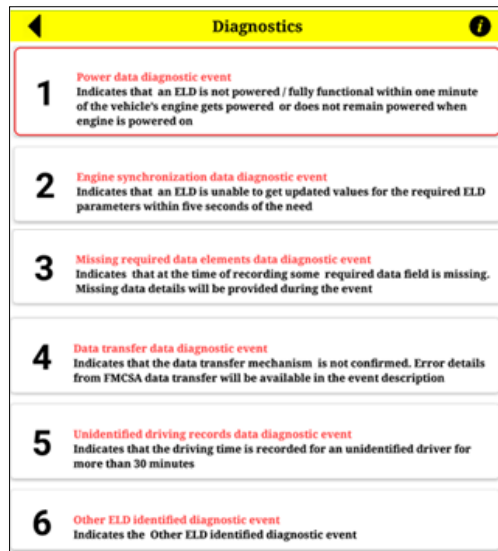
Sl.No.	Malfunction Code	Malfunction Description
1	P	Power compliance malfunction
2	E	Engine synchronization compliance malfunction
3	T	Timing compliance malfunction
4	L	Positioning compliance malfunction
5	R	Data recording compliance malfunction
6	S	Data transfer compliance malfunction
7	O	Other ELD detected malfunction

Device Diagnostics

Matrack ELD software monitors power, engine synchronization, missing data and various internal data diagnostics periodically. During the diagnostics checks, visual indication is displayed in the ELD display. When a diagnostics event was found during the diagnostic check, the banner in the log screen will turn to yellow color with a text “Diagnostics” including the diagnostics event code in parenthesis. For instance, Diagnostics(4). The values of diagnostics code may contain values '1', '2', '3', '4', '5', '6' as per FMCSA requirement. When clicked on the diagnostics event yellow banner, it will take the driver to diagnostics details screen where additional details about the diagnostics event code will be displayed and description highlighted.



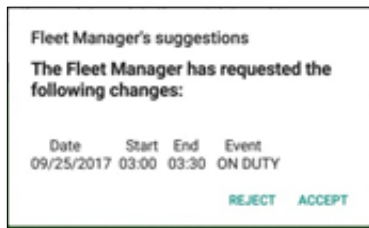
Important: Tap on the yellow banner for additional details about the diagnostic event. The diagnostic event screen will display the list diagnostic code. Select individual diagnostic event that will open new screen with diagnostic code description highlighted.



Sl.No	Diagnostic Code	Data Diagnostic Event
1	1	Power data diagnostic event
2	2	Engine synchronization data diagnostic event
3	3	Missing required data elements data diagnostic event
4	4	Data transfer data diagnostic event
5	5	Unidentified driving records data diagnostic event
6	6	Other ELD identified diagnostic event

Accept/ Reject fleet manager's suggestions

The driver can view the suggestions made by the fleet manger for accuracy. The driver can either accept or reject the suggestions. A popup will appear with the suggestions made by the fleet manager with Accept / Reject button. If the suggestion was accepted, then the driver should re-certify the logs for the suggested day.



Unidentified Driving Profile

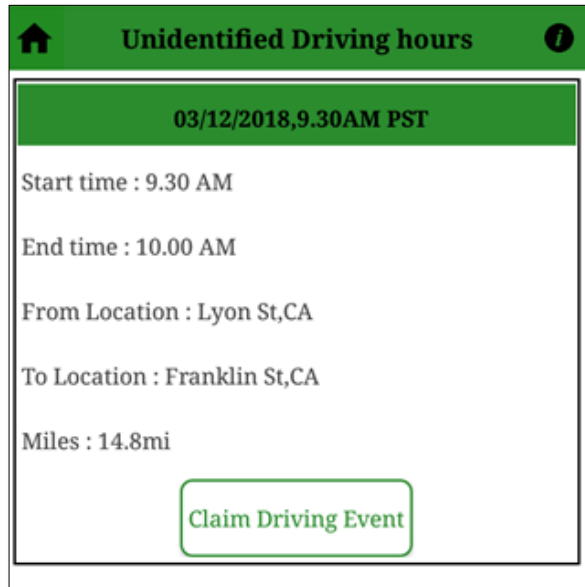
DOT regulations require all the ELD Driving events in the ELD should be assigned to the drivers. If the vehicle is in motion and no driver was connected to the ELD then it will be recorded under Unidentified Driving events that can be claimed by the drivers later. The Unidentified driving events will be displayed to all drivers of that ELD after the login. Driver can view/claim Unidentified driving events selecting Unidentified driving icon in the home screen.

1 Tap on Unidentified driving icon to view/claim Unidentified driving events.



2

The driver can view /claim the driving events from this screen.



Customer Support

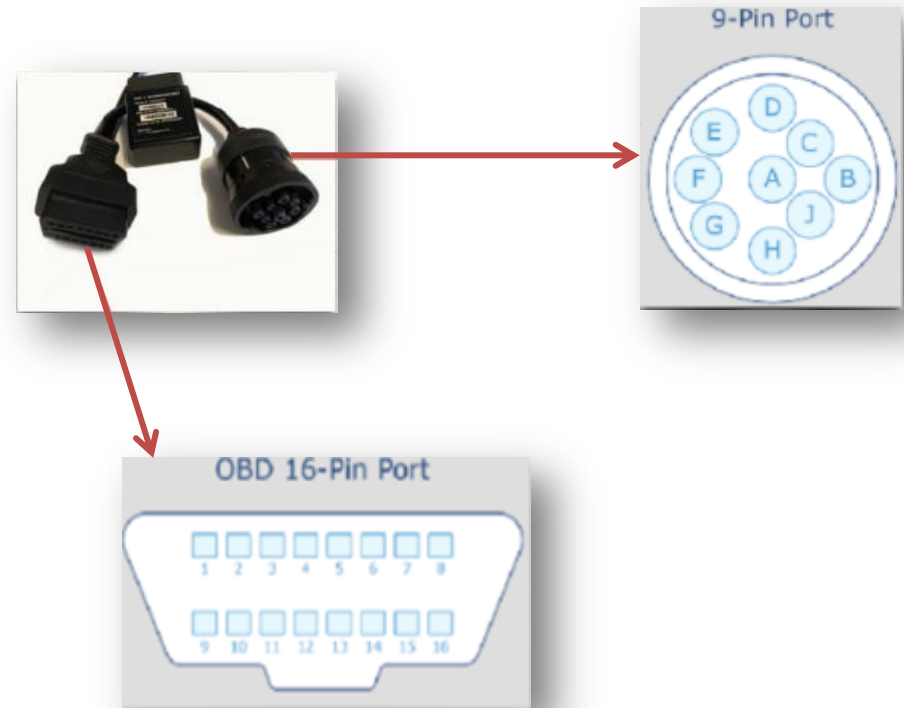
If you have any queries, reach to the following mail: "support.gps@matrackinc.com". Drivers can reach customer support using App's Help and Support screen.



Appendix

ELD Installation Guide:

- Connect the 9 pin T-Harness to the diagnostic port usually found.
 1. Under the dashboard.
 2. Underneath the steering wheel.
 3. Below the driver's seat.
 4. Near the driver's left kick panel.
- Connect the device to the other end of the cable.
- Turn on the ELD device.
- Turn on the ignition.
- Make sure the app is installed and logged in.
- Start the vehicle to track your hours of service.



Important: Install Matrack ELD app from Google play store for Android mobile and Apple app store for iPhone mobile.