

Nero Electronic Logging Device (ELD)

On December 16, 2015, the U.S. Department of Transportation (<https://www.transportation.gov/>) approved the final ruling for the use of Electronic Logging Devices (ELDs) for driver Hours of Service (HOS) and Driver-Vehicle Inspection Report (DVIR) logging.

The FMCSA regulations may be found at this web site:
<https://www.fmcsa.dot.gov/hours-service/elds/electronic-logging-devices>

This document describes the components of the compliant Nero ELD solution, including configuration and usage information.



1. Introduction to ELD

The FMCSA regulations for Hours of Service (HOS) define two types of electronic logging: ELD (Electronic Logging Device) and AOBRD (Automated Onboard Recording Device).

An ELD is a portable display device that connects directly to the vehicle ECM, and logs driver duty status based on movement and location of the vehicle. Vehicle inspection reports are also logged electronically using the same device.

All Commercial Motor Vehicles (CMVs) that are required to maintain driver HOS logs, will need to perform this logging using a certified ELD solution.

Since many CMVs already have telematics devices installed in their vehicles, the FMCSA allows for the interim use of AOBRDs to supply the data for HOS logging. This will allow motor carriers a time period where they can adhere to the regulations without having to change existing telematics hardware.

ELD Timeline

The final ELD rule was published on Dec 16, 2015.

Phase 1 (Feb 16, 2016 – Dec 17, 2017)

- New installations may be AOBRD or ELD

Phase 2 (Dec 18, 2017 – Dec 15, 2019)

- All new installations must be ELD
- AOBRD may continue to be used

Phase 3 (Dec 16, 2019 onwards)

- All devices must be ELD

Timeline for ELD Implementation

Phase 1 of the implementation process occurs from February 16, 2016 to December 17, 2017. New AOBRD or ELD installations may occur during this period. This time is allotted to allow motor carriers to prepare for compliance.

Phase 2 occurs between December 18, 2017 and December 15, 2019. During this two year transition period, all CMVs must have an AOBRD or ELD device installed. AOBRD implementations may continue to be used, but no new AOBRD installations may occur. All new installations must be ELD compliant.

Phase 3 begins December 16, 2019. From this date onwards, all CMVs must use a certified ELD for HOS logging. All AOBRD installations must be replaced by an ELD compliant system by this date.

2. Nero ELD Solution

There are two components to the Nero ELD solution:

1. The GPS beacon, connected directly to the vehicle ECM via the diagnostics port
2. The ELD, an Android device which connects to the GPS beacon via Bluetooth

GPS Beacon

For the ELD solution, the **Nero 6601** beacon must be installed and connected to the J1939 diagnostics port with the appropriate J1939 cable. Install the device in the vehicle following the instructions found in the *Nero 6601 Installation Guide* (Nero_Installation_and_Cable_Guide_6601.pdf).

ELD

The ELD is the device that the driver uses to perform all duty status logging and HOS tracking. Any Android device will work, but a tablet is recommended for the best viewing of the timers and the duty status log charts. The regulations specify that the minimum width of the viewing area for the log charts is 6".

The Android device must meet the following minimum specifications:

- Android OS 4.4.2 and above
- minimum 8" viewing screen (diagonal) is recommended to meet FMCSA specifications
- connectivity to the internet for data synchronization with the data server
- in-cab power connectivity while communicating with the GPS device

For server data synchronization, the expected data usage is about 500 Mb per month.

The recommended hardware is a **Samsung Galaxy Tab E**. This device has been tested extensively with the required application.

For the ELD solution, a free app from the Google Play Store is required to be installed on the Android device. Instructions are provided later in this document for installing and configuring the app.

- **e-Track Certified**

This app establishes a link via Bluetooth with the 6601 device, allowing data from the vehicle ECM port to be transmitted directly to the ELD device. The app displays the current duty status, timers and maintains the electronic logs.

The e-Track Certified app is provided by ATS Fleet Management Solutions.

<http://www.atsfleettracking.com/>

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3. Configuring the Client Account

Before configuring the in-cab portion of the solution, the system administrator must ensure the GPS device, vehicle record and driver information is correctly configured in the e-Track Client Account.

The e-Track administrator portal (Client Portal) is accessed from your Nero Portal by clicking on the “Login to ATS” button provided under the HOS tab. Note that the HOS tab only appears in the Nero Portal for the administrator user configured under the administration tab.

Nero Portal – HOS Tab

home	vehicles	assets	personnel	maintenance	reports	messaging	dispatch	HOS	administration	support	help	logout
ATS Client Reconciliation Report Login to ATS												
Report Generated: 02/12/2016 01:42 PM Pacific refresh												
Portal Entity	Portal Entity Details		ATS Entity Details		Issues							
Client Account	Name:	QA_beacon	-		No Issue							
	Timezone:	Pacific										
User Account	Admin Login:	qatest	-		No Issue							
	Name:	qatest_1 1										
	Email:	qatest@contigo.com										

When the administrator clicks “Login to ATS”, another tab will open in the browser, and the user will be automatically logged in to the Client Portal. The Home page will be displayed.

e-Track Administrator (Client) Portal

e-Track™

Fleet Management Solutions

Welcome Brian
Training Resources

Member Support
Log Out

Client Dashboard


Home

System Management

Reporting

Admin Tools

Open System Alerts



HOS Alerts

Company Overview

Release Notes

Open System Alerts

Fleet Overview

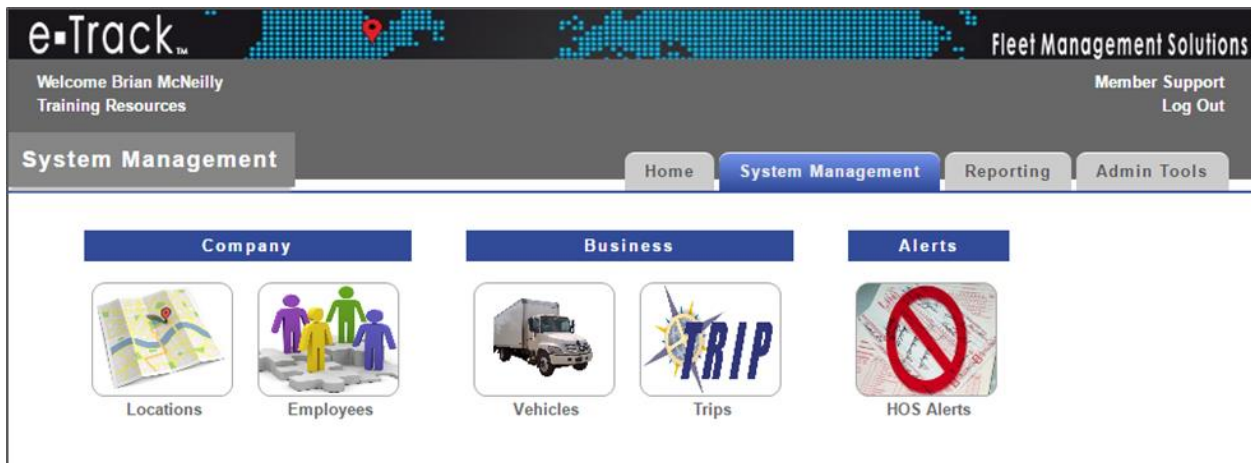
Location	Failed Inspections	HOS Alerts	Open Trips	Available Drivers	Available Vehicles
Company Wide Totals	0	0	0	2	1
Contigo	0	0	0	2	1

Detailed User Guides and training materials for administrators may be found by clicking on the **Training Resources** link beneath the welcome message in the top left corner of the Client Portal.

These are some key steps to follow for the initial configuration of the Client account:

1. Begin by creating the locations for your company. Click on the **System Management** tab.

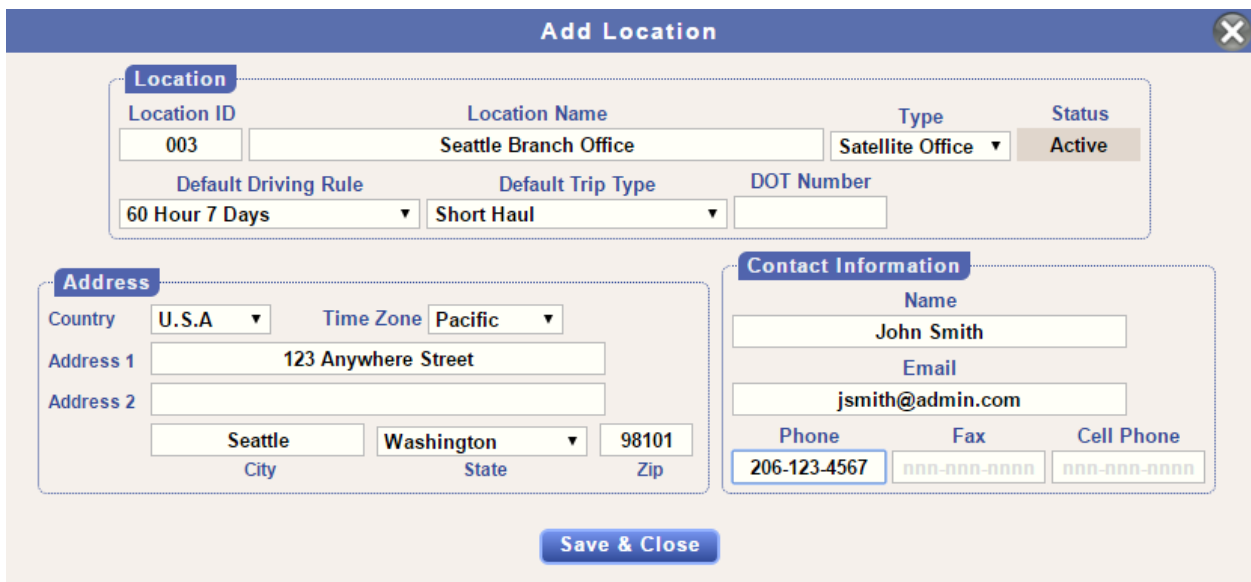
Client Portal – System Management Tab



The screenshot shows the e-Track Client Portal interface. At the top, it says "e-Track™ Fleet Management Solutions". Below that, it says "Welcome Brian McNeilly" and "Training Resources". On the right, it says "Member Support" and "Log Out". The main navigation bar has tabs for "System Management", "Home", "Reporting", and "Admin Tools". The "System Management" tab is selected. Below the navigation bar, there are five main sections: "Company", "Business", and "Alerts". Under "Company", there are icons for "Locations", "Employees", and "Vehicles". Under "Business", there is an icon for "Trips". Under "Alerts", there is an icon for "HOS Alerts".

Click on the **Locations** button to add the Main office location and any Satellite office locations. Later, when you enter Employee records, each employee will be assigned to a particular office location.

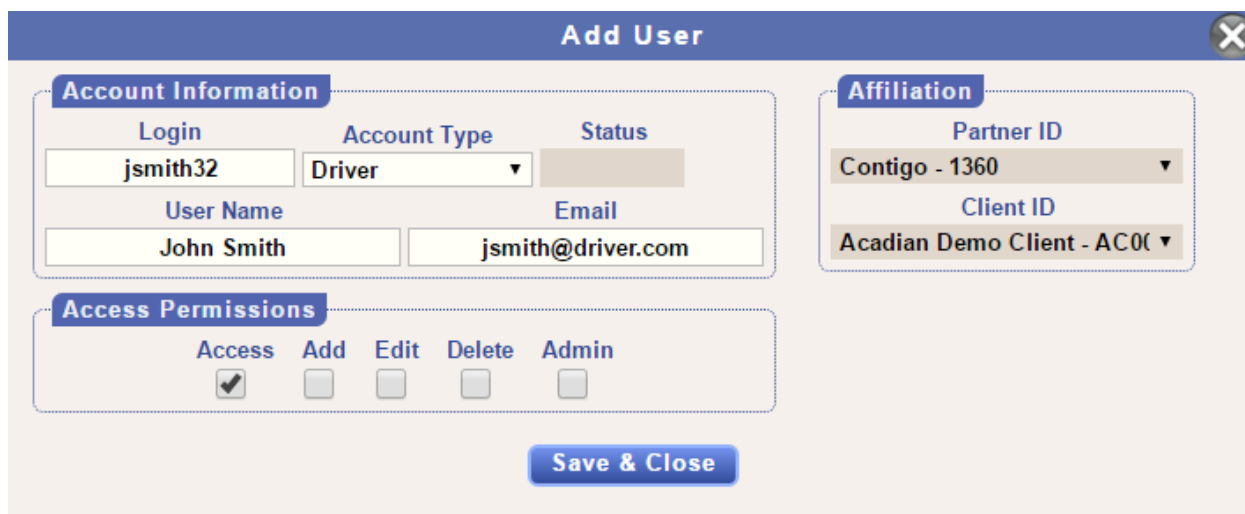
Client Portal – Add Location



The screenshot shows the "Add Location" form in the e-Track Client Portal. The form has a title bar "Add Location" with a close button. The form is divided into several sections: "Location", "Address", and "Contact Information". The "Location" section includes fields for "Location ID" (003), "Location Name" (Seattle Branch Office), "Type" (Satellite Office), "Status" (Active), "Default Driving Rule" (60 Hour 7 Days), "Default Trip Type" (Short Haul), and "DOT Number". The "Address" section includes fields for "Country" (U.S.A), "Time Zone" (Pacific), "Address 1" (123 Anywhere Street), "Address 2", "City" (Seattle), "State" (Washington), and "Zip" (98101). The "Contact Information" section includes fields for "Name" (John Smith), "Email" (jsmith@admin.com), "Phone" (206-123-4567), "Fax", and "Cell Phone". A "Save & Close" button is at the bottom.

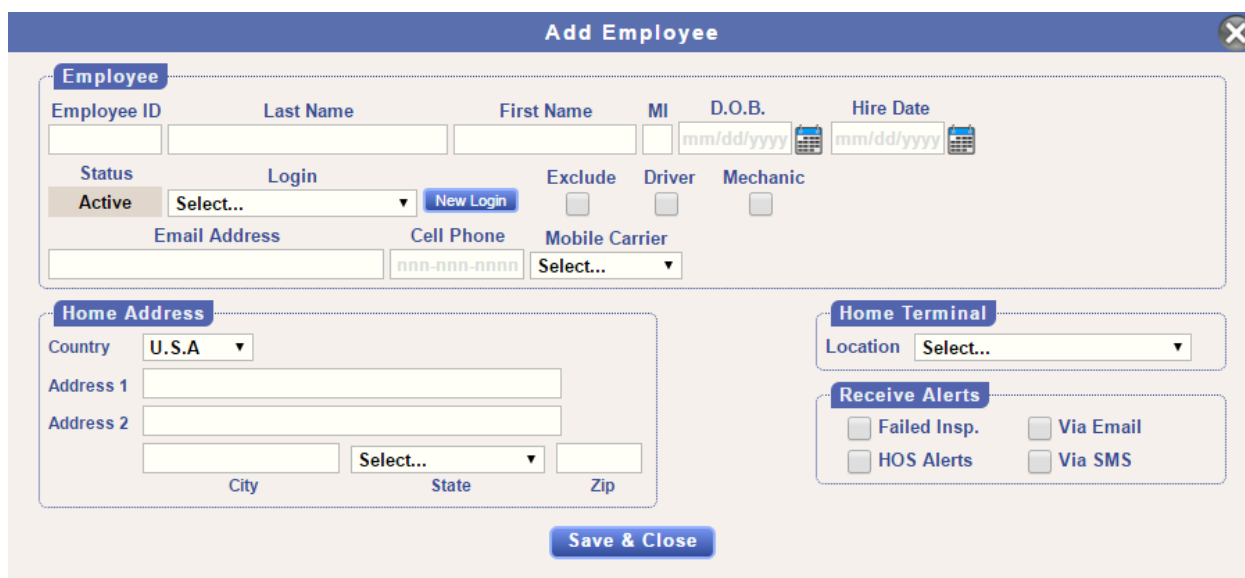
2. Next, create a unique Login ID for each driver and mechanic that will make use of the ELD system. Select the **Admin Tools** tab, and click on the **Manage Login Accounts** button. The Client admin Login ID will already appear in the list. When you add Login IDs for Drivers and Mechanics, they will initially have the same password ("etrack1") which can be changed by the user the first time they log in to the system. Be sure to assign the correct Account Type ("Driver" or "Mechanic") to match the role of that user. Check off "Access" permissions for Drivers and Mechanics to allow them to log in to their ELD device or web interface.

Client Portal – Add User



- An Employee record must be created and associated with each Login ID. Under the **System Management** tab, click on the **Employees** button to create a record for each employee. Start with an Employee record for yourself (the Client administrator) and associate it with the admin Login ID. Next, add Employee records for each Driver and Mechanic, associating each record with a Login ID. Select a Location as the Home Terminal for each employee, and ensure the matching role is checked off for each Driver and Mechanic. The interface presented to the user when they log in (using the app or the web portal) is tailored specifically to their role.

Client Portal – Add Employee



- Each vehicle in the fleet must have the correct GPS device recorded in its Vehicle Record. Under **System Management**, click on the **Vehicles** button to view the GPS device information (ESN), which is automatically updated in the Client Portal when the beacon is registered in the Nero Portal and the HOS add-on is enabled for that device. **Assign at least one Driver to the Vehicle Record.** Drivers must be assigned to a vehicle before they are able to log in to the ELD device. Other vehicle details may be updated by editing the vehicle record, but **do not type in the VIN manually**. The VIN will be updated automatically by the system once the ELD device is communicating with the GPS beacon.

4. Configuring the Nero ELD (In-cab)

For a first time configuration:

- Check that the Nero 6601 has been installed in the vehicle with the appropriate cable, and is registered for use in the Nero system with the HOS add-on enabled
- In the e-track Client Portal, under the **System Management** tab, click on the **Trips** button and add a new Trip with the Driver and Vehicle assigned

Preparing the ELD (Android device)

- Make sure the Android OS version is 4.4.2 or above; earlier versions may not work correctly
- Under Settings > Personal > Location, turn this option **on** and set to **High** accuracy
- Under Settings > System > Date and Time, set **Automatic date and time**, and set **Automatic time zone on**
- In order to ensure continuous data connectivity (as stipulated by the FMCSA regulations), the ELD device must be connected to an external power source while the device is in the cab

Connecting to the Nero 6601 Beacon

- Make sure that the 6601 is plugged into the ECM (J1939 diagnostics port) and is powered on
- On the ELD (Android device), go to Settings > Bluetooth
- Select the 6601 device; the name of the device should begin with **GENX_**
- If the ELD asks for a PIN, use 1234
- The device should pause for a moment, then the 6601 should be listed under Paired Devices
- If the devices fail to pair for any reason, restart the Android device and try again; if that doesn't fix the problem, please contact Nero Support at support@neroglobal.com

Installing the Application

- Go to the Google Play Store, search for "ATS Fleet" and download the following app (note: you may need to create a free account if you do not have an existing one):
 - e-Track Certified** (connects to the 6601 and provides the ELD logging and display features)
- Log in to **e-Track Certified** using the driver login credentials; if you see a message about "records to certify" ignore it for now and tap Continue to Dashboard

e-Track Certified Dashboard

1360.qadriver

Status: On Duty (Not Driving)

e-Track Certified Dashboard
November 03, 10:13 AM PDT

View Logs

Change Duty Status

Fuel Purchases

Vehicle Inspections

Diagnostic

VIN

Odometer

Speed

ECM Unit Time UTC

0C0NT1G0C0NT1G0QA
99419
0
11/3/2016 17:13:35

Time Remaining
ECM Transmit Count:
146
ECM Transmit UTC:
11/3/2016 17:13:26

10 Hour Drive Time	15 Hour Daily Window	60 Hours / 7 Days	8 Hour Break	8 Hours Off Duty	34 Hour Restart
09:54	14:48	59:54	00:00	08:00	34:00

Last Updated:
11/3/2016 10:13:37 AM PDT

- If the Dashboard displays a red or yellow warning, there may be a problem with the connectivity to the 6601 (the device may be out of Bluetooth range or not paired properly). This must be corrected before using the e-Track Certified application. Tap on the menu icon in the top left corner of the screen and select **ECM Link** to check the connection status and correct errors.

ECM Link Screen

e-Track ECMLink

MALFUNCTION
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DIAGNOSTIC

Power
Synchronization
Timing
Position
Data Recording
Data Transfer
Other

Waiting for ECMLinkType selection!

Power
Synchronization
Missing Data
Data Transfer
Unidentified
Other

Continue

ECMTransmitCount: 754 2016-11-04 23:19:23.259 | HOSLastID: 754 2016-11-04 23:19:15.397 true | GPSTimeLastERROR:

4. On the **e-Track Certified** Dashboard, check the following to ensure the application is functioning properly:
 - The 17 character **VIN** number should appear on the Dashboard
 - The **ECM Unit Time UTC** on the Dashboard should show the current time

Note that User Guides and other training materials for drivers are available from the **Training Resources** section of the e-Track Client Portal.

5. Important Considerations

- The FMCSA requires that hard copies of the ELD documentation be kept in the cab with the ELD device at all times. The required documents are available from the **Training Resources** section of the e-Track Client Portal.

For further assistance with your ELD implementation, please contact Nero Support at support@neroglobal.com.