Shotgun Rider ELD
Operating Manual
Version 1.2
March 10, 2019

“Rugged, Inexpensive and Easy to Use”

“Protecting your information like a shipment of Gold”

“Don’t Let the Cloud Rain on your Budget”
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1 Truck Centric ELDs versus Cloud or Phone Centric ELDs.

1.1 What is an ELD?

A Electronic Logging Device (ELD) is required by the Federal Motor Carrier Safety Administration (FMCSA) to monitor the operating Hours of Service (HOS) for Drivers of Commercial vehicles. The ELD is required to have a direct electronic connection to the truck’s engine. ELD requirements are very detailed and are found in 49CFR Appendix A to Subpart B of Part 395. The Shotgun Rider device has been designed as a reliable, inexpensive and highly versatile solution for truckers. It has been designed from the ground up to cost effectively meet the rules put forth by the Federal Motor Carrier Safety Administration (FMCSA), while providing the ability to expand features and capabilities as a business grows.

1.2 What is a Truck Centric ELD?

A truck centric ELD stores all of the necessary data and account information in the truck on the ELD. It does not rely on any connection to the internet, and does not risk having a phone or tablet being lost or stolen and losing your ELD data. The following graphic shows the benefits of a truck centric ELD solution.
2 The Next Generation ELD Shotgun Rider End User Advantage

2.1 Designed to Get your ELD System up and Running in Minutes
   From day one, we have designed the Shotgun Rider system to be simple to setup and simple to use. Menus guide the novice user through configuration, and then you are off and driving.

2.2 No Monthly Phone/Internet Service Fee Required
   The Shotgun Rider ELD stores all of the account and logging information that you require on the unit itself. There is absolutely no connection to the outside world required. Typically, this can result in a savings of $20/month for a phone data plan.

2.3 No Monthly ELD Cloud User Fee Required.
   The Shotgun Rider ELD was designed to minimize end user cost. Truckers already have a challenging enough business environment without the additional cloud of a monthly fee and a long-term ELD leasing contract.

2.4 No Cost and Clutter of an Additional Display
   The Shotgun Rider ELD can share an Android phone or Tablet computer that you already own. Instead of having a ton of displays in your cab, you are able to share one that you already have.

2.5 Automatic Ability to Swap or Upgrade Phone or Tablet Computer
   Your phone or tablet computer acts as an interface to your Shotgun Rider ELD. All of your account and logging information is maintained on the ELD itself, so you can use multiple devices to connect to your phone/tablet with no issues. If you lose a phone, or want decide to upgrade to a newer phone, the operation is transparent to you ELD solution.

2.6 No Transportation Management System is Required
   If you want to run your business out of your sleeper berth, the Shotgun Rider ELD requires no expensive back office computer system or Transportation Management Software.

2.7 Rugged and Dependable
   The packaging, cables, connectors, and overall Shotgun Rider product have been designed for ruggedness. Trucking is a rough business, and your product has been designed for maximum reliability.
3 The Next Generation ELD Shotgun Rider OEM Advantage

3.1 Maximum Ruggedness and Reliability
There are many features that make the Shotgun Rider an extremely Reliable and Rugged Solution. The product has been designed with the OEM customer in mind to permit customization.

- All key power and processing components are Automotive rated.
- Automotive Rated Connectors and Cable Assemblies
- Extremely Rugged Enclosure.
- Supports 12V and 24V Truck Power

3.2 MTN has designed and controls all parts of the Shotgun Rider ELD system
- MTN designs and manufactures the Printed Circuit Board Assembly.
- MTN has designed and can quickly customize the ELD Firmware to provide additional features and capabilities
- The Shotgun Rider ELD Supports Live Firmware updates to allow the OEM to up sell new capabilities.
- The Android Displays can be customized for new features as well as the OEM’s look and feel.
- The Rugged Enclosure is Injected Molded in the USA, and part color is OEM selectable.
- The ELD Product Labeling can be OEM specified.
- MTN can develop custom interface cables for unique situations using our world class Cabling providers.
- MTN can customize the Desktop Log Viewer Application for the OEM.

3.3 Shotgun Rider Imports and Exports “.pel” Files (Portable Electronic Log)
- This allows drivers to move between different vehicles and different Carriers while maintaining accurate records.
- This supports quick changeover between ELD Supplier Systems that support the standard.

3.4 Shotgun Rider Supports Local File Transfer Methods (Standard)
- This is the lowest cost approach for small fleets since it requires no internet, cellular or cloud connection, while allowing multiple drivers to move between multiple trucks.
- The Shotgun Rider solution permits OEM products where Support personnel can remotely log into the Shotgun Rider ELD via a cellular connection while it is in use.
- The Shotgun Rider solution permits OEM products where Wireless Web Services and Email File Transfer Methods are permitted using a cellular connection.
- The Shotgun Rider ELD can fully charge your phone/tablet over a standard USB connection while you are operating the device.
4  ELD Solution Pitfalls to Avoid

4.1 Don’t Get Locked into a Long-Term Monthly Contract
Nothing will rain on your budget more than a required monthly contract for an ELD solution. If you are required to pay $49/month, that comes to $2,940/truck over a 5 year period. Even if the supplier drops their price to $19/month, that still comes to $1,140/truck over a 5 year period. This price will be in addition to any up-front ELD cost as well as any additional Tablets, Computers or Transportation Management Software you may be required to purchase.

4.2 Don’t be forced to have a Cellular Connection to operate your ELD
Do you really want to have another $20+/truck Cellular phone charge to operate your ELD?

4.3 Don’t lose control of your data and become captive to your ELD Supplier
When you allow your data to be sent through the cloud, you lose control of it. Not only that, the supplier has you locked into their solution unless they provide a simple “.pel” file method to move your data from their cloud computers to another vendors solution for free.

4.4 Don’t be required to buy Custom Cab Display Hardware
It is easy to say someone has an inexpensive ELD, and then have them charge you hundreds of dollars for a custom tablet to access the ELD. Not only that, once you buy that hardware, you are locked into its display and positioning capability. The Shotgun Rider approach allows you to have better display and positioning capability every time you upgrade your phone or tablet.

4.5 Don’t get locked into an under-powered ELD that won’t grow with your needs
As your business grows, and time passes, you may want additional features. Make sure that your system can easily add new capabilities and is powerful enough to do so.
5 The Shotgun Rider Solution

The Shotgun Rider solution has three main components: the Shotgun Rider ELD unit which is approximately 4.25” wide x 3.0” deep x 1.75” high, a vehicle interface cable, and a driver supplied/shared Android Phone or Tablet. The Shotgun Rider ELD unit is meant to be positioned in the vehicle where it can be seen and reached by the driver. It provides six operating and diagnostic LEDs, an audible warning alert, a USB interface connector and a Bluetooth connection.

5.1 Shotgun Rider ELD

5.1.1 Front View

Lights from Left to Right:

- Power – Green when Vehicle Power is applied.
- Vehicle Interface Active – Green when CAN Bus messages are being received.
- Driver Login – Green when valid Driver Logged in. Red if driving and no Logged in Driver.
- USB Memory Stick – Flashing Green when USB or Memory Stick Interface is being used.
- Wireless – Flashing Green when Bluetooth Interface is being used.
- Malfunction – Green when good, and Flashing Red when Malfunction/Diagnostic event.

USB Type A Connector Port:

The USB Type A Connector allows a Memory Stick to be used to locally transfer data to an official. It also permits a tablet/phone to be wire connected to the ELD to allow for simultaneous data transfer and charging of the device.
5.1.2 Rear View

5.2 Vehicle Interface Cable

Based upon the Diagnostic Interface available on your truck, you will need a specific cable assembly to interface your Shotgun Rider ELD to the truck. Shotgun Rider comes standard with the cable of your choice, but if you ever need to switch trucks, alternative interface cables are available so that you can re-use your ELD. In addition to receiving important vehicle information over this connection, the cable also supplies vehicle power to the ELD.

5.3 Android Phone or Tablet Computer with GPS and Bluetooth

You do not need a cell-phone plan with a Phone or Tablet you use with Shotgun Rider. Shotgun Rider only needs this device to support GPS and Bluetooth interfaces. For instance, it is possible to use a prior generation phone/tablet in a drawer as your interface even though it is not setup with a phone connection.

5.4 Optional Vehicle Mounting

MTN provides simple cable routing devices to neaten up the cable to the ELD so that it doesn’t interfere with your work. In addition, we can recommend either cup-holder or dash mount devices to mount the phone or tablet used with Shotgun Rider.
6  Android Screen for ELD Connection

The following is the Launch Screen for a phone/tablet that has not been connected to a Shotgun Rider ELD. There are two connection methods for your Phone or Tablet to talk to the Shotgun Rider ELD: Bluetooth or USB. This screen is used to setup and operate a wireless connection to your Shotgun Rider ELD. If you have a question, press on any of the blue question marks to the left for additional instructions.

6.1 Application Launch Screen

![Android Screen for ELD Connection](image)

When this antenna is selected and turns to Blue, your Phone/Tablet is trying to wirelessly connect to a Shotgun Rider ELD selected below.

This drop down shows the Shotgun Rider ELD that you wish to connect to. This phone or tablet has never been connected through Bluetooth to any Shotgun Rider ELD, and therefore the list is empty.
6.2 Searching for a new ELD.
Whenever you wish to connect to a new ELD with a phone or tablet, the “CONNECT TO NEW ELD” button should be pressed. At that point, the following will appear.
6.3 Entering the Serial Number

The Serial Number on your unit is found on the back side of the unit underneath the barcode. It starts with the characters “7E”, and is a total of 9 characters long. To enter the number, press on the Red Line, and a keyboard will appear. If you wish to exit, hit “CANCEL”.

When you have entered the Serial Number completely, press the DONE key here.

You can clear the keyboard by pressing the DONE key.
6.4 Approving Bluetooth Visibility

If you wish to connect to your Shotgun Rider ELD using Bluetooth, you must allow the Phone/Tablet to become visible so that the Shotgun Rider ELD can find your Phone or Tablet. As a security measure, the Shotgun Rider ELD never makes itself visible; so as to not allow hackers to attempt to connect to the device over wireless. Since your Phone or Tablet can display a message to you requesting permission, this approach is much safer.

Select YES to approve making your Phone/Tablet visible to other Bluetooth devices for a period of 5 minutes.
6.5 Bluetooth Search Screen

Once you have approved visibility for your device, the wireless antenna will turn Blue, and the Shotgun Rider ELD Serial Number will appear below the antenna. If the Shotgun Rider ELD is powered on, it should take less than a minute for a pairing request message to show up on your screen.
6.6 Approve Pairing Request
When the Shotgun Rider ELD detects your phone or tablet, it will send a pairing request to your unit. At this point, you must approve the request to create a connection between the units. This connection will be maintained, and should not have to be repeated the next time you launch the program.

The Bluetooth pairing request should be from the ELD that you entered. “MTN_ELD_” will precede the ELD’s serial number. If the number matches, then select PAIR.
6.7 Switch to ELD Main Screen for Unconfigured Unit

If a unit has never been configured, once the pairing request is approved, the screen should automatically flip to the ELD Main Screen.

Indicates Wireless connection to ELD

Appears for new unit with no accounts

CREATE INITIAL ACCOUNT

BACK CONFIG
6.8 Switch to ELD Main Page for Configured unit

If Support and Driver Accounts have been created on the Shotgun Rider ELD, the User Names will appear in the pull-down menus. There will be no option to create an initial account. Driver Accounts will be on the pull-down menu next to the Truck Icon, while Support Accounts will be on the pull-down menu next to the Desk Icon. Once the user selects the proper account from the appropriate menu, the Truck Icon or Desk Icon should be pressed to login to the selected account.

Alternative Malfunction/Diagnostic Indicators

Diagnostic Issues with unit that could include Unidentified Driving Records

Malfunction with unit that requires action by Driver.
7 Driver Login Process

7.1 ELD Main Screen
When your phone/tablet device connects to the Shotgun Rider ELD (Electronic Logging Device), the ELD Main Screen will come up. This screen is used to select the Shotgun Rider ELD Account to log into. If this ELD is unconfigured, then the screen will have a button to “CREATE INITIAL ACCOUNT”, and you should proceed to the Account Setup process.

1. Select the desired Driver Account with the Spinner

2. Press the Truck Icon to Start the Driver Login Process

If you are connected wirelessly to this ELD, and wish to connect to a different ELD, then use the BACK button to return to the Launch Screen.
7.2 Driver Login

After you select a Driver Account on the ELD Main Screen, and then press the Truck Icon, you will transfer to the Driver Login page. Prior to logging into an account, you need the correct account password, any co-driver you are operating with, the Tractor/Trailer configuration and the Shipping Document you are using. When these fields are populated correctly, you can execute the Login.

All passwords are stored in the Shotgun Rider ELD, and are compared against the password you send over in this process. For your privacy, as you enter the password, each character is shown and then blocked out. Don’t worry since you can always re-enter the password if you made a mistake.

7.2.1 Driver Login for Single Driver

1. Enter your Driver Account Password using the Keyboard that pops up when pressing this line.

2. Make sure that the Tractor Name, Shipping Document and Trailer Configurations are correct. If not, then press “Configuration” and change them as necessary.

3. If you are not the Driver shown at the top, or you do not wish to Login at this time, then press BACK.

Press the Login Button and correct any warning messages.
7.2.2 Driver Login with Co-Driver

When you are operating with a Co-Driver, you must enter the User Name of your Co-Driver at Login. This is necessary to help track and permit cleanup of Driving Records.

1. Press the Co-Driver check box to bring up a Spinner of possible Co-Divers. Select the correct Co-Driver from the list.

2. Make sure that the Tractor Name, Shipping Document and Trailer Configurations are correct. If not, then press "Configuration" and change them as necessary.

3. CoDriver should enter CoDriver Password using keyboard.

4. If you are not the Driver shown at the top, or you do not wish to Login at this time, then press BACK.

5. Press the Login Button and correct any warning messages.

Driver should enter Driver Password using keyboard.
7.2.3 Configuration Screen

This screen should be used prior to Login to make sure that the configuration is correct, and should be used when Off Duty Not Driving to update configurations after the Driver is already Logged In. In most cases, your Shotgun Rider ELD will be able to automatically retrieve the VIN number for your Tractor. You can name your tractors and trailers with their license number or familiar names. The Configuration Screen is used to enter or change the shipment load information that is necessary to be recorded by your Shotgun Rider ELD.

Note: Trailer pictures are black/white when they are active, and yellow when they are not present. If one Trailer is used, it must be Trailer 1. If two Trailers are used, then Trailer 1 and Trailer 2 should be present.
Example for Entering a Tractor Name:

Example for Entering a Shipping Document:
8 Driver Home Screen

After successfully logging into the Shotgun Rider ELD, you will be moved to the Driver Home Screen. Initially, your phone/tablet will be fetching events from the Shotgun Rider ELD. This process will take a few seconds based upon the number of events to be processed.

Notes:

1) The Tractor and associated VIN number should be automatically shown when attached to a vehicle in the above picture.
2) The Configuration Button permits changing the Shipping Document or Trailer Configurations during operation.
8.1 Duty Status

8.1.1 DRIVING Duty Status

When your vehicle is going faster than 5mph, the Shotgun Rider Device is required to switch your Duty Status to Driving. When you Stop Driving, you can manually switch the Duty Status. If you forget to switch the Duty Status, after 5 minutes you will be prompted to see if you wish to continue Driving or switch to On Duty Not Driving.

**A** Duty Status Will Automatically Change to Driving when speed exceeds 5mph.

**B** After 5 minutes of being Stopped, you will be prompted as follows:

If you do nothing, you will automatically be switched to ON DUTY NOT DRIVING after 1 minute.
8.1.2 OFF DUTY Duty Status

To switch to OFF DUTY, your vehicle must not be driving. You can switch to this status from either ON DUTY NOT DRIVING or the SLEEPER BERTH as shown below.

1. Pushing on the ON DUTY NOT DRIVING symbol will bring up a Menu to Change the Duty Status to OFF DUTY.

2. Select Off Duty and then press CHANGE.

1. Pushing on the SLEEPER BERTH symbol will bring up a Menu to Change the Duty Status to OFF DUTY.

2. Select Off Duty and then press CHANGE.
8.1.3 SLEEPER BERTH Duty Status

To switch the Duty Status to SLEEPER BERTH, the vehicle cannot be in motion. You can switch to this Duty Status from either ON DUTY NOT DRIVING or OFF DUTY.

1. Pushing on the ON DUTY NOT DRIVING symbol will bring up a Menu to Change the Duty Status to SLEEPER BERTH.

2. Select Sleeper Berth and press change.

1. Pushing on the OFF DUTY symbol will bring up a Menu to Change the Duty Status to SLEEPER BERTH.

2. Select Sleeper Berth and press change.
8.1.4 ON DUTY NOT DRIVING Duty Status

The ON DUTY NOT DRIVING Duty Status enables moving to the Special Duty Status values of YARD MOVES and PERSONAL USE if they are enabled for the Logged In Driver Account. There are many ways to switch to ON DUTY NOT DRIVING as shown above. The DRIVING status can automatically switch to ON DUTY NOT DRIVING after the vehicle is stopped for 6 minutes.

Refer to the pictures in the SLEEPER BERTH and OFF DUTY section that show how to reach the ON DUTY NOT DRIVING duty status.
8.1.5 PERSONAL USE Duty Status

If a Driver Account has been configured to allow Personal Use, the Driver can switch to PERSONAL USE from the ON DUTY NOT DRIVING Duty Status.

1. Pushing on the ON DUTY NOT DRIVING symbol will bring up a Menu which allows Personal Use if configured.

2. Press the Personal Use Button and select CHANGE

3. Enter a comment for the PERSONAL USE and press Confirm
8.1.6 YARD MOVES Duty Status

If the Driver Account has been configured for Yard Moves, the Driver can switch to YARD MOVES from the ON DUTY NOT DRIVING duty status.

1. Pushing on the ON DUTY NOT DRIVING symbol will bring up a Menu which allows Yard Moves if configured.

2. Press the Yard Moves Button and select CHANGE.

3. Enter a comment for the YARD MOVES and press Confirm.
8.2 Driver Graph

The Driver Graph is meant to be reviewed when the vehicle is stopped. This is why it is included in the pull-down Menu on the Driver Home page. The Driver Graph is meant to replicate the paper graphs that you may have used in the past for Hours of Service tracking.

1. Press on the Sub-Menu icon to pull up the options for Driver functions that are not meant to be done while driving.

2. Press on the “Graph Button to pull up the Driver’s Hours of Service Graph.
Home Button to Return to Driver Home Screen

Graph Date and buttons to change date

Sub-Menu to change to Log or Log Header screens and to switch to a Graph for the UNIDENTIFIED Driver.
8.3 Driver Log

The detailed Driver Log is meant to be reviewed when the vehicle is stopped. It is accessed from the Driver Home Page through the sub-menu (See Driver Graph above for directions). The Driver Log is fully scrollable, and you can also jump to a specific date through the date up and down arrows. The Driver Log is also the means to select and edit a specific log entry.

**Time Column** – Contains Time of Day and Gray Blocks for Dates

**Location Column** – Contains nearest city of 5,000 or GPS Location.

**Odometer Column** – Contains Total Odometer Reading for the Vehicle

**Engine Hours Column** – Total Engine Hours for the Vehicle

**Event Type/Status Column** – Events as designated by the FMCSA

**Origin Column** – Can be Auto, Driver or Assumed
Event Edit

8.3.1 Assuming Unidentified Driver Records

There are cases where a Driver needs to assume an unidentified driver record, the record should be selected in the Log.

Select Entry with Unidentified Driver in Log

Event Number (0-65535)

Event with Unidentified Driver.
Using the pulldown Driver Menu select yourself.

Press Save to change the driver.

Select to go back to the LOG to see the updated record.

This record has now been replaced and is inactive.

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Returning to the Log, this Entry is highlighted and shows that it was assumed from the Unidentified Driver.

When an Event is changed, a new Event is created and becomes ACTIVE as seen if you press the entry again.
8.3.2 Event Edit Position and Comment
Just like editing the Driver as shown above, the user can add comments or position entries to certain events. Events that allow changes will have lines to do so. If the Positioning system is not working, the Driver is permitted to enter a position for the record.

Example of Event permitting Driver Comment and Position.

Enter Comment and Position information using the keyboard.

Press SAVE

After completing, switch to Log

Stopped to cool brakes
Donner Summit, CA

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Pressing on the Log Entry again will show the updated event.

Final Event with Updated Comment and Position
8.4 Driver Log Header

The Log Header provides detailed information regarding the vehicle, configuration, shipping document, etc... that are used when producing a formal FMCSA output log. See the Driver Graph section for a description as to the features in the Orange Toolbar.
8.5 Driver Certification

With Electronic Logging, there is no longer the possibility to sign a paper log. In place of a signature, the Driver must certify and/or re-certify each day’s driving records. The following process is used to do this.

In the Driver Home screen pull-down menu, select Driver Certification.

Select any day to either certify the day for the first time, or to re-certify the day.

The Driver Certification screen shows the certification status for the latest day and the previous 9..
Enter any comment related to the Certification.

Press Agree to Certify or Not Ready to Exit

The date has now been updated to show the first certification for that day.

Driver Certifications are shown in the Driver Log as seen below:
8.6 Local Log File Transfer to Agent

The Shotgun Rider device supports the complete Local Transfer capability to an agent using either a USB Memory Stick or a Bluetooth connection. To initiate a transfer process, select the “Export Log File” selection in the Driver Home Screen pulldown menu.

1. In the Driver Home screen, pull down the Sub-Menu to select “Export Log File”. This is used for either USB or Bluetooth File Transfers.

2. The Create Log File screen starts off with a request for an optional comment of up to 60 characters. Pressing ‘Agree’ will create the Log File in a single step. Pressing ‘Not Ready’ will return the driver to the Driver Home Screen.
With your comment, the Log File is automatically created and moved from your phone/tablet over to the Shotgun Rider unit. It is also stored locally on your phone/tablet.

The structure of the log file name is specified by the FMCSA.

The first 5 characters are the first 5 characters of the driver’s last name (in this case, the driver’s last name was Jackson).

The next 4 characters are an encoded version of the driver’s license number (3739) in the example.

The next 6 characters are the date that the file was created (010419 representing January 4, 2019).

The next character has to be a ‘-’

The next 3 characters are ‘MTN’ for the manufacturer of Shotgun Rider.

The final 6 characters represent the time (161211 representing 4:12PM and 11 seconds in military time).

Your Log File is now created, and is ready to transfer to an official. It is available on both your Shotgun Rider unit and your Phone/Tablet. The following sections describe how to use the FMSCA specified local transfer methods; as well as available alternate methods to transfer the file to the official.
8.6.1 USB Memory Stick Local Transfer

Your Shotgun Rider device fully supports the FMCSA requirements for a single USB-compliant interface with a Type A Connector on the front of the unit where you can plug in an Officer’s Memory Stick device. When storing to a Memory Stick, your Shotgun Rider device has incorporated a number of features for both your safety and the officer’s safety from computer virus problems. These include:

1) The Shotgun Rider device is not susceptible to standard computer viruses since it is not running a standard Operating Systems such as Windows, Android, iOS, etc...
2) The Shotgun Rider device only reads authentication files from, and only stores log files to the Memory Stick. These files are text files and not executable programs.
3) The Official Memory Stick can have a keyboard password entry. This helps protect your confidential information in case the official loses the memory stick. If an Official is using a password protected memory stick, they will need to enter the code and then hand you the unit. You will then have a number of seconds to insert it into the Type A USB Connector on the front of the Shotgun Rider unit.
4) You are required to enter your password into the Shotgun Rider unit prior to being able to save a Log File. This protects you from someone trying to access your data when they are not permitted to do so.

When you press the picture of the memory stick, it will turn blue, and you will be requested to insert a Memory Stick from the official. Press ‘OKAY’ when you have inserted the memory stick, and you will be automatically transitioned to the Validation Page.
For your safety, the FMCSA requires you to re-enter your password prior to copying your Log File to a Memory Stick.

After the driver password is verified, Shotgun Rider permits an optional verification that it can read a file from the Official’s Memory Stick.

The Memory Stick Type will be either a “Standard USB Memory Stick” or an “Advanced IEEE-1667 Memory Stick”.

The “Present Memory Stick Directory” and the “Present Files” allow for a search to find the verification text file on the Officer’s Memory Stick. The name of the file to search for is listed under “Verification File Name”.

If the File is found, press VALIDATE. This will compare the files and save your log file if successful.

If the File is not found, or the Official does not request a file verification, press “STORE UNVALIDATED” to save your Log File to the Official’s Memory Stick.
After you chose to “VALIDATE” or “STORE UNVALIDATED” and your log file is transferred to the Official, you will return to the “Create Log File” screen where you will see the file transfer progress.

When the “Official Transfer Status” bar is completely orange, return the Memory Stick to the Official. If the status shows “USB Transfer SUCCESS”, they should be able to locate your file at the top directory of their Memory Stick.

If the status shows “USB Transfer FAILED”, you should try one of the next approaches to successfully transfer your Log File to the Official.
8.6.2 Bluetooth Local Transfer

The Bluetooth Local Transfer capability requires that the requesting official have a phone/tablet that supports Bluetooth Tethering; and has a connection to the Internet. In this case, the Shotgun Rider system attaches to the official’s device through a Bluetooth Personal Area Network, and then uses the official’s internet connection to transmit a Log File to the FMCSA Web Service. This approach would be most useful in the case of a roadside stop where there is no alternative infrastructure. An official’s cellphone or tablet would already need to support and be configured for Bluetooth tethering for this approach to be simply executed.

Using an official’s computer for Local Bluetooth Log File transfers to the FMCSA server would require having them setup as Bluetooth Mobile Hotspots in an operation referred to as Reverse Bluetooth Tethering. This approach is not frequently used since it is difficult to setup from a networking/bridging standpoint; and it is dependent upon the type of computer and operating system used. A more common approach is to generate a WIFI Mobile Hot Spot from a computer that permits simple transfers and security (see the next section for how this would be done from a Windows 10 machine).

8.6.2.1 Bluetooth Local Transfer Using Official Cell-phone

To Initiate a Bluetooth Local Transfer, press on the Antenna Icon and it will turn blue.
For your security, you must permit your Bluetooth to become discoverable so that the Officer can find it. Press “YES”

Tell the official to Bluetooth Pair to your device whose name is shown here. (In this example, the test device was called XYZ_Trucking_37)
When the Official Selects to Pair with your Phone/Tablet, you will receive a Bluetooth pairing request. Verify that the 6 digit number matches the one displayed on the official’s phone and press OK.

When the Official’s phone is paired to your device, you will be automatically brought to the Bluetooth Settings page in your device. You should see the official’s phone (in this example it is shown as Officer_Phone). Press on that phone to connect and verify that it supports Internet Access.
Initially, the status should be “Connecting” under the name of the official’s phone. If a successful Bluetooth Tether is achieved, then there should be an indication such as “Connected to access Internet Connection” as shown.

To complete the transfer, you need to return to the Shotgun Rider application. This is done by pressing the multiple window button on your device. Find the Shotgun Rider window (top window in this example), and press it to bring it to the foreground.
When you return to the Shotgun Rider application, the “Bluetooth Tethering” should be connected. The transfer should proceed, and report “SUCCESS”.

In this case, since this was test file had a “Status=Warning”. So that the official can review your file, the FMCSA ID is provided.
8.6.3 WIFI Mobile Hotspot Local Transfer

In many cases, it may be easier for an official to use WIFI to provide you an internet connection. This can even be done using a temporary Mobile Hotspot. For instance, an officer can use a phone or computer to create a password protected WiFi Mobile Hotspot. The Shotgun Rider user can then connect to the hotspot using the provided password. This will provide Shotgun Rider with the necessary internet connection to upload a Log file to the FMCSA Web Server. The following steps are done to access a WiFi Mobile Hotspot or Access Point.

1. Select the antenna symbol that appears after the Log File is created.
2. Select WiFi for Transfer.
3. Turn WiFi on if it is not already on.
4. Pick the WiFi network that the Official has provided for you.

5. Enter the WiFi password that the Official provides to you.
Successful Network Connection

Failed Connection. Mobile Hot Spot or WiFi Access Point is not setup properly.

Select the button on your Android device that permits you to bring up windows for each running application. In this example, the Shotgun Rider application is shaded in the background since we were just running the WiFi settings.

Press on the Shotgun Rider application and it should move to the foreground as shown in the next screen.
The Shotgun Rider Application should come to the foreground, and the Transfer to the FMCSA should proceed automatically.

In this example, there are Warnings because it was for a test file. The FMCSA ID # for your Log File will be reported so that it can be provided to the Official if necessary.

At this point, your Log File Transfer is done and you can return to the Driver Home Screen here.
8.6.4 Phone/Tablet to Official Bluetooth (file only) Transfer

The Bluetooth process saves your Log File locally on your device, and allows you to simply transfer it to an Agent on request. The first part of this process involves finding your Phone/Tablet’s Bluetooth settings from the menus.

**PAIR TO THE OFFICIAL’s COMPUTER USING BLUETOOTH**

1. Find the Settings and then the Bluetooth Settings for your Phone/Tablet.

2. Identify and Pair to the Other Device. The device in this example is MTN-HP1 which must be set to be discoverable for this operation.
**SELECT LOG FILE FOR TRANSFER**

1. **My Files**
   - **Recent files**: 582 KB
   - **Images**: 22 MB
   - **Videos**: 0.00 B
   - **Audio**: 3.0 MB
   - **Documents**: 1.1 MB
   - **Downloaded apps**: 156 KB
   - **Download history**
   - **Device storage**
   - **Cloud storage**

2. **Find the Document Directory that you stored the file in above**

3. **Device Storage**
   - **Documents**
   - **Download**
   - **smvvm**
   - **Android**
   - **MND**
   - **Pictures**
   - **Ringtones**
   - **wdh_update**
   - **Studio**

**Shotgun Rider Operating Manual**
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TRANSFER FILE WITH BLUETOOTH

4. Choose the Networking Icon after selecting the file you wish to transfer.

5. Choose to Share via Bluetooth
Monitor the progress of the File Transfer to the Official’s device as shown in the shaded gray region.

If the Transfer is Successful, then the Official should be able to review the file.

If the Transfer Fails, then consider another transfer approach as shown below.
9  Support Account Creation Process

Every ELD must have at least one Support Account. Support Accounts are non-Driver Accounts who handle administration features of the ELD. These capabilities include:

- Add, Modify or Remove Driver Accounts from an ELD
- Add, Modify or Remove Support Accounts from an ELD
- Review Log Entries on an ELD
- Recommend Log Entry changes such as assigned “Unassigned Driver Entries”
- Upgrade the Firmware on an ELD
- Configure the Vehicle Interface for an ELD

9.1 Initial Support Account Creation

If there are no accounts on the ELD, then the following screen selection will allow you to create the Initial Account.

![Support Account Form 1]
9.2 Create Additional Support Accounts

If there is already at least one Support Account on the ELD, then a new Account can be created by logging into an existing Support Account.

1. Choose the existing Support Account on the ELD to Log into using the pull-down selector.

2. Enter the password associated with this account on this ELD using the keyboard that will appear when you press the line.

3. After the password is entered, press Login.
If there is an error in the password, then re-enter to correct.

Select Manage Support Account selection

Select CREATE NEW SUPPORT ACCOUNT
9.3 Completing the Support Account Creation Forms

Prior to setting up a Support Account (or a Driver Account), you will need to have your formal Carrier Name and US-DOT Number handy. Every account on an ELD needs to have a unique username which is often a first name followed by the first letter of the last name. An approach such as this makes it easy to figure out whose account is on the ELD. Passwords must be at least 4 characters, but should be secure enough to protect against unauthorized personnel changing account information or logging in as the wrong driver.

1. Complete the fields for the two Support Account Creation Forms using the keyboard that appears when you touch a line.

2. Choose NEXT to proceed to the second form.

3. Choose NEXT to proceed to the Confirmation form.
Press CONFIRM to create the account after reviewing the information or going BACK to edit a field.

The new Support Account will now appear in the list of Support Accounts on the ELD.
9.4 Modifying or Removing a Support Account

If there is a reason to correct a value in a support account, or to change the password for security, select the account in the Manage Support Accounts screen.

1. Press on the Account that you would like to Modify or Remove.

2a. Selecting MODIFY takes you back through the Account Forms to edit any desired fields.

2b. Selecting REMOVE provides a final verification that you wish to remove the account.
10 Driver Account Creation Process

Every driver that uses an ELD must have a valid account on the ELD. Prior to starting to drive the vehicle, the driver must be logged into the ELD so that it can record the information properly.

10.1 Driver Account Creation

Creating Driver Accounts can only be done by a logged in Support Account at the Support Home screen.

To create an account, you will need to know:

1) Carrier formal Name and DOT Number
2) Driver’s Name on License and Requested Password
3) Driver’s License # and License State
4) The 24 Hour start time for the Driver
5) Whether the Driver is EXEMPT from ELD requirements
6) Whether the Driver can use a Tractor for Personal Use or Yard Moves.
7) The Time-Zone of the Driver’s Home Terminal
8) Whether the Driver uses a 7 or 8 day work week.
Enter the Driver’s Carrier Name and DOT Number that they are operating under using the keyboard that appears when you press the line.

Configure the Carrier Work Week by pushing the proper button, and permit Yard Moves or Personal Use as per your Carrier policy. If the Driver is Exempt from ELD records, then select Exempt.

Select NEXT to move to the next FORM.

Home Terminal Regions can be the US, Canada, Mexico or Other.

Time Zones for your specific Region will appear here

Enter your Company 24 hour start time here. In this example, it is 3AM.

Select NEXT to move to the next FORM.
This Screen is to verify the time at the Driver’s Home Terminal. If it is wrong, then go back to correct the settings.

Enter the Driver’s Name, License# and State based on the Region selector.

Press NEXT to move to the next screen.
12
Select a Driver User Name and a Password that must be at least 4 characters long.

13
Select NEXT to confirm the account.

This is the bottom of the screen to the left that can be found by dragging your finger down the screen.

14
Is all of your information correct?

You can scroll down on the screen to see the last settings for the Driver Account. If you wish to make a change go BACK. Otherwise, press CONFIRM to make the account.
10.2 Modifying or Removing a Driver Account

If there is a reason to correct a value in a driver account, or to change the password for security, select the account in the Manage Driver Accounts screen.

1 Press on the Account that you would like to Modify or Remove.

2a Selecting MODIFY takes you back through the Account Forms to edit any desired fields.

2b Selecting REMOVE provides a final verification that you wish to remove the account.
**11 Support Home Screen**

The Support Home Screen permits an administrative person to configure accounts, configure vehicle settings, diagnose ELD issues, upgrade ELD Firmware, and specify Carrier Settings. This screen is the home screen for a Support User.

![Diagram of Support Home Screen](image)
The following menu is shown when the Support User selects the pulldown menu in the upper left of the Support Home Screen.

- Log of all ELD events
- Daily Graph for ELD
- Special Vehicle Interface Configurations
- Troubleshooting Assistance
- Download all Records for ELD in .pel Format
- Upgrade the ELD Firmware when Available
- Upgrade the ELD Firmware when Available
- Log
- Graph
- Vehicle Configuration
- Diagnostics
- PEL Download
- Firmware Upgrade
- Carrier Settings
11.1 Support Log Screen

The Support Log screen has two additional columns beyond the Driver Log Screen. These are the Driver and the Number columns on the far right of the display. A Support User needs to be able to recommend changes to entries, such as ones where the driver is unidentified, and these columns are added to help in this effort.

![Support Log Screen](image)
11.2 Support Graph

The Support user can view any unidentified driver records in graph form. If unidentified records are found, the Support User can switch to the Log View to recommend a change to the records. Any change must be approved by a Driver before it will fully take effect. For a given day, if no Unidentified Driver records are present, the line will all be “OFF DUTY” as shown below.
11.3 Vehicle Configuration

When installing an ELD on a pre-2000 vehicle, there may be configurations that must be done manually. This special screen permits the CAN Rate of the bus to be adjusted with a pull-down selection. Possible CAN Rates are 125KBaud, 250KBaud, 500KBaud and 1MBaud. Newer vehicles that meet heavy duty truck standards will operate at a default value of 250KBaud.

On older vehicles, it may be necessary to enter the VIN Number for the vehicle. This is done on the Legacy VIN Entry: field as shown below. Vehicle Speed, Total Hours, Total Odometer, and VIN are typically automatically retrieved from the vehicle. When you connect up to the vehicle, real values in these fields should appear in Blue. The Purple values to the left of the Probe buttons will show how many messages are received while the screen is active. If no activity is received for a given value (such as for VIN), then a PROBE button can be pressed to attempt to retrieve the value.

The Shotgun Rider ELD permits measuring many more values from the vehicle CAN bus. Please see the website for software to measure CUSTOM FEATURES.
11.4 Diagnostics

The diagnostic menu can be accessed if you are experiencing a problem and requested to review messages for MTN's Technical Support.

<table>
<thead>
<tr>
<th>Sector, Entry Value</th>
<th>Date Time Value</th>
<th>Diagnostic Log Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,220 05/01/18 18:24:00:500</td>
<td>FMCSA Write: Good</td>
<td></td>
</tr>
<tr>
<td>4,219 05/01/18 18:23:57:100</td>
<td>FMCSA Write: Good</td>
<td></td>
</tr>
<tr>
<td>4,218 05/01/18 18:23:47:295</td>
<td>Bluetooth JSDS for Address=08FD0EA1C5B2</td>
<td></td>
</tr>
<tr>
<td>4,217 05/01/18 18:23:42:165</td>
<td>Bluetooth JSDS for Address=C41CFF1A3092</td>
<td></td>
</tr>
<tr>
<td>4,216 05/01/18 18:23:37:040</td>
<td>Bluetooth JSDS for Address=BC765EE3CC25</td>
<td></td>
</tr>
<tr>
<td>4,215 05/01/18 18:23:37:040</td>
<td>Bluetooth Read Stored Done</td>
<td></td>
</tr>
</tbody>
</table>
11.5 PEL Download

A “.pel” file contains all of the information from an ELD necessary to use those records on another system. This capability permits the Support Person to Create a PEL File for all of the users of an ELD and covering a range of dates.

Select the Desired Start and End dates for the file here.

Once the dates are selected, then press “CREATE” to make the file.

The Yellow Bar will complete when all records have been retrieved.

The filename will show the start and stop dates, and the ELD Serial Number. It can be found in the My Files application in the /Device Storage/Documents directory.
11.6 Firmware Upgrade

The Shotgun Rider ELD permits live updates to the firmware (software) in the actual ELD. New versions of firmware will be included in a new version of the Android Application. They can be pulled from the website to update the application on your device.

Press UPGRADE to start. This process can take a number of minutes as a large file is sent over to the Shotgun Rider ELD. The progress is shown in the Sector Progress and Block Progress bars.

If at any time, you wish to stop the upgrade, please press CANCEL.

When both yellow bars are complete, you will be prompted as shown below.

UPGRADE/RESTART will restart the ELD and it should show the new firmware version. Pressing CANCEL will erase the new upgrade from the system.
11.7 Carrier Settings Screens

When a Support Person is setting up multiple driver accounts on multiple vehicles, they may wish to store default settings. The Carrier Settings Screens permit you to store these settings on the Phone/Tablet that you are using.

Carrier Settings are stored on the Phone or Tablet, and not the Shotgun Rider ELD. If you change Phone/Tablet, you will need to re-enter them.

- Enter the full name of the Carrier here.
- Enter your Carrier DOT Number here.
- Select the Work Week and permitted truck uses here.
Configure your Time Zone and Company Start Time.

Select NEXT to continue

Select YES to continue or GO BACK to correct the time.

CONFIRM to save the settings for new Driver Accounts that you create.