

EROAD Ehubo®

Installation Guide



Congratulations on choosing EROAD

IMPORTANT: Do not install or use the EROAD hardware until you have read this Installation Guide thoroughly.

Congratulations on your purchase. This EROAD device is an FMCSA-compliant electronic logging device (ELD), in addition to an Oregon Department of Transportation (ODOT)-approved electronic Weight-Mile Tax collection device. The EROAD technology platform also offers a complete suite of user-friendly compliance and telematics assets, including automated IFTA, safety and fleet management reporting.

For the remainder of this manual we will refer to the EROAD in-vehicle device as the Ehubo, which is the name of our in-vehicle hardware platform.

EROAD recommends the use of a professional automotive technician to install the Ehubo in your vehicle. Please make this Guide available to your installer and keep it for future reference.

The Ehubo is easy to install by carrying out the following steps as described in this Guide:

1. Make sure to read the Safety Information section, familiarize yourself with the local laws regarding the installation and use of the Ehubo, and use and follow all standard safety precautions.
2. Choose a suitable mounting location and mount the Ehubo.
3. Install the Ehubo by connecting it to the vehicle.
4. Complete the installation by following the Ehubo's on-screen guide.

Refer to ***“Replacement Installation”*** on page 10 if you are installing a replacement Ehubo

Important Safety Information

Please read carefully before beginning installation!

LEGAL NOTICE AND DISCLAIMER

The legislation and rules concerning the installation and operation of GPS driver aids and messaging devices such as the Ehubo vary from each country and state. Please familiarize yourself with the laws of the jurisdiction(s) in which the vehicle will be operated in prior to installing and using the Ehubo.

Driving laws place the responsibility on the driver to correctly install and use GPS driver aids. It is therefore the Customer's sole responsibility to install and use the Ehubo in a manner that complies with the law and will not cause accidents, personal injury or property damage. The owner of this Ehubo is solely responsible for observing safe driving practices.

EROAD DISCLAIMS ALL LIABILITY FOR ANY USE OF THIS EHUBO IN A WAY THAT MAY CAUSE ACCIDENTS, DAMAGE OR VIOLATE THE LAW.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, ALL REPRESENTATIONS AND WARRANTIES (EXCEPT ANY WHICH MAY NOT LAWFULLY BE EXCLUDED) ARE EXPRESSLY EXCLUDED, INCLUDING WITHOUT PREJUDICE TO THE GENERALITY OF THE FOREGOING, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

As EROAD is continuously improving its products, EROAD may make changes to the Ehubo at any time which may not be reflected in this document. Please contact your nearest EROAD office if you require any further assistance.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Federal, national or local health and safety regulations may require wearing appropriate Personal Protective Equipment (PPE). PPE may include items such as safety glasses, safety shoes, work gloves, hard hat, high visibility vest, and work uniform. Make sure to comply with appropriate standards and check with customers or third parties to verify whether they have additional PPE requirements.

INSTALLATION

- Installers and contractors must follow all health and safety regulatory requirements to ensure a safe and healthy work environment.
- Whenever the equipment is parked, the parking brake shall be set. Equipment parked on inclines shall have the wheels chocked and the parking brake set.
- Equipment, or parts thereof, which are suspended or held aloft by use of slings, hoists, or jacks shall be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them.
- Installing and servicing electronic devices can be hazardous due to electrical components. Make sure to create a safe working environment to avoid hazards and to ensure correct and safe installation and operation.
- EROAD recommends the use of a qualified professional automotive technician to install the Ehubo. Make this Installation Guide available to the appropriate personnel. Store it for future reference.
- To avoid damage do not run cables close to heat sources, sharp edges or other obstacles that might damage them.
- Do not run cables directly next to safety-relevant devices.
- Place all wiring under the dash to avoid creating a hazard.
- Do not damage existing wiring and components when drilling the dashboard.
- Some countries and states prohibit the installation of GPS driver aids on windshields. Where it is lawful to install the Ehubo on the windshield, to minimize obstruction of the driver's field of view, it should be positioned as low as possible and closest to the driver door.

- Avoid fitting the Ehubo in a location that could cause injury to a driver or passenger in a crash. This includes potential head strike zones on the windshield or dashboard, or other locations where a deploying airbag may contact the Ehubo.
- Do not block or impair the deployment of airbags and other safety-relevant devices.
- Avoid placing the Ehubo where it may impede or limit the driver's movement when driving or exiting the vehicle (including in an accident).
- After installation, check that all safety-relevant equipment is working properly.

OPERATION

- Familiarize yourself with local laws concerning the use of GPS driver aids. Some countries and states prohibit drivers from viewing screens or making or receiving text messages while driving a vehicle.
- To avoid driver distraction, the Ehubo screen is initially configured to automatically turn off when movement is detected.
- Where the Ehubo screen has been activated to turn on during driving, minimize the amount of time spent viewing the screen.
- Only operate or look at the Ehubo when it is safe to do so. Do not message, change settings or access functions while driving. Pull over before you wish to attempt such activities. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety.
- Where the screen displays the speed limit or the vehicle's speed, this is for information only. Please ensure that you observe all posted speed limits and drive to the conditions.
- Do not use sharp-edged objects on the Ehubo touch screen.
- The Ehubo is not waterproof. Do not spill any liquid on it.
- Protect the Ehubo from extreme temperatures. Operating temperature for the Ehubo is between -20°C/-4°F and 85°C/185°F.
- Always follow local regulations when disposing of the Ehubo.
- Do not dispose of the battery in trash cans, fire or water.

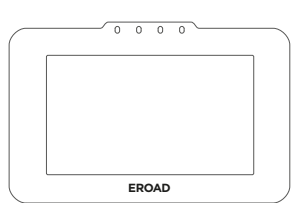


FCC COMPLIANCE STATEMENT

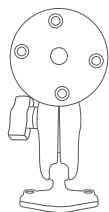
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Inside the box

Open your Ehubo box and check that everything is inside.



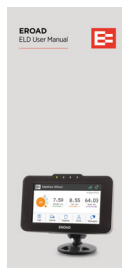
EROAD Ehubo
(Pre-fitted Extendable Cable)



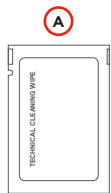
Mounting Arm



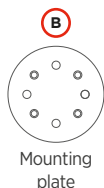
Installation guide



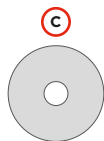
ELD User Manual
+ visor cards



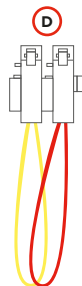
Alcohol wipe



Mounting
plate



High-strength adhesive tape
(optional, for tape mount)



Fuse kit
(permanent/switched power)



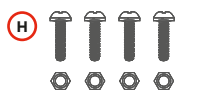
Wiring Harness



2 x 3/4" / 19mm screws + washers

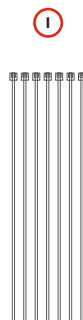


4 x 1/2" / 13mm counter sunk
screws + nyloc nuts

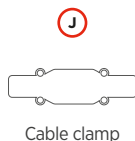


4 x 1" / 25mm screws + nuts

Screws, nuts and washers
to mount Ehubo



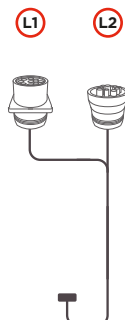
Cable ties



Cable clamp



Rear hatch
security plugs



ECM Y cable -
included with cable kit
(optional or if required)

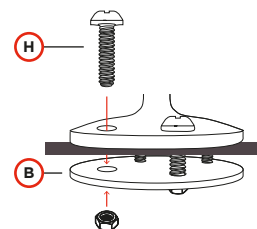
Mount the Ehubo

The Ehubo can be mounted on the dashboard or windshield (where permitted by law where the vehicle is being operated). For windshield mount or temporary installation on a flat surface please use the adhesive tape supplied.

NOTE: Choose the mounting location for your Ehubo carefully and ensure that it complies with all local regulations. Make sure that the Ehubo does not impair the driver's visibility, does not pose a risk in the event of an accident, does not interfere with any systems used in the operation of the vehicle, does not block or impair the deployment of the airbag, and has a good view of the sky. Choose a location that does not expose the Ehubo to excessive temperature or vibration.

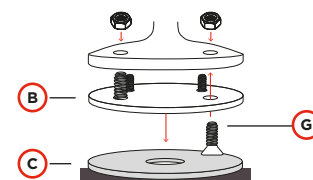
- 1 Proceed with **2A PERMANENT MOUNT** (dashboard)
or **2B TAPE MOUNT** (windshield or flat surface).

- 2A **PERMANENT MOUNT**
Attach mount to dash
using mounting plate (B),
screws and nuts (H).

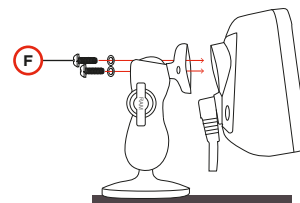


or

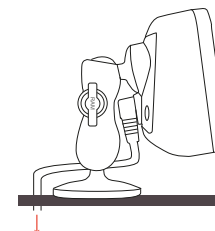
- 2B **TAPE MOUNT**
 - Clean flat surface with alcohol wipe (A)
 - Fit mounting plate (B) to mount using counter sunk screws/holes and nuts (G)
 - Apply adhesive tape (C) to mounting plate and firmly press to surface



- 3 Attach Ehubo to the mount
using screws and washers (F).
**Use of the washers is essential to
reliably secure the device!**



- 4 Route the wiring out of the
way and down the back of the
dashboard.



NOTE: If swapping mounting option do not reuse nyloc nuts, use unused nuts as supplied.

Installing the Ehubo – Standard Electronic Control Module (ECM) Connection

NOTES

- If you are operating a pre-2000 vehicle or post-2000 vehicle with no ECM connection (e.g. mechanical engine), refer to Installing the Ehubo – No ECM Connection.
- The engine must be turned off prior to installing Ehubo.
- Power supply must not be taken from any ABS/EBS braking system.

- 1 Connect the 8-way connector (M) on the extendable cable (N) to the corresponding connector on the ECM Y cable (O). Secure with the cable clamp (J) included in your cable kit.
- 2 Remove the vehicle's diagnostic connector (data connector) from the bracket or panel where it is fastened. Consult your vehicle's maintenance guide to properly remove panels, as required.
- 3 Connect the vehicle's diagnostic connector to the mating connector on the ECM Y cable (L2) and secure by twisting the collar until it locks into place (tug lightly to check). Your Ehubo display screen should power on at this point with a green LED (P) above the display.

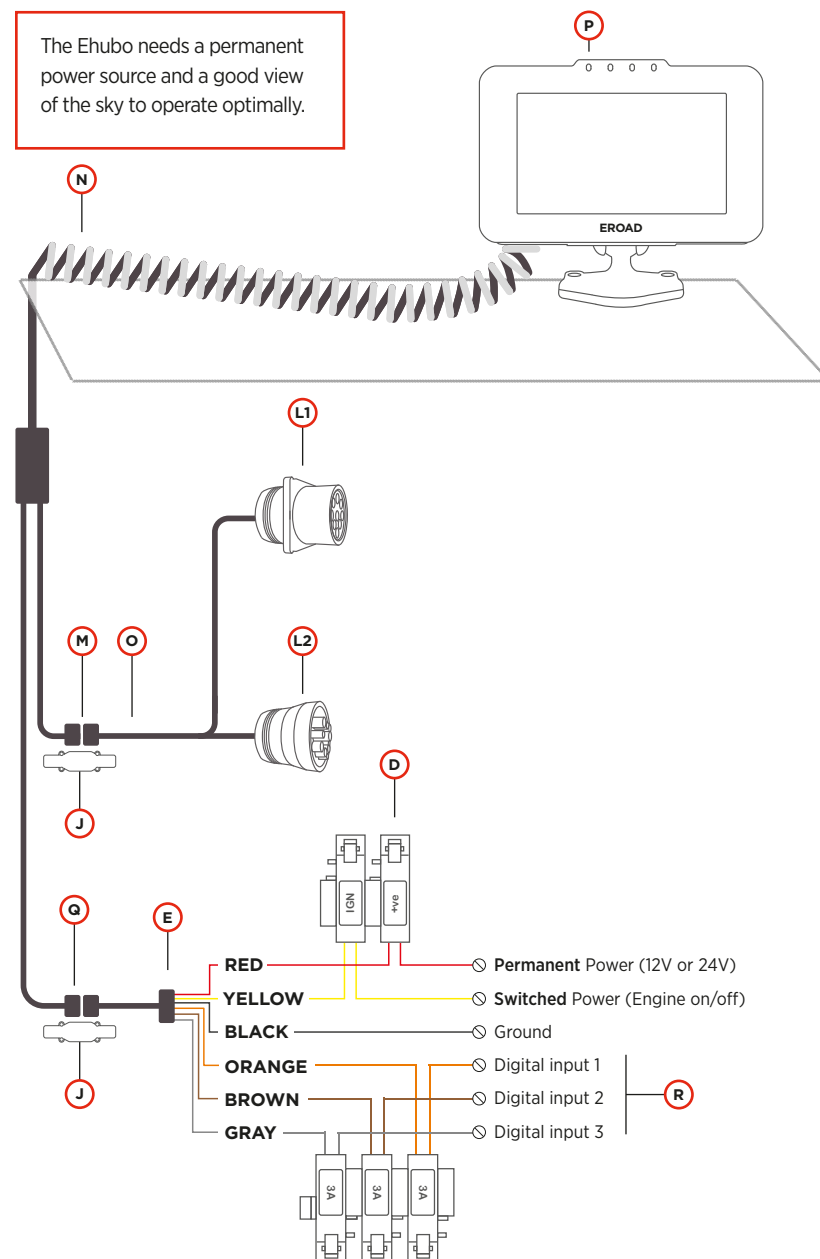
IMPORTANT:

If Ehubo does not power on, connect the power through the Ehubo Wiring Harness (E):

- 1 Connect the 10-way connector (Q) on the Ehubo Extendable Cable (N) to the corresponding connector on the wiring harness (E). Secure with the cable clamp (J) included in the box.
- 2 Connect the red wire from the wiring harness (E) to the inline fuse (D), and then to a permanent power source.

You must have constant 12-24V power when the key is inserted with the engine running, and when the key is not inserted with the engine off.

- 4 Feed the second connector on the ECM Y cable (L1) into the existing vehicle diagnostic connector housing and fasten to the vehicle.
- 5 Optional. If additional wires (orange, brown and gray) (R) from the wiring harness are required for monitoring activity through the three digital inputs, connect to their respective sources with an inline 3A fuse.
- 6 Store all unused wires neatly, insulated and secured using cable ties. Reinstall any dashboard pieces or panels removed during installation. Remove the screen protection film from the Ehubo display screen.
- 7 Finalize by following the onscreen instructions. After the checks are successfully completed, the Pending Assignment, or the Ehubo home screen (if unit is assigned to a vehicle) is displayed. Ensure driver-required manual and visor cards are in the vehicle.



When the vehicle is off, the Ehubo shuts down to a lower power mode and draws a very small current from the vehicle supply. Remove the Ehubo permanent power fuse if the vehicle is in storage or parked up for more than a month to avoid discharging the vehicle battery.

Installing the Ehubo - Non-Standard No ECM Connection

Use these instructions if you installing Ehubo into a pre-2000 vehicle or post-2000 vehicle with no ECM connection available. Review the instructions and diagrams carefully before you begin.

NOTES

- The engine must be turned off prior to installing Ehubo.
- Power supply must not be taken from any ABS/EBS braking system.

- 1 Connect the 10-way connector (Q) on extendable cable (N) to the corresponding connector on the Ehubo wiring harness (E). Secure with cable clamp (J) included in your cable kit.
- 2 Connect the black wire on the Ehubo wiring harness (E) to an appropriate grounding location that is fit for that purpose.
- 3 Connect the red wire on the wiring harness to the inline 2A fuse (D) (included), and then to a permanent power source.

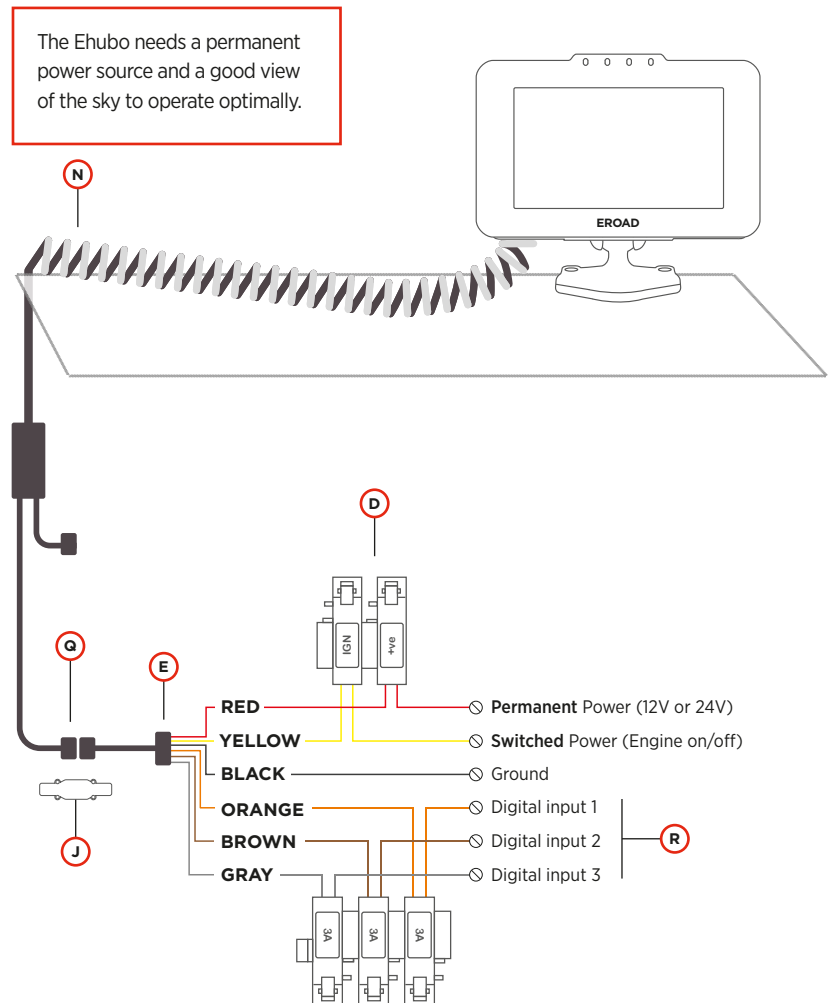
NOTE: Ensure there is a constant 12-24V when the key is inserted, with the engine running, and also when the key is not inserted and engine is off.

- 4 Connect the yellow wire to an inline fuse (D), then to the engine or ignition switched power source. Do not connect to an accessory wire.

NOTE: For accurate idle reporting, it is strongly recommended to connect to a source with a constant 12-24V when the engine is running and 0V when it is not.

If this is not possible, you may connect to an ignition source with a constant 12-24V when the key is in the ON position, and 0V when the key is in the ACC and OFF positions.

- 5 Optional. If additional wires (orange, brown and gray) (R) from the wiring harness are required for monitoring activity on the three digital inputs, connect to their respective sources with an inline 3A fuse.
- 6 Store all unused wires neatly, insulated and secured using cable ties. Reinstall any dashboard pieces or panels removed during installation. Remove the screen protection film from the Ehubo display screen.
- 7 Finalize by following the onscreen instructions. After the checks are successfully completed, the Pending Assignment, or the Ehubo home screen (if unit is assigned to a vehicle) is displayed. Ensure driver-required manual and visor cards are in the vehicle.



(Fuse note) For short circuit protection, you must fuse the following wires when connected:

- | | |
|--|--------------------------------------|
| ■ RED - Permanent Power
(Fuse supplied) | ■ ORANGE - Digital Input 1 (3A Fuse) |
| ■ YELLOW - Switched Power
(Fuse supplied) | ■ BROWN - Digital Input 2 (3A Fuse) |
| | ■ GRAY - Digital Input 3 (3A Fuse) |

When the vehicle is off, the Ehubo shuts down to a lower power mode and draws a very small current from the vehicle supply. Remove the Ehubo permanent power fuse if the vehicle is in storage or parked up for more than a month to avoid discharging the vehicle battery.

Replacement installation

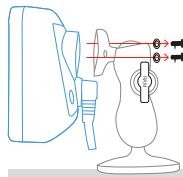
To replace an existing Ehubo,

- disconnect the power cable from the existing Ehubo and
- connect it to the replacement Ehubo.

NOTE: Turn off the engine prior to replacing the Ehubo

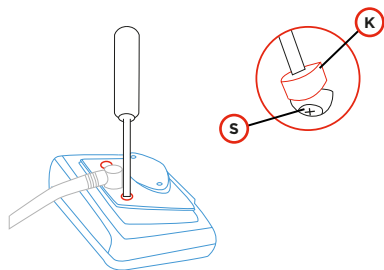
Follow these simple steps:

- 1** Remove the **existing Ehubo** from its mount and carefully place it screen down on a clean, flat surface.
Make sure to not scratch or damage the screen!

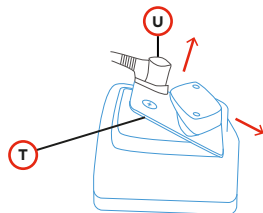


- 2** Unpack the **replacement Ehubo** and also place it screen down on a clean, flat surface.
Make sure to not scratch or damage the screen!

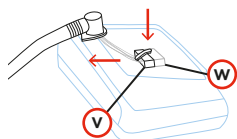
- 3** Remove the rear hatch security plugs (**K**) of both, the **existing** and the **replacement Ehubo**. This is easily done by inserting a flathead screwdriver and scooping out the plug. Unwind the screw underneath (**S**).



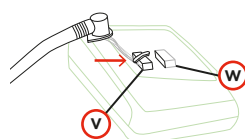
- 4** Lift the rear hatch (**T**) off the **existing Ehubo** and slide it off the cable grommet (**U**). Lift the rear hatch off the **replacement Ehubo**.



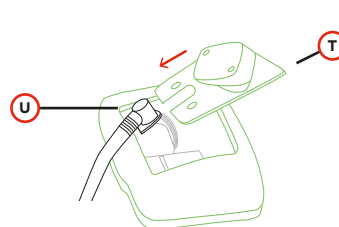
- 5** **EXISTING EHUBO:**
Push down the cable plug latch to release the cable plug (**V**) and carefully slide the cable plug off the internal connector (**W**).



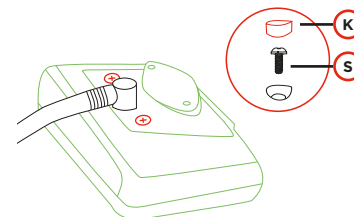
- 6** **REPLACEMENT EHUBO:**
Carefully insert the cable plug (**V**) into the internal connector (**W**). Make sure the cable plug latch clicks into place to safely secure the plug.



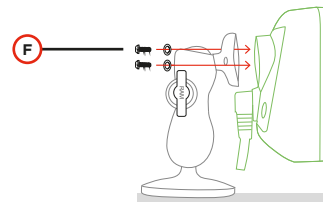
- 7** Slide the **replacement Ehubo's** rear hatch (**T**) onto the cable grommet (**U**) and insert it into the **replacement Ehubo**.



- 8** Insert the two rear hatch screws (**S**) and new security plugs (**K**).



- 9** Mount the **replacement Ehubo** on the existing mount using the screws and washers (**F**) supplied with the **replacement Ehubo**.







- 10** Pull the sticker and screen protection film off the Ehubo screen.

- 11** To complete the installation, follow the instructions on the screen. The install wizard must be re-run to completion on the new unit. At the end of the process, when the Ehubo Home screen is displayed, the installation is complete.

- 12** Please place the uninstalled Ehubo in the replacement box and return to EROAD including any surplus parts.

Troubleshooting

This section will provide some solutions if the installation of your Ehubo is unsuccessful or the Ehubo doesn't perform as expected.

SCENARIO	SYMPTOM	SOLUTION
Permanent Power is not connected correctly	<ul style="list-style-type: none"> Ehubo screen remains off Green Power LED on the Ehubo is off while driving Cannot successfully complete install checks 	<ul style="list-style-type: none"> Check that Permanent Power has been properly connected to the red wire. Check you have a good Ground connection connected to the black wire. Check the fuses have been inserted properly Ensure that the permanent supply is capable of supplying the Ehubo (12V/24V)
Switched Power is not connected correctly	<ul style="list-style-type: none"> Ehubo screen remains off Cannot successfully complete install checks Engine on/off icon shows incorrectly  	<ul style="list-style-type: none"> Check that the fuses have been inserted. Check that permanent power has been properly connected to the red wire. Check that switched power has been properly connected to the yellow wire.
Poor or no cellular connection after 1-2 minutes AND/OR	<ul style="list-style-type: none"> Ehubo indicates poor or no cellular reception 	<ul style="list-style-type: none"> Ensure vehicle is in a location with adequate cellular coverage Ensure Ehubo has good view of the sky in the vehicle and the vehicle is moved away from overhead obstructions
Poor or no GPS reception	<ul style="list-style-type: none"> Ehubo indicates poor or no GPS reception 	
Ehubo screen is blank	<ul style="list-style-type: none"> Ehubo screen remains off after touch 	<ul style="list-style-type: none"> Ensure the vehicle is stationary Ensure Permanent Power, Switched Power and Ground are connected correctly

If any of these icons are present, please contact your supervisor or employer



Faulty ignition



Faulty connection



Faulty SIM



Faulty GPS

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Confidence in every mile.

