



Emergency Vehicle Solution

Emergency Vehicle Install Guide

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INTRODUCTION

The Geotab® Emergency Vehicle Solution uses the IOX-AUXM to integrate with emergency lights, sirens, and additional telematic inputs to offer a complete solution for Police Vehicles, Ambulances, and Fire Trucks.

Telemetry data is sent through the GO device, and can be accessed in real-time, or via structured reports for operations management.

Professional installation

Installing the Emergency Vehicle Solution requires that the installer has sufficient technical knowledge and expertise with the GO device. In addition, the installer must have completed the installer certification courses required for this solution.

Partner roles and responsibilities

Partner	The partner is responsible for ordering the Emergency Vehicle Solution product and for providing a vehicle list with specific telematic input details for each vehicle: vehicle type, lights and siren make and model (controller), and any other required telemetry inputs.
Geotab	Geotab will ship the Emergency Vehicle Solution product to the Customer, and provide Emergency Vehicle Solution installation training, guides, and instructions.
Customer	The Customer must ensure that listed vehicles and Emergency Vehicle Solution products are available for installation. They may also be required to provide wiring diagrams / schematics for lights and siren controllers if needed.
Installer	The installer is responsible for obtaining Emergency Vehicle Solution installation training and certification, installing the Emergency Vehicle Solution product according to Geotab standards. They are required to ensure the telemetry inputs are connected according to the Input Mapping table as specified by Geotab.

Input Mapping

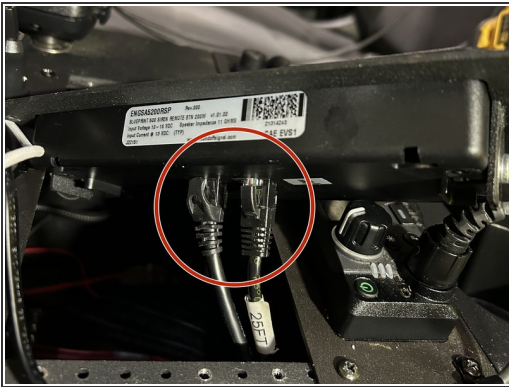
Input	Color	Emergency Vehicle *
IOX-AUXM		
AUX1	Blue	Primary Lights**
AUX2	Orange	Secondary Lights
AUX3	Green	Panic / Gun Lock
AUX4	White	Siren
* Emergency (First Response) vehicles may include: Police, Fire, Paramedic, By-law or other first response vehicles.		

***** Primary Lights refer to flashing lights used when responding to an Emergency.***

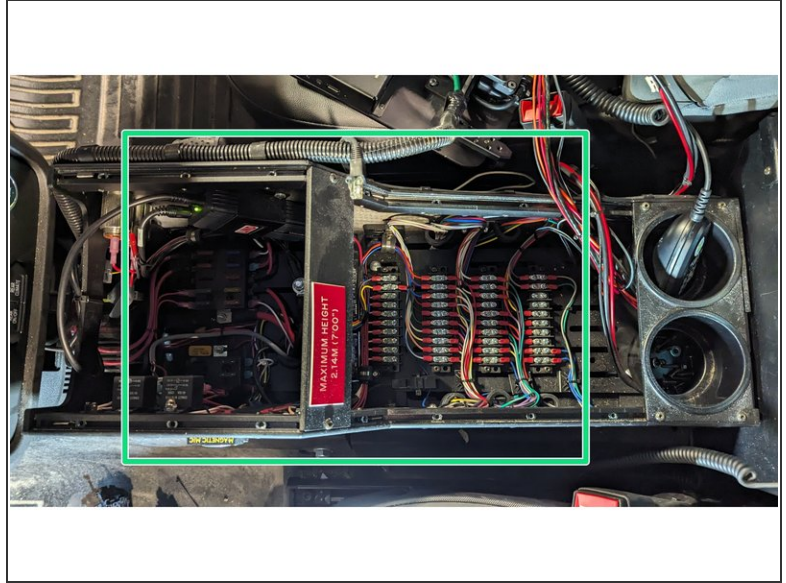
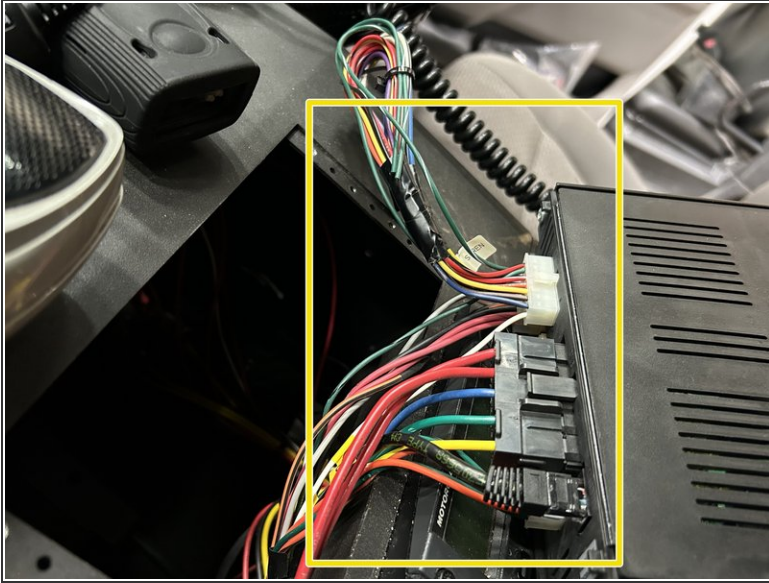
— Emergency Vehicle Controllers



- Emergency vehicles have a controller to activate the emergency lights and sirens, typically located within reach of the driver.
- ① You may also find additional telemetry inputs available through the control panel, such as gun lock and panic.

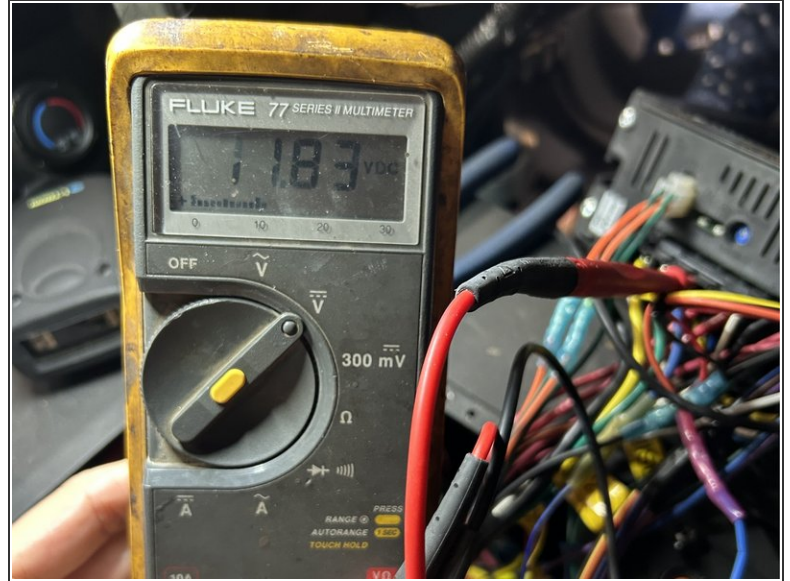


- ① Some controllers use CAN bus to communicate with a control module located in elsewhere in the vehicle.
- CAN bus controllers can be identified by looking at the back of the control panel. RJ45 connectors indicate a CAN bus system.
- You may need to remove dash panels, storage boxes, or other items to access the control module depending on its location within the vehicle.
- ☑ The customer or vehicle upfitter may be able to provide guidance on the location of the control module.



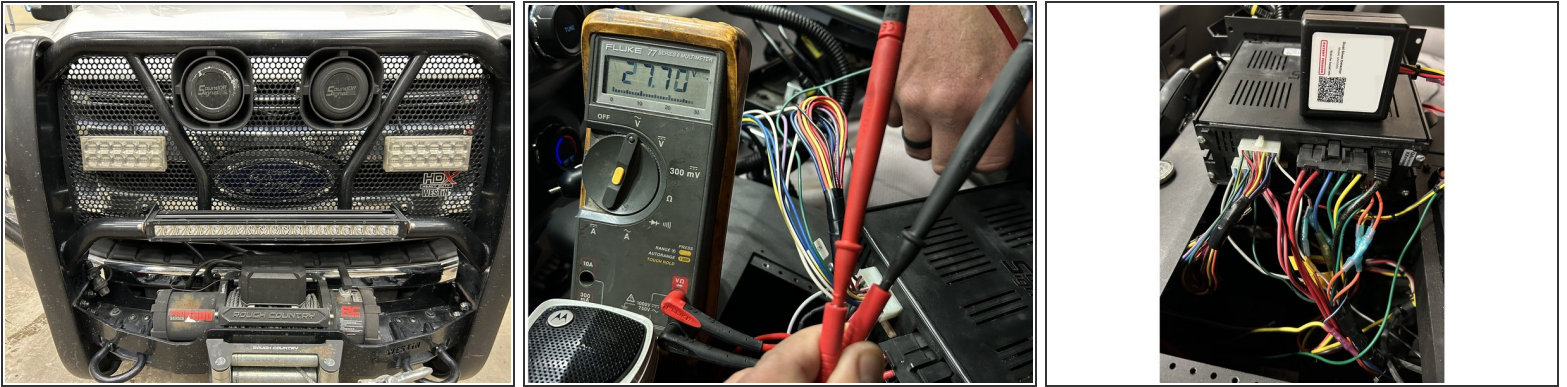
- Controllers may have the wiring connected directly to the back of the control panel.
- Additionally, in some cases, there may be a distribution panel mounted in the center console of the vehicle.

— Primary Lights



- Using a multimeter, locate and test the wire that shows 12V DC when the primary lights are activated.
- AUX 1 - Primary Lights

— Siren



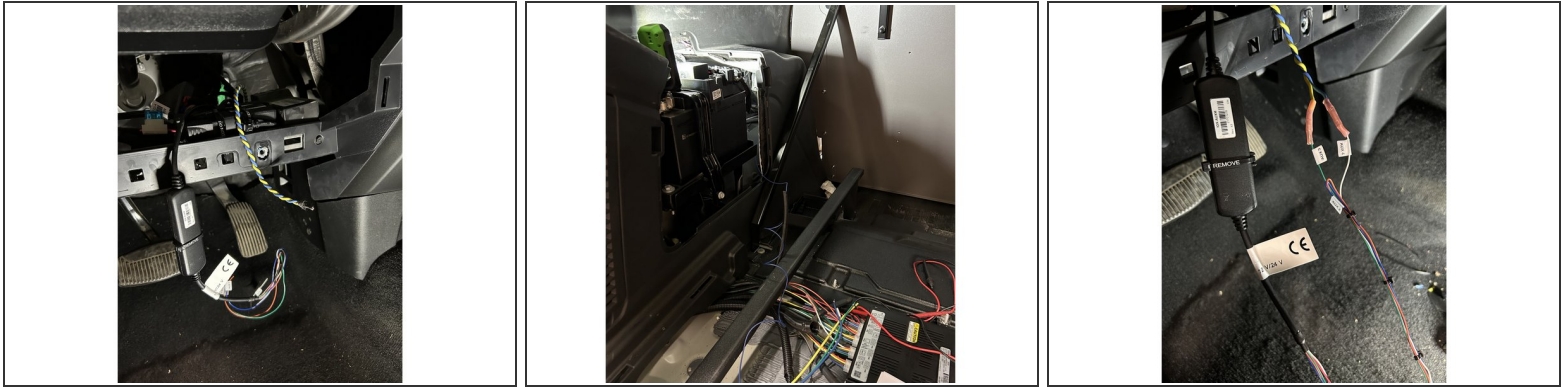
- Using a multimeter, locate and test the wires that show 0-36V AC when the siren is activated.
- ❗ A Siren Detector module will be required to convert the AC signal from the siren wires to a 12V DC output.
- ☑ Make sure you follow the wiring instructions provided by the manufacturer of the Siren Detector module.
- AUX 4 - 12V DC output wire from the Siren Detector Module.

— Gun Lock



- Using a multimeter, locate and test the wire that shows 12V DC when the gun lock is activated.
- AUX 3 - Gun Lock

— Wire Routing & Connections



- ① You may need to run wires from the control module of the Emergency Vehicle Controller to the IOX-AUXM.
- ☑ It's important to avoid any pinch points and sharp corners when running wires. Use wire loom where necessary.
- All connections should be made by either soldering and sealing, or using heat shrinkable butt connectors.
- ☑ Use cables ties to secure all excess wiring.

— IOX-AUXM Installation



❗ To configure the IOX-AUXM cable for inputs 1-4, **DO NOT** cut the loop. More information regarding the IOX-AUXM cable can be found [here](#).

★ **! IMPORTANT:** To ensure an IOX accessory is recognized, it must be plugged into the GO device (or the IOX chain) before plugging in (powering up) the GO device.

⚠ **Correct input mapping for telemetry is crucial for Emergency Vehicle installations. Failure to adhere to input mapping will result in erroneous data.**

— GO Device Installation



- ① GO device installations for the Emergency Vehicle Solution involve a GO device and a T-harness. Refer to the [HRN-GS16K22 Standard 16-Pin T-Harness Kit](#) & [HRN-GS09K2 Universal Heavy Duty T-Harness Kit](#) guides for installation instructions.
- ① However, note that some installations on purpose-built or small battery vehicles (such as ATVs or motorcycles) require the use of a [GO Rugged with a 3-wire harness \(HRN-RW03S4\)](#). Such vehicles may also require different mounting locations.