

## IOX-AUX

For the most up to date version, please visit: [goo.gl/srUWJY](http://goo.gl/srUWJY)

The IOX-AUX allows for monitoring of up to 8 signals from your vehicle in real-time — providing additional insight into the condition of your fleet.

### Top Features

- Plug-&-Play
- Monitor up to 8 inputs at any time with two IOX-AUXs
- Self-learning input triggers
- Supports GND-Float, GND-Driven, and Float-Driven circuits



## IOX Specifications and Installation

### Hardware Technical Specifications

|                             |  |
|-----------------------------|--|
| <b>Weight</b>               | 50 g   |
| <b>Size</b>                 | Overall length: 1100 mm L<br>Widest point: 36 mm W × 16 mm H   |
| <b>Housing</b>              | Black, moisture-resistant thermoplastic overmold   |
| <b>Interfaces</b>           | CAN: 500 kbps (for daisy chaining)   |
| <b>Inputs Available</b>     | AUX1, AUX2, AUX3, AUX4 or AUX5, AUX6, AUX7, AUX8   |
| <b>Input Absolutes</b>      | -40 V to +40 V   |
| <b>Resistance</b>           | Input Impedance of each AUX: 30.3 kΩ to 37 kΩ<br>Driving Circuit Resistance must be less than 100 Ω  |
| <b>Input Logic Levels</b>   | GND — Float, Low: Floating, High: <100 mV<br>Float — Driven, Low: Floating, High: >3.3 V<br>GND — Driven, Low: <100 mV, High: >3.3 V   |
| <b>Input Type Detection</b> | Automatically identifies GND-Float, Float-Driven and GND-Driven driving circuits with capacitive loading of <200pF   |
| <b>Power Output</b>         | Daisy Chaining: 2500 mA @ 12 V/24 V  |
| <b>Current Rating</b>       | Operating Mode: 30 mA<br>Sleep Mode: 0.4 mA  |
| <b>Temperature Rating</b>   | -40 °C to +85 °C   |
| <b>Connectors</b>           | 4 × Labelled wires<br>Keyed 5-pin mini-USB type-B plug: Daisy chain power and CAN in<br>Keyed 5-pin mini-USB type-B socket: Daisy chain power and CAN out                                |
| <b>Installation</b>         | Keyed mini-USB plug connects to the GO device or another IOX<br>Input wires connect to the intended circuit<br>Wires covered by heat shrink must be cut for IOX to operate as AUX 5 to 8 |
| <b>Compatible Firmware</b>  | GO6®:101.4.XX or higher & GO7®:105.2.XX or higher  |

## Installation Instructions

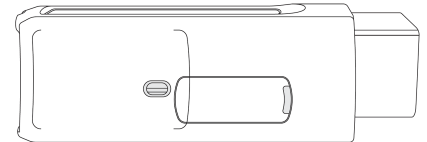
**Professional Installation Required** — Installation of the IOX-AUX requires the installer to have sufficient technical knowledge and expertise for mobile device installation and integration into modern vehicles, i.e. Certified Geotab® Installer certification or equivalent.

**WARNING!** Prior to IOX-AUX installation, read and follow GO device installation instructions ([goo.gl/rkLRiA](http://goo.gl/rkLRiA)) to verify any existing GO device installation is correct in preparation for IOX-AUX installation. Incorrect installation of either the GO device, and/or IOX-AUX can result in loss of vehicle control and serious injury.

**WARNING!** Prior to IOX-AUX installation, read and follow important safety information, including limitations of use, located following these installation instructions. Always read and follow all safety information to prevent loss of vehicle control and serious injury.

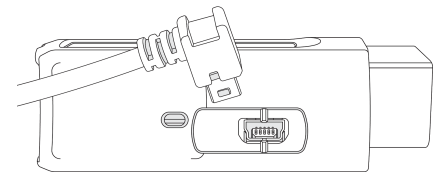
Identify and test the connection points for the auxiliaries you wish to monitor. Keep in mind, the IOX wiring is limited to a reach of approximately 3 ½ feet from the GO Device mounting location. Extending the wiring to reach some connection points may be necessary. Make the auxiliary connections and secure them using an approved method such as T-tapping. Ensure none of the components or wiring interferes with the safe operation of the vehicle.

- 1 Start with the Geotab GO device unplugged from the vehicle. Remove the blue IOX expansion port cover on your GO device.



- 2 Plug in the 90° USB connector of the IOX to the GO Device. Secure the USB connector using a zip tie, being careful not to over tighten it, thereby possibly damaging the USB connector.

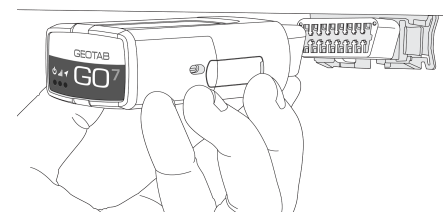
**Note:** The USB connector can only be inserted in one orientation (see image).



- 3 Your IOX-AUX has four inputs and comes configured as **Aux 1-4**. Connect the desired auxiliaries in the vehicle to the IOX-AUX wires as needed. If more than four auxiliaries are required please see [Expanding your IOX-AUX](#).

Aux 1 = Blue   Aux 2 = Orange   Aux 3 = Green   Aux 4 = White

- 4 Once your connections to the IOX-AUX wiring have been made, connect the GO device and immediately start the vehicle. The GO device will enter debug mode.



- 5 While the GO device is in debug mode, trigger each auxiliary one at a time to allow the IOX-AUX to learn the inputs. Once an input is learned, the GO device will emit the appropriate number of beeps that correspond to the auxiliary number. For proper configuration, you must hear the beeps both when the auxiliaries are triggered ON **AND** Off (e.g. Aux 2 would sound two beeps when triggered ON and then two beeps when triggered OFF). Repeat this step until the corresponding beeps are heard on BOTH trigger ON and trigger OFF.

6 Please verify that the device is communicating correctly. Using a PC or smart phone, navigate to [installmygps.com](http://installmygps.com).

Fill in your name, company, and the Geotab GO device serial number (found at the bottom of the device) and click on **Log Install**.

7 You will now see a screen that displays the current status of the device. If the device is communicating correctly, you will see **GREEN** lettering with the last valid GPS record. If the text appears in **RED**, the device is unable to communicate and you must verify the installation.

**Installer Name:**

**Installer Company:**

**Device Serial No:**

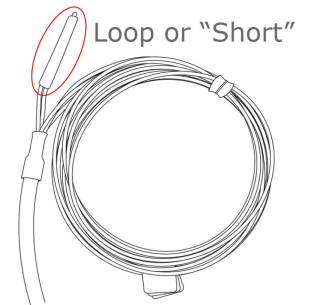
**Odometer:**

**Asset Number:**

## Expanding your IOX-AUX

Expanding from four to eight auxiliaries is as simple as plugging in a second IOX-AUX to the expansion port of the first and following the steps below. Remember: you will need to remove the zip-tie from the original IOX-AUX.

In order for the second IOX-AUX to report as 5-8, you will need to locate the red and black loop, or "short", on the IOX-AUX and cut the wires. This will configure the IOX to act as Aux 5-8.



Aux 5 = Blue

Aux 6 = Orange

Aux 7 = Green

Aux 8 = White

**Note:** By cutting the loop, this IOX-AUX will always report as Aux 5-8, regardless of whether or not there is an Aux 1-4 installed. This loop should be cut before connecting the IOX to the chain.

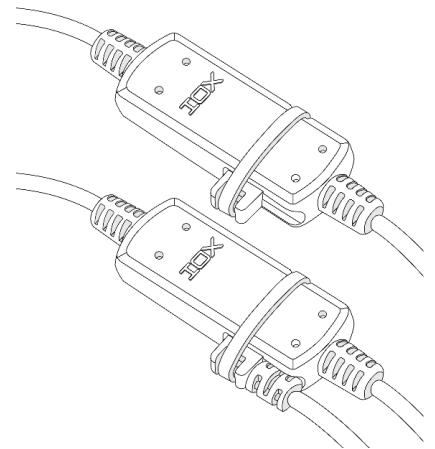
To complete the installation, ensure that both IOX-AUXs are zip-tied together.

## Termination Shunt

You may notice your IOX comes with a termination shunt installed in the expansion port. If you are installing more than one IOX in a daisy chain you will need to remove the shunt from each device in line, with the exception of the last IOX connected. That shunt must remain in the last IOX and should be secured with a zip tie.

The use of the shunt in the last IOX is necessary for the GO Device to detect and configure the IOX as effectively as possible.

**Note:** Failing to install the shunt in the last IOX could affect IOX communication. It is recommended that you secure the shunt using a zip tie if not already done.



## Important Safety Information and Limitations of Use

For the latest version of Limitations of Use, please visit: [goo.gl/k6Fp0w](http://goo.gl/k6Fp0w).

**WARNING!** Do not attempt to install, configure or remove any product from any vehicle while the vehicle is in motion or otherwise in operation. All installation, configuration or removal must be done only in stationary vehicles which are securely parked. Attempting to service units while being operated could result in malfunctions or accidents, leading to death or serious personal injury.

**WARNING!** All in-vehicle devices and related cabling must be securely fastened and kept clear of all vehicle controls, including gas, brake and clutch pedals. You must inspect devices and cabling on a regular basis to ensure all devices and cabling continue to be securely attached. Loose cabling or devices may impede the use of vehicle controls, resulting in unanticipated acceleration, braking or other loss of vehicle control, which could lead to death or serious personal injury. Improperly fastened in-vehicle devices may detach and impact operators upon sudden acceleration or deceleration, which may cause injury.

**WARNING!** If at any point after an in-vehicle device is installed a warning light illuminates on the vehicle dash or the vehicle stalls or has a marked drop in performance, shut off the engine, remove the device, and contact your reseller. Continuing to operate a vehicle with these symptoms can cause loss of vehicle control, and serious injury.

**WARNING!** Your in-vehicle devices must be kept clear of debris, water and other environmental contaminants. Failure to do so may result in units malfunctioning or short-circuiting that can lead to a fire hazard or vehicle damage or serious injury.

**WARNING!** Do not attempt to remove the devices from the vehicle in which they are originally installed for installation in another vehicle. Not all vehicles share compatibility, and doing so may result in unexpected interactions with your vehicle, including sudden loss of power or shutdown of the vehicle's engine while in operation or cause your vehicle to operate poorly or erratically and cause death or serious injury and/or vehicle damage.

**NOTICE** — This product does not contain any user-serviceable parts. Configuration, servicing, and repairs must only be made by an authorized reseller or installer. Unauthorized servicing of these products will void your product warranty.