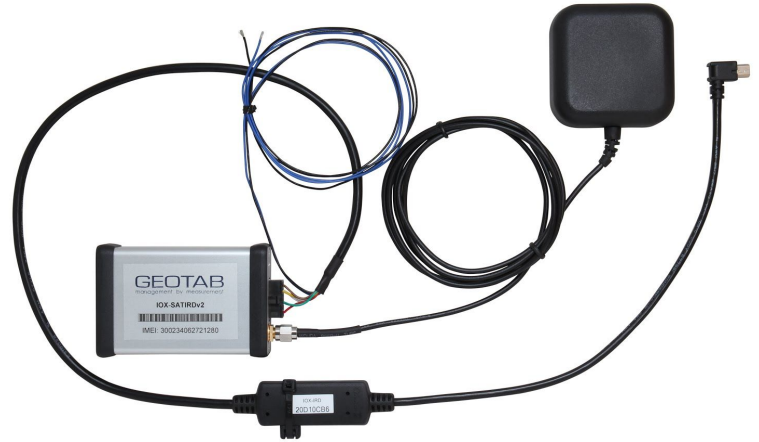# IOX-SATIRDv2

For the most up to date version, please visit: goo.gl/MHteCl

IRIDIUM Satellite

If the vehicle travels outside of cellular or network connection, the IRIDIUM Satellite Modem allows the Geotab® GO device to communicate over the IRIDIUM Network. With the IRIDIUM Satellite Modem, users can continue to track their fleet even when cellular connectivity is lost.

Man-Down Add-On

An alert button, wired into the IRIDIUM Satellite IOX®, sends a top priority "**Emergency**" message through the satellite network to the MyGeotab® user when triggered.

IOX Hardware Technical Specifications

Weight	65 g
Size	**Overall Length**: 850 mm **Widest Point**: 17 mm W × 34 mm H
Housing	Black, moisture-resistant thermoplastic overmold
Interfaces	**CAN**: 500 kbps (for daisy chaining) RS-232 serial interface
Inputs	**Emergency Switch Line**: Open — shorted to ground
Power Output	**IRIDIUM Interface**: 900 mA @ 12 V/24 V **Daisy Chaining**: 2500 mA @ 12 V/24 V
Current Rating	**Operating Mode**: 30 mA **Sleeping Mode**: 0.4 mA
Temperature Rating	−40 ℃ to +85 ℃
Connectors	**Keyed mini-USB type-B plug**: Daisy chain power and CAN in **Keyed mini-USB type-B socket**: Daisy chain power and CAN out **12-pin Molex 4302-1200**: IRIDIUM modem
Installation	Keyed mini-USB plug connects to GO device or another IOX 12-pin plug connects to IRIDIUM unit Blue/black wires can be connected to an emergency "alert button" switch
Compatible Devices	GO6®, GO7®, GO7 Rugged, GO8®, GO8 Rugged, GO9®

IOX Installation Instructions

NOTE: Professional Installation Required — Installation of the IOX-SATIRDv2 requires the installer have sufficient technical knowledge and expertise for mobile device installation and integration into modern vehicles. i.e. Certified Geotab® Installer certification or equivalent.
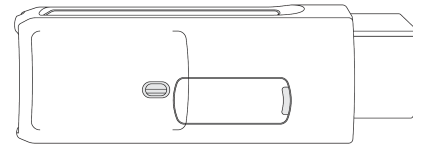
WARNING! Prior to IOX-SATIRDv2 installation, read and follow the GO device installation instructions (goo.gl/rkLRiA) to verify any existing GO device installation is correct in preparation for IOX-SATIRDv2 installation. Incorrect installation of either the GO device, and/or IOX-SATIRDv2 can result in loss of vehicle control and serious injury.

WARNING! Prior to IOX-SATIRDv2 installation, read and follow Important Safety Information and Limitations of Use, located at the end of the document. Always read and follow all safety information to prevent loss of vehicle control and serious injury.

Mandatory Activation Required: The IRIDIUM Satellite Modem must be activated 24 hours prior to installation. To request activation, create a support ticket with the following subject line: **IOX-SATIRDv2 activation request**. You must also include the GO Device serial number and IRIDIUM IMEI number in the ticket.
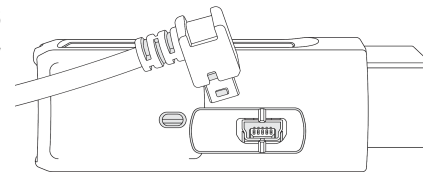
How to Install IOX-SATIRDv2

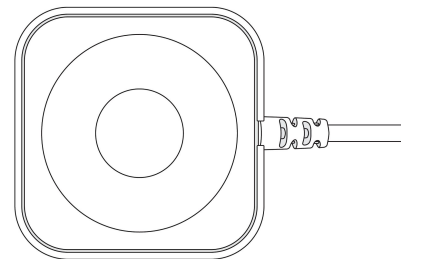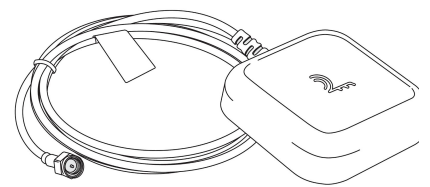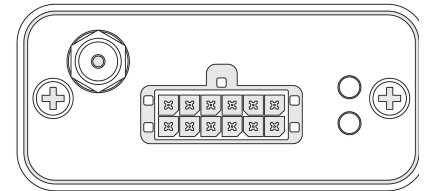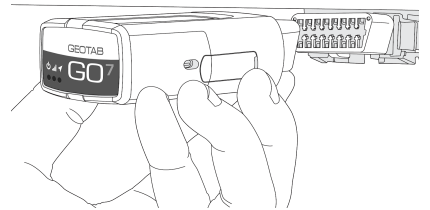| 1	Unplug the Geotab GO device from the vehicle and remove the IOX expansion port cover on the GO device.	
2	Plug the 90° USB connector from the IOX in to the GO device. Secure the USB connector using a zip tie. Please note that over tightening the zip tie may damage the USB connector. **Note**: Insert the USB connector in the orientation displayed in the image.	
3	Choose an appropriate mounting location for the satellite modem. **Note**: The location you choose for the GO device influences the locations available to mount the IRIDIUM Modem due to the wire length on the IOX-SATIRDv2. Please ensure the installation does not interfere with safe vehicle operation.	
4	The IRIDIUM satellite antenna has a magnet mount, as well as a ring of two-sided tape on the bottom of the antenna, to facilitate mounting the device on plastic. The antenna location must not interfere with the safe operation of the vehicle or obstruct the driver's field of vision.	

| 5 | If you choose to mount the antenna below a dashboard, please ensure there are no metallic objects or other obstructions directly above it that may interfere with satellite reception. It is highly recommended to mount the antenna out of sight and secured with at least one zip tie. |

| 6 | The antenna and IOX-SATIRDv2 cable are connected to the satellite modem at the same end as the status LEDs. The LEDs indicate Power (RED) and Connection Status (GREEN). |

| 7 | Once you connect the IOX-SATIRDv2 to the GO device, plug in the GO device and immediately start the vehicle. The GO device will enter debug mode. |

| 8 | IOX-SATIRDv2 has a two - wire pigtail composed of a BLUE wire and a BLACK wire — the external trigger wires for the IRIDIUM panic feature. These wires can be connected to a momentary contact switch. When this feature is triggered, the device starts a beeping sequence. The beeping stops once the message is received by MyGeotab. In MyGeotab, create an Engine Rule for **Alert button depressed**. |

| 9 | Navigate to installmygps.com to verify that the device is communicating. In the space provided, enter your name, the company name, and the GO device serial number — found at the bottom of the device. Click **Log Install**. |

| 10 | After you click **Log Install**, the web page displays the current communication status of the device — in GREEN or RED text. If the device is communicating, the status is displayed in GREEN text. If the device is not communicating, the status is displayed in RED text.

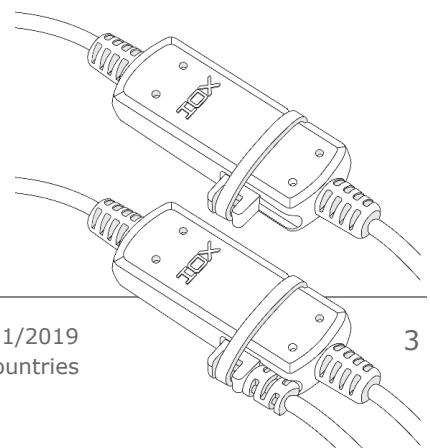Note: If the device is not communicating, please ensure the GO device is installed correctly and try again. |

Installer Name:

Installer Company:

Device Serial No:

Odometer:

Asset Number:

Termination Shunt

The IOX comes with a termination shunt installed in the expansion port. If you plan to install more than one IOX in a daisy chain you must remove the shunt from each device in the line, with the exception of the last IOX connected. The shunt must remain in the last IOX and secured with a zip tie.

The shunt in the last IOX device ensures the GO device detects and configures the IOX as effectively as possible.

> **Note**: Failure to install the shunt in the last IOX may affect IOX communication. To ensure the IOX communicates, please secure the shunt with a zip tie.

IRIDIUM Device Specifications and Parameters

Hardware Technical Specifications

Weight	158 g (0.35 lbs)
Size	**Overall Length**: 80 mm L(L) × **Widest Point**: 54 mm (W) × 23 mm (H)
Housing	Aluminum casing
Inputs	RS-232 Interface
Environmental Tests	**Operating Temp.**: −40 ℃ to +85 ℃
Operating Voltage	8 V to 36 V
Current Rating	**Operating Current**: 100 mA to 125 mA
Antenna	Standard with magnetic roof mount and sticky adhesive for optional dash mount.

Standard Logging Features (Activated by Default Custom Parameters*)

*To receive IRIDIUM data, the custom parameters, in the table below, must be applied to a device when the GO Device has cellular coverage. If the vehicle is out of cellular range, it does not receive firmware updates or other device parameter updates.

- **Ignition**: Sends a log when ignition changes state (On or Off).
- **Poll**: Gives end users the option to request the current location of the device. In MyGeotab:,
  1. Select the vehicle on the live map.
  2. Click the small arrow, located to the right of the vehicle name in the list.
  3. From the drop down menu, click **Request current location**.
- **Update Period**: Allows the device to send a positional update every 30 minutes.
- **Emergency Trigger**: Allows the driver to send an emergency/distress log to head office. The Geotab device notifies the driver when the message is received by MyGeotab.
- **Accident Upload Event via IRIDIUM**: Allows the device to send an "**Accident Upload Event**" fault.
- **Switch to IRIDIUM Satellite Coverage**: Allows the device to send a log indicating when the device has switched to sending data over the IRIDIUM network.

Important Safety Information and Limitations of Use

For the latest version of the Limitations of Use, please visit: 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.