

For the most up-to-date version, visit: [goo.gl/Sz7JTA](http://goo.gl/Sz7JTA).

The IOX-NFCREADER integrates Near Field Communication (NFC) with the Geotab® GO™ device to:

- Identify drivers operating vehicles in a fleet at any given time. Users create rules, reports, and exceptions on MyGeotab™ based on individual drivers or vehicles.
- Enable vehicle access for Geotab Keyless Platform customers. Users can be granted authorization to unlock and lock vehicle doors.

## Features

- Easy-to-install IOX™ into the Geotab GO device
- Assigns drivers to vehicles, enabling driver-based reporting
- Optional feature: Authorized Driver List - allowing only authorized driver ID tags/stickers to interact. For more information, refer to the [Driver ID authlist](#) section.
- For Keyless customers, allow authorized users to lock and unlock vehicle doors.



## IOX hardware technical specifications

<b>Weight</b>	148 g
<b>Size</b>	<b>Overall Length:</b> 1300 mm L <b>Widest Point (Antenna):</b> 63 mm L x 49 mm W x 16.5 mm H <b>Widest Point (Connector):</b> 53 mm W x 15 mm H
<b>Housing</b>	Black, moisture-resistant thermoplastic overmold
<b>Interfaces</b>	<b>CAN:</b> 500 kbps (for daisy-chaining) <b>Ground Switch:</b> For Relay Control
<b>Frequency</b>	13.56 MHz
<b>Nominal Input Voltage</b>	12 V / 24 V
<b>Power Output</b>	<b>Daisy Chaining:</b> 2500 mA @ 12 V/24 V
<b>Current Rating</b>	<b>Operating Mode:</b> 100 mA <b>Sleep Mode:</b> 1.1 mA
<b>Temperature Rating</b>	-40 °C to +85 °C
<b>Connectors</b>	<b>Male Mini-USB Type-B connector:</b> Daisy chain power and CAN in <b>Female Mini-USB Type-B connector:</b> Daisy chain power and CAN out 2-pin grounding socket (Molex connector)
<b>Installation</b>	Male Mini-USB connector connects to the GO device or another IOX Relay module connects to 2-pin socket
<b>Reading Distance</b>	<b>With GEO-NFCSTKBLUA:</b> 19 mm <b>With GEO-NFCFOBBLUA:</b> 11 mm <b>With GEO-KLNFCFOB</b> through a windshield (Keyless): 30 mm
<b>Compatible Devices</b>	<b>Driver Identification:</b> All GO7® and newer devices and variants <b>Keyless:</b> Minimum GO9® and newer devices and variants
<b>Used in conjunction with:</b>	Driver identification:

**GEO-NFCFOBBLUA:** Driver ID fob (single fob)

**GEO-NFCFOBBLUA20:** Driver ID fob (package of 20 fobs)

**GEO-NFCSTKBLUA:** Driver ID sticker, 20mm/1.5" (single sticker)

**GEO-NFCSTKBLUA20:** Driver ID sticker, 20mm/1.5" (package of 20 stickers)

Keyless:

**SPR-NFCBRKTV2ASY:** Front-mounts IOX-NFCREADERA to a vehicle windshield.

**SPR-RELAYKIT:** Driver ID relay kit

**GEO-KLNFCFOB:** Keyless NFC Tag

## IOX installation instructions



**WARNING!** Always read and follow all safety information, including Important [Safety Information and Limitations of Use](#), before harness and/or IOX installation. Disconnect the GO device from the vehicle before installation and connect it post-installation (see [goo.gl/rkLRiA](https://www.geotab.com/go/rkLRiA)). Failure to follow these instructions and warnings can result in loss of vehicle control and serious injury or vehicle damage.

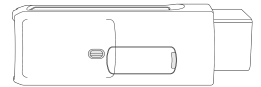
## NFC tag/sticker installation instructions

NFC tags typically operate at relatively low input powers/low voltage, and this NFC product is not designed to be able to operate when exposed to a wireless charging electromagnetic field. Affix the NFC Tag/Sticker on a wallet or employee identification card, or other ID you have with your person.

**WARNING!** Do NOT place the NFC sticker/tag near wireless charging (e.g., the back of a cell phone) to prevent thermal damage or serious injury.

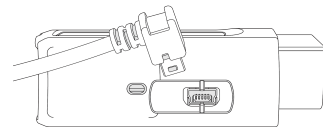
## How to install IOX-NFCREADERA

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 into 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.



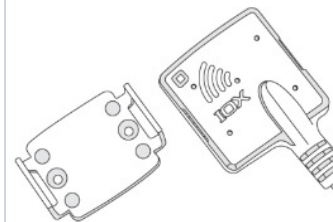
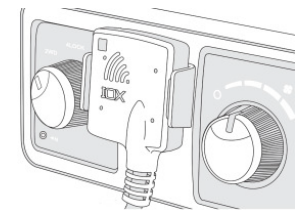
3 **For Driver Identification:** Choose an appropriate location to mount the NFC reader using the provided dash mount, or the optional window mount SPR-NFCBRKTV2ASY.

\* **NOTE:** Ensure the installation does not interfere with the safe operation of the vehicle, and check that you have sufficient cable length before mounting.

The NFC Reader includes a mounting bracket that is to be screwed in place (screws provided). The provided tape is used to position and hold the bracket prior to permanent mounting with screws.

The optional window mount bracket (SPR-NFCBRKTV2ASY) is provided with dual-lock tape. Before mounting, clean the window with an alcohol wipe and a dry cloth.

\* **NOTE:** The provided tape is NOT a permanent mounting solution. Screws must be used to complete the installation.



4 **For Keyless:** We recommend separately purchasing **SPR-NFCBRKTV2ASY** to front-mount IOX-NFCREADERA to a vehicle windshield.

Determine the best location to mount the SPR-NFCBRKTV2ASY.

Typically, the lower corner or bottom of the windshield is a favorable location. The mounted IOX-NFCREADERA should not obstruct the driver's view, and the cable should be positioned so the cable run can be easily concealed behind the A-pillar covering, and routed to the GO device, without adding stress or pressure on the bond to glass. Avoid high angle radius bends to the cable.

Ensure the placement of the SPR-NFCBRKTV2ASY, or IOX-NFCREADERA cable, will not interfere with airbag deployment.

Prepare the windshield mounting location by cleaning the area with an alcohol wipe and then wipe clean with a clean, dry cloth.

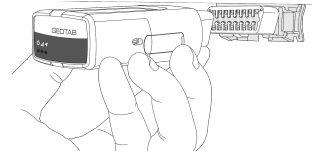
Secure the dual lock tape on the SPR-NFCBRKTV2ASY, and then with the IOX-NFCREADERA securely seated in the bracket, firmly seat the IOX-NRCREADERA and SPR-NFCBRKTV2ASY to the windshield and hold for 30 seconds.

Use cable ties to complete the installation by routing and securing the cable, and connecting the IOX-NFCREADERA to the GO device.



5 Once you connect the IOX-NFCREADERA to the GO device, plug in the GO device and start the vehicle. The GO device enters debug mode.

Secure the IOX-NFCREADERA/GO device connection with a cable tie, and then secure the GO device to the vehicle with two cable ties. Ensure the GO device cannot vibrate or move, and that the serial number is visible and facing away from where it is mounted.



6 To test the NFC Reader installation, touch a valid NFC Tag (listed [above](#)) to the reader.

**For Driver Identification**, the green LED on the reader flashes twice and the GO device emits a single beep when the tag is read. Repeat this step for each additional tag.

If a Driver ID Relay is installed and the feature is active in MyGeotab, you must swipe a valid ID tag to activate the relay. Failure to activate the relay, prior to use, causes the GO device to beep continuously and the electrical connection, driven by the relay, remains inactive until a valid key tag is swiped on the reader.

**For Keyless**, the LED will flash green, then flash continuously.



7 Navigate to [myinstallpub.geotab.com](http://myinstallpub.geotab.com) to verify that the device is communicating.

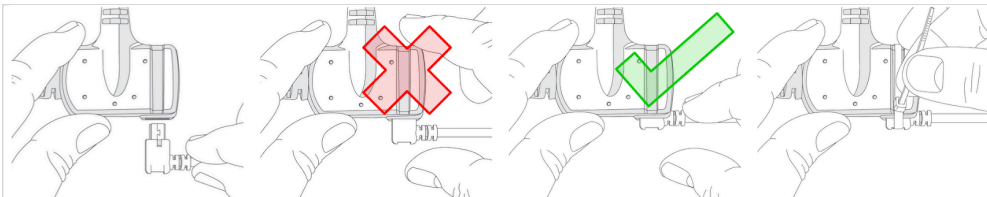
- In the **Installer information** section, enter the installer's name and company name. Select the next section.
- In the **Device serial number** section, enter the 12-digit alphanumeric serial number, located on the bottom of the device, then click **Validate**. Select the next section.
- In the **Device status** section, review the status of the device. The **PASS** status indicates the device communicated with the network in the last 24 hours. The **FAIL** status indicates the device has not communicated with the network in the last 24 hours. Select the next section.
- In the **Vehicle** section, enter the vehicle-related information.

**\* NOTE:** If the device is not communicating, please ensure the device is installed correctly and try again.

<input checked="" type="radio"/>	Installer information
	Installer name * <input type="text"/> Sample name
	Installer company * <input type="text"/> Sample company name
<input type="radio"/>	Device serial number
<input type="radio"/>	Device status
<input type="radio"/>	Vehicle information

## Connecting additional IOXs to an IOX-NFCREADERA

When connecting additional IOXs to an IOX-NFCREADERA, ensure the USB connector is seated correctly and secure the connection with a zip tie.



## 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:** 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.

## Incompatibility

The IOX-NFCREADER cannot be used in conjunction with the IOX-HID (Discontinued)

# Using NFC: Driver Identification

## Driver ID authlist

To create an authlist of authorized drivers for a particular GO device, apply the following custom parameter to the GO device through MyGeotab:

```
<Parameter Description="Enable Authorized Driver List" Offset="164" Bytes="8" IsEnabled="true"/>
```

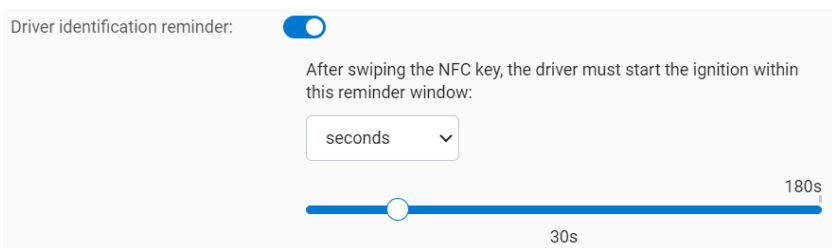
Once the parameter is applied, the IOX-NFCREADER only accepts driver key tags assigned to an authorized driver. You can add and remove drivers to/from the authlist through the Geotab API ([my.geotab.com/sdk/#/api](https://my.geotab.com/sdk/#/api)). See the DriverAuthListContent object for more details.

The authlist mode is disabled when the custom parameter is removed from the GO device.

## Driver feedback settings

To enable the relay option in MyGeotab, prior to IOX installation:

- 1 Navigate to MyGeotab.
- 2 Select **Vehicles & Assets**, located in the navigation menu to the left.
- 3 Select the GO device.
- 4 Select the **Audio feedback** tab.
- 5 For **Driver identification reminder**, click **On** and set the time limit using the slider.



## Driver ID relay

**\* NOTE: Requires Professional Installation** – To install a Driver ID Relay in conjunction with the IOX-NFCREADER, please review the instructions in the SPR-RELAYKIT Install document ([gtb.page.link/Ww3V](https://gtb.page.link/Ww3V)).

# Using NFC: Keyless

- Using Keyless without a pre-reservation ("tap-n-go"): [Using NFC without a reservation](#)
- Using Keyless with a pre-reservation: [Using NFC on a Reserved Vehicle](#)
- For advanced technical information for Keyless mobility partner integrations: [Geotab Keyless NFC Access](#)

# Important safety information and Limitations of Use

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

 **WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## Regulatory statements

### Warning: RF Exposure Compliance

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Users and installers must be provided with antenna installation instruction and transmitter operating conditions for satisfying RF exposure compliance.

L'antenne ou les antennes utilisées pour cet émetteur doivent être installées pour fournir une distance de séparation d'au moins 20 cm de toutes les personnes et ne doivent pas être co-localisées ou fonctionner en conjonction avec une autre antenne ou émetteur. Les utilisateurs et les installateurs doivent recevoir des instructions d'installation de l'antenne et les conditions de fonctionnement de l'émetteur pour satisfaire la conformité à l'exposition aux RF.

### Canada

#### CAN ICES-003 (B) / NMB-003 (B)

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- L'appareil ne doit pas produire de brouillage;
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### USA

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.

**\* NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Geotab could void the user's authority to operate the equipment.

## EU

Product Wireless Information 13.56 MHz: Max -1.57 dBuA/m H-Field strength

## Mexico

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

## Germany

Wir besitzen keine Versand- und Lagerfläche in Deutschland und sind nicht von der Rücknahmepflicht nach § 17 ElektroG betroffen.

## Brazil

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.