Professional Installation Guide

For Cold Chain Solution (Carrier Supra and OASIS Units)





Introduction

This document describes how to integrate the Cold Chain solution with Carrier Supra and OASIS units.

Specifications and installation

Professional Installation Required — Installation requires the installer to have sufficient technical knowledge and expertise for mobile device installation and integration into modern vehicles, such as Certified Geotab® Installer certification or equivalent.

This vehicle specific installation guide is based on Geotab's suggested best practice, valid at time of publishing. There may be differences or revisions between specific vehicle models, trim-levels, equipment or accessories made by the vehicle manufacturer and these are beyond Geotab's control. To ensure you have the latest available version of this document, or if you require any assistance, contact your Authorized Reseller before proceeding with the installation.

Preparing for installation

Before installing the Cold Chain Solution system, make sure you have the following tools and components:

Tools

- Screwdriver kit
- Electrical insulated tape
- Cable guide
- Cable ties
- Cutter plier
- Wrench tool for cabin tilting
- Ladder
- Wire Loom Tubing (inside diameter approximately 10 mm)

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

Components

Product	Reference				Quantity
IOX device ✱ **NOTE**: GEO-CCIPBOX and IOX-COLD RUGGED are necessary when an installation is performed on an undermount unit which has sometimes, its trailer must be separated from the vehicle cabin.	IOX-UREADER (Discontinued)	GEO-CCIPBOX (Discontinued)	IOX-COLD	IOX-COLD RUGGED	1
Carrier Transicold refrigeration unit communication protocol harness	HRN-CL03S10 (Discontinued) (IOX-UREADER)	HRN-CL03B6 (Discontinued) (GEO-CCIPBOX)	HRN-CCCASTD (IOX-COLD)	HRN-RCCCAADV (IOX-COLD RUGGED)	1
GO device	GO9 (IOX-UREADER, GEO-CCIPBOX or IOX-COLD)			GO9 RUGGED (IOX-COLD RUGGED)	1
Universal OBDII T-Harness Kit for the GO device	HRN-GS16K22 (IOX-UREADER or IOX-COLD)			N/A	1
Three-wire harness ✱ **NOTE**: The three-wire harness is required if the GO device cannot be connected to an OBD port.	HRN-CW03K3 (IOX-UREADER or IOX-COLD)			HRN-RW03K4 (IOX-COLD RUGGED)	1

Installing the system

Before installing the Cold Chain Solution, you must open the refrigeration unit compartment on the truck.

This document covers the following installation processes:

IOX-COLD Installation Instructions

- Installation instructions for vans or trucks with a non-tilting cabin (IOX-COLD)
- Installation instructions for rigid trucks with a tilting cabin (IOX-COLD)

IOX-UREADER Installation Instructions

- Installation instructions for vans or trucks with a non-tilting cabin (IOX-UREADER)
- Installation instructions for rigid trucks with a tilting cabin (IOX-UREADER)

IMPORTANT NOTICE: These instructions cover the **discontinued / end-of-life (EoL)** IOX-UREADER and its cold chain harness.

- **For new installations:** Do not use this device for new deployments. Instead, use IOX-COLD in combination with the proper cold chain harness (refer to the components table above).
- **For field maintenance of existing installations:** These instructions remain valid for maintenance and

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX

® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

troubleshooting purposes only.

GEO-CCIPBOX or IOX-COLD RUGGED Installation Instructions

- Installation instructions for rigid trucks with an Undermount unit (GEO-CCIPBOX or IOX-COLD RUGGED)

IMPORTANT NOTICE: These instructions cover the **discontinued / end-of-life (EoL)** GEO-CCIPBOX and its cold chain harness.

- **For new installations:** Do not use this device for new deployments. Instead, use IOX-COLD RUGGED & GO9 RUGGED combination with the proper cold chain harness (refer to the components table above).
- **For field maintenance of existing installations:** These instructions remain valid for maintenance and troubleshooting purposes only.



WARNING! Turn off the vehicle's engine and the microprocessor's main switch before installation. Failure to do so may result in unintended motor activation, sudden vehicle shutdown, erratic vehicle behavior, component/accessory damage, or pose an electrical hazard leading to death or serious injury.

! IMPORTANT: Professional installation (Certified Geotab® Installer or equivalent) is required for the safe and proper installation of this product (harness and/or IOX). The installer must have sufficient technical knowledge and expertise for the respective installation.

WARNING! All IOX-COLD, IOX-UREADER, and GO Device cabling must be securely fastened and routed clear of hot surfaces, vehicle controls, and moving components in the engine or refrigeration unit. Failure to do so may result in damaged components, refrigeration unit malfunction, or collisions leading to death or serious personal injury.

IMPORTANT! All powered connections must be fitted with overcurrent limit protection. Geotab offers the HRN-5AFUSKIT, this can help minimize configuration complexity, reduce installation time, and improve reliability.

Installation instructions for vans or trucks with a non-tilting cabin (IOX-COLD)

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

1 Use the wire loom tubing to protect the harness HRN-CCCASTD, then connect the HRN-CCCASTD to the IOX-COLD.

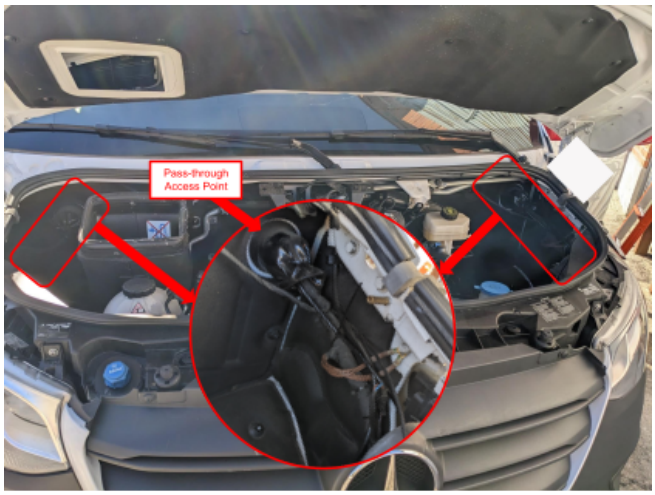




2 Route the HRN-CCCASTD harness from the vehicle cabin to the inside of the motor compartment.

This varies vehicle by vehicle, but an example is pictured here. The HRN-CCCASTD harness can be routed through either the left or right pass-through access point.

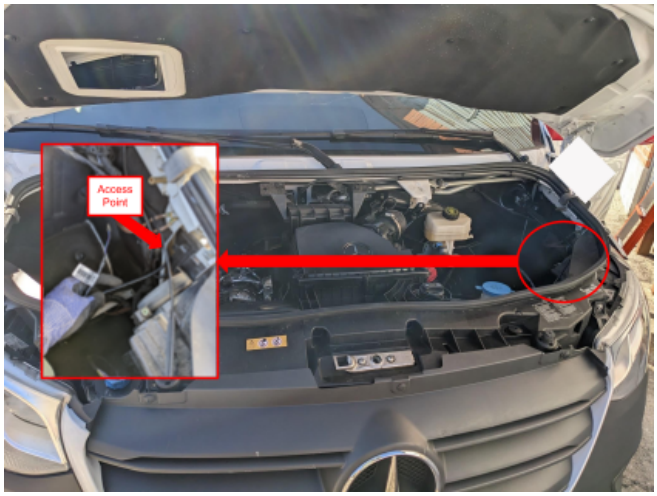
! IMPORTANT: Ensure this access point is waterproof after routing the HRN-CCCASTD harness.



© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

3 Route the harness to the rear part of the vehicle cabin.

This varies vehicle by vehicle, but an example is pictured here. The HRN-CCCASTD harness is routed below the vehicle cabin using the available chassis fixing points on the wheel arch, and then routed further from the wheel arch to the rear part of the vehicle cabin.







© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

4	Affix the harness below the refrigeration unit on the vehicle. Use the existing cable gutters for example.	
5	Route the HRN-CCCASTD harness from the lower part of the refrigeration unit to the controller compartment. Use a cable guide to facilitate the routing through the original unit harness.	
6	Connect HRN-CCCASTD harness to the serial port (SP) three-way connector located under the controller box. **! IMPORTANT**: In certain installations, you may find other mechanically matching connectors in the same area, but only the correct ones will transmit data from the refrigeration unit. You can distinguish the appropriate ports by checking for these wire labels:	

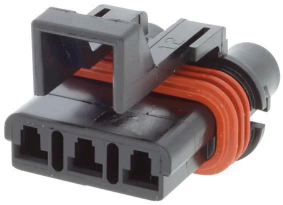
© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

- First wire: Labeled "SP-A", "SLP-A", or something similar
- Second wire: Labeled "SP-B", "SLP-B", or something similar
- Third wire: Labeled "SP-C", "SLP-C", or something similar

✱ **NOTE**: If the port is occupied, check if a third-party device is already connected to it and evaluate if it can be removed. For example, a thermograph connected to this port may be removed with the approval of the person responsible for the fleet, since the Geotab Cold Chain solution can also retrieve thermograph data.

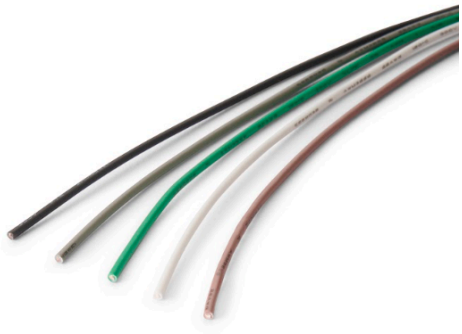
✱ **NOTE**: You can remove the right structure of the unit to have a better access to the connectivity.







© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

7	HRN-CCCASTD contains loose wires which permit connecting the IOX-COLD to additional sensors such as 1-Wire temperature sensors or door sensors. If these installations are required, see the following section. IOX-COLD and IOX-COLD RUGGED - ... Otherwise, go to the next step.	
8	Once the harness routing and connections are completed, and all needed connections are achieved with the IOX-COLD, follow the steps to connect it to the GO Device outlined in the quick start guide, which can be found here: gtb.link/ioxcold **! IMPORTANT:** The use of the complete MyInstall tool is **mandatory for every installation** to correctly configure the IOX-UREADER or IOX-COLD. If you do not do this, data will not be obtained correctly. You need a secure MyAdmin login to use this tool. If you do not have one, refer to the Creating MyInstall Credentials section of the MyInstall user guide.	

Installation instructions for rigid trucks with a tilting cabin (IOX-COLD)

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

1 Use the wire loom tubing to protect the harness HRN-CCCASTD, then connect the HRN-CCCASTD to the IOX-COLD.





2 Route the HRN-CCCASTD harness toward the outside of the vehicle cabin by passing it from the internal part of the fuse box to the external part of the fuse box.

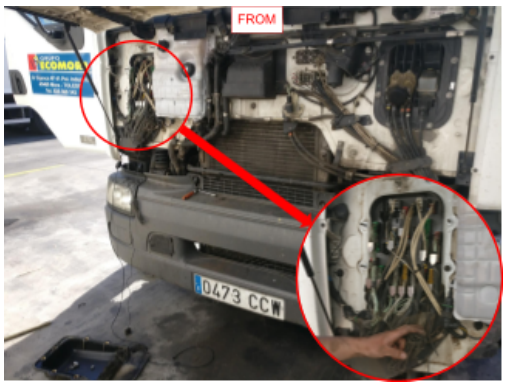
3 Tilt the vehicle cabin forward using appropriate tools.



© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

4 Route the harness to the rear part of the cabin.

This varies vehicle by vehicle, but an example is pictured here. The HRN-CCCASTD harness is routed below the vehicle cabin using the available chassis fixing points on the wheel arch, and then routed further from the wheel arch to the rear part of the vehicle cabin.





5 Follow steps 4 to 6 of the Installation instructions for vans or trucks with a non-tilting cabin for IOX-COLD.

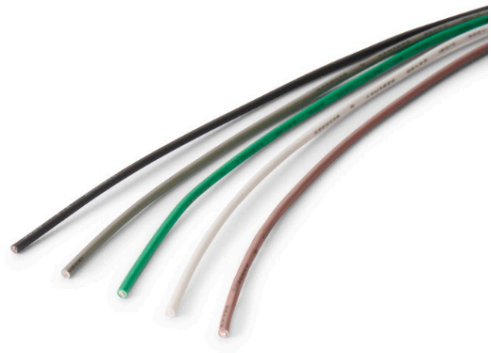
6 Tilt the vehicle backward into the appropriate position.

7 HRN-CCCASTD contains loose wires which permit connecting the IOX-COLD to additional sensors such as 1-Wire temperature sensors or door sensors.

If these installations are required, see the following section.

IOX-COLD and IOX-COLD RUGGED - ...

Otherwise, go to the next step.



© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

8	Once the harness routing and connections are completed, and all needed connections are achieved with the IOX-COLD, follow the steps to connect it to the GO Device outlined in the quick start guide, which can be found here: gtb.link/ioxcold **! IMPORTANT:** The use of the complete MyInstall tool is **mandatory for every installation** to correctly configure the IOX-UREADER or IOX-COLD. If you do not do this, data will not be obtained correctly. You need a secure MyAdmin login to use this tool. If you do not have one, refer to the Creating MyInstall Credentials section of the MyInstall user guide.

Installation instructions for vans or trucks with a non-tilting cabin (IOX-UREADER)



Follow the steps below to install the Cold Chain Solution system in vans or similar vehicles.

1	Protect the harness HRN-CL03S10 using a wire loom tubing and connect it to the serial port (SP) three-way connector located under the controller box. **! IMPORTANT**: In certain installations, you may find other mechanically matching connectors in the same area, but only the correct ones will transmit data from the refrigeration unit. You can distinguish the appropriate ports by checking for

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

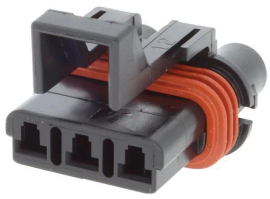
these wire labels:

- First wire: Labeled "SP-A", "SLP-A", or something similar
- Second wire: Labeled "SP-B", "SLP-B", or something similar
- Third wire: Labeled "SP-C", "SLP-C", or something similar

✱ **NOTE**: If the port is occupied, check if a third-party device is already connected to it and evaluate if it can be removed. For example, a thermograph connected to this port may be removed with the approval of the person responsible for the fleet, since the Geotab Cold Chain solution can also retrieve thermograph data.

✱ **NOTE**: You can remove the right structure of the unit to have a better access to the connectivity.







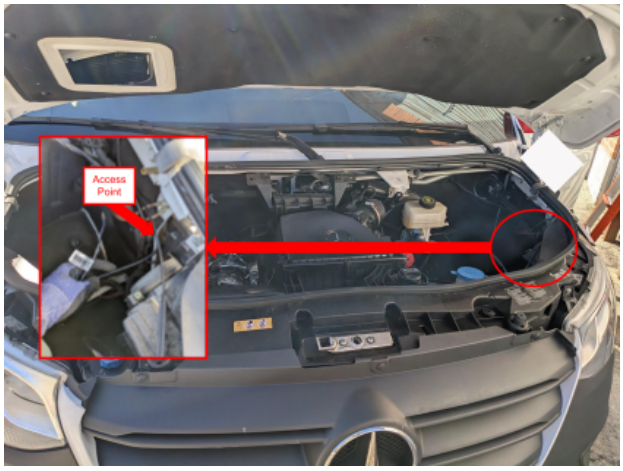
2 Route the HRN-CL03S10 harness from the unit compartment to its lower part. Use a cable guide to facilitate the routing through the original unit harness.



© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

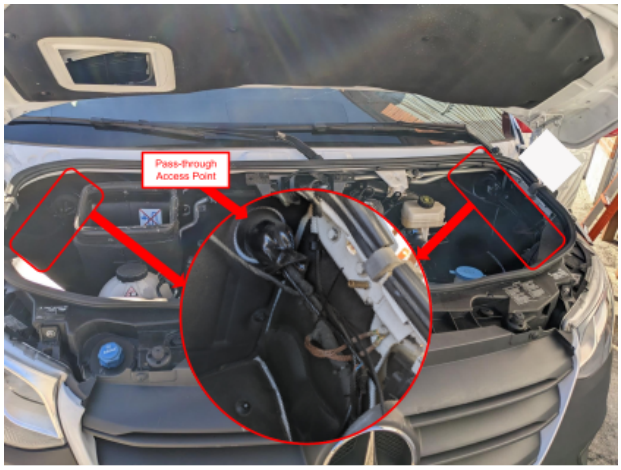
3	Affix the harness below the refrigeration unit on the vehicle.	
4	Route the harness to the motor compartment. For example, the HRN-CL03S10 harness can be routed below the vehicle cabin using the available chassis fixing points on the wheel arch, then from the wheel arch to the motor compartment.	 

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.



5 Route the HRN-CL03S10 harness from the motor compartment to the inside of the vehicle cabin. For example, the HRN-CL03S10 harness can be routed using the right or left wiring pass-through access point, depending on the access point for the engine compartment. Use a cable guide to facilitate the routing through the original unit harness.

! IMPORTANT: Ensure this access point is waterproof after routing the HRN-CL03S10 harness.



6 Once the HRN-CL03S10 harness routing is complete in the vehicle cabin, connect the harness to the IOX-UREADER port A (4-pin connector). Then, follow the steps outlined in the IOX-UREADER Installation Guide with the vehicle ignition, the

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

unit microprocessor switch, and the HMI ON.

✱ **NOTE**: If there is no tachograph, skip the installation of the tachograph.

! IMPORTANT: The use of the complete MyInstall tool **(via MyAdmin platform login Access)** is **mandatory for every installation** to correctly configure the IOX-UREADER or IOX-COLD. If you do not do this, data will not be obtained correctly.

Installation instructions for rigid trucks with a tilting cabin (IOX-UREADER)



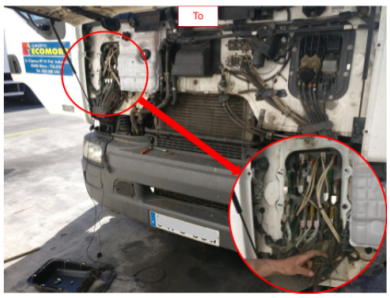
Follow these steps to install the Cold Chain Solution system in rigid trucks or similar vehicles.

1 Follow Steps 1 and 2 of the Installation instructions for vans or trucks with a non-tilting cabin.

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

2	Tilt the vehicle cabin forward using the necessary tools.	
3	Route the harness to the outside of the fuse box. For example, the HRN-CL03S10 harness can be routed below the vehicle cabin using the available chassis fixing points on the wheel arch, then from the wheel arch to the fuse box. Use a cable guide to facilitate the routing through the original unit harness.	

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.



4 Tilt the vehicle backward into the appropriate position.

5 Route the HRN-CL03S10 harness from the external part of the fuse box to the internal part of the fuse box to access the vehicle cabin.

6 Once the HRN-CL03S10 harness routing is complete in the vehicle cabin, connect the harness to the IOX-UREADER PORT A (four-pin connector) and follow the steps outlined in the IOX-UREADER Installation Guide. Switch the vehicle ignition, the unit microprocessor switch, and the HMI ON once the installation will need to be validated.

✱ **NOTE**: If there is no tachograph, skip the installation of the tachograph.

! IMPORTANT: The use of the complete MyInstall tool **(via MyAdmin platform login Access)** is **mandatory for every installation** to correctly configure the IOX-UREADER or IOX-COLD. If you do not do this, data will not be obtained correctly.

Installation instructions for rigid trucks with an Undermount unit (GEO-CCIPBOX or IOX-COLD RUGGED)

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.



GEO-CCIPBOX and IOX-COLD RUGGED are necessary when an installation is performed on an undermount unit which has its trailer able to be separated from the vehicle cabin.

To perform this installation, refer to the following document (similar use case):
Professional Installation Guide for Cold Chain Solution - Carrier Vector/Maxima/Ultra [PUB]

Important safety information and Limitations of Use

For the latest version of the Limitations of Use, visit: https://gtb.link/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 cause 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

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.

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.

© 2021 Geotab Inc. All Rights Reserved|www.geotab.com|Rev X.X — XX/XXXX
® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries.