

# Geotab<sup>®</sup> GO9+<sup>™</sup> — Expandable Telematics Device with Wi-Fi Hotspot

For the most up-to-date version, please visit: gtb.page.link/8C7f



### GO9+ Device

Geotab's GO9+ telematics device builds on the class-leading GO9 with the added benefit of an on-board Wi-Fi hotspot. Similar to the GO9®, the GO9+ offers state-of-the-art GPS technology, g-force monitoring, GEOTAB IOX® expandability, engine and battery health assessments, and communication on the LTE network.

## In-vehicle Wi-Fi Hotspot

Geotab's GO9+ telematics device delivers an in-vehicle Wi-Fi hotspot to connect tablets, phones, and other Wi-Fi capable devices. Stay connected to your drivers at all times and improve your fleet functions.

## Vehicle Tracking

Using Geotab's patented tracking algorithm, the GO9+ accurately recreates vehicle trips and analyzes incidents. Improve fleet safety and performance. The GO9+ relays invehicle alerts to notify drivers of infractions in real-time and delivers live driver coaching — with hardware Add-Ons — for improved on-road performance. The GO9+ does not require a

### Security

Geotab platform security is designed for end-to-end protection of your data.

Key implementations include:

- GO device and network interfaces use authentication, encryption, and message integrity verification;
- GO devices are individualized. Each device uses a unique ID and non-static security key – making it difficult to fake a device's identity;
- Over-the-air updates use digitally-signed firmware to verify that updates come from a trusted source;
- Geotab uses independent third-party experts to validate the platform from end-to-end; and
- FIPS 140-2 validated by NIST (certificate #3371).

## **Top Features**

- Wi-Fi hotspot functionality
- Easy installation
- LTE Connectivity
- Small form factor device
- Intelligent in-vehicle driver coaching
- Breakthrough collision detection and notification
- External device expandability via IOX Technology

- Built-in auto-calibrating accelerometer and gyrome
- Near-real-time vehicle data
- Fast GPS acquisition time Almanac OTA support
- Support for GPS+GLONAS: connectivity
- Additional native support f
   vehicle protocols
- End-to-end cybersecurity

Copyright © Geotab Inc. 2020 - All Rights Reserved | www.geotab.com | Rev 0.5 - 05/2020 ® denotes a trademark of Geotab Inc., registered in Canada, the United States and other countries dash-mounted antenna or any wire splicing.

## **Technical Specifications and Features**

Interfaces	<ul> <li>Engine Management</li> <li>Legacy Interfaces</li> <li>Physical Interfaces: J1850 PWM, J1850 VPW, J1708, 9141-2 and ISO 14230 (KWP2000) at Pins 2 and 10</li> <li>Speed: 10.4/41.6 kbaud for J1850, 9141-2 and ISO 14230 and 9600/62500 bps for J1708</li> <li>Data packet protocols: J1850 PWM, J1850 VPW, J1708, J1708 CAT, ISO Toyota, ISO Vario, ISO Ford, ISO Isuzu</li> <li>Diagnostic/application protocols: OBD2</li> </ul>
	Standard CAN Physical Interfaces: CAN at Pins 6 and 14, Pins 3 and 11, Pins 2 and 10 Speed: 125/250/500 kbps Data packet protocols: ISO 15765 CAN, GMLAN, VW TP 2.0, SAE J1939-21, SAE J1939-FMS Diagnostic/application protocols: Std OBD2, WWH-OBD, UDS (ISO 14229)
	Single Wire CAN Physical Interfaces: Single Wire CAN atPin 1 Speed: 33/50/83.3 kbps Data packet protocols: GMLAN, OEM Specific
	Medium/Low Speed CAN Physical Interfaces: J1939-13 Type 2, TTL CAN at Pins 3 and 11, Pins 2 and 10 Speed: 50/125/250 kbps Data packet protocols: GMLAN,, OEM Specific, ISO 15765 CAN, SAE J1939-21, SAE J1939-FMS Diagnostic/application protocols: Std OBD2, WWH-OBD, UDS (ISO 14229)
	* 2- or 3-wire install support (for older vehicles/asset tracking) <b>Input/Output</b> Buzzer LEDs — Ignition, GPS, Cellular IOX (more details below) Internal GPS/Cellular antennas
Cellular	Availability varying on certification – full list of supported countries <u>here</u> . <b>G09+ LTE ATT</b> LTE (CAT-4): Bands 2/4/5/12 3GPP Compliant
GPS Receiver	72-channel engine (GPS/GLONASS/Beidou/Galileo/SBAS/WAAS/EGNOS/MSAS/GAGAN)

Under 1 second Time-To-First Fix for hot and aided starts Cold start: 26s Concurrent GPS & GLONASS system A-GNSS Accuracy: ~2.0 m CEP OTA FW updates supported

Onboard Wi-Fi

Supports multiple simultaneous connections

- 802.11 b/g/n 2.4GHz

- DL range: 5 -25 Mbps

- UL range: 5 - 10 Mbps

Environmental and EMC

TBD

Accelerometer & Gyroscope	3D accelerometer and 3D gyroscope. Full-scale acceleration range of $\pm 8$ g and an angular rate range of $\pm 250$ dps.
<i>y</i>	Acceleration and angular rate output data rate of 1.66 kHz.
Mechanical	
	Weight: 97 g (0.21 lbs)
	Dimensions: 77.3 mm L × 53 mm W × 27.5 mm H
	Housing:PC + ABS - SABIC CY6414 (Flame retardant)
Flootrical	
Electrical	Voltage
	12 V and 24 V systems supported
	Tracking mode (ignition on)
	WiFi off
	Peak power: 320 mA @ 12V or 3.84W
	184 mA @ 24V or 4.416W
	Average power: 96.2 mA @ 12V or 1.15W
	55.1 mA @ 24V or 1.322 W
	WiFi on
	Peak power: 433 mA @ 12V, or 5.196W (Tx power is 23 dBm)
	249 mA @ 24V, or 5.975W
	Average power: 330 mA @ 12V or 3.96W (Tx power is 10dBm)
	189.7 mA @ 24V or 4.554 W
	IOX Operating Mode
	Up to 2 A Current
	Resettable overcurrent protection to IOX
Compliance	Standards: FCC, IC, PTCRB

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	Carriers: AT&T
Over-the-Air (OTA) Support	<b>Firmware Updates</b> : For maintenance, new features, and custom applications <b>Parameters</b> : For turning additional features on/off <b>Almanac/Ephemeris Data</b> : For quicker GPS latch
In-cab Buzzer	<b>Decibel Output</b> : >85 dBA at 10 cm <b>Driver Feedback</b> : Harsh braking, harsh acceleration, harsh corners, over-revving, excessive idling and speeding, engine based seatbelt violations (when available), and custom <b>Test Mode</b> : Diagnostic beeps for validating GPS and wireless connection
Voltage Recording	Curve-based voltage logging to detect weak batteries, failing alternators, and failing starters.
64-Mb Non- volatile Flash Memory	Main Data Memory: Up to 80,000 logs in offline mode (out of coverage) Collision Data Memory: Buffer records over 100 minutes of second-by-second data (6,000 logs). Last 72 records (1.2 minutes) are sent instantly on accelerometer-triggered collision- level events.
Recording Parameters	Patented curve-based GPS/voltage/accelerometer/engine data logging algorithm for fewer, more accurate data points.
Intelligent Ignition	Non-engine-based ignition detect on voltage and movement, allowing for 3-wire installation. Ideal for older vehicles with no engine information and covert installation for asset recovery.

## **Preparing For Installation**

Before installing the GO device, please record the device serial number. The serial number is used to verify the communication status of the GO device.

Carefully read the device release notes (<u>goo.gl/fZURff</u>) or the vehicle-specific installation notes (<u>goo.gl/MCIXt0</u>) to verify that we support your vehicle. If you have any questions or concerns, please consult your Authorized Reseller.

Ensure no dash warning lights are on in the vehicle while it is running, and all other functions, such as headlamps and flashers etc. work prior to installing the device.

Before Installation, add the device to your MyGeotab database using the device serial number. This will ensure all data logged from point of install onward is sent to your database.

## **Installation Instructions**



Read important related safety information and limitations of use following these installation instructions. Read and follow all instructions and warnings to prevent serious injury and/or vehicle damage.

**WARNING!** Prior to GO 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.

**WARNING!** Some installations are not straightforward and must be completed by an Authorized Geotab Installer to ensure a secure installation. An unsecure device installation can cause poor electric and/or data connection that can lead to short circuits and fires or cause malfunctions of vehicle controls that can result in serious personal injury or significant damage to your vehicle. Some examples requiring professional installation from an Authorized Geotab Installer are:

- The OBD port location is such that the device protrudes and interferes with entering or exiting the vehicle, or located where it could be inadvertently kicked or bumped during vehicle operation
- The device isn't fully secured and so may come loose with vibrations or accidental contact
- An electrical harness or additional wiring is required
- Vehicle mounting modifications are required to secure the device, i.e. removing of panels; deformed/damaged OBD connector; or physical damage to the electrical wiring
- The device does not beep six times and power on when first installed
- The installer questions their ability to complete a secure installation according to these instructions

**WARNING!** Do not attempt to install, reconfigure, or remove any product from a 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 devices while the vehicle is in motion could result in malfunctions or collisions, leading to death or serious personal injury.

#### How to Install the GO Device

1 Locate the vehicle's engine diagnostic port, typically found in the driver's area at or below knee level.

**Note**: Heavy-duty vehicles use a different connector system. Contact your Authorized Geotab Reseller for heavy-duty connector applications or for extension harnesses should it be necessary to place your device away from the engine diagnostic port.



2 Align the receiver end of the device with the engine diagnostic port and push in place. Please ensure the device is connected to the diagnostic port. Once connected, the device emits 6 quick beeps.



3 Once the device is connected and receives power, the LEDs on the front of the device start blinking then turn solid once completing the actions below:

**Red** LED – Device configuration

Green LED – Cellular network connectivity

Blue LED - GPS network connectivity

The device emits two quick beeps every 60 seconds during set-up. Initial startup may take several minutes to complete.

4 Once all three LEDs turn solid and you hear 10 quick beeps, secure the device using the provided cable tie.

**Note**: The device is considered installed when the Green and Blue LEDs turn solid.

- 5 When performing under-dash installations with an extension harness, make sure the antenna side points upwards towards the sky for faster GPS latch times. The GPS antenna in the **G09+** is located on the bottom of the device.
- 6 Navigate to <u>installmygps.com</u> 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**.
- 7 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 Company:	
Device Serial No:	
Odometer:	
Asset Number:	

Installer Name

## How to Set Up the GO9+ Wi-Fi Hotspot

Please ensure your device is connected and communicating, then follow the steps below to enable and connect to the Wi-Fi hotspot:

- 1 In MyGeotab, navigate to **Vehicles** in the main menu.
- 2 On the **Vehicles** page, select the desired vehicle from the list.

Name, VIN, or serial num	Show 🔻	追 Sort by: Name	•	Add 🔻	More 🔻	🔇 Report
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- 3 On the **Vehicle Edit** page, select the **Wi-Fi** tab.
- 4 Under the **Wi-Fi** tab, toggle the **Enable hotspot** toggle to On.

Save	Remove Cano	el View d	on map 🕇 M	lore details	Ø -	🤗 Personal Mo	de
Vehi	cle Edit	Test ∖	/ehicle	?			
Device	Driver feedback	Groups	Service plan	Wi-Fi			
Enable I	hotspot:	On	Off				
SS	SID:						
Pa	assword:						0
Co	onfirm password:						0

- 5 In the **SSID** field, enter a unique SSID. The information entered in this field indicates the Wi-Fi network name.
- 6 In the **Password** field, enter a unique password for the Wi-Fi network.
- 7 Click the **Save** button to save your changes.
- 8 On the desired mobile device, navigate to device settings then select the desired Wi-Fi network and enter the password.

Note: The Wi-Fi network name and password are the same as the information entered in Steps 5 and 6.

**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. This requires the use of a cable tie when securing the device or any extension harness to the OBD connector, securing both sides of the harness. If you do not use a cable tie, vibration in the vehicle can lead to a loose connection which could indirectly cause the vehicle's engine computer to fail, loss of vehicle control and cause serious injury. Inspect devices and cabling regularly to ensure all devices and cables remain securely attached.

**WARNING!** If at any point after an in-vehicle device is installed a warning lights up 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.

## **Important Safety Information and Limitations of Use**

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

**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 and cause loss 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 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.

**NOTICE**: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

FCC:

#### NOTICE:

This device complies with Part 15 of the FCC Rules [and with Industry Canada licence-exempt RSS standard(s)].

Operation is subject to the following two conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

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

IC:

#### Antenna Statement

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

#### Licence exempt

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

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