GEOTAB®

Geotab® GO9B™ — Expandable Telematics Device

For the most up-to-date version, please visit: https://gtb.page.link/GO9B

GO9B device

Geotab's GO9B telematics device is the most powerful to date. It features an increased flash memory of 2GB to support higher volumes of data, over-the-air GPS updates, and upgraded battery sensors. A CATM1 LTE device, the GO9B offers support for all 4 major GNSS satellites delivering greater global GPS coverage, g-force monitoring, GEOTAB IOX® expandability, and engine and battery health assessments.

Vehicle tracking

Using Geotab's patented tracking algorithm, the GO9B accurately recreates vehicle trips and analyzes incidents. The GO9B also offers in-vehicle alerts to instantly notify drivers of infractions and — with hardware Add-Ons — provides live coaching for a driver's on-road performance. The GO9B does not require a dash-mounted antenna or any wire splicing.

Security

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

Key implementations include:

- GO™ devices 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.

Top features

- LTE Connectivity
- Easy installation
- 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 gyroscope
- Near-real-time vehicle data
- Fast GPS acquisition time and improved accuracy using the latest and greatest GPS module
- Support for GPS, GLONASS, Galileo, and BeiDou connectivity
- Additional native support for more vehicle protocols
- End-to-end cybersecurity

Technical specifications and features

Interfaces	**Engine Management** Legacy Interfaces - Physical Interfaces: J1850 PWM, J1850 VPW, J1708 at Pins 2 and 10, 9141-2 and ISO 14230 (KWP2000) at Pins 7 and 15 (K-Line & L-Line) - Speed: 10.4/41.6 KBaud for J1850, 9141-2 and ISO 14230 and 9600/62500 bps for J1708 and CAT - Data packet protocols: J1850 PWM, J1850 VPW, J1708, J1708 CAT, GMCCC, ISO Toyota, ISO Vario, ISO Ford, ISO Isuzu - Diagnostic/application protocols: OBD2, OBD1, J1587 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 at Pin 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) **Input/Output** Buzzer LEDs — Ignition, GPS, Cellular IOX (more details below) Internal GPS/Cellular antennas

Cellular	Availability varying on certification — full list of supported countries [here](#).
	
	GO9B LTE USA (ATT, Verizon)
	    ● LTE (CAT-M1): Bands 2/4/5/12/13
	GO9B LTE CANADA
	    ● LTE (CAT-M1): Bands 2/4/5/12/13
	    ● 3GPP Compliant
	GO9B LTE GLOBAL
	    ● LTE (CAT-M1): Bands 1/2/3/4/5/8/12/13/19/20/26/28

GPS Receiver	92-channel engine (GPS/GLONASS/Galileo/BeiDou) Under 2 second Time-To-First Fix for hot and aided starts Cold start: 24s Concurrent GNSS: GPS , GLONASS, Galileo, and BeiDou A-GNSS Accuracy: ~2.0 m CEP OTA FW updates supported

I/O Expandability Support (IOX)	Currently supports a combination of up to 5 of the following IOXs. See [Guide to Geotab IOX Add-Ons](#) for more details.
	    ● IOX-ALERT
	    ● IOX-ANALOG
	    ● IOX-AUXM
	    ● IOX-BATTERY
	    ● IOX-BT
	    ● IOX-BUZZ
	    ● IOX-CAN
	    ● IOX-KEYLESS
	    ● IOX-GOTALK
	    ● IOX-NFCREADERA
	    ● IOX-OUTPUTM
	    ● IOX-RS232F
	    ● IOX-RS232M
	    ● IOX-RS232D
	    ● IOX-SATIRDv2
	    ● IOX-USB
	    ● IOX-UREADER
	    ● IOX-WRKS
	
	[More information](#)

Environmental	Operating Temperature: −40 to +85 °C
	SAE J1455
	Temperature
	    ● Temperature Cycle
	    ● Thermal Shock
	Humidity
	Mechanical Vibration
	    ● Swept Sine Vibration
	    ● Random Vibration
	Mechanical Shock
	    ● Operational Shock
	General Heavy-Duty Truck Electrical Environment
	    ● Conducted Transients (Inductive Switching, Burst Transients, Starter Motor Engagement)
	    ● Coupled Transients
	    ● Electrostatic Discharge (ESD)
	    ● Electromagnetic Compatibility (EMC)
	    ● Electromagnetic Interference (EMI)

Accelerometer & Gyroscope	3D accelerometer and 3D gyroscope. Full-scale acceleration range of ±8 g and an angular rate range of ±250 dps Acceleration and angular rate output data rate of 1.66 kHz
Mechanical	Weight: 60.2 g (0.13 lb) Dimensions: 78 mm L × 52 mm W × 26 mm H Housing: PC+ABS

Electrical	Voltage: 12 V and 24 V systems supported
	Current:
	At 12 V
	    ● Operating Mode: 60−300 mA
	    ● Operating mode + IOX: Up to 3 A
	    ● Sleep mode: 4.5 mA
	At 24 V
	    ● Operating Mode: 35-180 mA
	    ● Operating mode + IOX: Up to 3 A
	    ● Sleep mode: 3.0 mA
	Resettable overcurrent protection to IOX

Compliance	PTCRB, CE, FCC, ISED, UKCA, ANATEL, NTC, NCC, RCM Carriers: AT&T, Verizon, Bell, Telus, Rogers, Telenor, Telefonica
Over-the-Air (OTA) Support	Firmware Updates: For maintenance, new features, and custom applications

	Parameters: For turning additional features on/off Almanac/Ephemeris Data: For quicker GPS latch
In-cab Buzzer	Decibel Output: >85 dBA at 10 cm Driver Feedback: Harsh braking, harsh acceleration, harsh corners, over-revving, excessive idling and speeding, engine based seatbelt violations (when available), and custom feedback Test Mode: 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 (goo.gl/fZURff) or the vehicle specific installation notes (goo.gl/MCIXt0) to verify that we support your vehicle. If you have any questions or concerns, please consult your Partner.

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.

✸ **NOTE:** You must select the correct Geotab hardware suitable for your specific installation environment and vehicle use. For installations where exposure to the elements (e.g., liquids, dust, or interior wet cleaning/powerwash) is anticipated, select the GO RUGGED device (GR8 rated IP67, and GR9 rated IP68 and IP69K). For additional information regarding environmental contaminants, see the applicable installation instructions as well as the Important Safety Information & Limitations of Use section below.

⚠ 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.

Installing the GO device

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

   ✶ **NOTE:** For heavy-duty trucks, always use a vehicle-specific harness when offered by Geotab or the vehicle manufacturer (see Harness Identification and Application and Harness Assessment Cheat Sheet). Where a heavy-duty truck-specific harness is not offered by Geotab or the vehicle manufacturer, use the adapter harness (HRN-CG13S1) for any 16-pin (OBDII) installation method to avoid possible GO device damage.
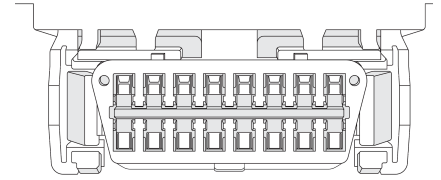
2   Align the receiver end of the device with the engine diagnostic port and push in place. Please ensure the device is well-connected to the diagnostic port. Once connected, the device emits 6 quick beeps.
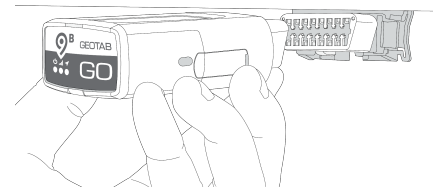
3   Once the device is connected and receives power, the LEDs on the front of the device start blinking then turn solid once completing the actions below.

      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.
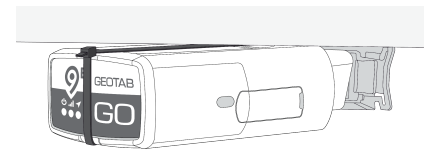
5   When performing under-dash installations with an extension harness, make sure the antenna side points upwards — towards the sky for faster GPS latch times. The GPS antenna in the GO9B is located on the bottom of the device.

6   Navigate to installmygps.com and open MyInstall (public) to verify that the device is communicating. Under **Installer Information**, enter your name and your company name and click **Next**. Under **Device serial number**, enter your GO device serial number, found at the bottom of the device, and then click **Validate**.

7   The Device Status will display a **PASS** or **FAIL** label to inform you about the status of the device. The **PASS** status tells you that the device has successfully communicated with the network in the last 24 hours. The **FAIL** status tells you that the device has not communicated with the network in the last 24 hours.

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

8   Click **Next** to go to the **Vehicle information** section. Enter vehicle related information: Vehicle name, License Plate, VIN, Make, Model, Year, Odometer, Engine hours, Work order reference, and Installation comments. You can manually enter the **Make**, **Model**, and **Year** fields or tap the search icon beside **VIN** to auto-populate them. If you enter the **Odometer** value, you must select the measurement unit: Km or Miles. You can use the **Work order reference** field to enter the work order number. You can enter **Installation comments** if desired. Tap **Finish installation**.

   ✳ **NOTE**: For some vehicle makes and models, the auto-populate option might not be possible.

   Please refer to the MyInstall User Guide for more information.

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.

GEOTAB.

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: The Declaration of Conformity is available at https://gtb.page.link/eGmu.

⚠ **WARNING**: Cancer and Reproductive Harm - 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 licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.

2. 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 :

1. L'appareil ne doit pas produire de brouillage;

2. 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
703-748 MHz: Max 25.2 dBm EIRP
824-849 MHz: Max 25.05 dBm EIRP
832-862 MHz: Max 25.35 dBm EIRP
880-915 MHz: Max 29.61 dBm EIRP
1710-1785 MHz: Max 26.55 dBm EIRP
1920-1980 MHz: Max 24.99 dBm EIRP

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.