Go9 Rugged Installation Instructions

Professional Installation Required — Installation of the GO9 RUGGED requires that 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.

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.
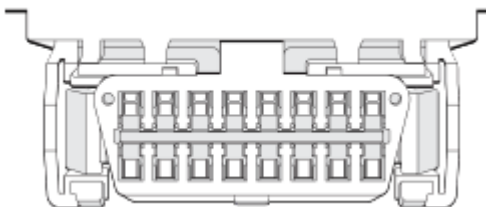
WARNING! Do not attempt to install, reconfigure, or remove any product from a vehicle while the vehicle is in motion or otherwise in operation. All installation, configuration, or removal must be done only in stationary vehicles which are securely parked. Attempting to service devices while the vehicle is in motion could result in malfunctions or collisions, leading to death or serious personal injury.

Please refer to the GO9 and GR9 Installation FAQ if you have any questions during the installation process.
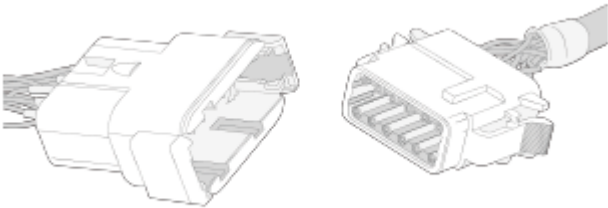
How to Install the GO9 RUGGED Device

1. Locate the vehicle's engine diagnostic port, typically found in the driver's area at or below knee level (the connector inside the vehicle may differ from the image shown).

Align the OBD connector on the chosen harness (sold separately - based on vehicle/application) with the vehicle diagnostic port and push in place.
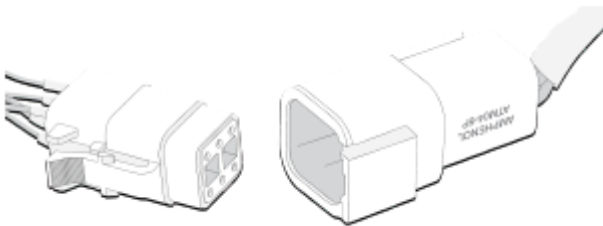

✱ **NOTE**: For heavy-duty trucks, always use a vehicle-specific harness when offered by Geotab or the vehicle manufacturer (see Harness Identification and Application and Harness Assessment Cheat Sheet GUIDE V2.0). Where a heavy-duty truck-specific harness is not offered by Geotab or the vehicle manufacturer, use the adapter harness (HRN-CG13S1) for any 16-pin (OBDII) installation method to avoid possible GO device damage.

2. Connect the 12-pin male connector on the GO9 RUGGED device to the 12-pin female connector on the corresponding harness as shown, and click into place. Ensure that all connections are secure. All three lights on the device will flash briefly and it will emit 6 quick beeps.

3. If you are also installing an IOX, connect the 6-pin female connector on the device to the 6-pin male connector on the HRN-RX06S4 and click into place.
Connect the female mini-USB connector on the other side of the HRN-RX06S4 to the male mini-USB connector on your IOX. Ensure that the two USB connectors are secured with a zip tie.
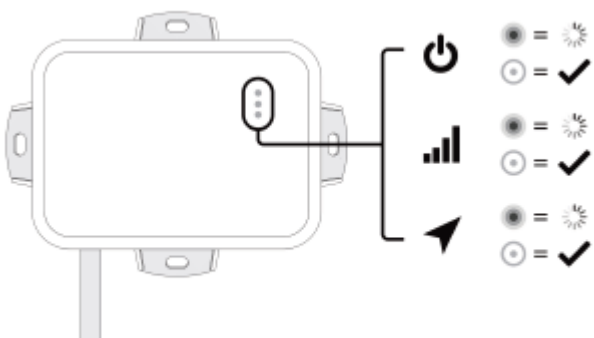

4. Once the device is connected and receives power, the LEDs on the front of the device start blinking then turn solid once completing the actions below.
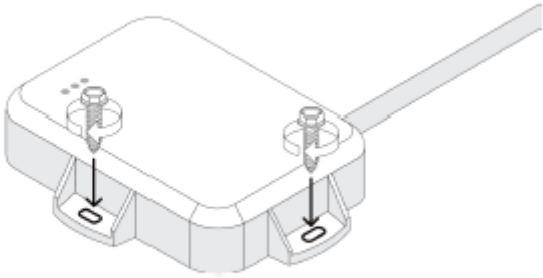   **Red** LED — Device configuration
      Green LED — Cellular network connectivity
      Blue LED — GPS network connectivity
The device emits two quick beeps every 60 seconds during set-up. Initial startup may take several minutes to complete.
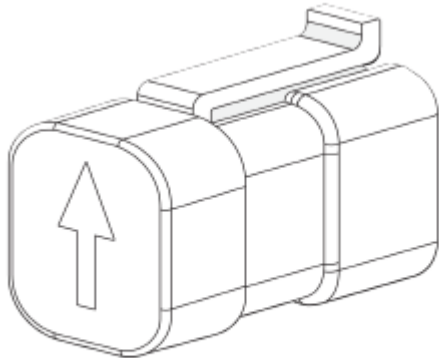
5. Once all three LEDs have lit up, select a location to attach your device. Drill 5/32 inch pilot holes first then secure the device into place using the supplied Hex Washer head screws. Ensure that you install your device in a location where the wires will not interfere with the safe operation of the vehicle.

✱ **NOTE:** Mounting position has influence on the degree of ingress protection. Ensure the GR9 is installed against a flat surface, with the LEDs facing toward the installer. Failing to install enclosure as per intended use degrades GR9 from its IP69K rating to IP68.

6. The GPS antenna in a GO9 RUGGED is located on the same face as the LED lights on the top of the casing. Make sure that the antenna is always pointing upwards towards the sky for faster GPS latch times.

7. The 6-pin weatherproof female connector of the telematics device comes covered with a sealing cap for waterproofing and dustproofing. Remove the cap only if you plan on using an IOX (requires HRN-RX06S4 adapter cable). Otherwise, keep the cap in place with the arrow facing towards the lock clip located at the top of the 6-pin female connector as shown. Attaching the sealing cap in any other orientation will not guarantee a waterproof and dustproof seal.

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.

Harness Pin Diagram and Description for ALDL and IOX

For professional installation where specific cable routing is required, the terminals on the weather-resistant connectors can be de-pinned on both the GO9 RUGGED and the corresponding HRN-RS12S2 and HRN-RX06S4 harnesses. This allows the installer to route the wires through a smaller opening. The wires can then be re-pinned into the connectors as described in the tables below. In this manner, the GO9 RUGGED can be installed in restricted spaces while maintaining its
IP68 rating.

The GO9 RUGGED and its connectors are IP68-rated. The HRN-RX06S4 and HRN-RS12S2 are only IP67-rated in part, and the gray connectors are the only weatherproof elements. Removal of the gray connectors on either the GO9 RUGGED or its harnesses will reduce the overall weatherproofing of the system. Figure 1 illustrates the scope of the weatherproofing for the GO9 RUGGED and its harnesses:
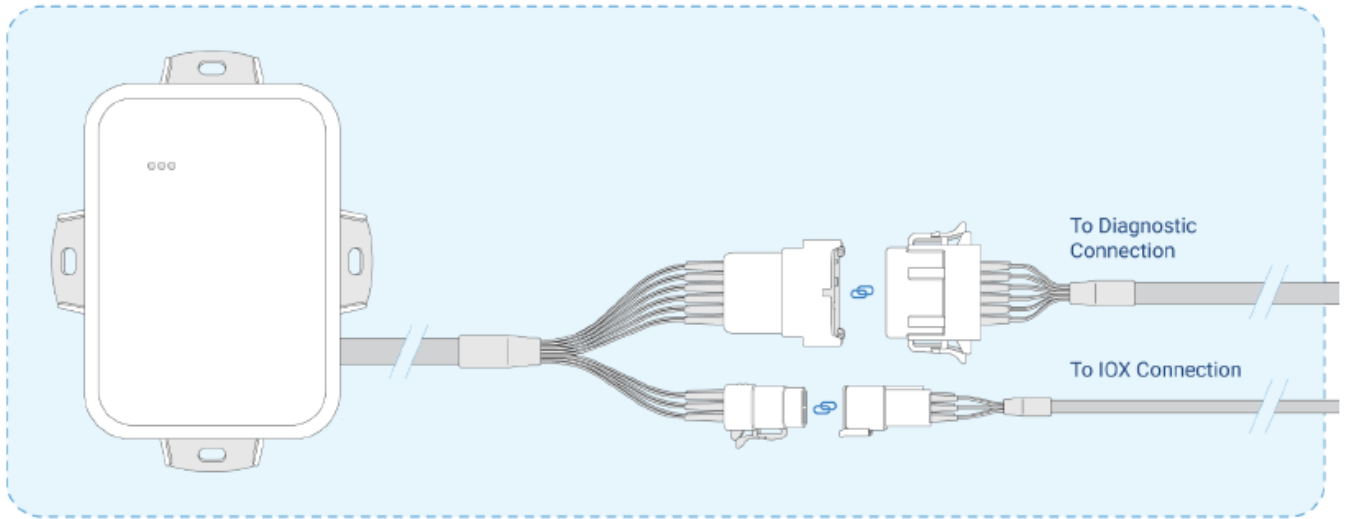
Figure 1: The blue region highlights the scope of the IP68 rating.

HRN-RS12S2/GO9 RUGGED — ALDL Diagnostic Port Connector

✳ **NOTE**: Not all pins are populated on all vehicles.

Pin	Wire Color	Description for ALDL Port	Pin	Wire Color	Description for ALDL Port
1	Orange	Ground (Signal Shield)	7	Brown	Make/Model Specific
2	Green/White	CAN Low / TTL CAN Low	8	Pink	Make/Model Specific
3	Blue/White	L Line	9	Black	J1850 (+) / MODBUS
4	Brown/White	J1850 (-) / MODBUS	10	Green	K Line
5	Purple/White	Make/Model Specific	11	Yellow	CAN Line / TTL CAN High
6	Gray	Make/Model Specific	12	Orange/White	Power (12 V/24 V)

HRN-RX06S4 — IOX Port Connector

Pin	Wire Color	Description for ALDL Port	Pin	Wire Color	Description for ALDL Port
1	Red	Power	4	Black	Ground
2	White	CAN Low	5	Green	CAN High
3	Yellow	Wake-Up	6	–	–

GO9 RUGGED — IOX Port Connector

Pin	Wire Color	Description for ALDL Port	Pin	Wire Color	Description for ALDL Port
3	Black/White	Power	4	White	Ground
2	Blue	CAN Low	5	Purple	CAN High