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Queclink Wireless Solutions GV50 GPRS GNSS Tracker User Manual

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GV50(P) User Manual
GPRS/GNSS Tracker
TRACGV50UM001
Version: 1.01

Contents

GV50 GPRS GNSS Tracker

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General Notes

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Revision History

Revision	Date	Author	Description of Change.
1.00	2016-11-28	Pablo Dang	Initial
1.01	_ 2017-06-17	Pablo Dang	Added GVSOP-related information.

Introduction

GV50(P) is a mini GPS tracker designed for a wide variety of vehicle tracking applications. Its built-in GPS receiver has superior sensitivity and fast time to first fix. Its quad band GPRS subsystem supports 850/1900 MHz, allowing the GV50(P)'s location to be monitored in real-time or periodically tracked by a backend server and mobile devices. Its built-in 3-axis accelerometer allows motion detection and extends battery life through sophisticated power management algorithms. System integration is straightforward as complete documentation is provided for the full-featured @Track protocol. The @Track protocol supports a wide variety of reports including emergency, geo-fence boundary crossings, low battery, and scheduled GPS position.

1.1 Reference

Table 1. GV50(P) Protocol Reference

SN	Document name	Remark
[1]	GV50 @Track Air Interface Protocol	The air protocol interface between GV50(P) and the backend server.

Product Overview

2.1 Check Parts List

Before starting, check all the following items have been included with your GV50(P). If anything is missing, please

contact your supplier.

Figure 1. Appearance of GV50

Figure 2. Appearance of GV50P

2.2 Parts List

Table 2. GV50 Parts List

Name	Picture
GV50 Locator	
User Cable	

Table3. GV50 P Parts List

Name	Picture
GV50 P Locator	
User Cable	

2.3 Interface Definition
2.3.1 GV50 External Interface
GV50 has a 2 PIN cable. The pin definition of the 2-Pin cable is shown below.

Figure 3. GV50 2-Pin Cable
Table 4. Description of 2-PIN Cable

Index	Description	Remark
1	VIN (red)	External DC power input, 8-32V
2	GND (black)	GND

2.3.2 GV50P External Interface

The GV50P has a 4-PIN cable. The pin definition of the 4-pin power cable is shown below.

Figure 4. GV50P 4-Pin Cable
Table 5. Description of 4-Pin Cable

Index	Description	Remark
1	VIN (red)	External DC power input, 8-32V
2	GND (black)	GND
3	OUTPUT(brown)	Digital output
4	IGN (white)	Ignition

2.3.3 Internal Interface

GV50(P) has a Micro USB connector which is shown in the following figure.

Figure 5. GV50(P) Micro USB Connector

2.4 GV50(P) Extension Cable Color

Table 6. GV50 2-Pin Extension Cable Color Definition

Pin No	Definition	Color	Cable
1	VIN	red	
2	GND	black	

Table 7. GV50P 4-Pin Extension Cable Color Definition

Pin No	Definition	Color	Cable
1	VIN	red	
2	GND	black	
3	OUTPUT	brown	
4	IGN	white	

Getting Started

3.1 Opening the Case

Figure 6. Opening the Case

Insert the triangular-pry-opener into the gap of the case as shown below, and push the opener up until the case unsnaps.

3.2 Closing the Case

Figure 7. Closing the Case

Place the cover as shown in the figure above. Slide the cover until it snaps.

3.3 Installing a SIM Card

Open the case and ensure the unit is not powered (unplug the 2-Pin cable and switch the internal battery to the OFF position). Slide the holder right to open the SIM card. Insert the SIM card into the holder as shown below with the gold-colored contact area facing down. Take care to align the cut mark. Close the SIM card holder. Close the case.

Figure 8. Installing a SIM Card

3.4 Installing the Internal Backup Battery

Figure 9. Installing the Internal Backup Battery

There is an internal backup Li-ion battery. Please install the internal backup battery as Figure 9 before use.

3.5 Switching On the Backup Battery

To use the backup battery, the switch must be in the ON position. The switch and ON/OFF positions are shown below.

Figure 10. Switch and ON/OFF Position

Note:

1. The switch must be in the "OFF" position when shipped on an aircraft.

2. When the switch is in the "OFF" position, the battery cannot be charged or discharged.

3. To reset the device: Remove the external DC power and then switch off the backup battery.

   Then connect the external power supply and switch on the backup battery.

3.6 Power Connection

PWR (PIN1) / GND (PIN2) is the power input pins. The input voltage range for this device is from 8V to 32V. The device is designed to be installed in vehicles that operate on 12V/24V vehicles without the need for external transformers.

Figure 11. Typical Power Connection

3.7 LED Status

LED	Device Status	LED Status
CELL (Note 1)	The device is searching the GSM network.	Fast flashing
	The device has been registered to the GSM network.	Slow flashing
	The SIM card needs a pin code to unlock.	On
GPS (Note 2)	The GPS chip is powered off.	Off
	GPS sends no data or data format error occurs.	Slow flashing
	GPS chip is searching for GPS information.	Fast flashing
	GPS chip has got GPS information.	On

Table 8. Definition of Device Status and LED

Figure 12. GV50(P) LEDs on the Case

GV50(P) has two status LEDs that are CELL LED and GPS LED.
Note:

1. CELL LED status cannot be configured.
2. GPS LED can be configured to turn off after a period of time using the Manage Tool.

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.

FCC Statement
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
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.

FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator& your body.

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Documents / Resources

Queclink Wireless Solutions GV50 GPRS GNSS Tracker [pdf] User Manual
GV50, YQD-GV50, YQDGV50, GV50 GPRS GNSS Tracker, GPRS GNSS Tracker