GPS Locator GL200
User Manual

TRACGL200UM001

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Contents

0. Revision history

Revision	Date	Author	Description of change
1.01	2010-08-03	Ella HUANG	Initial

1. Introduction

GL200 is a powerful GPS locator which is designed for vehicle, pets and assets tracking. With superior receiving sensitivity, fast TTFF and GSM frequencies 850/1900. Its location can be real time or schedule tracked by backend server or specified terminals. Based on the embedded @Track protocol, GL200 can communicate with the backend server through GPRS/GSM network, and transfer reports of emergency, Geo-fencing, device status and scheduled GPS position etc… Service provider is easy to setup their tracking platform based on the functional @Track protocol.

This device complies with part 22 and part 24 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference (2) this device must accept any interference, including interference that may cause undesired operation.

2. Specification

GSM/GPS Specifications

Frequency	Dual-Band:850/1900MHz
GPS Chipset	uBlox All-In-One GPS Receiver Sensitive, Fast and Accurate
Sensitivity	Cold start -147dBm Reacquisition -160dBm Tracking -160dBm
Position Accuracy	Autonomous: <2.5 m SBAS : 2.0 m
TTFF (Open Sky)	Cold start 29s Warm start <29s Hot start <1s

User Interfaces

Mini USB Connector	Include external power and UART
Power Button	For power on and power off. Can be disabled by the air interface protocol.
Function Button	For SOS alarm or quick setting of Geo-Fence.

Gerneral Specifications

Dimension	67.5mm* 40mm * 21mm
Weight	60g
Backup Battery	Li-Polymer　1300 mAh , 3.7V
Standby TIme	Without reporting :300 to 400 Hours 5 minutes reporting :100 to 150 Hours 10 minutes reporting:150 to 200 Hours
Charge Voltage	5V DC
Water Resistance	Follow IPX5 Standard

3. Product Overview

3.1. Buttons/Mini USB Interface Description

Button /Mini USB Interface Description	
Power Key	• Turn on GL200 • Turn off GL200 when without charging. (If power key is enabled)

Function Key	• Geo-Fence mode
	   Long press the key to enable/disable Geo-Fence ID0
	• Geo-Fence in current position mode
	   Long press the key to enable/disable Geo-Fence ID0. If enable Geo-Fence ID0, using the current position as the centre of Geo-Fence 0.
	• SOS mode (default)
	   Long press the key to active SOS alarm

Mini USB interface	• Connect a 5V DC adapter can power GL200 and charge the internal battery • Connnet a 3.7V Li-ion or Li-Polymer battery can power GL200 • Backend server developer or administrator can use the Data_Cable_M to configure GL200

3.2. Two Triple-Color LEDs Description

There are three LED in GL200, the description as following.

Light	Event	State
GPS LED	If *"LED On"* is not selected, and the LED will not work after trun on 30 minutes.	Closed
	No positioning requirements.	
	NEMA check fail.	Slow light
	Data invalid or no data.	
	GPS is in fixing.	Fast light
	GPS has fixed.	Ever-light
PWR LED	If *"LED On"* is not selected, the LED will normally work for 30 minutes before they are finally stopped.	Closed
	Power off.	

	Low voltage.	Slow flash
	Device is in charging.	Fast flash
	Device is in process of turn off.	
	Device is in abnormal status.	
	Charger connects, and charging has completed.	Ever-light
	Device is working in normal status.	
GSM LED	Network searching.	Fast flash
	SIM pin locked.	
	Network has been registered.	Slow flash
	Power off.	Closed

4. Getting Started

4.1. Parts List

● GL200 Locator
● AC-DC Power Adapter

● Mini-USB Data_Cable_M (Please note this data cable is only for backend server developers or administrators. It is not in the delivery list of GL200)
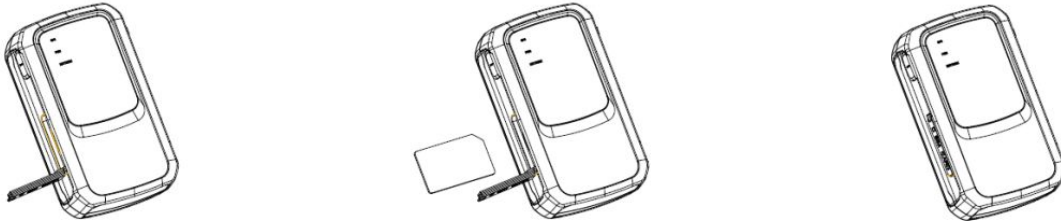
4.2. Battery Charging

● Please connect AC-DC power adapter with GL200.
● Insert the AC-DC power adapter into the power socket.
● During charging, the PWR LED is flashing fast. When the battery is full charged, the PWR LED will be Ever-light.
● You can also charge the battery by USB cable which connects GL200 with the PC.
● Charging time is about 5 hours.

Note: Before the first time using GL200, please full charge the battery.

4.3. Install SIM Card

● First, open the cover of SIM card..
● Then insert the SIM card into the slot of SIM card according to the direction shown.
● Finally, cover the slot.

4.4. Turn on/Turn off

● Turn on:
  ◆ Method 1: Press the Power key at least 3 seconds and release it to turn on GL200. At the same time, PWR LED will light on.
  ◆ Method 2: Connect device to charger or external battery, and it will turn on automatically, PWR LED will light on.
● Turn off:
  ◆ Method 1: Press the power key at least 3 seconds; PWR LED will Fast flash and then turn off, it indicates that GL200 is turned off. It is only valid to turn off when using internal battery. Please note the end-user can not power off GL200 when the power key is disabled by protocol.
  ◆ Method 2: If using external battery, device will power turn-off when external battery disconnect.

5. Troubleshooting and Safety info

5.1. Troubleshooting

Trouble	Possible Reason	Solution
After GL200 is turned on, the GSM LED flashes quickly always.	The SIM card is not inserted.	Please insert the SIM card into GL200.
	The signal is too weak; GL200 can't register to the network.	Please move GL200 into place with good GSM coverage.
Messages can't be reported to the backend server by GPRS.	The SIM card in GL200 doesn't support GPRS.	Try a GPRS supported SIM card.
	APN is wrong. Some APN can not visit the internet directly.	Ask the network operator for the right APN.
	The IP address or port of the backend server is wrong.	Make sure the IP address for the backend server is an identified address in the internet.
Unable to power off GL200.	The function of power key was disabled by AT+GTSFR.	Enable the function of power key by AT+GTFKS.
	Unable to power off GL200 if charger connected or using external battery.	Disconnect charger or external, and try again.
No response from UART when configure GL200 through UART	GL200 is in power saving mode.	Remove the Data_Cable_M, and plug it in again. After this operation, GL200 will exit from power saving mode for 10 seconds.
GL200 can't get successful GPS fixing.	The GPS signal is weak.	Please move GL200 to a place with open sky.
		It is better to let the top surface face to sky. (The same surface with indication LED)

5.2. Safety info

● Please do not disassemble the device by yourself.
● Please do not put the device on the overheating or too humid place, avoid exposure to direct

sunlight. Too high temperature will damage the device or even cause the battery explosion.

● Please do not use GL200 on the airplane or near medical equipment.

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