Queclink
WIRELESS SOLUTIONS

GSM/GPRS/GPS Tracker **GL100S**

User Manual

TRACGL100SUM001

Revision: 1.01

NET   PWR

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General Notes

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0. Revision history

Revision	Date	Author	Description of change
1.01	2011-7-8	Johnson Jiang	Initial

1. Introduction

GL100S is a powerful GPS locator which is designed for shoes and assets tracking.

With superior receiving sensitivity, fast TTFF and GSM frequencies 850/900/1800/1900MHz. Its location can be real time or schedule tracked by backend server or specified terminals. Based on the embedded @Track protocol, GL100S 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 15B 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."

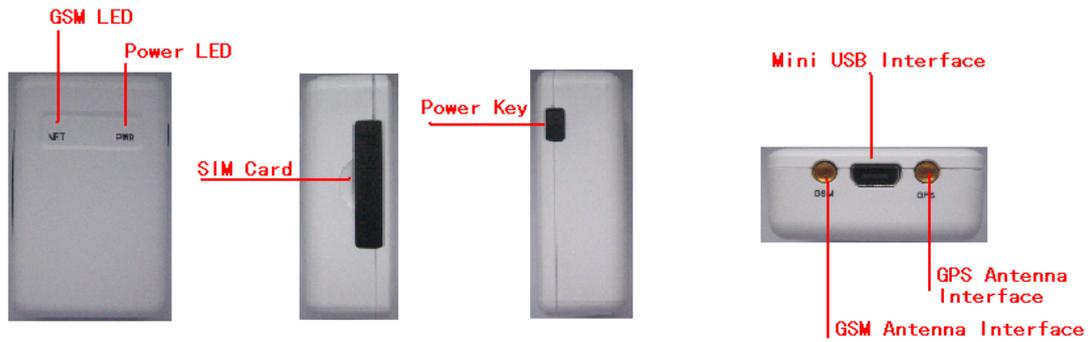Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Warning:

The device include a GSM module,the minimum separation distance between antenna of the module and human is about 10mm..

2. Product Overview - 5 -

2.1. Appearance

GL100S device:

GL100S in shoes: (This product insert in bottom of shoes)

2.2. Buttons/Mini USB Interface Description

Button /Mini USB Interface Description	
Power Key	● Turn on GL100S ● Turn off GL100S. (If power key is enabled)
Mini USB interface	● Connect a 5V DC adapter can power GL100S and charge the internal battery ● Connect a 3.7V Li-ion or Li-Polymer battery can power GL100S ● Backend server developer or administrator can use the Data_Cable to configure GL100S

2.3. LEDs Description

There are three LED in GL100S, the description as following.

Light	Event	State
NET light	Searching network	Fast flash
	Network has been registered	Slow flash
	Power off	Dark
PWR light	Power on and normal	Dark
	Charger inserted and charging completed	Solid
	Charger inserted and charging	Fast flash
	Power key was pressed and prepare to power off	Fast flash
	Abnormal	Fast flash
	Power low alert	Slow flash
	Power off	Dark

3. Getting Started

3.1. Parts List

Name	Picture	Remark
GL100S Locater		The GSM/GPRS/GPS locator.

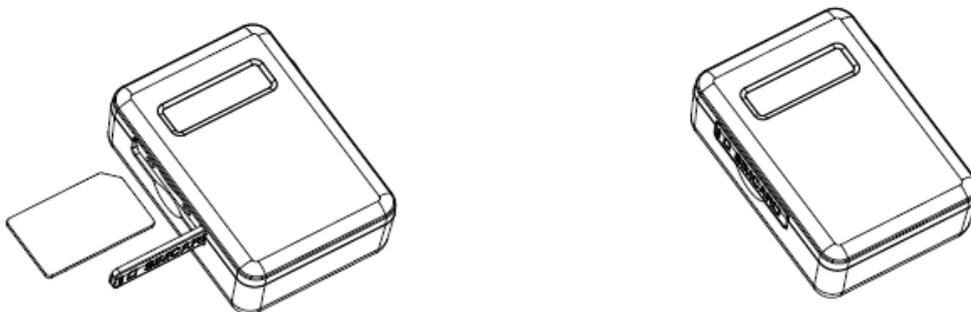| AC-DC Power Adapter (Standard accessory)		It is used to charge the internal battery of GL100S.
GL100S Data Cable		It is the USB data cable which can be used for firmware upgrading and configuration.(**Please note , it only for backend server developer or administrator ,It is not in delivery list of GL100S**)

3.2. Battery Charging

- Please connect AC-DC power adapter with GL100S.
- 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.
- Charging time is about 5 hours.

Note: Before the first time using GL100S, please full charge the battery.

3.3. 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.

3.4. Turn on/Turn off

- Turn on:

◆ Method 1: Press the Power key at least 3 seconds and release it to turn on GL100S. At the same time, PWR LED will light on.

● Turn off:

◆ Method 1: Press the power key about 2 seconds; PWR LED will fast flash and then turn off, it indicates that GL100S is turned off. The time of power off is depended on the quality of network. The maximum time of power off is 90 seconds. It is only valid to turn off when using internal battery. Please note the end-user can not power off GL100S when the power key is disabled by protocol.

Note: Before power off one location message need to be send. When in a place the GSM signal is weak or no GSM network, the equipment will try 90s to send the message. After 90s, it will power off immediately.

4. Troubleshooting and Safety info

4.1. Troubleshooting

Trouble	Possible Reason	Solution
After GL100S is turned on, the Net LED flashes quickly always.	The SIM card is not inserted.	Please insert the SIM card into GL100S.
	The signal is too weak; GL100S can't register to the network.	Please move GL100S into place with good GSM coverage.
	PIN locked	Using SIM card without SIM-PIN, or unlock SIM-PIN.
Messages can't be reported to the backend server by GPRS.	The SIM card in GL100S 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 GL100S.	The function of power key was disabled by AT+GTSFR.	Enable the function of power key by AT+GTFKS.
	Unable to power off GL100S if charger connected or using external battery.	Disconnect charger or external battery, and try again.
No response from UART when configure GL100S through UART	GL100S is in power saving mode.	Remove the Data_Cable, and plug it in again. After this operation, GL100S will exit from power saving mode for 10 seconds.
		Re-try GL100S manager tool again, it will try to wake up device.
GL100S can't get successful GPS fixing.	The GPS signal is weak.	Please move GL100S to a place with open sky.
		It is better to let the top surface face to sky.

4.2. 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 GL100S on the airplane or near medical equipment.