NAVIECARE

LoRa GPS Tracker

GF8945 User Manual

Version: V1.0.0

Date: 2018-9-10

NAVIECARE LIMITED

1. Description

GF8945 is a low power consumption LoRa based GPS tracking device equipped with a rechargeable battery for asset tracking. Support LoRaWAN protocol or private protocol. Build in BLE chip allow GF8945 pairs with your smart phone , text and share GPS location among other GF8945 users through LoRa network.

Application

- Outdoor Adventure: Stay connected in remote areas when cell service is down , share gps locations and send SOS if you get into trouble .

- Locate and track children, elderly and disabled people, prevent them from missing , send SOS in emergency.

- Group management: GF8945 allows you to keep track of all members of your group within the field in real time

- Asset tracking : GF8945 can be used to track pets , vehicle, fleet , parcels or bags .

Product variants

No.	Model	Description	Remark
1	GF8945-W	433MH , Suitable for China &Europe	
2	GF8945-C	470~510MHz , Suitable for China	
3	GF8945-E	863~870MHz , Suitable for Europe	
4	GF8945-U	902~928MHz , Suitable for America, Australia, Asia, Korea, Japan etc...	

Table 1.1 Product variants

2. Specification

Parameters	Specification
Frequency Band	EU868MHz/US915MHz/AS923MHz/ CN470MHz , optional
Battery Specs	Build in recharge Li-ion battery,1300mAh
Battery Life	8 hours , standby time 40h
Operating Temperature	-20~65℃
Dimensions	100*33*20mm (Weight 80g)
Modulation	LoRa Modulation Patented by Semtech
Transmit Power	+27dBm
Bluetooth	BT 4.0
GPS positioning solution	REALTEK MG1009R,Sensitive down to -148dB
GPS accuracy	5～10 Meters
Communication range	1~5KM in dense environment , 6～15KM LoS
Data upload rate	Customized

3. Features

✓ Communicate Via LoRa , no SIM card required

✓ Build in BLE

✓ Support Off Line Map , SOS , Geo-fencing & Message

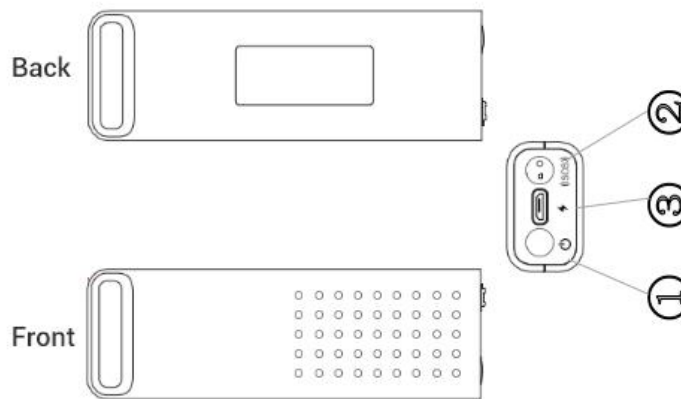✓ Long Battery life

✓ Easy to install on any object

4. Housing

4.1 LED Indicator

Power Indicator
LoRa Indicator
Bluetooth Indicator

Indicator	State	LED	Remark
Power indicator	Power off	All Indicators not lit	
	Charging	Red blinking	
	Low power	Red blinking quickly	
	Full of charge	Red constantly lit	
Bluetooth indicator	Bluetooth disabled	Blue blinking quickly	
	Bluetooth enabled	Blue constantly lit	
LoRa indicator	Data transmitting	Green blinking quickly	
	LoRaWAN™ network connected	Green constantly lit	

Table2.1 Indicator description

4.2 Buttons

No,	Function	Description
1	Power button	Power on: Press the power button 1 seconds, red indicator lit
		Power off: Press and hold power button 3 seconds , all indicators extinguish
2	SOS button	Press and hold SOS button 5 seconds to send SOS message
3	USB port	Charging through Micro-USB cable
		Upgrade through Micro-USB cable

Table2.2 Button description

5. Operation Guide (Point2Point communication)

5.1 Power on

Press the power button 1 second to power on the device, LED indicator lit.

5.2 Pair with Smart phone

1. Install the COMPASS app from the App store to your respective iOS or Android device.

Apple store search" naviecare"

Android download link:

http://www.pgyer.com/8Dd1

Code :lora

2. Follow the instructions within the app to setup your COMPASS. (For more details pls check the

APP instructions.)

3. Operation Guide (LoRaWAN™)

3.1 Activation method

● OTAA(Over-The-Air Activation) (by Default)

● ABP(Activation By Personalisation)

3.2 Payload protocol

Pls take reference to the DOC《GF8945 Payload protocol V1.3.0 》

4. Package

Model	Package	QTY	Dimensions	G.W	Accessories
Compass	Gift box Package	1pcs/box	12*5*3CM	80g	Micro USB cable