RONDRAGON

DRAGON BRIDGE (SZ) TECH CO., LTD

Application :Rental cars, insurance cars, trucks, buses

Wireless Fleet management Solution Invator

GSM/GPRS/GPS Tracker

User Manuel

GLL-150

ROADRAGON
路特龙

1 Introduction

1.1 product description

Intelligent logistics lock is a set of RFID, GPS/, Beidou RF technology and intelligent electronic lock as a whole, with satellite positioning technology, wireless transmission technology, BSL positioning, design a highly integrated intelligent electronic lock. Intelligent lock has only designated locations, designated ID can unlock, illegal unlock, alarm and can be achieved, and can achieve remote lock function

GLL-150 is   not only a GPS tracker to trace container remotely (location, speed, etc), but also an intelligent electronic lock to control container door (close/open) remotely,   it know the container door is open by Who in Where and When.

1.2 Application field

• Custom cargo management
• Express cargo monitoring
• Logistic cargo transportation
• Other asset monitoring & management

2 Product Overview

2.1 Parts List

Item	Photo
Main product	
charger	
RFID card	

2.2 Interface Definition

2.3 Parameters

Hardware features	details
Hardware architecture	Use STM32
Communication module	GPRS、WCDMA
Technical specifications	
Operating Voltage	3.6 V/DC

Average operating current	170
RFID	S70
spare battery	15000mAh
Dimensions	335(with beam)mm*102mm*35mm
Host weight	1 .2KG
Environmental characteristics	
Automotive EDM Interference Immunity	Discharge voltage of 1kV ~ 2kV, discharge frequency of 20 times / s ~ 200 times / s
Fast Transient Burst Impedance	4KV, experimental grade IV
Electrostatic discharge immunity	Contact discharge 6KV, air discharge 8KV, experimental grade Ⅲ
Conducted harassment limits	Meet the requirements of Class B
Radiation disturbance limits	Meet the requirements of Class B
Temperature characteristics	Operating temperature -40 ℃ ~ +75 ℃
humidity	5% to 95% non-condensing
GPS performance	
Sensitivity	－159dBm
Positioning time	Cold start less than 34 seconds; hot start less than 3.5 seconds; warm start less than 33 seconds, re-capture time 1.0 seconds
positioning accuracy	10m
Speed accuracy	0.1m/s
GSM / GPRS performance	
2G frequency	850/ 900/ 1800/ 1900 MHz

Transmit power	Class 4 (2W @ 850/ 900 MHz) Class 1(1W @ 1800/1900MHz)
Operating temperature	-40 °C to +85 °C
Data storage	
Blind sector cache	Cache 2000 (point) location information

2.4 Function

1 ,built-in GPS module or Beidou module,

2, support 2G or 3G (WCDMA) network

3, the use of RFID electronic tag, support RFID card unlock function

4, the use of high strength plastic mold, lock body is not easy to destroy, passive failure will provide an alarm signal, can be anti fall, shock, waterproof, dust-proof.

5, high capacity battery, up to 15000MHA, can be connected to work for up to 7 days

6, built-in strong magnetic, can make the lock firmly adsorbed on the car body

7, with low power alarm function, when the electricity is less than a certain value, the indicator light will start

8, with buzzer prompt function, when the lock is not normally locked, the terminal will automatically issue beep alarm to remind the driver

9, terminal with alarm reminders, when sewing is illegally cut off when the terminal will take the initiative to send alarm

10, GPRS communication mode terminal, after each connection, automatically enter the GPS positioning mode, using TCP/IP and UDP protocol,

11, remote configuration of the relevant logistics lock information.

12, location information, switch status, electronic lock, instant information, etc..

13, monitoring center remote authority unlock, IC card unlock mode, handheld unlock mode, SMS unlock mode, etc.

14, monitoring center according to the pre-set location, range, vehicle overtime, route to regulate the logistics of walking routes, such as violations, real-time reporting, monitoring and so on.
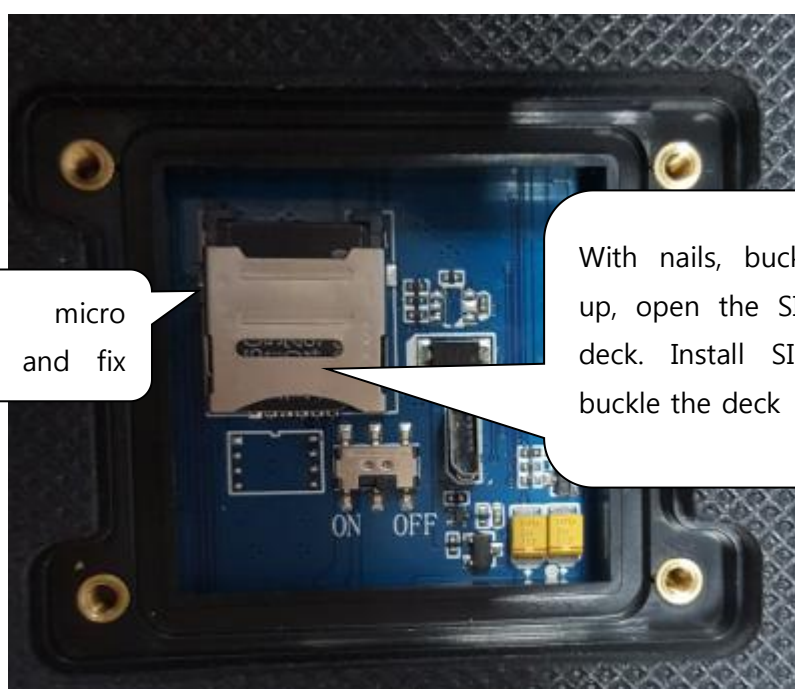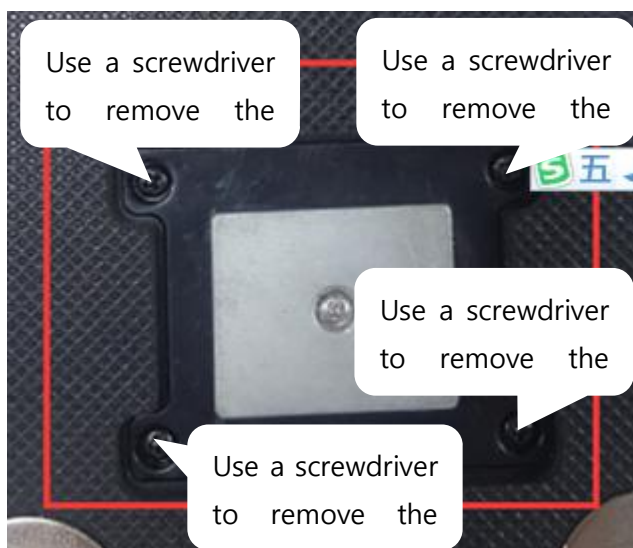
3 Getting Started

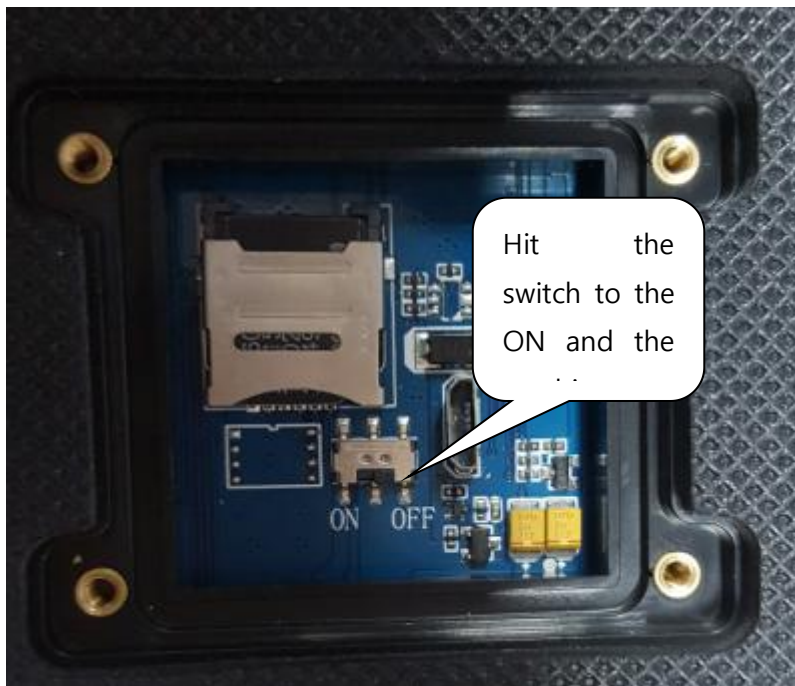## 3.1 Installing a SIM Card

1. Select SIM card:

    You can use mobile or Unicom's 2G SIM card, or Unicom 3G card

    Supports SMS / GPRS function and has sufficient balance.

2. Remove the four screws from the rear cover, open the rear cover of the device, insert the SIM card into the SIM card slot and lock it.

1.   Turn the switch to ON, smart lock boot.
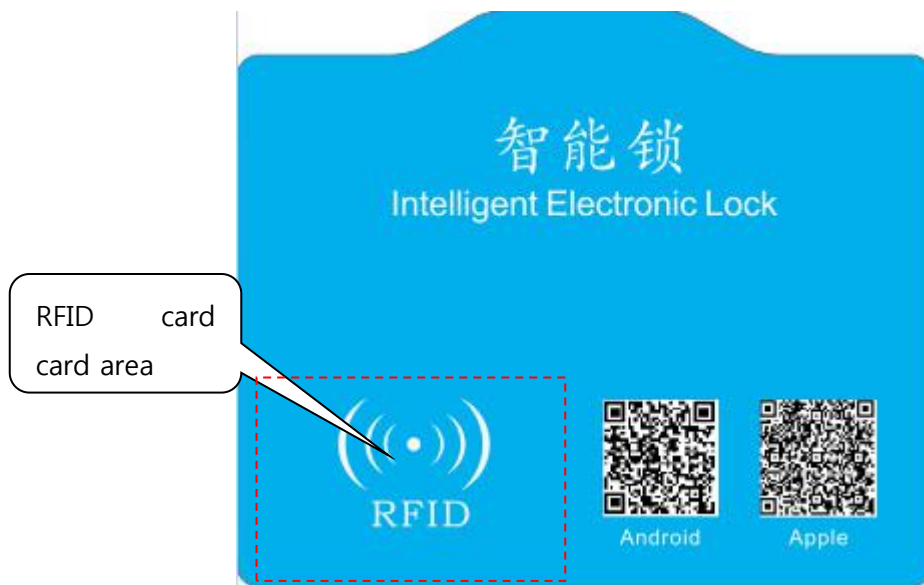
Hit the switch to the ON and the

2. Install the SIM and turn on the battery switch, cover the bottom cover, on the good screw

3. unlock

Put the RFID card on the shell RFID tag position, this time the lock electric will turn, when the lock is successful, the buzzer will ring a reminder.

RFID card card area

After the card, the buzzer sounded the

4. lock off

Insert the lock line into the keyhole, when the lock detects the lock line is installed normally, the lock will automatically lock, when the lock after the buzzer will ring a reminder. When the motor lock in the lock when the change, the buzzer will prompt the user long, the lock failed, please re-lock.

3.2 Tracking Platform

3.2.1 Login location service platform
Users can login to the global positioning service platform provided by the dealer, to check the location and status of the vehicle, and perform corresponding operations. Please consult your dealer for the service platform website.

Platform login on computer:
For individual users, please login with the device ID number. The ID number is on the device body and also on the package box. When logging in to the platform, please select IEIM/License number to log in. The default password is: 123456

Enterprise users and fleet users please select the username to log in. User name and password are set by the dealer, please contact your dealer for distribution!

Android APP download, please scan the QR code on the computer, and if Apple mobile phone, please search the APP name in the App store.

3.3 Precautions

Host LED status description：

1.Green LED --- Indicates GPS signal status

State	Definition
Flash (flash once every 1 second)	Searching for GPS signals.
Slow flash (every 5 seconds flash)	Has been targeted

2.Red LED --- indicates GSM status

State	State
Flash (flash once every 1 second)	Flash (flash once every 1 second)
Slow flash (every 3 seconds flash)	Slow flash (every 3 seconds flash)
Frenzy (0.2 seconds flash 2S)	Frenzy (0.2 seconds flash 2S)

3.Blue LED --- indicates the charge status

State	Definition
not bright	No charge or full charge
Always bright	The main power has been connected

4.Orange LED --- undervoltage indication status

State	Definition
not bright	Power is normal but no power
Always bright	The machine is currently in an undervoltage condition

3.4 Scenario

4 Set the machine parameters:

After you have read the above description of the product, the product has bee n installed and the SIM card is installed. The following specific operation to start using.

Note: So the SMS command should be entered in English mode，the comman d error or format error will not reply.

4.1 Device IP address and Port

Send the message to the device number on the instruction format：

AS1234*F10#1,113.106.93.50,8011,1#

Reply to terminal parameters

IP:113.106.93.50,8011,1,cmnet,gprs,gprs,ID:31684086,M:6,GPS:A,9,CSQ:19,CG R:5,ACC:1,BAT:65%,VER:AT10-V1.0

Such as：

IP address:113.106.93.50 port:8011，TCP

Order"AS1234*F10#1,113.106.93.50,8011,1#"

The instruction is * AS *, "1234" is the password, the initial default is 1234, "* F10 # 1" means that this command is to set the machine's IP instruction, 113.106.93.50 that the machine is connected to the server, 7001 for the port, 0 means the machine uses UDP to connect with the platform, if you want to use TCP to 1.

4.2 Query terminal status

　　　Send SMS to device number, instruction format

　　AS1234STATE#

　　Reply terminal parameter

　　IP:113.106.93.50,8011,1,cmnet,gprs,gprs,ID:31684086,M:6,GPS:A,9,CSQ:19,CGR:5,ACC:1,BAT:65%,VER:AT10-V1.0

　　IP: 113.106.93.50 Represents the server address reported by the current machine，

　　Port: 7001 Represents the port of the current machine，0 means UDP Report，If it is 1 means TCP report

　　Cmnet,gprs,gprs：means current device APN

　　ID：31684086 means device ID number

　　GPS:A,9 means the positioning state of the current machine, V means　no positioning，A means,9 mean 9 level accuracy

　　CSQ:19,Mobile information for the current machine

　　CGR：5 indicates the status of the card，

　　ACC：1 indicates the status of the lock, the 1 is the unlock, and the 0 is the　lock

　　BAT：65% current lock capacity

　　VER: AT10-V1.0 Represents the version that is currently burned by the machine

　　M:6 That represents the current state of the machine, 6 online, 0 said 1 initialization, query CSQ, 2 registered network, 3 query the status of the CGREG, said the 4 registered APN, 5 said the connection to the server, 7 is disconnected　from the network, said the 8 call, said 9 upgrade

4.3 SMS unlock

Send SMS commands "**AS1234*F10#8,888888, #**" to the number of terminal equipm ent, the contents of the "Open lock OK replied," to this content said off terminal u nlock success

The password can be unlocked remotely. For security, please consult the supplier to unlock the password.

1. Set the unlock reporting frequency

Send SMS instructions"**AS1234*F10#G,300,600,#**"Number to device，The terminal repli es to

"accOn:300 accOff:600 rd:0 sp:0,0s stp:0 dr:0,0 idl:0 mv:0 time:+8 cq:0,0 geo:0 step:377 ack: 0 msg:2568,56 sleep:0,0

"，The terminal has returned this content to indicate successful recovery

ACCon:Represents the lock off reporting interval

ACCoff:Represents the lock on reporting interval

Sleep Represents sleep time

4.4 Restore factory

Send SMS instructions"**ASAX*%UPAS**"Number to device，The terminal replies to "password:1234,OK"，The terminal has returned this content to indicate successful recovery

4.5 Restart terminal

Send SMS instructions"**AS1234RSGS#**"To the number of the device, the terminal r eplies to"GSM/Restart;OK"，The terminal has returned this content to indicate a su ccessful restart

Attention：

➢ All the SMS edit in English mode, Chinese mode input will lead directly to delete, do not reply sms.

➢ All the messages are beginning to AS, to the end of #, format error will c ause the application to not recognize.

➢ The 1234 machine factory default password, if the password is wrong, will cause the application to not reply SMS