## 1. Main Functions

- Automatically lock the wheels
- 9-90V voltage range
- External siren supported
- Intelligent anti-theft
- Plug & play
- Key-less power switch on
- Multiple alarms
- E-bike battery voltage detection

2. Specifications

GSM frequency	850/900/1800/1900 MHZ
Antenna	Built-in quad band GSM antenna, GPS ceramic antenna
LED indicator	Blue: GPS, Green: GSM, Power: Red
Battery	270mAh/3.7V Li-Polymer battery
Working voltage/current	9-90VDC/8mA (36VDC)
Standby current	≤5mA (by battery)
Operating temperature	-20℃～ 70℃
Waterproof grade	IPX5
Device weight	43g
Device dimension	77.0(L)*29.0(W)*13.0(H)mm

3. Your Device

- GSM indicator
- GPS indicator
- Power/Status indicator
- Screws
- Wires
- SIM card slot
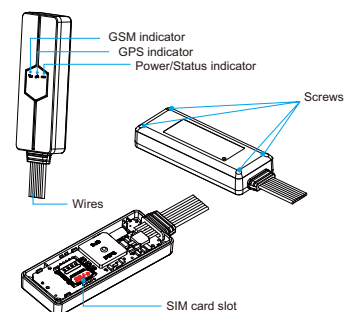
4. LED Indicators

Green LED (GSM indicator)

Status	Definition
Quick flashing	GSM initializing
Slow flashing	Normal network
Off	No GSM signal or no SIM card
Solid green	Calling/Online

Red LED （Power indicator）

Status	Definition
Quick flashing	Low battery
Slow flashing	Fully charged
Solid Red	Charging
Off	No battery/Malfunction

Blue LED (GPS indicator)

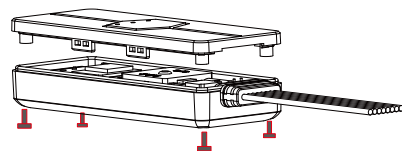| Status	Definition
Quick flashing	Searching GPS signal
Slow flashing	GPS positioned successfully
Off	Sleep/ GPS stops working

5. SIM card

Notice：
SIM should be inserted correctly.
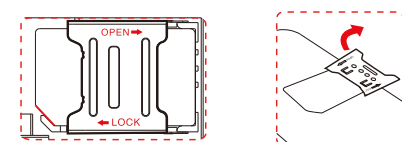SIM card should have GPRS service.

SIM card installation
1.Please turn off the device before insert or remove the SIM card.
2.Insert the SIM card as the following picture:

6. Wire definition

No.	Cable Color of Device	Definition	Cable Color of E-bike controller
1	Red	Positive pole of power line	Red
2	Black	Negative pole of power line	Black
3	Orange	Ignition signal detection wire	Orange/Yellow
4	Green	Wheel spin detection wire	Green/Brown/Blue
5	Blue	Motor lock wire	Brown/Blue
6	Grey	Positive pole of alarming horn	
7	Black	Negative pole of alarming horn	

1. First unscrew and remove the back cover.

2. Insert the SIM card as shown below
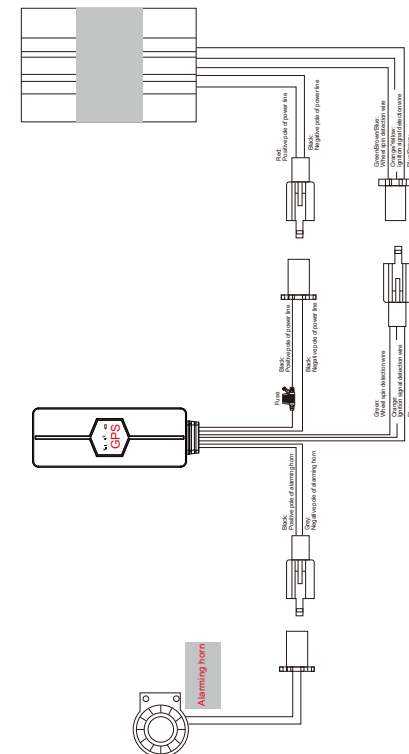
7. Tips for how to find the right wire

- **Signal detection line of lock**
First adjust the multimeter to the DC voltage, then connect the red probe to the bike power supply and black probe to the ground. When key is in OFF, the voltage should be 0. Turn the key to ON, the voltage displayed is the bike battery voltage, so that the wire connected to the red pen is electrically Door lock detection signal line.

- **Signal detection line of wheel**
Get the rear wheel of the ground, switch the key to ON, adjust the multimeter to a DC voltage of 200V, connect the black probe to the negative pole of the battery and touch the controller circuit by the red probe. Switch the speed control to make the wheel rotate. The faster the wheel speed, the higher voltage of detection line. If the wheel doesn't rotate, the voltage will be zero.

- **Motor lock wire**
Adjust the multimeter to the DC voltage of 200V, connect its black probe to the negative pole of the battery and red probe to the controller circuit. If the voltage is 3~5V, then it is the motor lock line.
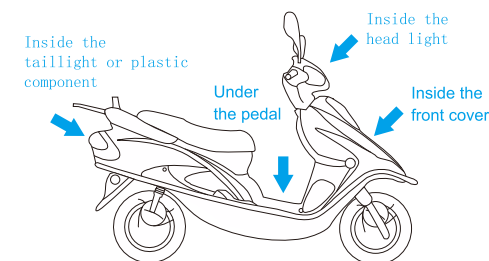
Wiring:
A. Connect device's power port to E-bike's controller anti-theft power port; if no, power port, connect to e-bike battery.
B. Connect the device's 3pin port to E-bike controller anti-theft port
C. Connect the device' gray and black connector to the siren.

Note:
If E-bike controller anti-theft port is connected to other e-bike alarm, please remove and connect it to this device instead.

8. Device installation

- Inside the taillight or plastic component
- Inside the head light
- Under the pedal
- Inside the front cover

9. Operation and functions

9.1 SOS number setting

Set SOS number via APP, GPS tracking platform or SMS (SMS only valid at tracking mode)
A.SMS command to add SOS number:
SOS,A, number 1, number 2, number 3#
E.g. SOS,A,1351234xxxx, 1371234xxxx, 1301234xxxx#
B. SMS command to delete SOS number:
SOS,D,number sequence 1, number sequence 2, number sequence 3#
E.g. SOS,D,1,2,3#.

9.2 Key-less power switch on

Switch on e-bike by APP or SMS.

9.3 Automatically lock the wheels

In arming mode, device locks the e-bike automatically if abnormal moving detected.

9.4 External siren (optional)

To protect the bike from being stolen and to easily find the bike, the external siren will be triggered.

9.5 Displacement alarm

Device will send movement alarm when the e-bike is moved.

9.6 Power cut-off alarm

When the electricity supply of device is cut off, it will activate cut-off alarm.

9.7 Low battery alarm

When the battery of e-bike is low, the device will send low battery alarm.

9.8 Vibration alarm

When vibration detected for several times, the device will send vibration alarm.

10. Platform Operation

Get registered on the designated service platform by authorized dealer, then you can start the tracking service and settings.

10.1 Login service platform

Please login the designated service platform to set and operate the device.

10.2 Download APP

Please download and install the APP in designated website, APP store or Google Play store.

iOS   Android

10.3 Trouble shooting

If you are having trouble with your device, try these troubleshooting procedures before contacting a service professional.

|		
Poor signal	The signal waves unable to transmit when use the GPS tracker in the places that have poor signal reception, such as: tall building around or basement.	Using the GPS tracker in the places that have good signal condition.
	Device covered by metal	Remove device and let it face the sky
Unable to boot	Low battery	Charge the device battery
	Fuse burned	Contact local dealer
Unable to connect to the network	Poor signal	Using the GPS tracker in the places that have good signal condition.
Unable to charge	Contact failure	Check whether the wires are connected correctly
Fail to locate	SIM has no access to GPRS	Contact network supplier to get GPRS service
	Always reply "Address inquiry failed"	Contact supplier

Command list

VERSON#	Check firmware version	
PARAM#	Check parameters	
STATUS#	Check status	
WHERE#	Latitude and longitude	
SERVER	Set server parameters	SERVER, 1, domain name, port, 0# SERVER,0,IP,port,0# The third parameter: 0 TCP (default), 1 UDP SERVER# Query current number
SOS	SOS setting	SOS,A, number 1, number 2, number 3# add SOS number add SOS No SOS,D, number sequence1, number sequence 2, number sequence 3# Delete subjected sequence of SOS number SOS,D,phone number# delete the SOS number SOS# query SOS number
CENTER	Center number	CENTER,A,center number# add center NO CENTER,D# Delete Center NO CENTER# Center number Query
GPSDUP	Positioning data upload	GPSDUP,A# A=ON/OFF； ON：upload positioning data in regular time OFF: not upload positioning data in regular time. Default:off GPSUP# Query parameter
FIND	Find car	FIND,T# T: time, range: 1~60, unit: second, default=10. Find#

TIMER	GPS data upload time interval	TIMER,T1,T2# T1=0/5~18000 seconds：ACC ON upload interval；default value：20 T2=0/5~18000 seconds：ACC OFF upload interval；default value：20 TIMER# query current T1,T2 parameter
SENALM	Vibration alarm setting	SENALM,ON,M,T# ON=Turn on alarm M=0~3，alarm upload method．M=0 GPRS．1 SMS+GPRS．2 GPRS+SMS+CALL；M=3 GPRS+CALL；default: ON； T=alarm time，range：3~600 seconds, default=60 Domestic standard version：default M=0； International standard version：default M=1； SENALM,OFF# Turn off vibration alarm SENALM# Query current parameter
POWERALM	Power off alarm	POWERALM,A,M# A=ON/OFF；default：ON M=0~3，0 GPRS．1 SMS+GPRS；2 GPRS+SMS+CALL．M=3 GPRS+CALL；default: 0 POWERALM,OFF# Turn off alarm POWERALM # Query current parameter
BATALM	Lower battery alarm	BATALM,A,M# A=ON/OFF；default value：ON M=0~1，0 GPRS．1 SMS+GPRS；Domestic standard version：default M=0； International standard version：default M=1； BATALM,OFF# Turn off battery low alarm BATALM# Query current parameter

MOVING	Moving alarm	MOVING,A,R,M# A=ON/OFF；default value：OFF R=100~1000；displacement radius，unit: meter，default value：300； M=0~3，0 GPRS．1 SMS+GPRS．2 GPRS+SMS+CALL；M=3 GPRS+CALL； Domestic standard version：default M=0； International standard version：default M=1； MOVING,OFF# Turn off alarm MOVING# Query current status, radius, alarm method, displacement origin point
KEYLOCK	Arming and disarming	KEYLOCK,ON/OFF# default：ON ON：turn on the alarm OFF：turn off the alarm
StarACC	ACC ON/OFF	StarACC,ON# Remote ignition StarACC,OFF# ACC off
Ling	Horn	Ling,A,B,C,D ,T1,T2# A=0/1 Arming/Disarming 0: no horn sound 1: with the horn sound, the default: 1 B=0/1 Car searching 0: Car searching off 1: Car searching on, Default: 1 C=0/1 vibration alarm 0: vibration alarm has no horn sound 1: vibration alarm with horn sound, Default: 0 D=0/1 Car theft alarm 0: alarm has no horn sound 1: alarm with horn sound, Default: 1 T1: ring time, Unit: 100mS, Range 1-30, Default = 2 T2: ring interval, Unit: 100mS, Range 1-30, Default = 2 Ling# Query parameter

Intelligent E-Bike GPS Alarm EG02 User Manual

(Version 1.1)
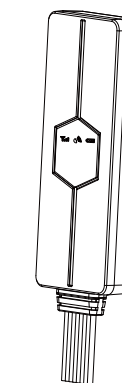
This device is only for use with 36V, 48V or 72V vehicles.

⚠ One side of the device is marked "THIS SIDE TOWARDS SKY", place the unit upside down will result in connection issues.
Avoid placing the device somewhere that metal will be covering it up.