SPK ELECTRONICS CO., LTD.

Waterproof Portable GPS tracker

MODEL: SPK-TRACKER-P002

<u>Preface</u>

Thank you for purchasing the tracker. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.
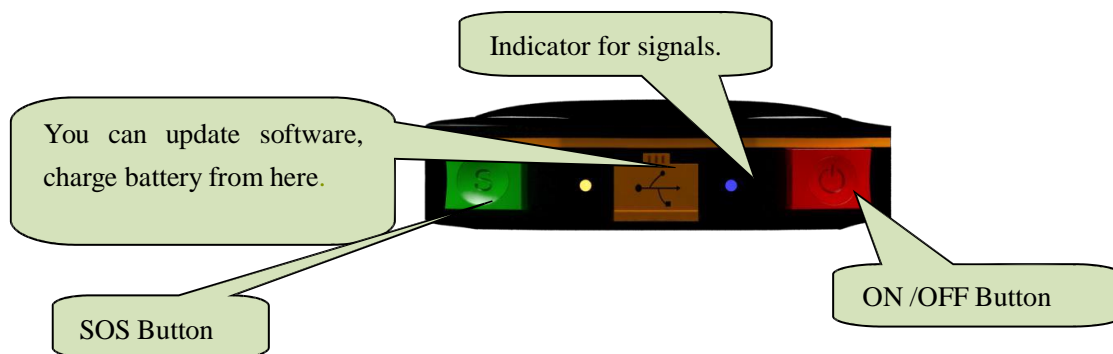
1. Summary

Working Based on existing GSM/GPRS network and GPS satellites, this product can locate and monitor any remote targets by SMS or internet. The most advanced technology of GPS and AGPS dual positioning. The waterproof level achieve IPX - 6.

2. Applications

- Vehicle rental / Fleet management etc
- Outdoor sports
- Protect child / the elder/ the disabled / pet etc
- Provide peace-of-mind for businessmen
- Personl Management
- Criminals Tracking

3.Hardware Description

3.1 Side face

Indicator for signals.

You can update software, charge battery from here.

SOS Button

ON /OFF Button

3.2 Front face

4.Specs.

Content	Specs.
Dim.	50mm x 50mm x 15mm

Weight	55g
Network	GSM/GPRS
Band	850/900/1800/1900Mhz
GPS chip	UBLOX
GPS sensitivity	-159dBm
GPS accuracy	5m
Time To First Fix	Cold status 35-80s Warm status 35s Hot status 1s
Wall charger	110－220V input 5V output
Battery	Chargeable 3.7V 1000mAh Li-ion battery
Standby	240hours
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +55°C
Humidity	5%--95% non-condensing

Functions:

1. GPS and Location Based Service

Location Based service also named A-GPS, when tracker in underground or tunnel ,can get location by AGPS.

2. Real time tracking

Real time tracking it by cell phone and platform . Also can support get location every 5 seconds, and the GPS accuracy is 5m .

3. Check the history of route on platform

Can check and replay within one year history of route of device ,by web monitor center

4.Monitoring and communication

Can hear the voice around the tracker by cell phone . Also support communication with the tracker by cell phone (OEM)

5.SOS Alarm

SOS button ,when user have emergency , press the SOS button ,the tracker will send "help me " SMS to all authorized phone number and monitoring web platform.

6. Power Saving Mode

The device go into standby mode when there isn't vibration for 3 minutes , it will go into working mode when it feel vibration

7.Google map on mobile

Check the location with Google map on mobile.

8. Geo-fence and movement alert

Set up a geo-fence for the unit to restrict its movements within a district ,unit will send a message to the authorized numberwhen it breaches the district..

9.Low Battery Alarm

5.Usage

- Please charge 12hours at first use.
- Insert SIM card in right way. Please put the unit outside and make sure the trademark side facing up.
- Confirm your SIM card have calling, send SMS, GPRS function.

- Confirm your SIM card have enough balance (money).
- Confirm your SIM card can show caller ID and don not use call forwarding function.
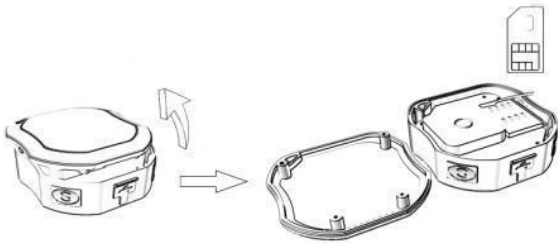
5.1 SIM card installation

Make sure that there is no call transfer and call display is on, and PIN code off. The SMS message must in Text format, can't be identified for PDU format.

5.1.1 Open the rear cover, remove the screws by screwdriver.

5.1.2 Forward push and open the metal piece, put the SIM card into the card slot, and press the metal piece to its original position, push it backward.

5.2 Battery and Charger

Do charge the battery to capacity in 8 -12 hours for first time. This unit adopts built-in Li-ion battery, and full battery can standby 240 hours. After first use, the battery usually should be charged fully in 3-5 hours.

Cautions:

a: For it's Li-ion battery, which contains harmful chemicals and may burst, please don't bump, puncture it violently and keep it off fire.

b: Please charge the battery in time to keep it working normally.

5.3 Startup

- Put the SIM card and battery in place.
- Turn on the unit outdoors by Pushing the button to"On"the indicator is on.
- Set admin number,APN , IP and open GPRS

    Eg: Step1.admin123456+space+your phone number

    Step2.apn123456+ space+local apn content

    Step3 .adminip123456+space+101.1.16.228+space+7700

    Step4. gprs123456

- In 10 or 40 seconds, the unit will begin to work and acquire the GSM signals as well as the GPS signals. The indicator will keep flashing every 3 seconds when the unit has received the signals.
- When this unit receives GPS signals normally, you can use it and do any setting as the instructions of this manual.

green LED for GPRS working status

Status of indicator	Meaning
Slow flash (flash 1s after every 2s)	GSM / GPRS conversation start
Continuously in bright status	No GPRS signal
Green Led off	Device fault or dormant

Blue LED for GPS working status

Status of indicator	Meaning

Slow flash (flash 1s after every 2s)	GPS location successful
Continuously in bright status	Searching GPS signal
Blue led off	Device fault or dormant

Red LED for power charging status

Status of indicator	Meaning
Red led on all the time	Charging
red led off	Full battery or charged full

5.4 Commands list(pls note 123456 is the default password)

Feature name	Active command	Reply	Cancel command	reply
Begin(blank before set)	Begin123456	Begin ok		
Admin number	Admin123456+ space+number	Admin ok	Noadmin123456+space+number	Noadmin ok
Sos number	Sos123456+space+number	Sos number ok	Nosos123456+ space+number	Nosos number ok
Sossms	Sossms123456	Sossms ok	Nosossms123456	Nosossms ok
Soscall	Soscall123456	Soscall123456 ok	Nososcall123456	Nososcall ok
Password	Password123456+space+new	Password ok		
Sever ip&port	Adminip123456+space+ip+space+port	Adminip ok		
APN	Apn123456+space+local apn content	Apn ok		
LBS	Addjz=1	Open LBS	Addjz=0	Close LBS
GPRS	Gprs123456	Gprs ok	Nogprs123456	Nogprs ok
Time Zone	Timezone123456+space+8	Timezone ok	Timezone123456+space+-8	Timezone ok
Language	Lag1	Switched to English		
Restore factory setting	format	No reply		
Upload frequency(10-180 s)	Upload123456+time	Upload ok		
Sleep working mode	Sleep123456+space+time	Sleep time ok	Wake up by sms,call,press button	
Shock working mode	Sleep123456+space+shock	Sleep shock ok	Wake up by shock,sms,call,	

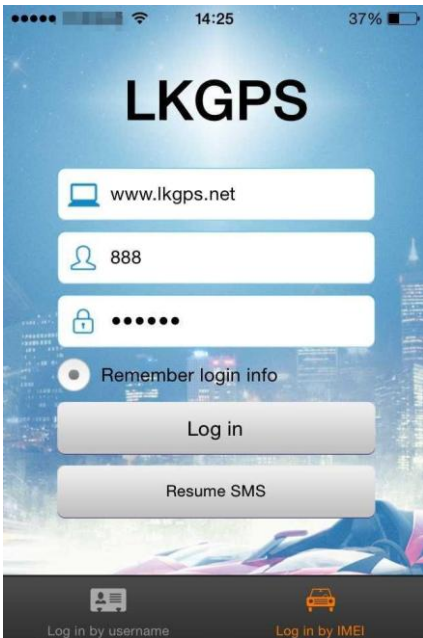|			press button	
No sleep working mode	Nosleep123456	Nosleep ok		
Get location	Where or G123456#	Google map link		
One way communication	monitor	Monitor123456	In this mode,you could hear the voice around units after call it	
Shock alarm	Shock123456	Shock ok	Noshock123456	Noshock ok
Shock call alarm	vibcall123456	Shock call alarm ok		
Shock sms alarm	vibsms123456	Shock sms alarm ok		
Move alarm(distance:100-5000m)	Move123456+space+distance	Move ok	Nomove123456	Nomove ok
Overspeed alarm(50-120km/h)	Speed123456+space+max speed	Speed ok	Nospeed123456	Nospeed ok
Set a Geo-fence (stockade)	stockade+123456+space+long,lat;long,lat	stockade ok	nostockade123456	Nostockade ok
Check setting of device	Param1	Software version,date,imei,ip&port,apn,web platform	Param2	Admin number,sos number,move distance,speed,etc
Status of device	status	Bat:4,gprs:1.gsm:3,gsm:1,acc:0,oil:0,power:1,s:0		

5.5 Web platform and sever ip&port

Website	Sever IP	Port
www.lkgps.net	101.1.16.228	7700

6. App download

6.1 android version: scan below QR code

6.2 ios version: search "LKGPS" in app store

7. Faults & The solutions

Faults	Solution
Startup Fail	Check the battery and see if it is fully charged or correctly installed.
Hang up Fail	In existence of an authorized number, an unauthorized number dials up the unit. Please initialize the unit and re-set up the authorized numbers.
Monitoring failure	Please check the authorization number is set to the correct time
No GSM Signal	Please make sure SIM Card is GSM Net and installed correctly; also call displa should be on; but no call transfer and PIN code off.