

PERSONAL GPS TRACKING SOLUTION

TL-206 user manual

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1. Introduction

Working Based on existing GSM /GPRS network and GPS satellites, this tracker is a small and powerful tracking device that is developed for personal, vehicle and pet etc. Not only transmit the longitude and latitude coordinate to your cell phone by SMS, but also transmitting the longitude and latitude coordinate to the designated server by GPRS and then displaying the location by tracking software.

2. What's new?

- 2.1 Smaller size.
- 2.2 Big SOS button for emergency;
- 2.3 Different color LED to show GPS, GSM, Power, Location request;
- 2.4 Longer battery life (standby time is 200hours)

3. Main Features

Locating and tracking via SMS or GPRS

Support voice call

Listen in function

SOS alert

Geo-fence alarm

Speeding alert

Low battery alert

Base station locating

Position transmit

Voice calls adjustable

4. Applications

Protect the child/elderly/disabled/pet etc.

Personnel management

Track the vehicle/ equipment etc.

Provide peace-of-mind for businessmen

Tracking system for Express/Carriers/Logistics

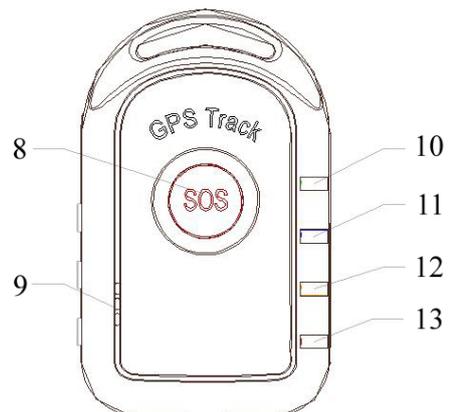
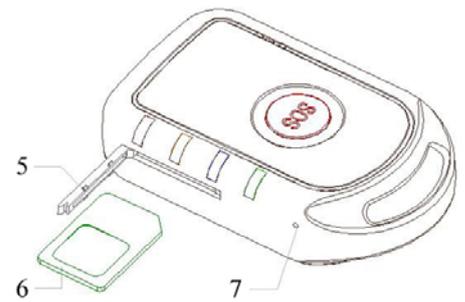
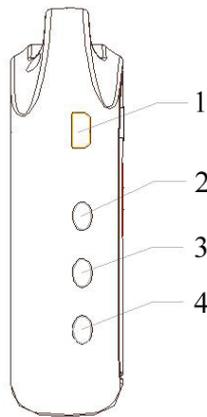
5. Specification

Content	Specs.
Dimension	65mm x 40mm x 18mm
Weight	50g
Network	GSM/GPRS
Band	900/1800Mhz 850/900/1800/1900Mhz
GPS chip	SIRF3 chip
GPS sensitivity	-159dBm
GPS accuracy	5m
Cold start	42 sec.
Warm starts	38 sec.
Hot start	1 sec.
Battery	Chargeable 3.7V 1500mA/h battery
Operation temperature	-20°C to +55°C
Humidity	5%--95% non-condensing

6. Start up

Charge the battery for 8 -12 hours at first three times. After the first three times, the battery can be charged fully in 3-5hours. In order to protect the device please use the battery and charger provided by the manufacturer.

1. USB;
2. Switch button;
3. Call2 button;
4. Call1 button;
5. SIM card cover;
6. SIM card;
7. Microphone;
8. SOS button
9. Speaker;
10. Power led (Red);
11. GPS signal led (blue);
12. Transmit led (green);
13. GSM signal led (Orange)



Switch on the unit outdoors. Four lights will be bright at the same

during the tracker starting.



Insert the sim card with the key



Four indicated lights as follow:

Red is power light

Green is indicated for location request

Blue is GPS signal light

Yellow is GSM signal & GPRS ON/OFF

In 10 to 30seconds, the unit will begin working and indicators will blink as the following:

Three LED	Bright at the same time	The device is starting
Orange LED(GSM)	Blink like 	Work in GSM mode
Orange LED(GSM)	Blink like 	Connecting GPRS
Orange LED(GSM)	Blink like 	Had connected to GPRS
Red LED (power)	Blink like 	Power on
Blue LED (GPS)	Blink like 	Had got GPS signal
Green LED (Once position transmit)	Blink like 	Send one position

7. Set the authorized number.

Send SMS"123456A1,phone number" to set the first SOS number.

Send SMS"123456A2,phone number" to set the second SOS number.

Send SMS"123456A3,phone number" to set the third SOS number.

Send SMS"123456A4,phone number" to set the CALL1 number.

Send SMS"123456A5,phone number" to set the CALL2 number.

Note: 123456 is the default password. 'A' and the comma must be English in capital and make sure there is no space in the command. Phone number must include the country code

E.g. send SMS "123456A1,+8613812345678" to set +8613812345678 as the first SOS number.

+86 is the country code of China. Please do not use 00 instead of +.

It doesn't means that all of the five authorized numbers should be set, but at least set one authorized number. The device will only accept the all of the SMS commands from the authorized numbers only.

8. Delete authorized number.

Send SMS"123456A1,D" to delete the first SOS number.

Send SMS"123456A2,D" to delete the second SOS number.

Send SMS"123456A3,D" to delete the third SOS number.

Send SMS"123456A4,D" to delete the CALL1 number.

Send SMS"123456A5,D" to delete the CALL2 number.

E.g. send "123456A1,D" to delete the first SOS number.

9. Modify the password

Send SMS "123456H*****" to change the password.

Note: ***** is the New password. H must be English in capital, send it to tracker to modify the password. (Default password: 123456)

E.g. send "123456H456789" means change the password 123456 to 456789

The password won't be erased by changing SIM card.

Be sure keep the password in mind, otherwise you have to update the software to restore the original setting in case of losing the password.

The password must be 6 numbers, If not the tracker cannot recognize the password.

Note: Default mode is switch on/off button

10. Get position

10.1 Send SMS "123456F" to the device and it will reply its position by SMS. Only the authorized number can get the reply.

Note: F must be English in capital.

E.g. send "123456F" to the unit. It will reply its position.

10.2 You can use the authorized numbers to call the tracker SIM number for at least 2 seconds, and then hang up the call before the tracker hangs up or receives it. The tracker will reply a Google position URL SMS. You can visit this URL

to see the position. The tracker will not reply the SMS If you did not hang up the call before the tracker hangs up or receives it.

11. Continuous tracking function

Send SMS "123456M0/M1,xxxS/M/H" to the unit, the tracker will reply the position message according to the time interval. If the device did not connect to the server, the message will reply to A5 number or it will reply to server.

Note: M must be English In capital.

M0 means turn off, M1 means turn on

xxx means time interval and must be three numbers,030S means 30S.

S means second, M means minute, H means hour

H should be ≤ 90 , S,M should be < 255

E.g. send "123456M1,030S" to the tracker means every 30 seconds send back a position coordinate to the A1 number.

Send "123456M0,030S" to the tracker means stop the continuous tracking.

12. SOS function

It will send "help me! + GPS info" to A1, A2, A3 authorized numbers if the SOS button was pressed for 3 seconds. In the mean time, it will dial the 3 authorized numbers (A1, A2, A3).The first preset number will take priority over the second one and the third one. If the tracker fails to connect to the first number, it will switch to the second one, In case the second number fail to be connected too, the system will connect to the third number, This will go on and on until one of the telephone pick up, then two ways communication starts.

Note: there are two SOS modes

Send SMS "123456U3" to make phone call

Send SMS "123456U2" to ask for listen in

13. Voice calls adjustable

You can turn up/down the voice calls when you answer a phone.

Press Call1 button: turn on; Call2 button: turn down.

14. Dial the preset phone number

14.1 Press CALL1 button for 3 seconds, the tracker will dial the CALL1 number. Press CALL2 button for 3 seconds, the tracker will dial the CALL2 number.

Note:Call1 number is A4, Call2 number is A5.

14.2 Tracker will call the phone number you set immediately after you sending follow commands, no need press any button.

Send SMS "123456V30,phone number" to make phone call.

Send SMS "123456V31,phone number" to ask for listen in.

E.g. Send SMS "123456V30,1234567890"

The tracker will call 1234567890 immediately.

15. Authorized number dials the tracker

Call tracker via A4 or A5, after the tracker getting through, then you can listen in or talk

There are two modes as follow:

Send SMS "123456U0" to set phone call mode.

Send SMS "123456U1" to set listen in mode.

16. Speeding alert

Sent SMS "123456J0/J1,speed" to set the Speeding alert function.

Note: J must be English in capital.

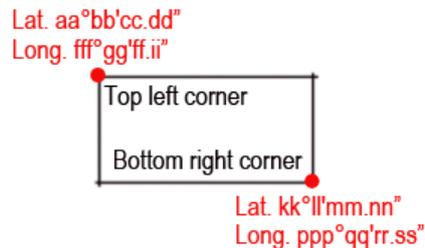
J0 means turn off the over speed alert function; J1 means turn on the speeding alert function. speed should be <250 and must 3 numbers, e.g. 080= 80 km/h.

For example, send "123456J1,080" to tracker. When the object moves exceeds 80 km/h, the unit will send SMS as "Over speed! +GPS info" to the A1,A2,A3 number. Send "123456J0,080" to tracker means turn off the speeding alert function.

17. GEO-FENCE

Send SMS "123456Ixyz,aabbccddefffgghhijklmmnneppp qqrssj" to set up the geo-fence for the device to restrict its movement within a district. The device will send the message to the A1, A2, A3 numbers as "Stockade +geo info" when it breaches the district.

There are 5 GEO-FENCES can be set for the tracker.



Note: It must be English in capital.

x=NO. of the GENFENCE(1-5)

y=1 means turn on, y=0 means turn off

z=0 means go into, z=1 means go out

e=N means north latitude, e=S means south latitude

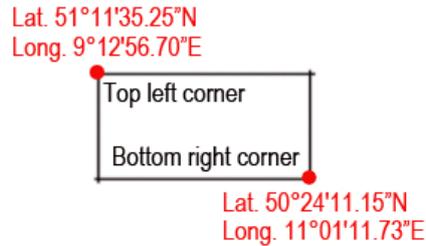
j=E means east longitude, j=W means west longitude

aa,bb,cc,dd,kk,ll,mm,nn,qq,rr,ss must be 2 numbers.03 means 3.

fff,ppp must be 3 numbers.011 means 11.

E.g. The first Lat.51°11'35.25"N, Long.9°12'56.70"E

The second Lat.50°24'11.15"N, Long.:11°01'11.73"E



So the SMS command should be

`"123456I1,1,1,51113525N009125670E50241115N011011173E"`
 123456I1,1,1,+first Latitude Longitude+ second Latitude Longitude

18. Low battery alert

Send SMS `"123456(N 0/N1),xx"` to set the low-battery alert.

Note: N must be English in capital, N0 means turn off the low-battery alert function; N1 means turn on the low-battery alert function. xx should be <45 and must be 2 numbers.

E.g. send `"123456N1,30"` to the tracker means when the battery is lower than 30%, it will send a alert to the authorized number. Send `"123456N0,30"` to the tracker means turn off the low battery alert function.

19. Set the local time

Send SMS `"123456L+time zone"` to set the local time

Note: L must be English in capital, "+" in the time zone means EAST, "-" in the time zone means WEST. Time zone must be 2 numbers. So Beijing's time zone should be like this: +08, Los Angeles' time zone should be: -08

E.g. Send `"123456L+08"` to set the time to Beijing time.

Send `"123456L-08"` to set the time to Los Angeles time

20. GPRS setting

In order to use GPRS function, the user needs to set IP, Port and APN (access point name) by sending SMS commands. Make sure that your SIM card in the tracker supports the GPRS function.

Send SMS `"123456C$$$$,IP:Port"` to set the APN, IP and port.

Note: C must be English in Capital. Please get APN from your local GSM operators and pay attention to the lower case or upper case of those letters.

E.g. send SMS `"123456CCMNET,119.112.101.91:7289"`.CMNET is the APN of China Mobile, please set the APN of your sim card's APN.

Send SMS `"123456O&&&&, @@@@"` to set the username and password for GPRS, skip this step if there isn't username and password

Note:&&&& is the username and @@@@ is the password. O must be English in capital. This setting depends on different providers. If the provider doesn't need username and password for the GPRS, you do not need to send this command.

E.g. send SMS "123456Owap, wap". The username will be wap and the password will be wap.

Send SMS "123456D" to turn on GPRS

Send SMS "123456E" to turn off GPRS

Note: D and E must be English in capital.

21. Displaying location on Google map

Go to <http://maps.google.com> and type in the latitude and longitude like this: 22.7645801N,114.1975566E

Click search button, then you can see the position.

Download Google earth software from <http://earth.google.com/> and install it in to your computer.

Start the Google Earth software and type the latitude and longitude into the software like this: 22.5640801N,113.3375516E. Click search. Then you can see the position.

22. Displaying location on your cell phone

It will reply a URL within the location SMS like:

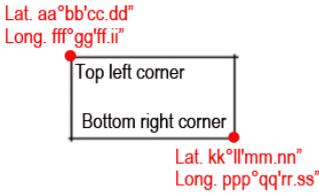
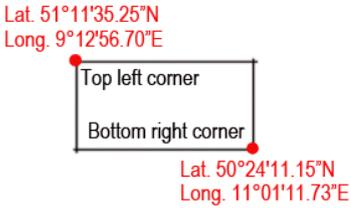
<http://maps.google.com/maps?f=q&hl=en&q=22.549039,114.086004&ie=UTF8&z=16&iwloc=addr&om=1speed:000.0,&imei=012207006112897>

Click the RUL then you can see the location



23. All of the SMS commands list

name	Sentence content	Description
Set authorized numbers	123456A1,phone number 123456A2,phone number 123456A3,phone number 123456A4,phone number 123456A5,phone number	A1,A2,A3 is for setting the 3 SOS numbers. A4,A5 is for the call center number Phone number must include the country code like +8613812345678. +86 is the country code of China. Please do not use '00' instead of '+'
Sample of setting authorized numbers	123456A1,+8613812345678 ('A' and the comma must be English)	Set +8613812345678 as the first SOS number (A1).
Delete authorized numbers	123456A1,D 123456A2,D 123456A3,D 123456A4,D 123456A5,D	A1,A2,A3 is for setting the 3 SOS numbers. A4,A5 is for the call center number
Switch to the listen in mode	123456U1 (Default)	The tracker will pick up the incoming call then the call center can hear the sound around the person.
Switch to the talk mode	123456U0	The tracker will pick up the incoming call then the call center can talk to the driver.
Set SOS mute	123456U2	Press SOS button to ask for listen in
Set SOS sound	123456U3	Press SOS button to make phone call
Get position by SMS	123456F	It will reply the latitude and longitude to the cell phone, then you can go to the Google to search the position
Set continuous tracking	123456Mx,yyyz	x=1 means on, x=0 means off yyy means time interval. If z=S/M it should be <=255.if z=H, it should be<=090. It must be three numbers,030Smeans 30S Z means time unit. z=S means second, z=M means minute, z=H means hour
Sample of Setting continuous tracking	123456M1,030S	The tracker will reply the position according to the time interval you set (30 seconds). If the tracker has connected to server it will send to the server by GPRS or it will be sent to the cell phone by SMS
Set the speeding alarm	123456Jx,yyy	x=1 means on, x=0 means off yyy means the alarm speed, it should be<250 and must three digital, e.g. 080=80km/h.
Sample of setting speeding alarm	123456J1,080	The tracker will send a speeding alarm to server if it is over the 80km/h

Set GEO fence	123456I x,y,z , aabbccddefffgghhijjkkllmmnnppppqq rssj 	x =NO. of the GEO-fence(1-5),5 GEO fence can be set y =1 means on, y =0 means off z =0 means go in, z =1 means go out e =N means the north latitude, e =S means the south latitude j =E means the east longitude, j =W means the west longitude $aa,bb,cc,dd,kk,ll,mm,nn,qq,rr,ss$ must be 2 numbers.03 means 3. fff,ppp must be 3 numbers.011 means 11
Example of setting GEO fence	123456I1,1,1,511135 25N009125670E 50241115N011011173E 	The tracker will send an alarm data if it is in/out the district you set.
Set the time zone	123456L xyy	x =+ means east x =- means west yy means the time zone, must be 2 numbers
Sample of setting the time zone	123456L+08	Set the +08 time zone
Set the low battery alarm	123456N x,yy	x =1 means on, x =0 means off yy means battery lower then $yy\%$ then send the alarm. It must be<45 and 2 digits.
Sample of setting the low battery alarm	123456N1,40	The tracker will send a low battery alarm if the battery is lower then 40%
Modify the password	123456H456789	456789 is the new password, new password must be 6 numbers
Set the APN,IP and port	123456C\$\$\$\$,IP:Port	\$\$\$\$ is the APN, you can get the APN from your local GSM provider.
Sample of setting the APN	123456CCMNET, 119.122.101.91:7289	CMNET is the APN of China mobile.
Set the username and password for APN	123456O&&&&, @@@@	&&&& is the username and @@@@ is the password. If the SIM card doesn't need username and password for the APN, you do not need to set it.

Sample of setting the username and password for APN	123456Ointernet,internet123	The user name is internet and the password is internet123.
Open GPRS	123456D	The tracker will start to connect the server by GPRS. It will send back an SMS to confirm after it has connected the server successfully.
Close GPRS	123456E	The tracker will close the connection with the server.
Set mute to call XXXX	123456V31,phone number	Ask for listen in to the phone number
Set sound to call XXXX	123456V30,phone number	Make phone call to the phone number
Factory reset	RESET!	Device reboot itself without any message reply

24. Cautions

Please comply with the instructions to extend the unit life:

1. Keep the unit dry. Any liquid, i.e. rain, moisture, may destroy or damage the inside circuitry.
2. Don't use & store the unit in dusty places.
3. Don't put the unit in overheated or overcooled places.
4. Handle carefully. Don't vibrate or shake it violently.
5. Clear the unit with a piece of dry cloth. Don't clean in chemicals, detergent.
6. Don't paint the unit, this may cause some foreign materials left in between the parts.
7. Don't disassemble or refit the unit.
8. Please use the battery and charger provided by manufacturer. Using other batteries and chargers will cause unwanted situation.
9. Don't dismount the antenna randomly, or use other antennas. This may interfere the transmission, and increase the radiation as well.