

# **Personal GPS Tracker**

## **TL-402 User Manual**



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# **Welcome**

## **Introduction**

TL-402 is classical GPS personal tracker with SOS button developed by Toplovo. With two-way communication, SOS alarm function, fall down alarm function, auto tracking and listen-in function, it is suitable for children, elder people, lone workers, patients and vehicles. You can implement real-time tracking anywhere via the mobile phone APP or tracking platform. It helps to protect the person who you care about.

## **What is in the Box**

- 1.TL-402 Device
- 2.Magnetic Contact Cable
- 3.Lanyard
- 4.Plug
- 5.Screw Driver & Screws
- 6.User Manual

# Getting to Know TL-402

## Hardware Description



1.SOS Button

2.Microphone

3.Battery Light (Red)

4.Position Report Light (Green)

5.GPS Light (Blue)

6.GSM Light (Orange)

7.USB Charging Contact

8.Speaker

9.Power Button

10.Call 1 Button

11.Call 2 Button

# Indicator Description

LED	Bright frequency	Mode
Red	Keep on brighting	Charging
	Twice/second	Normal working
Green	Twice/5 seconds	2G network connected
	Three times/5 seconds	3G network connected
	Four times/5 seconds	4G network connected
	No flashing	No network / Network disconnected
Blue	Once/5 seconds	Positioning
	No flashing	No positioning
Orange	Once/5 seconds(when gprs on)	Platform disconnected / Weak signal
	Once/5 seconds(when gprs off)	Gsm working
	Twice/5 seconds(when gprs on)	Platform connected / Strong signal
	No flashing	SIM card not be inserted/not be read
	Twice/second	Platform Re-networking
Blue&Orange	Flash quickly & alternately	OTA downloading
All	On/off at the same time alternately	Firmware updating & upgrading

## Notice:

Red light shows charging status & device working status.

Green light shows the network type connected.

Blue light shows GPS status light.

Orange light shows network connected status.

# Specification

Content	Specs
Dimension	67x41x19mm
Weight	54g
Color	Black/White
Network	GSM/GPRS
2G	Europe: 900/1800MHz
3G HSPA Bands	America: B2/B5 Europe: B1/B8 Australia: B1/ B5
4G LTE CAT-1 Bands	Europe: B1/B3/B7/B8/B20 America: B2/4/12(AT&T , T-mobile) B4/13 (Verizon) Australia: B1/B3/B5/B7/B8/B28
GPS Chip	MTK
GPS Sensitivity	Tracking: -165dBm Re-acquisition: -160dBm Acquisition: -148dBm
GPS Accuracy	≤10m
Start Time	Cold start: 32s Warm start: 30s Hot start: 1s
SIM Card Type	Nano SIM
Battery Capacity	1100mAH
Firmware Upgrade Mode	OTA/USB
Maximum Standby Time	7 Days
Operation Temperature	-20°C to +65°C
Humidity	5%--95% non-condensing

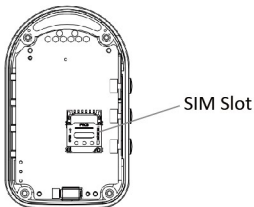
# How to Use Your Device

Trackers should be fully charged for the first three times. Please charge it over 8-12 hours continuously. The device's standby time can be as long as 200 hours after being fully charged. It takes 5-8 hours to charge after the first three times. Please make sure the tracker is charged with the chargers supplied by Toplovo.

## Put the SIM Card

Open the device by screwdriver, put SIM card into the card port. Please tighten the device to make sure the waterproof function.

Notice: To avoid damaging the battery, please make sure the SIM card cover is closed before screwing back the device.



## Switch the Device On and Off

Long press the power button until all 4 lights turn on and the device vibrates, the device is switched on successfully when the red light is on.

Long press the power button until it vibrates and all lights flash quickly then turn off, the device is switched off.

## Set the Authorized Phone Numbers

You can set 8 authorized phone numbers at most.

Put the SIM card and switch on device, then send command **123456A1**, authorized phone number via SMS, the device reply: 1 TEL OK!  
authorized phone number.

Example: **123456A1, 18588955622**, details are as the following picture:



Notice: A1 means the first authorized phone number, A2 means the second one and A3 means the third one until A8.  
All the letters of commands must be capital.

## Make the SOS Emergency Call

Long press SOS button until the device vibrates. SOS alert will be triggered. It will send SOS message to the first authorized phone number and make a 2 way call to A1-A8 authorized phone numbers.

HELP ME!  
DATE:19/05/30  
TIME:14:50:09  
SPEED:0.6  
BAT:61  
CSQ:23  
<http://maps.google.com/maps?f=q&hl=en&q=-33.8479850,151.2187833>



Notice: If A1 misses the calling, the device will call to the next one until someone answers.

## Adjust the Call Volume

Press call1 button to turn up the volume.

Press call2 button to turn down the volume.

## Make a Phone Call by the Device



Long press call1 button to dial the 4th authorized phone number (A4).

Long press call2 button to dial the 5th authorized phone number (A5).

Press the SOS button to hang it up.

## Receive the Phone Call

The default setting is to answer the phone automatically after the device rings 2 times. If you want to change it, send command

**123456Q3,1** via SMS, then you can pick up or hang up the call by pressing the SOS button.

## Set the Listen-in Function

Send command **123456U1** via SMS, the device answers automatically and enters the listening in mode when you make a call to the device.

Notice: The default setting is two-way audio (**123456U0**). Command of U1 and U0 cannot be used at the same time, you can send command **123456U1/123456U0** to switch it.

## Use the Fall Down Alert

Send command **123456KLXXX** to set threshold, XXX is 3 digital number from  $000 \leq xxx < 255$ . 000 means close the drop alarm function.

Suggestion: xxx it would be from 045 to 050.

For example, Send command **123456KL050** via SMS, when fall down alert is triggered, the device will send message to the first authorized phone number and give call to A1-A8.

Notice: If A1 misses the calling, the device will call to the next one until someone answers.

123456KL050

SET Low-g Threshold OK!

Mdown!

DATE:19/05/27

TIME:10:38:48

SPEED:2.6

BAT:98

CSQ:17

<http://maps.google.com/maps?f=q&hl=en&q=22.7613433,114.3611550>

## Get the Single Positioning

Send command **123456F** via SMS. The device will search the GPS single to get the latest location. If it fails, the device will reply invalid information.

123456F

GPS OK!  
DATE:19/05/27  
TIME:10:39:22  
SPEED:1.7  
BAT:98  
CSQ:17  
[http://maps.google.com/maps?  
f=q&hl=en&q=22.7613083,114.36132  
83](http://maps.google.com/maps?f=q&hl=en&q=22.7613083,114.3613283)

## Set the Low Battery Alarm

Send command **123456N1,yy** via SMS.

“yy” means the low battery volume. Such as **123456N1,30**, it means when the battery is below 30%, the device will send message to the first authorized phone number.

## Support GPS & WIFI Dual Positioning Functions

When the GPS signal is weak, the device can switch to the WIFI assist positioning mode, searching 3 open WIFI (with visible WIFI name) with the fullest signal nearest the device, sending 3 MAC addresses to the platform and APP to support positioning and make it more accurate, it's especially very useful when using the tracking device indoor.

# How to Use the Tracking Platform

## Connect the Tracking Platform

1. Set APN, IP and port

Please confirm the SIM Card GPRS function is activated.

IP connection: Send command **123456CAPN,IP:Port** via SMS.( APN is from your SIM card in the device and IP port is 112.124.14.58:9289)

Example: **123456CCMNET, 112.124.14.58:9289** (CMNET is APN.)

2. Send command **123456D** to turn on GPRS.

## About the Account

- 1.Send command **123456B** to get the IMEI number, then share the IMEI number with your contact.

- 2.Ask for an account and password from your contact.

After the above two steps done, you can login the tracking platform or APP start to use it.

## Login the GPS Tracking Platform

PC platform website: [www.glotracking.com/m/](http://www.glotracking.com/m/)

# How to Download APP

iOS version: Search **GloTrack** in App Store.

Android version: Search **GloTrack** in Google Play

Notice: Under Development.

Notice: If tracker is connected the platform, all of the messages (such as the SOS emergency alert, fall down alert and the single positioning) will be sent to the platform and authorized phone numbers as well.

## More Functions of the Device

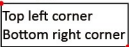
Command list is attached as below and if you need help please contact the sales.

## Reset the Device

Send command **RESET!** via SMS, the device will reset to the factory settings.

Notice: The device will restart after sending the message without further response.

## Command List

Function	Command	Example
Set Authorized Phone Number	123456Ax,phone number, name	123456A1,18588955622,wang or123456A1,18588955622 x stands for the No. of the authorized phone number(1-8).
Delete Authorized Phone Number	123456Ax,D	123456A1,D x means the No. of the authorized phone number(1-8)
Ask for IMEI and Hardware and Software Version	123456B	
Set APN, IP and Port	123456CAPN,IP:Port	123456C3gnet,119.122.101.91: 9289 The user can obtain APN from local Operator, and if he or she wants to delete all, just needs to set 123456C,
Turn on GPRS	123456D	
Turn off GPRS	123456E	
Single Positioning	123456F	
Search User Setting	123456G	
Modify SMS Password	123456Hxxxxxx	123456H999999
Set GEO Fence Alarm	123456Ix,y,z, aabbccddefffg ghhijjkkllmmnnppppqqrrssj Lat.aa"bb"cc.dd" Long.fff"gg"ff.ii"  Top left corner Bottom right corner Lat.kk"ll"mm.nn" Long.ppp"qq"rr.ss"	123456I1,1,1,51113525N0091256 70E50241115N011011173E x stands for the GEO fence number(1-5) y=0 means turning off; y=1 means turning on. z=0 means walking in; z=1 means walking out. e=N stands for North; e=S stands for South. j=E stands for East; j=W stands for West.

Set Over Speed Alarm	123456Jx,yyy	123456J1,080 x=0 means turning off; x=1 means turning on. yyy stands for the low speed threshold(000-255)
Turn off Device	123456K	
Set Fall Down Alarm	123456KLxxx	123456KL045 xxx stands for the fall-down threshold(sensitivity) 000≤XXX<255, 000 means turning off the fall-down alarm function.
Set Collision Alarm Threshold	123456KHxxx	123456KH045 xxx stands for the collision threshold(sensitivity) 000≤XXX<255, 000 means turning off the collision alarm function.
Set Local Time Zone	123456Lxyy:zz	123456L+08:00
Set Continuous Tracking Time	123456Mx,yyyz	123456M1,005M x=0 means turning on; XX=1 means turning off. yyy means the set time(001-255) z=S means the second; z=M means the minute; z=H means the hour;
Set GPRS HeartBeat Time	123456M2,xxx	123456M2,180 xxx stands for the second(060-600)
Set Low Battery Alarm	123456Nx,yy	123456N1,30 x=0 means turning off; x=1 means turning on. yy means low battery threshold (less than 45, more than the lowest threshold)
Set Fully-charged Alarm	123456N2,x	123456N2,1 x=0 means turning on; x=1 means turning off.
Set GPRS User Name and Password	123456O&&&,@@@	123456Ointernet,internet123 &&& stands for the user name @@@ stands for the password

Set Movement Alarm	123456Px,yyy	123456P1,050 x=0 means turning off, x=1 means turning on yyy means deviation from the current coordinate distance (less than 250, unit:10m) When the tracker's movement distance is over the set range, the device will send out the alarming message.
Set the Selection of Making SOS/BMA Call or Not	123456Q1,x	x=0 means no phone call; x=1 means making phone call
Set whether the call needs to be verified as an authorization number	123456Q2,x	123456Q2,1 x=0 means it needs the authorization; x=1 means any call can be received without the authorization
Set two-way call mode, the call can take the initiative to answer or hang up	123456Q3,x	123456Q3,1 x=0 means receiving the phone call automatically by device; x=1 means receiving or hanging up the phone call by user.
Set Turn on/off the Voicemail	123456Q4,x	123456Q4,1 x=1 means turning on the voicemail identification. x=0 means turning off the voicemail identification.
Set the Selection of Matching the Password or not in SMS	123456Q5,x	123456Q5,1 x=1 means it needs to matching the SMS password x=0 means it doesn't need to matching the SMS password
Set GPRS Domain Name and Port	123456Rhhttp://Domain; Port	123456Rhhttp://liaohong.vicp.net; 6000 Domain means Domain Name Port means Port No.
Delete GPRS Domain Name and Port	123456R;	



Set Two-way Audio Mode	123456U0	
Set Listening-in Mode	123456U1	
Set SOS/BMA Mute Call	123456U2	
Set SOS/BMA Audio Call	123456U3	
Turn on GPS Power	123456U4	
Turn off GPS Power	123456U5	
Set GPRS Traffic Saving Mode	123456U6	
Set GPRS a Fixed Time to Upload Data	123456U7	
Set GPS a Powerful Mode without Cutting off Power Source	123456U8	
Set GPS a Power Saving Mode	123456U9	
Set Phone Call Mode	123456V3x,phone number	123456V30,18588955622 x=0 means call out in two-way audio mode; x=1 means call out in one-way monitoring mode;
OTA Upgrade	123456UVxxxx	123456UV xxxx means the upgraded version, without suffix, it means upgrading to the newest version.
Set Voice Call Volume	123456Vxxx	123456V100 xxx: Voice volume≤100
Set Device Name	123456Z2,xxx	123456Z2,John
Reset the device	RESET!	This Command can only be set via SMS or GPRS
Reboot the device	RESET!1	This Command can only be set via SMS or GPRS

## Cautions

1. Keep the unit inside part dry when opening the back cover to put in the SIM card. Any liquid, i.e. rain, moisture, may destroy or damage the inside circuitry.
2. Don't put the unit in overheated or overcooled places.
3. Handle carefully. Don't vibrate or shake it violently.
4. When the unit is touched with water, clean it with a piece of dry cloth. Don't clean in chemicals, detergent.
5. Don't paint the unit, this may cause some foreign materials left in between the parts.
6. Please don't disassemble or refit the unit. The system should be installed by technical personnel.
7. Please use the battery and charger provided by manufacturer. Using other batteries and chargers will cause unwanted situation.
8. This product should be used in the normal condition of GPS signal and GSM signal. If not, it will result in the inability to locate (GPS) or locate data that cannot be transmitted (GSM).
9. The product has position tracking and listen-in functions, the user must use it within the legal limit. If the user illegally use it (such as Invasion of privacy) that lead to damage of others' rights and interests, the consequences are the user's responsibility.
10. This product is obtained by satellite to get the position information. Position data drift is normal, because it is limited by satellite positioning transmission characteristics.

## Warranty

One Year.



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