



# Personal and Asset Tracker

GPS Talks

## Declaration

The contents of this manual will be updated from time to time without prior notice; the updated content will be added to the new version of this manual. KINGWO will improve or update the products or procedures described in the manual at any time. If there is a description of the product in the manual that does not match the actual product, the actual product shall prevail. KINGWO has the final interpretation rights of this manual.

## Content

<a href="#">Chapter 1: Photo</a> .....	1
<a href="#">Chapter 2: About the product</a> .....	2







<a href="#">Chapter 3 Technical Specification</a>	3
<a href="#">3.1 【Main unit】</a>	3
<a href="#">Chapter 4: Functions</a>	4
<a href="#">4.1 Tracking</a>	4
<a href="#">4.2 Fixed upload</a>	4
<a href="#">4.3 Blind spot data storage</a>	4
<a href="#">4.4 Cornering compensation</a>	4
<a href="#">4.5 Multiple position method</a>	4
<a href="#">4.6 Built in antenna</a>	5
<a href="#">4.7 Push to call</a>	5
<a href="#">4.8 Temperature sensor</a>	5
<a href="#">4.9 Built in battery</a>	5
<a href="#">4.10 Quick charge function</a>	5
<a href="#">4.11 Power save mode</a>	5
<a href="#">4.12 Voice function</a>	6
<a href="#">4.13 Remote setting</a>	6
<a href="#">4.14 (FOTA)</a>	6
<a href="#">4.15 Multiple IPs connection</a>	6
<a href="#">4.16 IP rated</a>	6
<a href="#">5.2.1 SIM installation</a>	7
<a href="#">5.2.2 Parameters setting</a>	7
<a href="#">5.3 Important Parameter Setting</a>	7
<a href="#">5.3.1 Upload interval setting</a>	7
<a href="#">5.3.2 Position mode</a>	7

# Chapter 1: Photo



# Chapter 2: About the product

<ul style="list-style-type: none"> <li>• Charge port +power button</li> </ul>	 Waterproof cover	After removing the cover 	Micro USB and power switch
<ul style="list-style-type: none"> <li>• SIM card slot</li> </ul>	 SIM cover	 Remove cover	Micro SIM
<ul style="list-style-type: none"> <li>• GPS signal</li> </ul>		GPS blinks if fixed	

• Battery level		Battery status
• GPRS		Blinks if it is working
• SOS		SOS Button
• Speaker		Waterproof speaker
• Lanyard Hole		Lanyard hole
• Microphone		Two way communication

## Chapter 3 Technical Specification

### 3.1 【Main unit】

Characteristics	Description
Battery	<a href="#">Polymer lithium battery</a> , Capacity 3.7V/2900mAh;
Working current	Average current <60mA@3.7V;
Sleep current	<2mA@3.7V
Recharge	Micro-USB port charge, support quick charge
Communication	2G:GSM/GPRS 850/900/1800/1900MHz
GPS	Support GPS, AGPS and LBS
WIFI	Built in WIFI chip, Support WIFI function
Antenna type	Built in GSM ,GPS and Wifi antenna,
SOS	Support SOS function for emergency alarm
Temperature sensor	Built in temperature sensor, to detect environmental temperature
LED Indicator	GSM, GPS, battery
Remote upgrade (FOTA)	Support remote configuration and firmware upgrade
Wake up	Built G-sensor, to detect the device is in static or motion status
Multiple IP	Support multiple IPs connecting at same time
Working time	Working: 30 seconds Standby : 10 minutes
Dimension	85mm*51mm*20mm
Environment	Working temperature: -20°C~70°C;

	Storage temperature: -40°C~+85°C;
IP rating	IP67

## Chapter 4: Functions

### 4.1 Tracking

Including fixed upload, blind zone compensation, speed mileage statistics, Geo-fencing and other functions, the backend sends positioning commands, and the device returns data including longitude, latitude, speed, direction, and status information.

### 4.2 Fixed upload

The device can be configured to upload the vehicle location, status info to the backend at a certain time or at a certain period or according to certain time interval

### 4.3 Blind spot data storage

When the device enters the GPRS blind zone, the trace data will be saved at the shortest interval which is 15s, and the blind zone data will be uploaded to the platform when the GPRS is back online. The blind zone compensation data can be saved up to 1,000 packets

### 4.4 Cornering compensation

When it uses as an asset tracker, when it enters the curve lane, the terminal detects that the driving direction has a certain angular deviation (default 20 degrees), and a timing upload message is added to ensure that the driving track is more accurate.

## **4.5 Multiple position method**

Device can be positioned via BD/GPS/AGPS/LBS/WIFI 5, and the device would select the position way according to signal strength for fast position, meanwhile increase the position accuracy.

## **4.6 Built in antenna**

Device has built in antennas, including quad band GSM antenna, BD, GPS, 2.4G wifi antenna.

## **4.7 Push to call**

Device has SOS emergency button, push to call or send emergency alarm

## **4.8 Temperature sensor**

The device has built in temperature to detect the environment temperature and send to backend to analyze

## **4.9 Built in battery**

The device is with built in lithium battery, it can real time upload the battery level status, and there are 4 indicators on the device to indicate the battery level status for remotely monitor the battery status

## **4.10 Quick charge function**

The device has quick charge function, it supports V/2A or 5V/1A power adaptor and charge via Micro-USB interface

## **4.11 Power save mode**

Device has built in motion sensor to detect whether the device is in motion and static mode, when the device in a static mode for a certain time, it will automatically enter into power save mode, and only send heartbeat packet, when the g-sensor detects a motion, the device will exit power save mode and enter into normal working status

## **4.12 Voice function**

The device has built in waterproof microphone and speaker for dual communication or one way communication

## **4.13 Remote setting**

The device parameters, including IP, center number and other parameters can be configured remotely

## **4.14 (FOTA)**

As long as GPRS is available, the new firmware can be upgraded remotely

## 4.15 Multiple IPs connection

The device supports dual IPs, it can be connected to main server and backup servers

## 4.16 IP rated

The device is IP67 rated, including SIM card slot, buttons, USB interface, speakers and microphone for better waterproof and dusty proof

## 5.2 Installation and debugging process

### 5.2.1 SIM installation

Open the top cover of the terminal, insert the prepared SIM card into the SIM card holder, and then confirm that the SIM card button is well placed . Please make sure that the SIM card has the GPRS function available in advance and write down the SIM card number.n.

### 5.2.2 Parameters setting

TCP/UDP connection mode setting

For example, the client's server IP is: 119.145.40.64, port number: 8881. If it is connected by TCP, use SMS to edit: \*88\*1119145040064\*8881\*1#; if it is UDP connection, edit: \*88\*1119145040064\*8881\*0#. The terminal will reply: set ok, the setting is successful.

## 5.3 Important Parameter Setting

### 5.3.1 Upload interval setting

Command format: HC, <T1>, <T2>#



Command description: T1: Start upload interval, the value range is 5-300 seconds, the default is 15 seconds.

T2: Sleep interval, ranging from 300 to 1800 seconds, defaulting to 600 seconds.

For example: HC, 30, 300# Set the data upload time to 30 seconds and the sleep upload time to 300 seconds.

### 5.3.2 Position mode

Command format: LBS, A#

Command description

A=2 close positioning function; A=1 pure base station positioning mode; A=0 base station positioning, GPS positioning, AGPS; default A=0

Example: LBS, 1# Enter pure base station positioning mode, turn off GPS module

APN,apn,user,pswd#	<p><b>Set APN, User name and password</b></p> <p><b>For example:</b>  APN,CMNET,internet,internet#</p> <p>Explanation:  APN:CMNET  Username: internet  Password: internet</p> <p><b>APN,CMNET#</b></p> <p>Explanation:  APN:CMNET  User name: Null  Password:Null</p>
IP,ip or dns,port,type#	<p><b>Set IP, port and communication type of primary server</b></p> <p>IP,119.23.233.52,6000,1#  Set the primary server IP:119.23.233.52, port 6000, communication type:TCP</p> <p>IP,www.365qczx.com,6000,0#  Set the primary server domain:www.365qczx.com, Port 6000, communication type UDP</p>
IP2,ip or dns,port,type#	<p><b>Set IP, port and communication type of backup server</b></p> <p>IP2,119.23.233.52,6000,1#  Set the backend server IP:119.23.233.52,port 6000, communication type is TCP</p> <p>IP2,www.365qczx.com,6000,0#  Set the backend server domain:www.365qczx.com, port 6000, communication type: UDP</p> <p>IP2,,0,0# Delete backend server parameter</p>

HC,<T1>,<T2>,<T3>#	<p><b>Set the upload interval in real time tracking mode:</b>  T1: upload interval in ignition on status, range,5-300s ,default 120s  T2: Upload interval in ignition off status  ,range 5-300 s, default 120 s  T3: Sleep return interval, range 10-1800 s, default 180  <b>For example:</b>  HC,30,90# Set the upload interval as 30s in ignition on and 90s in ignition off  HC,30,90,300# Set the upload interval as 30s, 90 s in ignition off and 300s while in sleep mode</p>
UTC,TTTT#	<p><b>Set time zone:</b>  unit minutes, default UTC+8:00  <b>For example:</b>  UTC,480# Time zone UTC+8:00  UTC,330# Time zone UTC+5:30  UTC,-480# Time zone UTC-8:00  UTC,-210# Time zone UTC-3:30</p>
WY,<A>[R,M]#	<p><b>Set towing alarm:</b>  A: On and off , 1:On 0:Off  Default is off  R: Towing radius , Default 500 meters , Range : 100-2000 meters  M: Alarm mode , Optional  M=0:GPRS,M=1:SMS+GPRS  <b>Eg:</b> WY,1,100,1# towing alarm on , radius 100 meters notification mode:GPRS+SMS</p>
LEVEL,S#	<p><b>Set Vibration sensitivity:</b>  S: Sensitivity 1/2/3/4/5 indicates, highest/high/middle/low/lowest  LEVEL,1# Sensivity: Higest  LEVEL# Query</p>
ZD,<A>[M]#	<p><b>Set vibration alarm:</b>  A=1:Vibration alarm ON A=0:Vibration alarm off Default is off  M: Alarm mode, M=0 Only GPRS,M=1:SMS+GPRS  <b>Example:</b>  ZD,1,1#, Vibration alarm ON, notification mode: GPRS+SMS  ZD,0# Vibration Alarm Off  ZD#</p>
XM,tttt#	<p><b>Set enter sleep mode time while in static status:</b>  Default is 5 minutes  XM,5# Sleep after 5 mins without vibration  XM,0# Disable sleep mode function  XM# Query</p>
Query IMEI/ICCID/IMSI	IMEI# ICCID#
Set blind data storage ON and Off , A=1 Off; A=0 , Default ON	BLIND,1# Turn off blind data storage function BLIND# Query
*44*6DDDDD#	<p><b>Set initial mileage:</b>  Unit KM, range 0-999999km  *44*61000#, Initial mileage is :1000Km</p>
SPEED,V,T#	<b>Set speeding threshold and duration time</b>

	<b>V</b> : Speeding threshold: 0-255km/h,0 is disable speeding alarm <b>T</b> :Duration time, value range >=5 seconds, default is 5 seconds: Example: SPEED,50,5# Speed threshold is 50km/h, duration time: 5 seconds SPEED# Query
UPGRADE,IP/domain,port,version# OTA,IP/domain,port,version#	<b>OTA command:</b> UPGRADE,119.23.233.52,7771,MT02S-4.12# OTA,www.365qczx.com,7771,MT02S-4.12# UPGRADE,0# Exit upgrade UPGRADE# Query upgrade status
*25*#	<b>Query OTA Status:</b> eg:192.168.1.1:8000,T;T8G-1.5;Wireless upgrade request succeed ,downloading data now!
LBS,A#	<b>Set LBS ON and OFF:</b> , A=1 ON ; A=0 OFF , Default is off Example: LBS,1# LBS ON LBS,0# LBS OFF LBS# Query
*77*0number#	<b>Set center No.1</b>
*77*2 number#	<b>Set center No.2</b>
*11*1#	<b>Query center No.</b>
*11*2#	<b>Query longitude and latitude</b>
*11*3#	<b>Query device status</b> Eg: Online: IP1 CMNET,119.23.233.52:6000,T ID: 80222001633,id GPS=A,5;GSM=20 MT02S-4.12.128.10 2019-08-06
*22*1#	<b>Restore to factory setting</b>
*22*4#	<b>Reboot device</b>

## Usage requirements

The terminal is strictly forbidden to use according to the operating instructions ,disassemble, collide, charge, soak, over 80 °C, human failure, force majeure damage, etc. may cause short circuit, insufficient working time, battery deformation, liquid leakage, explosion, no warranty and compensation will be provided by KINGWO.

GPS Talks