Kingwo LT12 Container and Asset GPS Tracker User Manual

LT12
User manual
Container and Asset GPS Tracker

Contents

Declaration

The contents of this manual is expected to be renewed 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.

PART 01 Product Overview

- This product is designed for container and asset management; it can replace the air vent of the container, which will not affect the integrity of the container, or screwed to the assets that needs to be tracked.
- Long standby working time, if data upload interval is one packet per 24 hours, it would work about 3-5 years, this battery is capable of support different battery capacity to meet different requirements from customers.
- Low power consumption: The working voltage is less than10 μ A during sleep mode, to make sure the unit works longer
- The device supports 4G, 3G, 2g networks that covers most bands of the world.
- Wireless, easy to install, waterproof.
- Support E-Sim with better stability and vibration proof.

PART 02 Technical Specification

2.1 Parameter

Characteristics	Description
Working Voltage	Built in Unchangeable Lithium battery 3.6V 5400 10800mAh Optional 5400/8100/10800mAh
Power Consumption	Average working current<100mA;Sleep current<20uA;
Communication	4G network: TDD LTE/ FDD LTE 3G network: WCDMA 2G network: GSM/ GPRS
GNSS	Support GPS BD Dual mode GPS L1:1575.42MHz,C/A Code BD B1: 1561.098MHz
Dimension	205mm*68mm*27mm L*W*H
Weight	200g±5g
Waterproof	IP67 Double waterproof function
Working Temperature	-20℃ 70℃
Relative humidity	5% 95%

2.2 4G frequencies in different countries

Regions	Frequencies
China/India	TDD LTE:B38/B39/B40/B41 FDD LTE:B1/B3/B5/B8 WCDMA:B1/B8 GSM:900/1800MHz
Europe/Middle East/Africa	TDD LTE:B38/B40/B41 FDD LTE:B1/B3/B5/B7/B8/B20 WCDMA:B1/B5/B8 GSM:B3/B8
North America	FDD LTE:B2/B4/B5/B12/B13/B14 WCDMA:B2/B4/B5
Australia/Taiwan/Brazil	FDD LTE:B1/B3/B4/B5/B7/B8/B28 WCDMA:B1/B2/B5/B8 GSM:B2/B3/B5/B8

PART 03 Functions

3.1 Basic function

3.1.1 Position

Default upload is 24 hours per packet, the upload packet includes position status, longitude and latitude, GSM Signal Strength, GPS numbers, battery voltage etc, the upload interval can be configured

3.1.2 AGPS

The device is with AGPS function, when the device connects to GPRS; AGPS is used for speeding up the position speed and improve the position accuracy

3.1.3 LBS

The default position mode is by GPS, when GPS enters into the GPS blind zone and no GPS signal, the device will switch to LBS, LBS provides the reference location which is not very accurate as GPS.

3.1.4 Battery Level Detect

The device will upload the battery level status together with the location data pack, and display the battery level on the backend so the user could well know the balance of the battery , and meanwhile display the current transmission time and the balance battery level of the next uploading pack, so the user could have clear view on the device status.

3.1.5 Intelligent Tracking

In case the container is stolen or in other emergency cases, a SMS can be sent or a command can be sent from the backend, when the device wake up, it will receive this command and enter into track mode, and upload the location data according to the preconfigured interval by customer until a stop tracking command is received

3.1.6 Clock mode

Maximum four clocks can be configured for each 24 hours, the device would wake up on time and upload packet accordingly for more frequent and accurate position, and this function could use SMS command or backend command to set

3.1.7 Backend Specific OTA Commands from server

Normally the wake up time of the device is short, and SMS might not be able to received, it is more reliable to send a OTA command from the server to configure the unit, when the device is connected to the server, the command will be immediately sent to the server and executed.

3.1.8 Blind zone compensation

When the device enter into blind zone, it will store the trace data according to the preconfigured time interval and it will upload the data in the blind zone to the backend,

3.1.9 E-Sim

This device support E-Sim which could improve the product stability and to prevent the card slot is loosen or the SIM is removed.

3.2 Extention/Optional Functions

3.2.1 Light Sensor for removal alarm

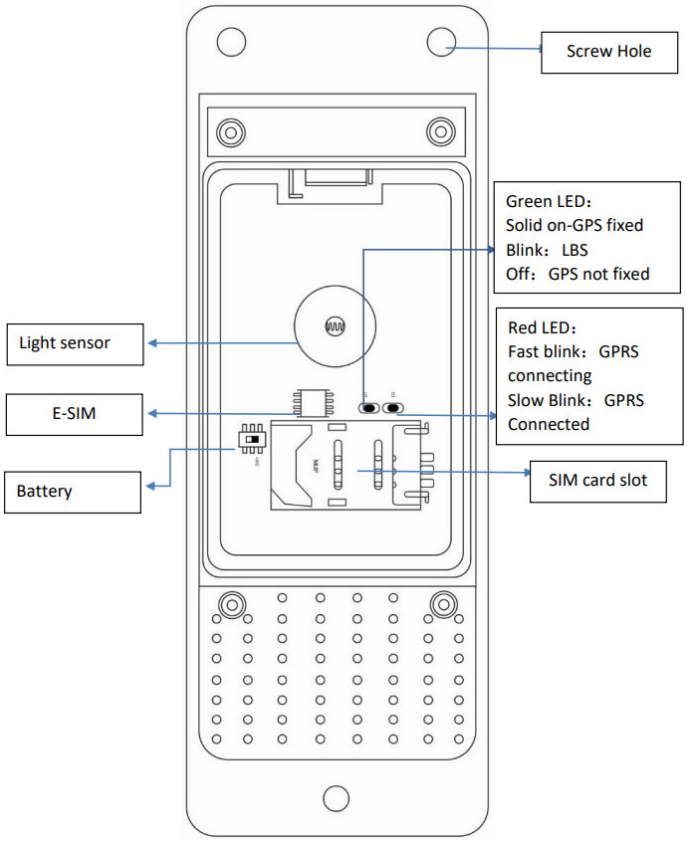
Built in high sensitive light sensor module, once the unit sense a light change from dark, it is considered the removal alarm been triggered.

3.2.2 Motion Detect

Built in high sensitive, low consumption G-sensor to detect whether the equipment is in motion or static status .

PART 04 Installation guide

4.1 Installation diagram



4.2 Installation and debugging

4.2.1 SIM card installation

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

If the device is with built in E-SIM, no need to insert SIM card

4.2.2Main Unit power on

After installing the SIM card, turn the battery switch to the ON position. When the red light starts to flash, indicating that the device is powered on.

4.2.3 Parameter setting

TCP/UDP connection mode setting

For example, the client's server IP is: 119.23.233.52, port number: 6000. If it is connected by TCP, use SMS to edit: IP,119.23.233.52,6000,1#; if it is UDP connection, edit: IP,119.23.233.52,6000,0#. The device will reply: set ok, the setting is successful.

4.3 Key parameter setting

4.3.1 Upload in sleep mode

Command format HX,T#

Command description T:wake up time unit minutes default T 1440 value range :10-43200f minutes for example HX,1440#,set the wake up time is 1440 minutes (24 hours)

Remark: Normally we use the default setting 1440, if set shorter wakeup time, the lifetime of the device will reduce

4.3.2 Track mode

Command format ZZ,<A>[,T1,T2]#

Description track mode

A: A=1, Enter track mode A=0 Exit track mode

T1: Set upload interval in track mode Unit Seconds

T2: Set the continue tracking upload interval unit: minutes

ZZ,1,30,60# enter track model upload interval is 30 seconds, enter sleep mode after 60 minutes

ZZ,0# Exit track mode

4.3.3 Position mode

Command format LBS,A#

Description

A=3 WIFI Position Priority A=2 Switch off position function A=1 LBS+WIFI mode A=0 GPS position priority default A=3 Examples LBS,1# enter LBS+WIFI position mode Switch off GPS

4.3.4 Clock mode

Command Format WAKEUP,[T1[,T2[,T3[,T4]]]]#

Description: Set a multiple points upload parameter, maximum 4 points T1…T4, it is allowed to set 1 clocks or more clocks, maximum supports 4
Example WAKEUP,0800,1200,1600,2000#
They are all clock points which will wake up at 8:00 12:00 16:00 20:00 and upload device parameter info
Remark: After entering into tracking mode, please remember to send command to make the device exit track mode, otherwise the power will be consumed fast if upload data frequently.

4.4 Common SMS command list

HX,<T>#	Upload Interval in Sleep Mode default: 1440 minutes ,as 24hours T wake up time unit: minutes value range :5-43200 minutes For example HX,120#, set the wake up time is 120 minutes.
ZZ,<A>[,T1,T2]#	Track Mode A: A=1, Enter track mode A=0 Exit track mode T1: Set upload interval in track mode Unit second value range 5-300 seconds T2: Set the continue tracking upload interval unit: minutes value range 5-57600 minutes For example ZZ,1,10,60# enter track model upload interval is 10 seconds, enter sleep mode after 60 minutes
WAKEUP,T1[,T2[,T3[,T4]]]#	Set a multiple points upload parameter, maximum 4 points T1…T4, it is allowed to set 1 clocks or more clocks, maximum supports 4 For example WAKEUP,0800,1000,1530,1900# They are all clock points which will wake up at 8:00 10:00 15:30 19:00 and upload device parameter info
FALL,A#	A=3 Open tamper alarm no track A=2 Open tamper alarm track 15 minutes every 300 seconds A=1 Close tamper alarm A=0 Open tamper alarm track 60 minutes every 60 seconds Default :A=0 For example; FALL,0# ,Open tamper alarm track 60 minutes every 60 seconds
UTC,TTTT#	Set Time zone Range 780~-720 For example UTC,480#,Platform positioning time is Beijing time

*11*4#	Check device communication status “Online” represent online “Offline” represent offline Link represent connect to the server Ip, port, apn, device id, software version number followed by status
*22*1#	device restore to factory
*22*4#	Restart device
*77*0 number #	Set center number 1 For example *77*0123456# center number 1 123456 *77*0# delete center number 1
*77*2 number #	Set center number 2 For example *77*2123456# center number 2 123456 *77*2# delete center number 2
APN,apn,user ,pswd#	Set APN, user name passport For example VPN,APNAPDemo.com.attz,internet,internet# APN:APNAPDemo.com.attz Username: internet Password: internet VPN,APNAPDemo.com.attz# Set APN
IP, ip or dns,p ort,type#	IP,119.23.233.52,6000,1# Set primary server IP as 119.23.233.52 Port as 6000 communication mode as TCP IP,www.365qczx.com,6000,0# Set primary server domain name as www.365qczx.com port as 6000 communication mode as UDP

IP2,ip or dns, port,type#	IP2,119.23.233.52,6000,1# Set standby server IP as 119.23.233.52, Port as 6000 communication mode as TCP IP2,www.365qczx.com,6000,0# Set standby server domain name as www.365qczx.com port as 6000 communication mode UDP IP2,,0,0# delete standby server parameter

LT12 Usage Requirements

The users are required to strict using the device according to the operating instructions ,any 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.

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Documents / Resources

	Kingwo LT12 Container and Asset GPS Tracker [pdf] User Manual LT12 Container and Asset GPS Tracker, LT12, LT12 GPS Tracker, Container and Asset GPS Tracker, Asset GPS Tracker, Container GPS Tracker, GPS Tracker, GPS, Tracker

References

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- [- GPS Tracker | GPS Tracking Devices-GPS Tracker for Car | Kingwo]