Vehicle GPS Tracker
GPS/GSM/GPRS

Fast Installation Instruction & User Manual

In order to install and operate the GPS tracker in right method and properly, please read this Fast Installation Instruction & User Manual before installation carefully.

Catalogue

1. Brief Introduction

Welcome to use our GPS tracker. This product is based on the GSM/GPRS network and SMS/GPRS communication transmission, realizing the remote control and settings by SMS or the platform. This product supports Android and ISO system. It's very easy to install, use and maintain.

2. Application Fields

Personal cars anti-theft;
Official cars, car rental，bank credit cars control;
Fleet management
Freight container，electronic machine, equipment delivery tracking
Applicable models : lorry、car、truck、motorcycle、electromobile、electrical vehicles

3. Package & Accessories

4 Pin Power Cord *1;
SOS Button*1;(Optional)
Loudspeaker wire*1;(Optional)
Microphone*1; (Optional)
Relay*1(Optional)
User Manual *1;
Warranty Card*1;
Remark：Please make the object as the standard.

4. Technical Parameter

Item	Specification
Package Size	14.1*9.1*6.1 (cm)
Size	8.9*4.5*1.9 (cm)
Gross Weight	350 (g)
Net Weight	62 (g)
GMS Frequency	GSM 850/1900 900/1800 MHz
Chip	MTK6260
GPS Module	U-blox
GPRS	Class12 TCP/IP
Positioning Mode	GPS/GSM Dual Mode Positioning
Communication Mode	GSM/SMS/GPRS
GPS Accuracy	$\leqq 10$ m
Positioning Time	Cold Boot $\leqq 38$ S Warm Boot $\leqq 32$ S Hot Boot $\leqq 10$ S
Voltage Range	9-56 V
Standby Current	≈ 0.2 mAh
Working Temperature	-20 ℃ — +70℃
Working Humidity	20% – 80% RH

5.   Functions

· GSM quad-band frequency (Global use);

· Wide input voltage range: DC 9-56V;

· Build-in vibration sensor, smart Anti-theft;

· ACC ignition detection, vehicle status notification;

· External SOS button is used in emergency case; (Optional)

· External microphone is used in voice monitoring case; (Optional)

· Build-in back up battery, support illegal main power cut-off alarm;

· External relay is used to cut off engine power or oil remotely; (Optional)

· External loudspeaker, is used in phone calls or alarm case ; (Optional)

· Over speed setting, smart over speed alarm;

· Multiple geo-fence setting, smart geo-fence alarm;

· IOS, Android APP software in set.

· Live tracking monitoring platform, manage remotely.

6.   Installation Instructions

6.1   Before Installation

6.1.1   Open the package, please look over whether the device's number is correct and whether the accessories are complete, if not, please contact your distributor for further assistance;

6.1.2   Choose correct SIM card, a SIM card works on GSM will be needed to insert into the terminal, please consult distributors options for further use;

6.1.3   Install the SIM card, SIM card slot is on the back of the device, please take out the SIM card slot cover, insert the SIM card correctly, then put the cover back to terminal;

Please Note:
Power off before the SIM card operations;

Special GPRS data SIM card suggested (GSM network only);
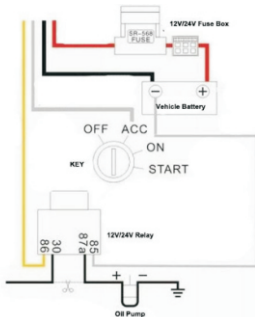
6.2   Installation Notes

6.2.1   The terminal is a high-tech GPS positioning device; please choose distributor suggested professional installation company or mechanic to install and set-up;
Please follow the terminal installation order, DO NOT REVERSE, during the installation, DO NOT POWER UP THE TERMINAL;
Suggest install in hidden places;

6.2.2   Please Note:
· In order to keep it from theft's damage, hidden place installation suggested
· Please avoid to install along with or near transmitter, i.e.: reversing radar, other anti-theft vehicle terminals;
· Use ribbons to fasten the terminal, or strong double-faced adhesive tape;
· The GSM and GPS antennas' signal receiving side shall face the sky, and no shield materials to block the signal, i.e.: metal; Also it shall avoid to interfere signals, 2 antennas separate installation suggested;
· Installation place suggested:
a)Within front decorated board under windshield;
b)Under dashboard (avoid metal cover);
c)Within back decorated board under windshield;

*Any metal heat shield layer or heating layer will reduce the signal of GPS, it may cause GPS function failure, please adjust the installation place;

6.3   Terminal wiring Instructions

6.4   Terminal Wiring Notes

6.4.1 The terminal standard power voltage is 9V-56VDC, please use the original power wire supplied by the original factory, red wire is power source positive end, black wire is the negative end;

6.4.2 ACC detection wire（Green）
The ACC wire shall connect with the vehicle ACC switch, the terminal will decide the vehicle status by ACC status, engine on or engine off, also determines the terminal data upload time interval, engine on status: 15seconds, engine off status: 3 minutes;

6.4.3 Engine control relay wiring（Yellow）
Oil pump relay connections: ignition coil with thick white wire (85) and thick yellow wire (86), thick white wire (85) connects with the vehicle power source negative end, thick yellow wire (86) connect with the terminal relay control wire;

The controlled vehicle oil pump, cut the oil pump positive wire, the oil pump positive end shall connect with the thick green wire (87a) which is the normally closed end, the another end connect with the relay public end the thick green wire (30);

6.4.4 MIC wire (2 pin)
Connect with external microphone, used in voice monitoring case or phone calls;

6.4.5 SOS wire (2 pin)
Connect with the external SOS switch button, is used in emergency case for help;

6.4.6 Loudspeaker wire (2 pin)
Connect with the external vehicle speaker, with a microphone, it can make 2 ways phone calls, or send voice alarms when theft behavior was detected;

6.4.7 After finished all wires connection, please connect with the power supply;

6.4.8 Hidden installation, please choose original main power wire, a fuse block (2A protective tube) on the red wire end will protect the terminal from short circuit;

7. LED Indication

Item	Classification	Flash display	Status
Yellow LED	GSM Communication System	Flash 0.1S, No flash 0.1S	Normal
Blue LED	GPS Satellite System	Flash 0.1S, No flash 0.1S	Normal
Red LED	Power Supply System	Flash 0.1S, No flash 0.1S	Normal

7.1 LED Indication Introductions

7.1.1 LED Red, Yellow, Blue flash together, the device is working normally.

7.1.2 Red LED (Power Indicator): No flash, power supply error, please check the input, voltage and related wiring status;

7.1.3 Yellow LED (GSM Indicator): No flash, GSM/GPRS error, please check the SIM card installation, SIM card balance, and GPRS functions, etc.

7.1.4 Blue LED (GPS Indicator): No flash, GPS signal cannot be received, please check that whether anything metal or contain metal block the signal or in the GPS blind zone.

8. Terminal Operations

8.1 Start-up/Shut-down

8.1.1 Start-up: insert the SIM card, turn on back-up power supply, the terminal will start up;(If the terminal has no back up battery, please connect with external power supply.).
About the terminal's status, please check the above LED Indication.

8.1.2 Shut-down: disconnect power plug or turn off the back-up power supply , take out the SIM card, the terminal will shut down;(If the terminal has no back up battery, please disconnect with external power supply.).

8.2 Terminal Parameters Setting
In the following commands, all the punctuations are in English punctuation format, capital and small letter are both ok. By sending enquiry commands to the terminal, corresponding contents will be replied.

8.2.1 Terminal Information Checking

Send SMS command: CX to the terminal's SIM card, get the basic information of the terminal.

Command format : CX

Reply format : CX,IP:0.0.0.0 : 0000,
URL:yun.gps112.com,imei:353505220500001
XT:10,NXT:180,ITV:5,SF:0,APN:,CS:0,WL:000,0,0, SOS, , ,

Remarks :
IP	Terminal server's IP and port.	
URL	Terminal server's domain name	
imei	Terminal IMEI number（Device ID number）	
XT	Terminal uploading time interval under driving state	
NXT	Terminal uploading time interval under static state	
SF	Terminal defense status（1:on, 0:off）	
APN	Terminal SIM card access point name	
CS	Terminal over speed value	
WL	Terminal geo-fence value（000:radius ; 0 : geo-fence mode ; 0 : status）	
SOS:	The binding cell phone numbers	

8.2.2 Cell Phone Auto Answer Setting

Send SMS command : ACPT#000000#mode# to the terminal's SIM card，the device will be into auto answer mode.

Command format : ACPT#000000#0# （0 : off ; 1 : on）
000000 is Initial password.

Reply format : ACPT, Config ok.

Remarks: The factory default to off mode.

8.2.3 Cell Phone Number Binding

After the terminal starts up normally, please bind your cell phone number first, alarms will send to this bound number, it can bind 5 numbers meantime. When you use SOS function, it will make calls to the first cell phone number twice first, if there is nobody answers or the calls is hang up, it will make calls to the next binding cell phone numbers. Only the first one can receive the SMS reply.

Send SMS command: ZC#terminal password# Cell phone number# serial number # (Initial password is 000000)
Command format ZC#000000#15888185569#1#(this is the main number)

ZC#000000#12345678900#2#
ZC#000000#12345678901#3#
ZC#000000#12345678902#4#
ZC#000000#12345678903#5#

Reply format：ZC，Config ok.

8.2.4 Cell Phone Number Binding Cancellation
Send SMS command： ZC#device password#0# serial number # (Initial password is 000000)
Command format： ZC#000000#0#1#

ZC#000000#0#2#
ZC#000000#0#3#
ZC#000000#0#4#
ZC#000000#0#5#

Reply format：ZC，cancel locked

8.2.5 Password Modification
Password Modification setting： MP#old password#new password# (password should be 6 digits)
Command format： MP#000000#987654# ，987654 is the new password，original password is 000000.
Reply format：MP，configure ok
Note: Don't suggest changing the password, even change the original passwords please do remember carefully.

8.2.6 Get Terminal Position by SMS
Send SMS command：DW , get the position of the device.
Command format：DW
Reply：353505220100001，Xinhe street, Longgang district, Shenzhen city, Guangdong province. 5m far from Shenzhen Yushi plastic Ltd,. 10m far from Ma'antang community health center.

8.2.7 Google Address Link
Send SMS command：GOOGLE, get the position on GOOGLE map.
Command format：GOOGLE
Reply link：
http://maps.google.com/maps/?f=q&hl=en&&q=31.237395,121.390373333333;S=0;D=2014-10-23

8.2.8 Time Zone Setting
Send SMS command：GMT#device password#time zone#, set the time zone
Command format：GMT#000000#+8# (+8, means GMT+8)
　　　GMT#000000#-8# (-8, means GMT-8)
Reply format：GMT, configure ok

8.2.9 APN Setting
Send SMS command APN#000000#APN name#APN account#APN password#, set APN
Command format：
APN#000000#zap.vivo.com.br#vivo#vivo# (take Brazil as example)
Reply ：APN, configure ok
Note：Chinese users do not need to set APN, APN setting just for overseas customers, if the APN without account and password use "#" to instead.
Command format： APN#000000#zap.vivo.com.br#### Reply format：APN, configure ok

9. Terminal Alarm&Control Commands
9.1 Alarm Method Setting:
Command format：
SMS alarm　　　　　　KC#000000#1#
Phone alarm　　　　　KC#000000#2#
SMS + Phone alarm　　KC#000000#3#
Close all alarms　　　 KC#000000#0#
Reply format：　　　　KC, configure ok

9.2   Main Power Cut-Off Alarm

After the terminal main power been cut, it will automatically trigger power cut off alarm, it will send a main power cut off alarm SMS to the binding cell-phone, and meanwhile upload the alarm information to live tracking monitoring system.

SMS e.g.：353505220100001, Alarm main power failure, please pays attention!

9.3   Low Battery Alarm

When use the battery of the device it will send low battery alarm to the binding cell phone number if the battery level is below10%, meanwhile it will send the low battery alarm data to the platform.

Alarm format：Please pay attention to low battery of device

9.4   Working Voltage &Electric Quantity Checking

Send SMS command：VOL, check voltage and electric quantity.

Command format：VOL

Reply format：VOL, battery：4.09（V）, 80%

9.5   Vibration Alarm

Send SMS alarm command to SIM card of device can achieve terminal smart vibration alarm.

Open vibration alarm, command format：SF000000

Reply format：353505220100001, please pay attention to vibration alarm

Close vibration alarm, command format：CF000000

Note：000000 is original password

9.6   Over Speed Alarm

Send SMS command: CS#000000# speed value#, set over speed alarm.

When the car's speed over the speed value you set, terminal will send a SMS alarm to the bind phone number, meanwhile it will send the alarm data to the tracking platform.

Command format：CS#000000#60#
Reply format：CS, config ok
Note：60 means the speed figure set at 60Km/h
Alarm reply format：353505220100001, Please pay attention to over speed alarm.

9.7 Geo-fence Setting
Send SMS command WL#000000# radius #mode#, set geo-fence.
Exit geo-fence alarm, command format：
WL#000000#300#1#
Enter geo-fence alarm, command format：
WL#000000#300#2#
Reply format：WL, configure ok
Note： 1   Exit geo-fence mode
        2   Enter geo-fence mode
        300   The range based on 300m of radius
                   (figure range≧100m)
        000000   Original password
Reply format：353505220100001, Please pay attention to Exit（Enter）electronics fence

9.8 SOS Alarm
Any emergency case happens, please press the SOS button, trigger the SOS emergency help alarm, it will make calls to the first binding cell phone number twice first, if there is nobody answers or the calls is hang up, it will make calls to the next binding cell phone number. Only the first one can receive the SMS reply. At meantime, the terminal will upload SOS alarm information to live tracking monitoring system.
Alarm format：353505220100001, Please pay attention to SOS alarm.

9.9 Voice Monitoring
Send SMS: JT to the terminal
The terminal will call back and the administrator will be able to monitor the voices.

9.10   Phone Calls
Binding cell phone number make call to the terminal, after it gets through, the administrator can talk with the driver via the loudspeaker and microphone connected with the terminal.

9.11   Engine Control
When the vehicle was stolen, the administrator can send Cut-off Engine command via the live tracking monitoring system or by the SMS, Under the conditions of safe driving, the command will trigger the relay to cut off power of oil pump to stop the engine, and it can't be re-start the engine without restore engine command.

To secure the safety of the vehicle, when you send the command to cut off the engine, the terminal should be in valid GPS signal status, and the speed is under 20km/h or the vehicle is under the static condition.

After the alarm dismissed, send restore engine command via live tracking monitoring system or by SMS will trigger relay to restore the power of oil pump, the vehicle will be able to start up.

Command format :
Cut off Oil pump power format : DY000000
Reply format : DY, config ok
Restore Oil pump power format : TY000000
Reply format : TY, config ok
Note : 000000 is the original password.

10.   Terminal Debugs Commands

10.1   IP Setting
Send SMS command IP#000000#IP address #port#, set the server address.
Command format : IP#000000#0.0.0.0#0000#
Reply format : IP, config ok.

10.2   Terminal Reboot
Send SMS command SBCQ, it can remotely control the device to restart.
Command format : SBCQ
Reply format : SBCQ, config ok.

10.3   Initialization Setting
Send SMS command TXTHZ ,it can reset the device.
Command format ： TXTHZ
Reply format ： TXTHZ ,config ok.

11.   Live Tracking Monitoring Platform
Global tracking service platform website ： yun.gps112.net
If you already have a login account(cluster account or imei
account), you can login in directly; otherwise you have to
contact your distributor to get the account and password.
Fill in the address of the website to login in.
Account: IMEI Number
Password:123456

12.   Tracking by ANDROID AND IOS APP.

Please enter the website of tracking service, use your
phone to scan QR Code and download the APP.

13.   Trouble Shooting

13.1   Terminal installed at the first time, and it can't connect to
service platform, platform always shows offline.Please
check the terminal installation:

13.1.1 Is main power correct? Do not connect it with the vehicle
internal control wires;

13.1.2 SIM card installation right, please check the installation instruction;

13.1.3 Please check the status of LED indicator light, normally red LED for power lighting continuously; yellow GSM LED flashing; blue GPS LED flashing.

13.1.4 Please check if the GPS be located, if not please take it to a wide place to get more signal and locate.

13.2 Device terminal shows off line on the platform

First check if the three LED indicator lights showing normally or not, can also check the status of SIM card if it's not convenient to check the LED, steps as below:

13.2.1 Call the SIM card of the device to see if it can get through or not.

13.2.2 If the car parked at the cellar or other places without GSM signal.

13.2.3 Monitoring the offline area, is signal one offline or all of them, then we can decide whether it is a telecom operator problem.

13.2.4 SIM card credit run out?

13.2.5 If the SIM card opens GPRS service.

13.3 If the GPS function has been activated, and didn't position the location for a long time, then we shall check the following status:

13.3.1 When mechanic install the terminal, the GPS antenna signal receive side shall up to sky;

13.3.2 Terminal installation place shall have no metal or other material shield which absorbs electromagnetic wave, also

please pay attention that the up-area of terminal shall not stick any rupture film or heat shield film, cause these films contains a very high level of metal additive, it will absorb electromagnetic wave, in this case, the GPS signal will reduced by a large degree which causes lower the position accuracy, in some seriousness, it might cause the positioning function fail;

13.3.3 If the terminal is in the GPS signal weak area (High buildings can block GPS signal), please drive the vehicle to open sky area to position the location, first positioning usually take 1-2 minutes;

13.3.4 When GSM signal receive abnormally, please check whether the SIM card in terminal SIM card slot installed correctly, or whether the parking pot was covered with GMS signal, some place like basement usually have no or weak GSM signal, please drive the vehicle to places covered with GSM signal;

13.3.5 When the bound cell-phone receives the main power cut-off alarm, please confirm if it is a illegal wire cut, or check the fuse box on power wire please, if the fuse burn out, contact your distributor for the same part number fuse please, after checking terminal problems, re-power the terminal to work status;

GPS VEHICLE TRACKING TERMINAL WARRANTY CARD

Please Note:

1.Any upgrade of this products later on , notifications will only be sent to distributors;

2.Any changes on appearance or color, pictures are only for information, take practicality as standard;

3.The warranty card only suits the following IMEI terminal;

4.Please keep the warranty card safe, also show the warranty card and original purchase receipt before repair services;

5.Specific warranty range as follow;

This warranty card is a basic access to repair service, please

User Name		Contact phone No.	
Contact Address			
Part Number			
Purchase Date			
Distributor Name			
Distributor Address			
Distributor Phone			

1.From Purchase date, 1 year repair service for products crash due to product's reason.

2.Any of following situations are not included in warranty range, but provide paid repair services.

Warranty period expired;

Damages caused by unauthorized tear down or repair;

Inundate, damage, PCB burnt due to improper act;

Terminal out cover, screen, antennas damages due to use;

Terminal inside IMEI's been pluck away or unable to read;

Warranty card any content is not in accordance with the terminal, or warranty card has been modified by unauthorized;

Damages caused by force majeure;