## GPS TRACKER

## For Vehicle

# User Manual



MODEL:A-TT03

Version:V4.12

GPS+GSM+SMS/GPRS

Welcome to use our terminal, please read this manual carefully to install and operate the terminal exactly. This user manual is for reference only. If some contents and operation steps are inconsistent with those for the actual product, the latter will prevail.

Using A-TT03 GPS tracker, we can position, monitor and control the vehicle on the position server via GPRS / GPS and Internet. It can help customers to manage transparently, reduce cost, maintain security and raise efficiency. Now it is widely used in business traffic, logistics distribution, automobile lease, intelligent transportation, shipping market, army and police, rescuing, Safety Supervision, Intelligent city…

www.cr-gps.com Page 2 of 20 Revision: V2.0.1-January 2016

## **Contents**

I . Product Features、Specifications5
II . Components and Accessories7
2.1 Components7
2.2 Accessories8
III.SIM card Installation8
3.1 Before Installation8
3.2 Install the SIM card9
IV. Terminal Installation11
4.1 Install the terminal11
4.2 Terminal wiring definition12
4.3 Relay wiring13
V . Power on the terminal14
5.1 Power on14
5.2 LED Indicators14
5.3 Power off16
VI. Inquiry/Monitoring/Cut Oil16
6.1 Inquiry by SMS16
6.2 Inquiry by service platform16
6.3 Command16
6.4 Cut Oil /Restore17
VIII.Terminal Alarm17
7.1 Speed Alarm17
7.2 Geo-fence Alarm1

7.3 Power disconnect Alarm	17
VII.Terminal Setting	18
${ m IX}.$ Trouble shooting	18
9.1 Cannot connect to the platform	18
9.2 Offline status on the platform	18
9.3 Not positioning for a long time	19
9.4 Position drift	19
9.5 Commands receiving abnormally	19
X. Warranty rules	20
10.1 Special statement	20
10.2 Warranty period	20
10.3 After sales	20

Revision: V2.0.1-January 2016

## **I.Product Features**

- Supports quad bands, i.e. 850/900/1800/1900MHz, universal in the world.
- Input Voltage:9-30V DC.
- GPS precise positioning with A-GPS and uploaded by GPRS regularly,
   Supports real-time tracking and history track playback.
- Web browser platform, Smart phone app platform and SMS query.

Built-in battery, Power disconnect alarm.

- Upports multiple alarm, GEO-fence alarm, speed&shift alarm, hijack alarm
- ACC and vehicle status detection.
- Remotely cut oil by Relay.
- Extend I/O port for extensional functions
- OTA upgrade program.

www.cr-gps.com Page 5 of 20 Revision: V2.0.1-January 2016

## **Basic Specifications**

Voltage	12/24/36 VDC			
Work Current	<30mA@12V			
Standby Current	<10mA@12V			
GPS Accuracy	5-15m			
GPS Frequency	1575MHz			
GSM Frequency	850/900/1800/1900 MHz			
Hot/warm/cold Start	<3s, <15s, <60s			
Battery Capacity	120mAh (3.6V) high temperature resistance battery			
Dimensions (mm)	72(L)X27(W)X 18MM(H)			
Work Temperature	-40°C~80°C			
Operating humidity	10%∼95%RH			
Net Weight	36 g			

www.cr-gps.com Page 6 of 20 Revision: V2.0.1-January 2016

## $\boldsymbol{II}$ . Components and Accessories

## ■ 2.1 Components



-Top Front-



- Side -



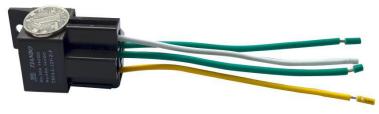
-Bottom -

www.cr-gps.com Page 7 of 20 Revision: V2.0.1-January 2016

## ■ 2.2 Accessories (reference pictures)



Power Cables (Default)



Relay (Optional)

Relay for remotely cut off/resume oil, please note that the devices should be matched with accessories to realize these functions

## III. SIM card Installation

#### ■3.1 Before Installation

Open packing case, check terminal is OK and the accessories are intact, or please contact your dealer;

You need a suitable SIM card for using the terminal, please contact your dealer if you have any question;

www.cr-gps.com Page 8 of 20 Revision: V2.0.1-January 2016

## ■3.2 Install the SIM card



- Open the cover -



- SIM Card holder -

www.cr-gps.com Page 9 of 20 Revision: V2.0.1-January 2016



- Unlock SIM card holder and insert a SIM card -



- Close the cover -

#### Note:

- Please cut off power before installation or taking out the SIM card.
- The SIM card should have network to internet.
- If you enable the PIN code of the SIM card, please use your mobile phone to disable the PIN code.
- Please make sure that the SIM card has sufficient balance.

www.cr-gps.com Page 10 of 20 Revision: V2.0.1-January 2016

## **IV. Terminal Installation**

#### ■ 4.1 Install the terminal

4.1.1 Suggest to install the terminal concealed by the dealer designated professional body.



Please make sure to install the terminal with this side upward, and use wide strong double-sided adhesive sponge to fix it.

Please make sure to install the terminal with this side towards the ground, and use wide strong double-sided adhesive sponge to fix it.

#### 4.1.2 Installation Notice

- •Hide the terminal properly inside the car body in order to avoid damages.
- •Keep the terminal away from RF emission sources such as backing radar, car burglar alarm

and other vehicle mounted communication devices.

•Suggest to use wide strong double-sided adhesive sponge to fix it, or use cable ties and

other liable methods to fix it.

 Device have GPS antenna, Please ensure that signal receiving side is facing up(towards the

www.cr-gps.com Page 11 of 20 Revision: V2.0.1-January 2016

sky) when doing installation, without any metal material covered on the top. It may weaken

signal and results in not work properly.

## ■4.2 Terminal wiring definition



Main harness Interface

Description of main harness pin connection:

Index	Description	Comment	Cable Color
1	PWR	External power supply, 7-32V.	Red
2	NG		
3	ARM	Open drain, 150mA, for Fuel cut.	White
4	Ground	Power and digital ground.	Black

#### 4.2.1 Power cables and other interface for remote control

The standard input voltage of the terminal is 7V-36VDC, the red cable is positive

www.cr-gps.com Page 12 of 20 Revision: V2.0.1-January 2016

and the

black cable is negative; Please ground the positive pole separately or ground it to ground connection, not to any other ground.

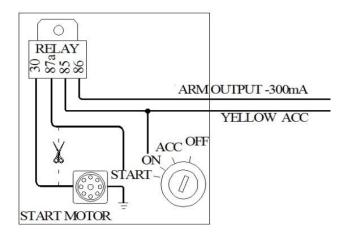
The white cable is to realize function of control the power/oil, connect it to 86 port(refer to the yellow cable of the plug of relay) of relay, and fix the relay where is waterproof and water can't splash, or using a plastic bag to wrap up the relay

### ■4.3 Relay wiring

Relay wiring diagram shows how to wire the relay to control the start motor:

#### 4.3.1 Way to connect a relay:

- •Connect the 85 terminal(yellow cable) to the positive pole of the vehicle power (+12V/+24V).
- •Connect the 86 terminal (white cable) to the white cable (ARM output) of the main harness.
- •Cut off the positive pole of the START MOTOR, next serial connect the positive pole to the 30 terminal(green cable) of the relay, and connect another pole to 87a terminal(green cable), showing as in the figure.



www.cr-gps.com Page 13 of 20 Revision: V2.0.1-January 2016

Notice: Be sure that the voltage of the vehicle power should match up to the working voltage of the relay, or the relay will be damaged.

## V. Power On / Off

#### ■5.1 Power on

Power on: insert a valid SIM card and wire all the cables, then the terminal power on itself.

#### ■5.2 LED Indicators

Green LED flickers slowly (0.5sec off, 1sec on), when device is searching for GSM network, it flickers slowly when device has registered the GSM network successfully.

Green LED(GSM) flickers fast, and red LED flickers slowly (every 1secs) when device is searching for the GPS satellite signal, it flickers slowly when device has searched the satellites and been positioned, it's solid red LED light.

www.cr-gps.com Page 14 of 20 Revision: V2.0.1-January 2016



## 1. Green LED(indicates GSM working state)

Slow blinking	Searching for GSM network
Fast blinking	GSM/GPRS works normally

## 2. Red LED(indicates GPS signal state)

Slow blinking	Searching GPS Satellites
Solid red light	GPS works normally

When green LED flickers fast, red LED is solid, then device works properly.

### **■**5.3 Power off

Disconnect the external power and take off SIM card, after a while the terminal will shut down.

www.cr-gps.com Page 15 of 20 Revision: V2.0.1-January 2016

## **VI. Inquiry/Monitoring/Cut Oil**

## 6.1 Inquiry by SMS

You can write a positioning SMS sending to the terminal to inquiry terminal position, the terminal will reply position SMS or map link. The SMS commands please refer to the Operation Commands

## **■6.2 Inquiry by service platform**

#### 6.2.1 Web Browser platform

Login the service platform and enter your ID and password to check the position of the terminal.

Please ask your dealer for the WWW address of the position service platform.

## 6.2.2 Smart phone applications

You can use a smart phone to check the terminal's position. We have prepare for you the Android client (Android), Apple clients (IOS), please check with your dealer to get installation package.

### **■6.3 Command**

When the tracking system pops up a reminder that the device is online, user can inquiry and set up by APP or SMS, please refer to the 《Operation Command》

#### ■6.4 Cut Oil /Restore

#### 6.4.1 Cut off oil circuits

The position server or the managers can send cut-off fuel commands when needed. The fuel of the vehicle will be cut off on the premise of safety, and the vehicle will not be powered on.

To make sure the safety of the vehicle, the fuel of the vehicle will be cut off only if the terminal has positioned by GPS and the vehicle is not moving.

www.cr-gps.com Page 16 of 20 Revision: V2.0.1-January 2016

#### 6.4.2 Recover oil circuits

The position server or the managers can send recover-fuel-circuit commands to the terminal when needed, the terminal will recover the fuel circuits of the vehicle.

## **VII. Terminal Alarm**

### ■7.1 Speed Alarm

Conditions: When the vehicle over and below the set speed.

Note: You need to set the low speed limit and high speed limit.

#### ■7.2 Geo-fence Alarm

Conditions: when the vehicle entry / exit / across the Geo-fence.

Note: You need to set the conditions of crossing fence, fence types and so on.

#### ■7.3 Power disconnect Alarm

Conditions: When the device is disconnected from external Power.

## **III. Terminal Setting**

Please refer to the < Operation Commands>

## IX. Trouble shooting

### ■9.1 Cannot connect platform

The terminal is never online on the position server when installed at the first time.

#### Please check the terminal:

- 1) If the power cables are wired correctly? Pay attention to not connect them to the controlling cables of the vehicle.
  - 2) If the SIM card is installed correctly? Please refer to the installation instructions.
- 3) Check the status of the LED indicators. If the terminal is OK, gree LED flickers fast and red LED is solid red and blue LED will change to slow blinking.
- 4) Inquiry the parameters of terminal via commands and check the accuracy of the parameters.

#### ■9.2 Offline status

First check if the LED indicators are OK, if cannot check them, you can check the SIM card following next steps:

- 1) call the SIM card of the terminal and check if you can hear the connecting ring.
- 2) Check if the vehicle is in the area where there is no WCDMA signal.
- 3) Check if one terminal or all terminals are offline

in the area where terminal is offline. If all terminals are offline, you should ask the network operator If the network is OK.

- 4) Check if the SIM card has enough balance.
- 5) If the terminal becomes offline on the last day of one month, please check network is closed or not.
  - 6) Inquiry the parameters of terminal via commands and check the accuracy of the parameters.

### ■9.3 No positioned

If the GPS is active, but the terminal cannot be positioned for long time, please check the terminal:

- 1) If the vehicle is in the place where there is no GPS signal.
- 2) The upside of the GPS antenna should be installed with face toward the sky.
- 3) The WCDMA and GPS signal may be weak.

if the terminal is installed in the place with electromagnetic wave absorption

material(such as metal blocks), special attention should be paid if there is metal thermal insulation layer or heating layer on the front windshield, so that the position accuracy will decline, and the severe ones will not be positioned.

#### ■9.4 Position drift

Serious position drift will be found in places where GPS signal is poor. Please drive the vehicle to the open places.

### **■9.5 Commands receiving abnormally**

- 1) Check the commands format.
- 2) Check if the vehicle is in the places where there is WCDMA signal.
- 3) Check if the SIM card is properly installed.

www.cr-gps.com Page 19 of 20 Revision: V2.0.1-January 2016

## X. Warranty rules

### ■10.1 Special statement

- 1) Technology change without notice.
- 2) If the color and appearance are inconsistent with those for the actual product, the latter will prevail.
  - 3) Warranty card is only valid for the terminals with the following IMEI.
  - 4) Please take care of the warranty card and showit with the original purchase receipts when enjoying the warranty service.

### ■10.2 Warranty period

Since the date of purchase, passive waste host has one year warranty.

#### ■10.3 After sales

Any of the following circumstances not covered by the warranty, but may be appropriate to pay repair:

- 1) More than the warranty period.
- 2) Unauthorized removal or repair damaged.
- 3) Damage caused by improper installation, use, maintenance, custody.
- 4) The ID label is torn or Obscure.
- 5) Warranty certificate and product models do not match or warranty certificate be altered.
  - 6) Damage caused by force majeure.

www.cr-gps.com Page 20 of 20 Revision: V2.0.1-January 2016