

## **SGVT-01 GPS Vehicle tracker's User Manual**

(GPS+GPRS+GSM)

Product Manuals  
Version 1.0



Attention before use this terminal:

- Please mount the device steadily on the flat place before using;
- Please make sure the voltage value is right before connecting with battery, and placing the wires to where shouldn't be trodden;
- Please power off when plugging or taking out of any module or connector;
- Please keep the device dry and don't let any liquid fall into the device in case any damage caused in the device or circuit;

If any problem caused as follows, please turn to professional technician:

- When power wire, keyboard, or socket are damaged;
- When liquid infiltrating into the device;
- When the device work unusually or cannot resume to normal even operated according to the instruction;
- When the device cannot as usual after falling, throwing or breaking;
- When there is obvious damage in the device.

Catalog

1、 Products Introduction .....	4
2、 Main Features .....	4
3、 Detailed Specifications .....	5
3.1、 Hardware parameters .....	5
3.2、 Other .....	6
4、 Interface definition .....	6
4.1、 Power Interface .....	7
4.2、 Extension Interface .....	7
5、 Intelligent Terminal Installation .....	8
5.1、 Terminal Installation Tips .....	8
5.2、 Installation steps and parameter settings .....	9
6、 Standard Accessories .....	10
6.1、 Terminal Standard accessories .....	10
7、 Common Faults .....	11
8、 Optional accessories .....	13
8.1、 9PIN extension line .....	13
8.2、 Monitor Line .....	13
8.3、 Off oil relay .....	13

## 1、 Products Introduction

SGVT-01 GPRS/GSM model GPS smart terminal (mobile user terminals) which built-in Industrial GPRS / GSM communication module and the latest SiRF-Star III high sensitivity GPS receiver positioning module, Using dual-mode GPRS and SMS communication. Terminal operate stable, reliable, full of features and many interfaces. Can be used for mixed, leasing, logistics, public transport, bus, dangerous goods vehicles, rental cars in different areas. Also according to different industries, different user makes suitable products for customer.



## 2、 Main Features

- 1 Terminal dimensions small, waterproof, easy installation;
- 2 GPS positioning accuracy, dynamic positioning deviation is less than 5 meters;
- 3、 support for GSM SMS and voice function under, GPRS state of UDP / TCP protocol communications;
- 4、 support for GPS data uploaded regularly and named functions
- 5、 support for silent features;
- 6、 Remote monitoring capabilities to support authorized
- 7、 Support the acquisition and high voltage, low voltage protection;
- 8、 Support 3-way high-, low level signal detection
- 9、 Support blind transfer function up;
- 10、 Car remote lock function
- 11、 Support the emergency alarm;
- 12、 Support power-off alarm function (built-in backup battery);
- 13、 Support for high-pressure alarm and under voltage alarm
- 14、 Speed alarm function support
- 15、 Support the parking alarm;
- 16、 support the illegal open, illegal start alarm;
- 17、 Support the fatigue driving function;
- 18、 Statistical functions to support mileage;

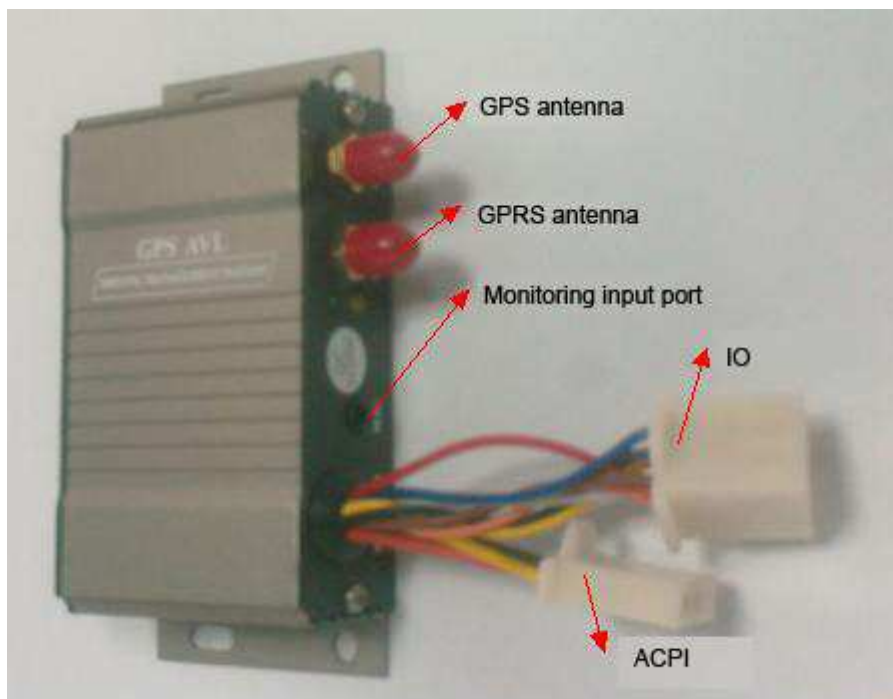
- 19、 SMS alarm notification
- 20、 Built-in 16MB Flash, can save 30 thousand blind track data

### 3、 Detailed Specifications

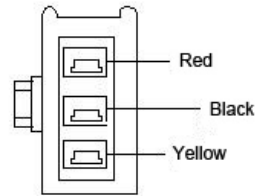
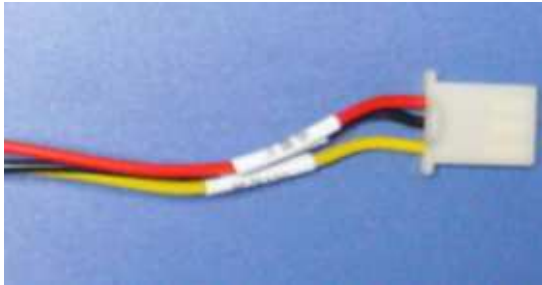
<b>3.1、 Hardware parameters</b>	
Operating Voltage	8VDC~36VDC
Operating Current	50mA~160mA
GSM Module	Containing frequency GSM 900/1800 Containing GSM 850/900/1800/1900Mhz (Customizable)
Communication protocol	UDP/TCP(Customizable)
GPS Module	Latest GPS SiRF-Star III Chipset
GPS Sensitivity	-159dBm
GPS Frequency	L1, 1575.42 MHz
C/A Coding	1.023 MHz chip rate
Passage	20 Channel View Tracking
Location accuracy	10 Meters, 2D RMS
Speed Accuracy	0.1 M / s
Time accuracy	GPS time synchronization
Default data	WGS-84
Regain	Average 0.1 seconds
Hot Start	Average 1 sec
Warm Start	Average 38 seconds
Cold start	Average 42 seconds
Height restriction	18,000 meters (60,000 feet) max

Speed limit	515 km / sec (1000 knots) max.
Acceleration limit	Less than 4g
<b>3.2、 Other</b>	
Operating Temperature	-20°~ 70°C
Storage temperature	-30°~ 85°C
Humidity	5% ~ 95% No coagulation
Terminal size	101 mm × 50mm × 24mm
Built-in battery	Not less than 2 hours continuous work
LED	Red: the host state; Yellow: communication module status;

#### 4、 Interface definition



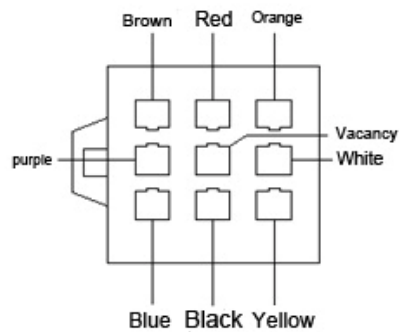
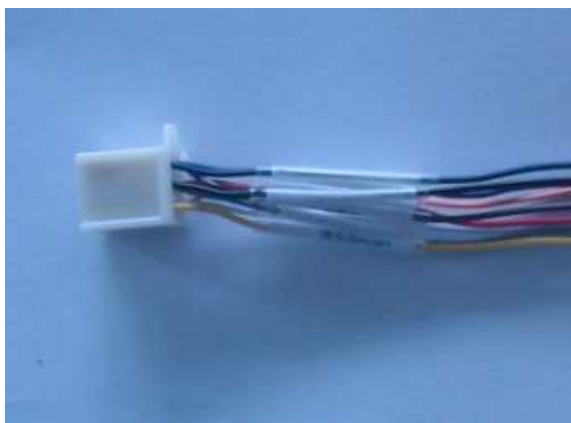
**4.1、 Power Interface Picture:**



Pin Description

pin	colors	Function / Connection Method
1	red	Power input is, the working voltage of 9VDC ~ 34VDC, then the positive car battery;
2	black	Power input negative, then the negative car battery;
3	yellow	ACC test line, take the car keys ACC line;

**4.2、 Extension Interface Picture:**



Pin Description

pin	colors	Function / Connection Method
1	orange	LV1(Check one low), input low voltage detection, detection voltage range is less than 0.3VDC, which can be accessed need to detect the low effective signal line;

2	red	SOS Alarm input, low level alarm is triggered, SOS alarm button direct access line;
3	brown	SOS alarm indicator signal, drive led lights, when alarm is triggered, led lamp lights;
4	white	HV1 (detection of a high, defined as the illegal open / illegal start moving signal detection line), input is voltage detection, detection voltage range of 5VDC ~ input supply voltage, which can be accessed need to detect the high effective signal line;
5	Space	Not defined
6	Purple	SOS Alarm land
7	Yellow	Shutoff relay control positive, then the yellow line relay;
8	black	Shutoff relay control negative, then relay white line;
9	blue	HV2 (high test 2), input is voltage detection, detection voltage range of 5VDC ~ input supply voltage, which can be accessed need to detect the high effective signal line;

## 5. Intelligent Terminal Installation

### 5.1, Terminal Installation Tips

Tips
<p>1、 Before installation, open to the Mobile SIM card mobile GPRS data services。 (SIM card GPRS data services to be opened CMNET access through GPRS (such as GSM and related business cards), rather than through CMWAP access GPRS (such as M-Zone card). Doubts, please consult your local mobile company; also have to apply for traffic SIM card package, you can apply for 10M or 20M or 50M. SIM card billing unit shall be the smallest byte (BYTE). equipment used in the normal flow of work: 1 minute monitoring time is 5 ~ 8M, 30 seconds to control once 10 ~ 12M, traffic accounting bytes.</p> <p>2. The SIM card number and license plate numbers of vehicles to be installed and other relevant records of vehicle information is good, sent to the monitoring center to register, such as the control center is not registered, the system can monitor vehicle. .</p> <p>3、 GPS car terminal in Consuming (later referred to as car terminal), check the GPS-vehicle terminal, SIM card, GPS antenna, GPRS antenna, car handles, power cable, I / O expansion line, emergency alarm buttons, spare batteries, relays, microphone and other configurations are consistent</p>



with customer demand;

4、 On-site installation of GPS vehicle terminal before the test in the indoor environment, the GPS car terminal and the set of accessories (to be installed accessories to customers) connected with a regulated power supply or backup battery power to the GPS car terminal, GPS car terminal and to ensure All accessories can work.

5、 Field Installation Notes:

5.1、 First test car voltage is normal and whether the voltage range of GPS car terminal supply voltage range, the choice of access to power, the power to try to select the vehicle's main power supply (direct and battery power cord connections);




5.2、 Choose to install GPS vehicle terminal position, as far as possible away from the car automotive electronics equipment and other heat source devices, especially wireless devices and high power electronic equipment, and to install strong, so as to avoid shock damage to the big time GPS car terminal;

5.3、 The products are all-weather antenna can be installed in the car outside the suitable position. Directly by an external antenna installed at the bottom of the magnetic absorption in the metal roof. Concealed installation for installation in the former instrument panel plastic cover on the back, the trunk lid on the back or other plastic objects hidden under the Note GPS antenna to have a certain range of the visible sky is not being metal shell, coated glass such as shelter materials. Antenna wire is not loose some attention fixed and reliable and should not be through the door and so can squeeze in animals to prevent breakage.

5.4、 Do not live swap SIM cards, so as not to burn card.

Attention: Power in the access before the first GPRS antenna and GPS antenna connected, the ACC line connected, the power cord is recommended to pick car or car battery master switch back online.

## **5.2、 Installation steps and parameter settings**

-  Open the front panel screws, gently remove the circuit board, the SIM card into the SIM circuit board on the back deck, take time to pay attention to possible PCB hands do not touch the circuit board components in order to avoid static damage to circuit boards;
-  GPS and GPRS antennas to tighten immediately good;
-  To insert into the public back-up battery 2PIN positive 2PIN mother board

seat, normal, circuit board began charging, the indicator lights;

✚ Select a good car power access points, the external input power supply terminal access;

✚ Flashing red and yellow light are normal, you can set the start text messaging terminal, the specific set up instructions are as follows:

S, \* APN \*, \* IP Address \*, \* port number \* phone number \*\*, \* No \* SMS \* SMS Verify Password \*

✧ APN: import address carrier network, such as CMNET so.

✧ IP: a single byte less than 3, the high position 0 if 58.60.185.172 Make \* 058.060.185.172 \*;

✧ PORT: server port;

✧ Local Number: terminal ID, to 13 at the beginning of the length of the number of 11 vehicles;

✧ SMS service numbers: numbers in the terminal services active alarm messages will be applied to, to add country code before the number, such as domestic 13512345678, +8613512345678 \* should \*, service is the vehicle computer equipment SMS text message service number corresponding to the target number to open

SMS verification code: factory default is 123456, must be 6 digits;

Such as :

S,\*CMNET\*,\*058.060.185.172\* \*8886\* ,\*13512345002\* ,\*+8613418776340\* ,\*123456\*

Setting is successful, the terminal should return OK! Message content;

Such as : OK!94090001, ID: 13820090001

Normal terminal landing platform, the circuit board into housing, a good panel with screws, in place fixed the terminal and antenna, and organize the line, recovery vehicle lines and demolished part of the panel, the installation basically completed.

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#### 🔴 Notes:

Parameter input must be correct, or not normal landing platform, the proposed set up after the T command with SMS query parameters are correct, And in monitoring the platform check is normal on-line terminal.

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## 6、 Standard Accessories

### 6.1、 Terminal Standard accessories

Standard accessories: Power cord, GPS antenna, GPRS antenna, velcro, warranty card, warranty card receipt, certificate



Accessories Pictures

## 七、Common Faults

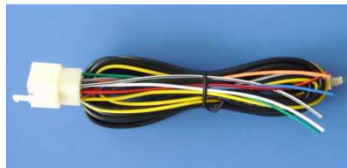
GPS intelligent terminal fault keys		
Serial NO	Failure phenomenon	Fault diagnosis / troubleshooting
1	Unable to access the network or GPS car terminal name is not on the scene and observed light is off	<ul style="list-style-type: none"> <li>➤ Detection of power supply is correct access equipment;</li> <li>➤ Detection of power line fuse is broken;</li> <li>➤ Detection of the power cord and car power connection is loose or office;</li> <li>➤ If the test is normal, may be equipment is damaged, please contact with equipment suppliers to solve;</li> </ul>
2	Can visit the GPRS network or GPS car terminal upon to normal, but showed no GPS positioning	<ul style="list-style-type: none"> <li>➤ Check whether the car was in the GPS signal blind area, blind, or you can leave and then observed over time, determine: whether the field detection of green LED lights flash once approximately 1 second, if normal, continue with the following test;</li> <li>➤ Access car handle (if not previously installed), make the terminal self-test, if the GPS terminal normal self, continue with the following test;</li> <li>☒</li> <li>➤ GPS antenna and vehicle detection terminal interface is loose;</li> <li>➤ Detection of the first GPS antenna placement or antenna is moving overhead to the metal block;</li> <li>➤ Replacement GPS antenna, GPS antenna detect</li> </ul>

		<p>damaged</p> <ul style="list-style-type: none"> <li>➤ If the above test are normal, fault has not ruled out, please contact with equipment suppliers to solve;</li> </ul>
3	<p>☒ Unable to access GPRS network or GPS car terminal can not connect</p>	<ul style="list-style-type: none"> <li>➤ Check whether the car was in the GSM signal blind area, blind, or over time from another observation, to judge;</li> <li>➤ Detection of yellow LED lights if the scene is about 1 second flash once, if not normal, to below detection;</li> <li>➤ Detect SIM card is loose;</li> <li>➤ detect whether the SIM card arrears;</li> <li>➤ detect SIM card is burned;</li> <li>➤ detect GPRS antenna is loose or damaged;</li> <li>➤ If the above test are normal, fault has not ruled out, please contact with equipment suppliers to solve;</li> </ul>
4	<p>Can not send and receive text messages or send GSM SMS GPRS</p>	<ul style="list-style-type: none"> <li>➤ Check whether the car was in the GSM signal blind area, blind, or over time from another observation, to judge;</li> <li>➤ Detect the SMS platform obstruction (such as peak holiday to send and receive text messages) or Mobile GPRS network failure, if it is the problem, returned to normal mobile network, equipment failure automatically return to normal;</li> <li>➤ Detection GPRS antenna is loose or damaged;</li> </ul>
5	<p>Can not make calls</p>	<ul style="list-style-type: none"> <li>➤ If the GPRS network is normal, and service / dispatch center to confirm whether the phone call limit set;</li> <li>➤ Testing to confirm whether the opening voice SIM card</li> <li>➤ Detect whether the SIM card arrears;</li> <li>➤ Detection of the handle and GPS vehicle terminal connection is normal;</li> </ul> <p>If the above test are normal, fault has not ruled</p>

		out, please contact with equipment suppliers to solve
6	Can not set, set the failure	<ul style="list-style-type: none"><li>➤ Replacement handle reset;</li><li>➤ Replacement of the host to reset;</li><li>➤ Replacement confirmed by the results, determine the reasons for failure.</li></ul>

## 8. Optional accessories

### 8.1. 9PIN extension line



### 8.2. Monitor Line



### 8.3. Off oil relay

