GPS/GSM (GPRS) Vehicle Security System
Operation Instructions
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1 System Function Introduction

This vehicle security system has combined GPS and GSM (GPRS) functions. Location information within a text message in accordance with the requirements of mobile phone users will be sent from GPS to a specific phone or through the GPRS network to the GIS (geographic information system) server. It can achieve vehicle scheduling, monitoring, tracking and other functions, the system can also achieve the remote control car circuit, monitor phone calls and other functions, as the graph shown.

2 Production Description

This product is made up of GPS module and GSM (GPRS) module.
GPS can track the exact position of a car and GSM (GPRS) can achieve communications. There are five input ports and one three-way output control.

Data as shown in the table as below:

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSM DATA</td>
<td>Tri-mode: 850/900/1800/1900MHz</td>
</tr>
<tr>
<td></td>
<td>Tally with: GSM phase 2/2+</td>
</tr>
<tr>
<td></td>
<td>- Class 4 (2W @ 850/900MHz)</td>
</tr>
<tr>
<td></td>
<td>- Class 1 (1W @ 1800/1900MHz)</td>
</tr>
<tr>
<td></td>
<td>Max RF Output: 33.0dBm±2dBm</td>
</tr>
<tr>
<td></td>
<td>Dynamic Input Range: -15 ~ -102dBm</td>
</tr>
<tr>
<td></td>
<td>Receiving delicacy: Class II RBER≤2% (-102dBm)</td>
</tr>
<tr>
<td></td>
<td>Frequency Stability: &gt; 2.5ppm</td>
</tr>
<tr>
<td></td>
<td>Max Frequency Deviation: ±0.1ppm</td>
</tr>
</tbody>
</table>
### 3 Port Description

This equipment has double lines with 20 Pins, as the graph shown below:

<table>
<thead>
<tr>
<th>DATA1</th>
<th>DATA2</th>
<th>ANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>GPS</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>GSM</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

**Definition Declaration:**

<table>
<thead>
<tr>
<th>NO</th>
<th>DATA1</th>
<th>NO</th>
<th>DATA2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DC(9~24V)</td>
<td>1</td>
<td>UP_LOCK (DOOR unlock)</td>
</tr>
<tr>
<td>2</td>
<td>Alarm SPEAKER</td>
<td>2</td>
<td>DOWN_LOCK (DOOR LOCK)</td>
</tr>
<tr>
<td>3</td>
<td>LAMP1(SIGNAL LIGHT)</td>
<td>3</td>
<td>DOOR Switch</td>
</tr>
<tr>
<td>4</td>
<td>LAMP2(SIGNAL LIGHT)</td>
<td>4</td>
<td>LED-</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------</td>
<td>----</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>pOFF (Oil Control)</td>
<td>5</td>
<td>LED+</td>
</tr>
<tr>
<td>6</td>
<td>GND</td>
<td>6</td>
<td>J1 (bonnet switch)</td>
</tr>
<tr>
<td>7</td>
<td>GND (Shock Sensor)</td>
<td>7</td>
<td>J2 (trunk switch)</td>
</tr>
<tr>
<td>8</td>
<td>Shock Sensor Single</td>
<td>8</td>
<td>SOS button</td>
</tr>
<tr>
<td>9</td>
<td>Sensor Power Port (12V)</td>
<td>9</td>
<td>GND (RESET/SOS)</td>
</tr>
<tr>
<td>10</td>
<td>ACC</td>
<td>10</td>
<td>RESET button</td>
</tr>
</tbody>
</table>

The other side:

<table>
<thead>
<tr>
<th>SIM</th>
<th>PHONE</th>
<th>MIC</th>
<th>LED1</th>
<th>LED2</th>
<th>Reset</th>
</tr>
</thead>
</table>

SIM Card Ports:
PHONE— to listen
MIC - MIC to monitor
On_off – Power On-off
LED – Indicator light
RESET – Reset button
4  SMS  Operation Instruction

4.1  Query position

Message format: A+Password,+000 (Initial Password: 000000)
e.g. A000000,000

After the equipment receives the message, it will automatically reply a message with position information:

**Longitude E113.93923 Latitude N22.54079 08-10-20 17:38:30**

It indicates that East longitude 113.93923, North Latitude 22.54079, and Greenwich mean time 2008/10/20 17:38:30.

User can inquire about this data to know the exact position on Google Maps through internet. [HTTP://maps.google.com](http://maps.google.com)
4.1 Change Password

Message format: A+Old Password+,+001+,+New Password
e.g. A000000,001,123456
(Note: 000000 is the old password and 123456 is the new password.)
After the equipment receives the message, it will reply a message: Set
Password OK!

4.2 Real-time Position Tracking

Message format: A+Password,+002,+XXX
(Note: XXX=0 is for STOP, value of XXX is within [30~64800] seconds.)
e.g. A000000,002,30
Message replied after successful setting: Set time interval (30) OK!
Message contains position information will be sent in every three minutes
after successful setting: Longitude E114.04577 Latitude N22.32405 08-10-20
17:38:30 ,User can query the car’s driving track from the GIS software.

4.3 Emergency Phone Number Setting

Message format: A+Password,+003,+P,+TelNumber
(Note: P=1 is for SOS)
P=2 is for a second phone number
P= 3 is for a third phone number.
(Note: maximum number of phone numbers setting is limited by 3.
TelNumber is for Telephone Number, which must be less than 16 digits.)
e.g. A000000,003,1,136xxxxxxxx
Message replied after successful setting: **Set Telephone OK!**
SOS message will be sent after SOS button is pressed:
**SOS Pos: Longitude E114.04577  Latitude N22.32405 08-10-20 17:38:30**

### 4.4 Over speed Alarm

Message format: A+Password,+005,+XXX
(Note: XX is for SPEED)
=00, OFF
=XXX (unit: km/hr)
e.g. A000000,005,20  Message replied after successful setting: **Set Over speed (20) KM OK!** And also a prompt message will be replied when user is over speed: 20 KM/H Over speed!  This message will be sent to the phone number as set within the equipment or to the GIS network server.

### 4.5 e-Fence (Out of Bound Alarm)

User can specify a region that alarm will be turn on when the car leaves the mid-point of the designated distance.
Message format: A+Password,+006,+XX
(Note: XX is for DISTANCE (100metre/unit) in range of 00-50. When XX=0, e-Fence is OFF. And the maximum limited value of XX is 50x100=5000m.)
e.g. A000000,006,10
Message replied after successful setting: **Set Distance (1000)M OK!**
When user is out of the bound region (e.g. 1020m), a prompt message will
be sent to the user: **1020m is further than 1000m!**

### 4.6 Systemic Oil Line Interruption

Message format: A+Password,+007,X  

X=0  cut the oil of engine , x=1 resume the oil of engine  
e.g. **A000000,007,0**  

The equipment will not reply any message after an interruption order is received. The car will be cut off the oil of engine or sending the . And then the user can be in Defence-alarm-Off state to open automotive power.  
(Note: System will not limit the speed of car when the car power is off. You should use it carefully. This function is invalid if the power-off port is not connected to the car.)

### 4.7 Defence On-Off Message

Message format to be in state of Defence-alarm-On:  

A+Password,+008,+X  

X: 1 is for ON, 0 is for OFF  
e.g. **A000000,008,1**  

Message replied after successful setting: **Set Alarm OK!**

### 4.8 Anti-theft Alarm

This product has four detecting ports which can detect from five sensors: e.g. Shock Sensor, ACC Detection, Hood Detection and Automobile Door Lock
Detection. Alarm will be turn on after an illegal operation is triggered while under the Defence-alarm-On condition. And at the same time, the terminal will use SMS or via GPRS, to send the alert message to the specified phone number or to the GIS server. And message will be sent to the user when the alarm is triggered:

- Message from Shock Sensor: Sensor1 Alarm: Longitude E114.04577 Latitude N22.32405 08-10-20 17:38:30
- Message from Hood Sensor: Sensor2 Alarm: Longitude E114.04577 Latitude N22.32405 08-10-20 17:38:30
- Message from Back Door Sensor: Sensor3 Alarm: Longitude E114.04577 Latitude N22.32405 08-10-20 17:38:30
- Message from ACC Detection: KEY ON Alarm: Longitude E114.04577 Latitude N22.32405 08-10-20 17:38:30
- Message from Automobile Door Lock Detection: DOOR Alarm: Longitude E114.04577 Latitude N22.32405 08-10-20 17:38:30

5 GPRS /GIS Operation Instruction

5.1 GPRS Communications Settings

1. Confirm your SIM card that supports GPRS.

GPRS is invalid when you are out of your local area if your SIM card does not support global roaming
2. Set APN (APN(Access Point **NAME**))

Message format: \texttt{A******,012,APN}
Length of APN is limited within 100 characters. And APN is required for the first time use only. E.g.:A000000,012,cmnet .
\textit{E.g. A000000,012,cmnet}
“cmnet” is the APN of China Mobile

3. Send message which contains your IP and Port number.

Message format: \texttt{A******,010,IP,PORT}
length of IP is limited within 15 digits and length of Port number is limited within 5 digits.

\textit{e.g. A000000,010,219.134.65.243,6900}

\textbf{219.134.65.43} is the IP of GPRS_server , 6900 is the port of GPRS_Server application (be in communication with Vehicle terminal)

4. Open GPRS function

Message format: \texttt{A******,011,X}
\textit{(note:x=1 open GPRS, X=0 close GPRS)}

\textit{e.g. A000000,011,1}

GPRS function will be open , and send data to gprs server, otherwise, it can not send and receive data through GPRS. Users can turn off this function through SMS: A000000,011,0
5.2 Operation of the GIS

1. Please use user name and passage as fellow:

   Our website can use English and Chinese. We use Google name it is support many different languages. It can change language for different country by itself, red circle is for change language.
2. **vehicle real time monitor**

![GIS Web Vehicle Remote Query System](image)

3. **vehicle real time track**

   Please enter Vehicle tracking: 1 choose vehicle → 2 map mode → 3. vehicle state vehicle tracking every 30 secs will send one site include time status angle address latitude engine on-off switch situation. Google map have 3 model:  map mode, satellitic mode and mix mode

   Map mode:
satellite mode:

4. vehicle run history record review

Please point run history review page
1 choose vehicle → 2 start time → 3 inquire time → 4. setup review speed → 5 start review process you can know that time date, speed, way
and distance sum.