II. Technical Specification

Positioning way: GPS (With GPS SIRF-Star III chipset)
Data communications: GSM/GPRS
Automatic Return warning
Normal artificial inquires Return
Return positioning / state data elements:
Time, vehicle status, longitude, latitude, speed, direction,
GPRS Timing Position Report: 5-999 Seconds
Position Data Return Mode:
A. Report Automatically
B. Request Return with Manpower
Power voltage: 12V DC
Supply range: 11 to 30 v DC
Power: standby current ≤80mA
Awaiting the current ≤30mA
Peak State: ≤200mA
Working Temp: -20 ~ 60 °C
Working Humidity: 22% ~ 80%
Mainframe weight: 200g
Standard frequency: 900/1800MHz
(850/900/1900/1800MHz optional)
Precision range: Less than 10 meters,
Main unit Size: 88mm×64mm×23mm

III. Feature & Functions:

3.1 GPS/GSM/GPRS real time positioning function
A. Through GPS global satellite positioning and GSM base stations
3.6 Low power alert
The system will immediately alert the car owner "Low battery alarm!" via SMS when its main power less than 10.2 voltage.

3.7 Displaying location on your cell phone
Send command "123456FIND" to the SIM card number of main system. It will reply a URL within the location SMS to your cell phone like:
http://maps.google.com/maps?daddr=22.54613,113.92667
Click the URL on your PDA cell phone then you can see the location on google map.

3.8 Speeding alert
The system will immediately alert the car owner "Please drive cautiously!" via SMS when overspeed.

3.9 Parking alert
The system will immediately alert the car owner "Park overtime alarm!" via SMS when car is parking overtime.

3.10 Monitoring function
After vehicle alarming, issues instruction "123456MON" to the SIM card number of main system, it will call back the number preset and press the answer key to listen in the car.

3.11 Two way voice communication
Car owner can send speaker command to sim card number of the device then the system will calling to your appointed phone number and car owner can press the answer key to speak to the driver.

3.12 Movement alert and Geo-fencing alarm

WIRELESS GPS/GSM/GPRS TRACKER

Operating Instruction

Users can preset a certain range, when the vehicle is subjected to illegal shift or in excess of the default region, the system will automatically alarm to the owner or center.

3.13 SOS alarm and one key call
When driver press on the SOS button then the system will sending SOS alert message to your appointed phone number (Owner mobile phone number) and the same time system call back to the phone number and car owner can press the answer key to listen in the car.

3.14 Work compatible with existing remote controller, arm and disarm in a synchronous manner with existing remote controller.
WA3 can be compatible with the original car's central locking, using the original remote controller to arm and disarm the system.

3.15 Vibration alarm
In arm status, the vibration sensor induced by vibration alarming, then send alarming information to car owner or center.

3.16 Engine ignition alarm function
In arm status, it will send "engine ignition" alarm to car owner when car engine is illegal start, at the same time the vehicle be stealth locked automatically.

3.17 Illegal door open alarm
In arm status, it will send "illegal door open" alarm to car owner when the door is illegal opened, at the same time the vehicle be stealth locked automatically.

3.18 Support GPS central monitoring software and web tracking
Please refer to the specific of "VI in this operating instructions."
IV. Installation

4.1 Attention and preparation

4.1.1 Please read carefully of this user manual and know well of the wiring diagram as well as the circuits and wiring methods of the car which you want to install. We suggest to ask for Automotive Electrical Maintenance Professionals to install, please keep in mind don't install by yourself or ask for whom without any qualifications.

4.1.2 Test SIM card(user prepare by yourself)
Each device needs a GSM SIM card. How to choose the SIM card, please consult the dealers.
Please use the ordinary GSM cell phone to test the SIM SIM card(if the SIM card has boot password, please remove and cancel; dial test; answer the call test; SMS receiving test; SMS sending test)

4.1.3 SIM Card installation:
There is a yellow button on the right of the terminal device. Press the button, SIM card slot will be pop-up, fix the card then push it in, also please remember the SIM card number.

Note:
1) Use a new GSM SIM card, as all info in this card would be automatically cleared in this alarming system.
2) Use a GSM SIM card with service of Incoming Telephone Number Display.
3) Use a GSM SIM card of gprs features have been enabled to login internet.
Please you need to apply from the sim card provider.

4.2 Installation instructions

4.2.1 The installation of main unit:
To avoid thief's damage, the main unit position should be concealed. Avoid placing together with heat or humidity and put away from other electrical equipment in the car. After confirming of the installation location, then make sure the SIM card is inserted. You can use screw or strong double-sided adhesive paste to fix the main unit. In the meanwhile, avoid putting the main unit together with the emission source, such as reversing radar, anti-theft system and other car communicating equipment

Suggestion installation position:
In the car trunk
Under the seat
Below the dashboard
The sketch map of main unit side face:

4.2.2 GPS antenna installation
Note:
To check whether the vehicle is affixed with a metal explosion-proof film, and if so, it will affect the GPS signal reception.
Sucker down to the GPS antenna (with suction side of plane) was placed
in a horizontal position, if necessary, double-sided adhesive can be used for fixation. It does not allow any metal shielding material between the GPS antenna and the sky, the antenna should be installed to ensure the positive side up, in the top of the 120-degree angle within the block will not have metal objects, or it will affect the satellite signal reception.

Suggestion installation position:
- inside concealment of front windshield
- bottom of plastic or glass fiber reinforced plastic bumper

Warning:
For avoid the GPS system can't be work, please don't anti connect both of GPS and GSM antenna!

4.2.3 GSM antenna installation
Keep the GSM antenna pasted vertically, leaving some space above it to make it in the best condition, and maintain a certain distance with the other radio equipment inside the vehicle to avoid mutual interference. Provided that they meet the above conditions, it can be installed at any place, to ensure that the normal reception of the signal (transmission) as the background, to install it as secluded as possible.

4.2.4 Installation of microphone and speaker
Microphone and speaker is installed in the hidden place in front of car. Also it can be installed in some hidden, good-effect monitoring location according to the demands of customers(if possible, avoid the place near the door)

Recommended installation position:
sun visor above the driver

some hidden place near the center console
hidden place behind the rear-view mirror inside car
sun visor on the top of the host seat

4.2.5 Installation of SOS button
Pull up the wires of the manual emergency alarm button to the left downside of the front dash board of the driver seat; please click this button for 3 seconds when the vehicle is being robbed or in serious accident whether in parking or moving status, then the device will instantly and automatically send emergency help information to center.

4.2.6 Installation of wireless relay
Note:
Please install wireless relay in the hidden place of the car!
Please the wireless relay keep away from engine and avoid high-temperature!

wireless relay
Black: Red:+12V power
Junction
Blue cables be connect to engine
4.2.7 Installation of vibration sensor (outline).

**Remark:**
1. ACC should be connected or it won't work correctly.
2. Before connect the main unit please make sure all the cables have connected correctly or the central lock will not identify.

4.2.8 Installation of Main power supply (outline).

4.2.8 The installation of power line
1) Confirmed that all the above is correct before they are allowed to connect the power supply device;
2) Device supply voltage range of 12V - 25V;
3) The red line power is positive, black is negative;
4) The proposed connection is access device power to car battery, so as not to tandem with other equipment;
5) Re-check if there is any problem of the connection, connecting all the turn connector after confirmation, open the power switch of main unit.

**Note:**
1. Install the device according to the above steps in order as much as possible, make sure no power supplied during the process of installation.
2. The product has automatic identification line function, if there is any optional vibration sensor user, please be sure to install well the wires of vibrator and then connect the plug to host system.
3. Before using the product, you'd must check if the vibration or emergency button line is correctly connected to main unit, otherwise it will affect normal use of other features, such as wireless relay will not
4.2.9 Wiring Diagram

GPS TRACKER WIRING DIAGRAM

GPS Antenna Connect

Main System Wiring Diagram

Vibrator Wiring Connection

Note: Before working vibrator or SOS cable connected to main unit is the must!

Operating Instruction

V. Operation and System Setup:

Description:
The management center is set up by center command, to use the user manual of center software, has no description in the user manual.

5.1. System Setup

Prepare for testing:
1) Prepare a valid GSM SIM card; insert it into the SIM card slot on the main unit.
2) Install the system according to the wiring diagram
3) Setup the system according to the SMS command.
4) User could send out the command via SMS to test the function, include sound monitor, and position the car, change password and so on.

5.2. Center System setup command:

▲ The format of command for center system setup:

CEN123456 + 10Owner mobile phone number1 + 20Owner mobile phone number2 *

Example: if your phone#1 is 8035000001; phone#2 8035000002; please you need to send below command to device.

CEN123456*108035000001*208035000002*

After main unit receive this message, it will reply the same message content to your phone number, set up successfully.
**Operating Instruction**

**Note:**
1. The default password is 123456, you can change the password before use.
2. The CEN is the control command codes (capital), no spaces.
3. Cancel system phone number command: CEN/123456*10*20*30*

**Important:**
1. **Owner mobile phone number** can receive alarms except SOS alarm. But monitoring function only can be call back to this phone number.

   For example: when you send monitor command "123456MON" to device's sim card, the system will only can be call back to this number, and you can listen in the voice around the car upon picking up the call.

2. **Owner mobile phone number** is used to receive emergency SOS alarm and all others alarms.
   Where there is an emergency SOS alarm, it can receive text alarm message from the main unit system.

**Otherwise:**
System will send back messages alarm and running call back to owner's phone number until someone picking up the call.

**5.3. Main operation commands...**

**SMS Control Command**
The user can control the vehicles by command

The format of the command is:

**user's password (123456) + control code (XXX)**
The default password is 123456.
XXX is the control code; it must be capital letter.
There is no space between the user password & the control instruction.

**WIRELESS GPS/GSM/GPRS TRACKER**

This command is for password changing. The length of the user password is 2-6 digits. Users are suggested to change to the new password in the first time.

Example: User send the SMS '123456PSW1234' to the system SIM card number, and gets the confirmation SMS 123456PSW1234 in 10 seconds. It means that the user password has been changed to 1234.

**123456ARM**
Arm the system. The system will send back a message of current position of vehicle.

**123456DSM**
Disarm the system. The system will send back a confirm message of current position of vehicle.

**123456TP**
Disable vehicle. The system would send back a message of current position of vehicle.

**123456RES**
Restore the car to normal status after stopping the car.

**123456CHK**
The system will send back a SMS, with Arm /Disarm state, LONG, LAT, speed, direction. The system will send back one SMS with gps data and car state.

**123456MON**
Listen in the sound around the car.
Use owner cell phone to send this command to the system, the system...
will call back the telephone of owner, user could listen in the voice around the car upon picking up the call.

◆ **123456SPK**

When you send command "123456SPK" to the SIM card number of main system, it will call back the [Owner mobile phone number]. Then press the answer key to speak to driver.

5.4 Main Function Setting Methods.

◆ **Geo-fence set up**

Command:

- 123456FEN0  Deactivate the Geo-fence
- 123456FEN1  Activate the geo-fence
- 123456FEN1(YL:XX,XL:XX,DL:XX)

YL:XX  XX is latitude(degree),
XL:XX  XX is longitude (degree),
DL:XX  XX is the distance of latitude& longitude (km)

Example:
I want to activate the fence, if the center's latitude is 23.1400, longitude is 113.4500, if the fence is a circle with Radius of 100meters, then the SMS instruction is: 123456FEN1(YL:23.1400,XL:113.4500,DL:001)

Note: The distance range 100 to 99000 meters.

◆ **Set up Movement alert**

Command: 123456MOVx

X=0, to deactivate the movement alert
X=1, to activate the movement alert, using the latitude & longitude of present location.
X=7, to check the movement alert station.

Once the system is arm, the movement alert will automatically be activated. Once the system is disarmed, the movement alert will automatically deactivated.

In arming condition, you could send 123456MOV1 to activate it & test the function.

◆ **Set up Speeding alert**

Command:

- 123456SPD:X  Restrict overspeed(unit:kilometer)
- 123456SPD:0  Close the speeding alert.

For example:
Send command "123456SPD:120 " to the SIM card number of main system, suggest that it will alarm when the speed is over 120kms.

◆ **Set up Parking alert**

Command:

- 123456PARK:X  Restrict parking overtime(unit:minute)
- 123456PARK:0  Close the parking alert.

For example:
Send command "123456PARK:20 " to the SIM card number of main system, suggest that it will alarm when the park time is over 20 minutes.
**WIRELESS GPS/GSM/GPRS TRACKER**  Operating Instruction

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**VI. How to Search Your Vehicle Position**

**6.1 Displaying location on your cell phone**

Send command "123456FIND" to the SIM card number of main system. It will reply a URL within the location SMS to your cell phone like:

http://maps.google.com/maps?ll=22.54613,113.92587

Click the RUI on your PDA cell phone then you can see the location on google map.

Click the RUI then you can see the location.

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**6.2 Through Our Client GPS Software System**

Please make application from your dealer!

**6.3 Through free web tracking system**

http://www.gpschk.com

As long as you remember the service code of your vehicle, you can track your vehicle everywhere through any mobile phone.

For example:

If you input inquiry command: "123456CHK" to SIM card number of your GPS/GSM car alarm system, you would get a message:

"Car is Armed, Y: +48.859800, X: -002.29494, D:000.00,N, KM:000.00,GSM CODE:25330F0" Within 10 seconds. Then enter the eastern longitude, Northern latitude to online tracking software, you would know the position of your vehicle.
6.4.2 Send the following commands to your device:

Command A:

```
123456WWW; IDN; str;IPN; str;COM; x
```

Example:
Your device ID number is 26016100100133; server IP is 58.218.211.213; and port is 7020. You should send below of command:

```
123456WWW:IDN:26016100100133;IPN:58.218.211.213;COM:7020;
```

Command B:

```
123456WWW; APN; str;GPRS; x;RPT;x
```

Example 1:
Your APN is CMNET and it's don't have user name and pw you should send this command:

```
123456WWW:APN:CMNET;GPRS:1;RPT:15;
```

Example 2:
If your APN is "web.gprs.mtnigeria.net" and it with user name and pw "web", the command format should be:

```
123456WWW:APN:web.gprs.mtnigeria.net,web,web,GPRS:1;RPT:15;
```

Attention:

IDN: str; The "str" is the 14 digits ID number attach in side the device, use ";" to end.

IPN: str; The "str" is server IP, use ";" to end.

GPRS: x; x=0, Close GPRS; x=1, Open GPRS, use ";" to end.

APN: str; The "str" is your sim card APN Name, User ID, Password, use ";" to end.
WIRELESS GPS/GSM/GPS TRACKER

Operating Instruction

COM: set The "str" is server port, use ";" to end.

RPT: x: Uploading time, use ";" to end. (If x=0 default uploading time is 3 minutes, time extent: 10~999 secs.)

6.4.3 Inquiry about set-up parameter of command:

123456WWW

Note:
123456 is your device password, if you have changed, you need change it to your password.

6.4.4 After you set the gprs feature successful, please you can go to the website to tracker your cars.
Website http://www.gps chk.com
Login user name and password please ask your publisher.

GPS Tracking System

Time: 2010.7.13 10:16

6.4.5 After Login the online GPS Tracking System, Please click MONITOR , to open the Voitures List and chose your user ID and click . The position will be showing on the map.

6.4.6 History Playback(vehicles moving track)

1) Click "playback" button and Select the user ID in vehicle list also please setting the time.