



GPS Tracking System

# Operation Manual

Version V1.0

---

**Narada Power Source Co., Ltd.**

## Content

|   |   |
|---|---|
| Charpter I Introduction of Battery GPS tracking system series ..... | 2 |
| 1.1 Product characteristics .....                                   | 3 |
| 1.2 The main field of application .....                             | 4 |
| 1.3 Product structure .....   | 4 |
| 1.4 Working principle.....  | 5 |
| Charpter II Technical specification .....                           | 5 |
| 2.1 GPS Module working current .....                                | 6 |
| 2.2 Application scope of battery working temperature .....          | 6 |
| 2.3 Parameter of positioning and transmitting module .....          | 6 |
| Charpter III Battery operation and maintenance .....                | 6 |
| 3.1 Parameter configuration for mobile phone terminal .....         | 6 |
| Charpter IV Customer service .....                                  | 9 |

# Chapter I Introduction of Battery GPS Tracking System

## Product Characteristics

### 1.1 Product characteristics

#### 1.1.1 Stable Telecommunication Technology

GSM network is most suitable for mobile data communication platform; its communication bandwidth is highly reliable and secure.

#### 1.1.2 Advanced positioning technology

Adopt GPS positioning information technology, it has excellent performance on positioning accuracy and speed.

#### 1.1.3 Concealed installation and convenient usage

Install in the battery itself, using 2V battery power to supply electricity, no need for external power supply.

#### 1.1.4 Various alarming trigger module

It will trigger alarm while battery vibration, GPS coordinate changes, GSM exchange and site code changes.

#### 1.1.5 The system connected through GPRS Network, timely map of affiliated GPS

positioning platform is showing alarming coordinate and walking route.

#### 1.1.6 Reliable Stable system

Timely record and sent the latest GPS coordinate for your easy searching while GPS tracking device moved into cellar, garage or underground where GPS coordinate can't be read.

#### 1.1.7 It can setup 5 sets of SMS alarming receiver number, identify them automatically as mobile or fix line

#### 1.1.8 SMS alarming, show alarm information and address information while alarming.

#### 1.1.9 Positioning current coordinate while installation, alarming information displays positioning coordinate and current coordinate in details, convenient for user's reference.

#### 1.1.10 Customer can monitoring the conversation near the GPS tracking device

## 1.2 The main application field

1.2.1 Communication exchange and transmitting system

1.2.2 Mobile communication system

1.2.3 Beacon signal system

1.2.4 Solar energy storage system

1.2.5 Radio and broadcast station

1.2.6 Other equipment, cycling system

## 1.3 Product Structure

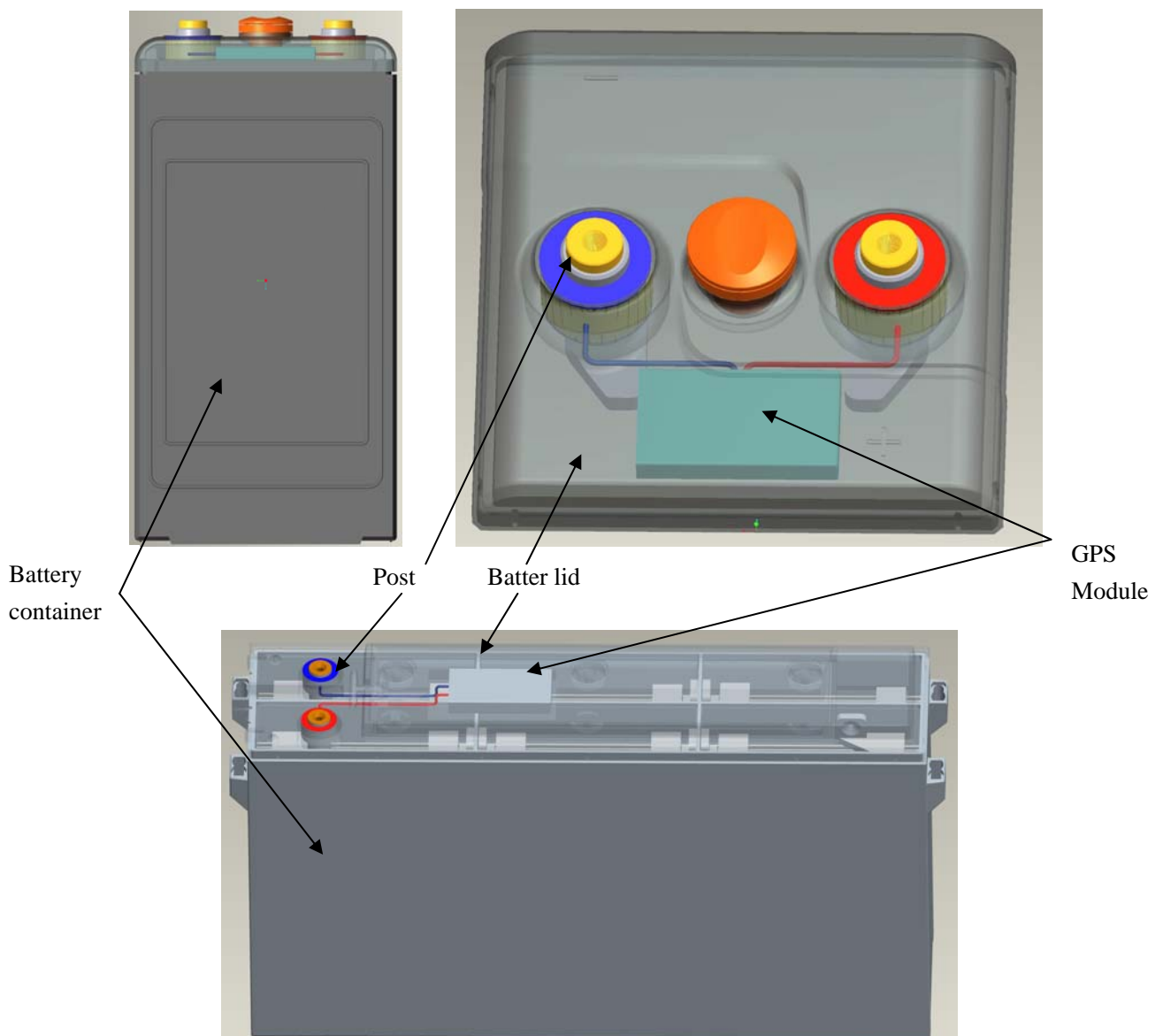


Fig. 1-1 Product structure drawing

## **1.4 Working principle**

The product series adopt the high technology of GPS (Navigation Satellite Timing And Ranging Global Position System) combined with wireless communication technology (GSM or CDMA), geographical information management system (GIS), realize the battery monitoring. Through digital channel of GSM network, the information will be transmitted to monitoring centre, it will use differential technology to convert the position information, then use map language to show the position signal through GIS, finally it could realize the performance of positioning and navigation, anti-theft and anti-robbery, distance monitoring, tracking record, etc.

GPS tracking device fixed inside battery after anti-acid treatment, connected with battery positive and negative post via wires, guarantee the constant power supply after battery was stolen.

## Chapter II Technical specification

### 2.1 GPS module working current

Table 2-1 working current scope

| Working state | Stand-by state | Normal working | Alarming | Instantaneous maximum current |
|---------------|----------------|----------------|----------|-------------------------------|
| Current /mA   | 70             | 110            | 110~200  | 1200                          |

### 2.2 Application working temperature scope of battery

Table 2-2 Battery working temperature scope

| Working state    | Working temperature | Preferred working temperature |
|------------------|---------------------|-------------------------------|
| Charge/Discharge | -20°C~50°C          | 15°C~25°C                     |
| Storage          | -20°C~40°C          | 15°C~25°C                     |

### 2.3 Parameter of positioning and transmitting module

- A. Positioning method: GPS satellite
- B. Sensitivity : -104dBm
- C. Accuracy: 50 meters
- D. Transmitting module: GPRS/SMS

## Chapter III Battery operation and maintenance

### 3.1 Parameter setup for mobile phone terminal

#### 3.1.1 System parameter setup sequence

- 3.1.1.1 System initial code: "111111", password must be 6 digitals and must be the number.
- 3.1.1.2 System code: each GPS module should equip one mobile phone SIM card, used for parameter setup.
- 3.1.1.3 After finishing set of host ID code, then Setup host installation address, just current site position and name.
- 3.1.1.4 Modify host password
- 3.1.1.5 Setup alarming receiver number
- 3.1.1.6 Setup mobile defence/withdrew defence
- 3.1.1.7 search equipment status

- 1) Setup host ID code

Product is with prepared 10 digit ID number when ex-factory, installation staffs need to setup Host ID number first, eg. Ex-factory code is ID number: 0010000001

Send message through mobile phone \*\*\*\*\*ID0010000001 (\*\*...is current password) to GPS system mobile phone, if setup is successful, tracking device will return back the message (Set ID successfully)

## 2) Setup Host installation address

Send message through mobile phone : \*\*\*\*\*DXXXXXX (\*\*...is current password, XX...is setted address information, address information is Maxim 32letters) to GPS system mobile phone, If currently has GPS information, the alarming will return back

Setplace address information successfully,

Current: XX.XXXXXN,XXX.XXXXE,

Net code: XXXXXXXXXXXX,

Place address: XXXXXXXXXXXX

If it has no longitude and latitude information, the alarming will return back:

Sorry, No longitude and latitude now, Can't set place address!

## 3) Modify Host password

Send message through mobile phone \*\*\*\*\*MXXXXXX (\*\*...is current password, XX is new password) to GPS system mobile phone,

Setup is successful, the alarming device will return back

New password: XXXXXX

4) Setup alarm receiver number (You could setup 5 alarming number at one time, A is alarming center number in it, the numbers are separated by #)

Send message through mobile: \*\*\*\*\*J13512345678#13698765432 (\*\*...is current password) to GPS system mobile phone

If setup is successful, the alarming device will return back

Phone/

A:13512345678

B:13698765432

#### 5) Checking warning receiver mobile number

This function is used for checking which numbers are established for warning message receiving. .

Use Mobile send SMS \*\*\*\*\*JC (\*\*\*\*.is current password) to GPS tracking device number,

If operation performed successfully, GPS tracking device will send SMS back

Phone/

A:13512345678

B:13698765432

#### 6) Defense mode activation

GPS tracking device will send SMS alarm to nominated mobile after system activated

Use Mobile or platform software send SMS: \*\*\*\*\*K1 (\*\*.is current password) to GPS tracking device

If set successfully GPS tracking device will return SMS:

Armed,

Original:XX.XXXXN,XXX.XXXE,

Current/Last:XX.XXXXN,XXX.XXXE,

Net code:XXXXXXXXXX,

Place address:XXXXXXXXXX.

7) Temporary defense withdrew: After sending command temporary defense withdrew GPS tracking device will hibernate for 2hours and after two hours system will reactivated automatically

Use Mobile or platform software send SMS: \*\*\*\*\*K0 (\*\*\*\*.is current password) to GPS tracking device number,

If operation performed successfully, GPS tracking device will send SMS back

: Disarmed,

Original:XX.XXXXN,XXX.XXXE,

Current/Last:XX.XXXXN,XXX.XXXE,

Net code:XXXXXXXXXX,

Place address:XXXXXXXXXX.

Permanently defense cancellation ( after sending this command , GPS tracking device will swift to permanent defense cancellation mode and will not automatically triggered for defense mode) Use Mobile send SMS: \*\*\*\*\*K2 (\*\*\*\*.is current password) to GPS tracking device number,

If operation performed successfully, GPS tracking device will send SMS back



Disarmed always,  
Original:XX.XXXXXN,XXX.XXXXXE,  
Current/Last:XX.XXXXXN,XXX.XXXXXE,  
Net code:XXXXXXXXXXXX,  
Place address:XXXXXXXXXXXX.

#### 8) Checking GPS tracking device current working mode.

This function is used for checking GPS tracking device current working mode.

Use Mobile send SMS \*\*\*\*\*C (\*\*\*\* is current password) to GPS tracking device number,

If operation performed successfully, GPS tracking device will send SMS back

Armed/Disarmed/Disarmed always,  
Original:XX.XXXXXN,XXX.XXXXXE,  
Current/Last:XX.XXXXXN,XXX.XXXXXE,  
Net code:XXXXXXXXXXXX,  
Place address:XXXXXXXXXXXX.

#### 9) Checking GPS tracking device status

Use Mobile send SMS \*\*\*\*\*S (\*\*\*\* is current password) to GPS tracking device number,

If operation performed successfully, GPS tracking device will send SMS back

GSM signal:XX,  
GPS:Normal/Abnormal,  
RF transmit:unknown,  
Current/Last:XX.XXXXXN,XXX.XXXXXE,  
Net code:XXXXXXXXXXXX,  
Place address:XXXXXXXXXXXX.

## Chapter IV Customer Service Hotline

### **Narada Power Source Co., Ltd.**

9F, Building A, No. 50 Zijinghua Road,  
Hangzhou, China

Tel: +86-571-28827007; 28827013

Fax: +86-571-28828290

Email: [intl@narada.biz](mailto:intl@narada.biz)

### **Narada Asia Pacific Pte. Ltd.**

65 Ubi Crescent #07-05 Hola Centre  
Singapore 408559

Tel: +65 6848 1191

Fax: +65 6749 3498

Email: [sales@narada.com.sg](mailto:sales@narada.com.sg)

### **Narada Europe (UK) Limited**

Spectrum House, Dunstable Road,  
Redbourn, St.Albans, Herts, AL3 7PR

Tel: +44 (0)845 371 7095

Fax: +44 (0)845 612 2031

Email: [sales@naradaeurope.com](mailto:sales@naradaeurope.com)