

MEITRACK P99G User Guide



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1 Copyright and Disclaimer

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2 Product Overview

The P99G is a 3G personal tracking device and is specially designed for sports lovers and lone workers both indoors and outdoors. It has the following features:

- IP67 water resistance rating
- Two-way calling
- Press the SOS button to call the designated contact in case of emergency.
- Low power consumption and long standby time
- Polygonal geo-fence alarm
- Man down alarm
- Wireless charging (optional) and magnetic charging

2.1 Product Features

2.1.1 Four Positioning Modes

There are four positioning modes available: GPS + WiFi + LBS positioning, WiFi + LBS positioning, GPS + LBS positioning, and LBS positioning.

You can set a positioning mode as required by Meitrack Manager or A85 command.

Working hours in normal working mode:

GPS + WiFi + LBS Positioning	
Time Interval	Working Hour
10s	16h
60s	28h
60 mins	48h

WiFi + LBS Positioning	
Time Interval	Working Hour
10s	16h
60s	37h
60 mins	115h

GPS + LBS Positioning	
Time Interval	Working Hour
10s	16h
60s	28h
60 mins	48h

LBS Positioning	
Time Interval	Working Hour
10s	20h
60s	81h
60 mins	118h

The preceding working hours are for reference only and vary depending on your usage.

Note:

1. The WiFi positioning function will be enabled automatically only after the function is set in advance and the GPS is invalid.
2. You can enable the WiFi positioning function by Meitrack Manager or MS03 tracking system.
3. The WiFi positioning function is optional.

2.1.2 Power-Saving Mode

This working mode is not recommended for frequent positioning and continuous platform connection for a long time. A piece of positioning data can be uploaded at 5-minute intervals or 10-minute intervals.

This mode can help prolong the device's working hours, but the device cannot receive GPRS commands from the platform. In addition, the device can receive SMS commands.

You can use the following ways to set the device:

1. Set the deep sleep mode by Meitrack Manager or A73 command.
2. Set the heartbeat packet reporting interval by Meitrack Manager or A11 command.
3. Use Meitrack Manager or A83 command to set the maximum working time of the GPS module woken up by heartbeat packet.

Working hours in deep sleep mode (The maximum working time of the GPS module is 2 minutes after it is woken up by a heartbeat packet.):

GPS + WiFi + LBS Positioning	
Time Interval	Working Hour
10 mins	180h
60 mins	416h

WiFi + LBS Positioning	
Time Interval	Working Hour
10 mins	230h
60 mins	390h

GPS + LBS Positioning	
Time Interval	Working Hour
10 mins	200h
60 mins	425h

LBS Positioning	
Time Interval	Working Hour
10 mins	250h
60 mins	400h

The preceding working hours are for reference only and vary depending on your usage.

2.1.3 Setting the Data Interval to 1 Second

The device can generate a piece of positioning data every 1 second. This function is available for sports lovers and users requiring smooth routes.

You can set the function by Meitrack Manager or A84 command. The default time interval is 10 seconds.

Note: The device can generate a piece of data every 1 second, but it cannot upload the data every 1 second.

2.1.4 Powering Off the Device by C76 Command

This function is available for sports lovers and lone workers. They can turn off the device by C76 command instead of the power button.

This function is disabled by default.

2.1.5 Automatic APN Settings

This function is enabled by default. After you install a SIM card, you can use the MS03 platform directly and do not need to set APN parameters.

Note: If you install a SIM card and the device cannot connect the network for a long time, maybe your SIM card is provided by a new operator or the device does not store the APN settings. You can use Meitrack Manager or A81 command to set APN parameters again. You can also provide the APN settings for us, so that you do not need to set the APN parameters again.

2.1.6 Two Charging Methods

You can use any of the following methods to charge the device:

- Wireless charging (optional): To charge your device, place it on the charging base. This avoids complicated cabling.
- Magnetic charging: The current is 1800 mA during the charging. The larger the current is, the faster the charging is. It will take about 2.5 hours to charge the device.

For details, see section 6.1 "Charging the Device."

3 Product Functions and Specifications

3.1 Product Functions

3.1.1 Position Tracking

- GPS + LBS + WiFi positioning (WiFi positioning optional)
- Real-time location query
- Track by time interval
- Track by distance
- Track by mobile phone
- Speeding alarm
- Cornering report
- A-GPS

3.1.2 Emergency Alarm

SOS alarm

3.1.3 Other Functions

- SMS/GPRS/UMTS (TCP/UDP) communication (Meitrack protocol)
- GPS blind spot alarm
- Over-the-Air (OTA) update
- Low power alarm for internal battery
- 3D shake wakeup
- Listen-in/Two-way calling
- Polygonal geo-fence
- Stillness/Movement alarm

- Online Parameter Editor
- IP67 water resistance rating
- Towing alarm
- Mileage report
- Wireless charging (optional)
- Device parameter backup

3.2 Specifications

Item	Specifications
Dimension	18 mm x 108 mm x 52 mm
Weight	106g
Frequency band	GSM: 850/900/1800/1900 MHz UTMS: 800/850/900/1900/2100 MHz
WiFi positioning	WiFi 2.4 GHz 802.11 b/g/n
GPS positioning accuracy	2.5m
Water resistance rating	IP67 (Withstand being submerged in water for up to 30 mins in a 1-meter depth.)
Operating temperature	-20°C to 55°C
Operating humidity	5%–95%
Memory	8 MB
Sensor	3-axis accelerometer
Microphone/Speaker	Internal microphone and speaker
LED indicator	3 indicators showing power, WiFi, GSM, and GPS status
Backup battery	2000 mAh/3.7 V
Power consumption (normal)	40 mA (average current; 3.8 V; GPS ON; WiFi ON; upload data every 60 minutes) 50 hours of battery life: upload data every 60 minutes
Power consumption (standby)	5 mA (average current; 3.8 V; GPS OFF; WiFi OFF; don't upload data) 400 hours of battery life
Charging	2 charging methods: a) Wireless charging (optional): 500 mA (charging time: about 6.5 hours) b) Magnetic charging: 1800 mA (charging time: about 2.5 hours)
Button/Switch	1 SOS button (used for sending SMS/GPRS alarms and calling) 1 power button 2 volume buttons 1 answer button 1 hang-up button

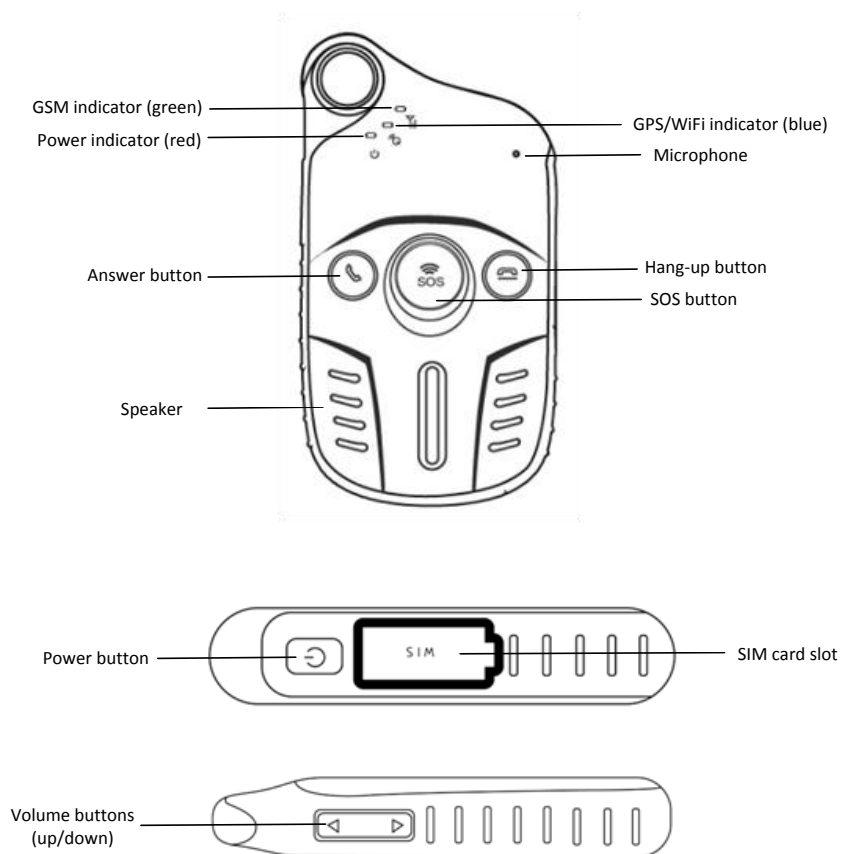
4 P99G and Accessories

- P99G tracker

- Magnetic charging cable
- Travel adapter
- MEITRACK P99G Quick Start Guide
- Wireless charging base (optional)
- Hanging buckle (optional)
- CD download card

5 About the P99G

5.1 Appearance



5.2 LED Indicator

Power On: Press and hold down the power button for 3–5 seconds. Then the LED indicators will blink.

Power Off: Press and hold down the power button for 3 seconds. Then the LED indicators will blink for at most 25 seconds.

Indicator	Indicator Status	Description
GPS indicator (blue)	Blink (every 0.1 seconds)	The device is being initialized.
	Blink (0.1 seconds on and 2.9 seconds off)	A GPS signal is received.

	Blink (1 second on and 2 seconds off)	No GPS signal is received.
	Steady off	The device is turned off or is in sleep mode, or the GPS module stops.
WiFi indicator (blue)	Blink (0.1 seconds on and 2.9 seconds off); 2 times	A WiFi hotspot is available.
	Blink (1 second on and 1 second off); 3 times	The WiFi positioning function is disabled or no WiFi hotspot is available.
GSM indicator (green)	Steady on	A call is coming in or a call is being made.
	Blink (every 0.1 seconds)	The device is being initialized.
	Blink (0.1 seconds on and 2.9 seconds off)	A GSM signal is received.
	Blink (1 second on and 2 seconds off)	No GSM signal is received.
	Steady off	The device is turned off or is in sleep mode.
Power indicator (red)	Steady on	The device is charging.
	Steady off	The device is fully charged or works properly.
	Blink (0.3 seconds on and 0.3 seconds off)	The battery power is low.

In standby mode, press and hold down the hang-up button to detect the WiFi signal. Then all indicators will be off. After 5 seconds, the blue WiFi indicator will blink according to the previous table and show the WiFi status. The device will recover to the standby mode 1 second later.

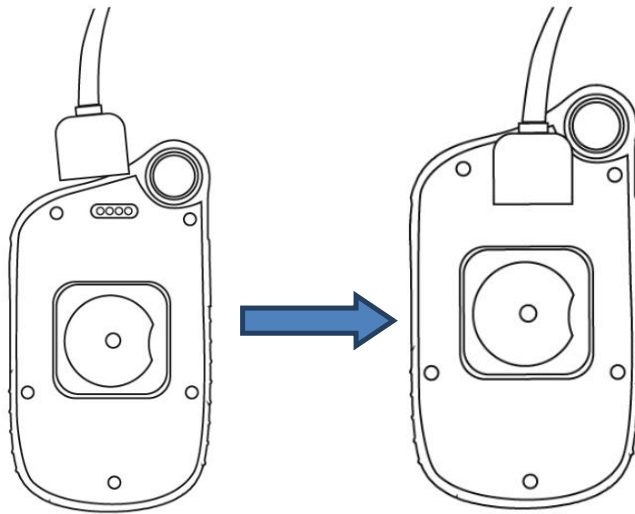
6 First Use

6.1 Charging the Device

6.1.1 Magnetic Charging

Attach one side of the magnetic charging cable to the body of the device, and plug the other side of the magnetic charging cable into the adapter (5 V, 2 A), as shown in the following figures.

When the red indicator is steady on, the device is charging.



It will take about 2.5 hours to charge the device.

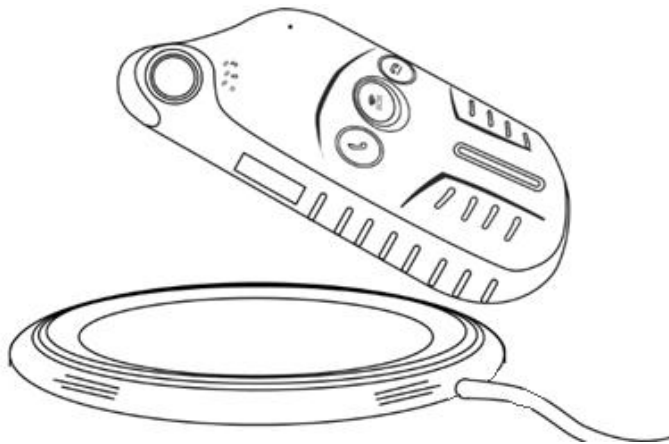
Note: If you plug the magnetic charging cable into a computer, it will take about 6.5 hours to charge the device.

6.1.2 Wireless Charging

Place your device on the charging base, as shown in the following figure.

Note: You had better place the device at the center of the charging base.

When the red indicator is steady on, the device is charging; when the red indicator is off, the device is fully charged.



It will take about 6.5 hours to charge the device.

Note: This function needs to be set before shipment.

6.2 Installing the SIM Card and Turning on the Device

To install the SIM card, open the rubber cover on the right side of the device, insert the SIM card, and close the rubber cover, as shown in the following figure.

After charging, press and hold down the power button for 3–5 seconds to turn on your device and start using it



Note: Ensure that the rubber cover is properly closed, so as to prevent water from entering the device.
Please read the following instructions to know more about its functions.

7 Quick Operation Command

Before use, common parameters must be set by SMS command or Meitrack Manager.

7.1 Tracking by Mobile Phone

This section describes how to query device's current location, ensuring that the GPS is working normally.
Call the device's SIM card number, and hang up after the dial tone rings 2–3 times. The device will reply to an SMS with a map link.
Click the SMS link. The device's location will be displayed on Google Maps on your mobile phone.
Note: If an authorized phone number was set by SMS command A71, only this phone number can receive SMS reports.



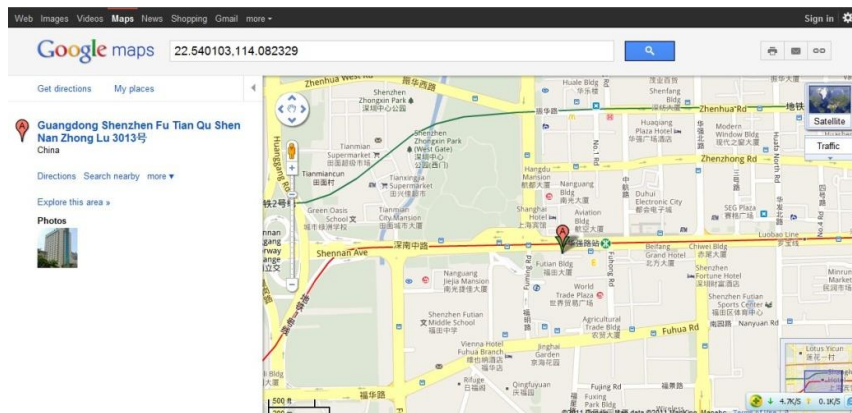
SMS example:
Now,110727 02:48,V,16,23Km/h,61%,http://maps.google.com/maps?f=q&hl=en&q=22.540103,114.082329
The following table describes the SMS format:

Parameter	Description	Remarks
Now	Indicates the current location.	SMS header: indicates the current

		location or the alarm type. For details about the SMS header, see the <i>MEITRACK SMS Protocol</i> and <i>MEITRACK GPRS/UMTS Protocol</i> .
110727 02:48	Indicates the date and time in YYMMDD hh:mm format.	None
V	The GPS is invalid.	A = Valid V = Invalid
16	Indicates the WCDMA/GSM signal strength.	Value: 1–32 The larger the value is, the stronger the signal is. If the value is greater than 12, GPRS/UMTS reaches the normal level.
23Km/h	Indicates the speed.	Unit: km/h
61%	Indicates the remaining battery power.	None
http://maps.google.com/maps?f=q&hl=en&q=22.540103,114.082329	This is a map link. Latitude: 22.540103 Longitude: 114.082329	None

If there is no valid GPS available, the tracker will reply to the most recent valid position.

If your mobile phone does not support HTTP, enter the latitude and longitude on Google Maps to query a location.



7.2 Setting SOS Phone Numbers – A71

This command is used to set SOS phone numbers. When you dial a phone number, an SMS report about the location will be received.

- SMS text:

`0000,A71,Phone number 1,Phone number 2,Phone number 3`

Send the text to the embedded SIM card phone number.

Tip: ", " should be an English comma and no space exists before and after the comma.

- The P99G will automatically reply to the SMS: `IMEI,A71,OK`. It indicates that the SOS phone number is set successfully.

Note:

Phone number: Contains a maximum of 16 bytes. If no phone numbers are set, leave them blank. Phone numbers are empty by default.

Phone number 1/2/3: SOS phone numbers. When you call the tracker by using these phone numbers, you will receive SMS notification about the location, geo-fence alarm and low power alarm.

- When you press the SOS button, the P99G will dial three authorized phone numbers in sequence. It will stop dialing when one phone number answers, and then will send alarm information to the phone numbers.

Note: The phone numbers are blank by default. The phone numbers that are set must be separated by comma (",") to avoid setting failures. No comma is required next to the last phone number. For example:

0000,A71,13500000000,,

0000,A71,13500000000,13600000000,

0000,A71,13500000000,13600000000,13700000000

Reply: 353358017784062,A71,OK

To clear all phone numbers, send 0000,A71.

If this function is unavailable, please add your Country and Area Code before your phone number when you set the preset phone numbers, or consult your local mobile operator.

7.3 Setting Listen-in Phone Numbers – A72

The command is used to listen in to the surrounding environment. After the setting, the device is allowed to confidentially and automatically answer a phone and enters listen-in state for one-way communication.

Note: If **Auto Answer Incoming Call** and **Listen-in** are set for a same phone number, only **Auto Answer Incoming Call** takes effect.

To implement the listen-in function, do not set **Auto Answer Incoming Call** for the phone number, or clear all phone numbers by sending 0000,A71.

- SMS text:

0000,A72,Listen-in phone number 1,Listen-in phone number 2

Send the text to the embedded SIM card phone number.

- The P99G automatically replies to the SMS: IMEI,A72,OK. It indicates that the listen-in number is set successfully.
- When you call the tracker by using the preset listen-in phone number, the tracker will answer the call automatically and enter the listen-in state. Meanwhile, the device will not make any noise.

Note:

Phone number: A maximum of two listen-in phone numbers can be set. Each phone number contains at most 16 digits. If only one monitor number is set, the number must be separated by a comma (",") to avoid setting failures. If no phone numbers are set and commas are remained, phone numbers set before will be deleted. The phone numbers are blank by default.

Example: 0000,A72,13844444444,13855555555

Reply: 353358017784062,A72,OK

To clear all monitor numbers, send 0000,A72.

7.4 Setting a Smart Sleep Mode – A73

This command is used to enable a smart sleep mode, prolonging standby time. The device's maximum working hours are more than 400 hours.

- SMS text:

0000,A73,Sleep level

Send the text to the embedded SIM card phone number.

The P99G automatically replies to the SMS: **IMEI,A73,OK**. It indicates that the sleep mode is set successfully.

- To enable the GPS Log or scheduled tracking function, disable the sleep mode.

Description:

When the sleep level is **0**, the sleep mode is disabled (default).

When the sleep level is **1**, the tracker enters the normal sleep mode. The WCDMA/GSM module always works, and the GPS module occasionally enters the sleep mode. The tracker works 25% longer in the normal sleep mode than that in the normal working mode. This mode is not recommended for short interval tracking; this will affect the route precision.

When the sleep level is **2**, the tracker enters deep sleep mode. If no event (SOS, button changes, incoming calls, or SMSs) is triggered after five minutes, the GPS module will stop and the WCDMA/GSM and MCU modules will enter sleep mode. Once an event is triggered, the GPS, WCDMA, GSM, and MCU modules will be woken up.

Note:

1. The tracker can enter normal sleep mode under vibration, while 3D shake cannot wake the tracker up from normal sleep mode.
2. In deep sleep mode, you can enable or disable the 3D shake wakeup function by Meitrack Manager.

In any condition, you can use an SMS, GPRS, or UMTS command to disable the sleep mode, and then the tracker exits the sleep mode and switches back to the normal working mode.

In deep sleep mode, if you want to obtain the location by SMS/call and the GPS is invalid within five minutes (default), the device will reply to the most recent valid position.

After the device enters deep sleep mode, functions of Track By Time Interval, Track By Distance, and GPSLog are not available until you exit the sleep mode.

The device can be woken up from the sleep mode by pressing a key, call, or SMS. After an event is handled, the device will enter sleep mode again.

Example:

Sending: 0000,A73,2

Reply: 353358017784062,A73,OK

7.5 Setting the Maximum Working Time of the Woken GPS Module – A83

When the device is in deep sleep mode, you can send a heartbeat packet to wake the GPS module up and set the maximum working time of the GPS module by A83 command.

Send the following SMS text to the embedded SIM card phone number: **0000,A83,X**.

X: indicates the maximum working time of the GPS module woken up by heartbeat packet. Decimal; value range: 0–255; unit: minute.

X = 0 (default): After the GPS module is woken up by heartbeat packet, it does not work and the GPS is invalid.

Example:

Sending: 0000,A83,1

Reply: 353358017784062,A83,OK

After the command is sent successfully and the GPS module is woken up by a heartbeat packet:

- If the GPS is valid within 1 minute, a heartbeat packet about valid GPS will be uploaded.
- If the GPS is invalid within 1 minute, a heartbeat packet about invalid GPS will be uploaded.

7.6 Setting the Unit of the GPRS Data Interval – A84

Send the following SMS text to the embedded SIM card phone number: 0000,A84,X.

X: indicates the unit of the GPRS data interval. Decimal; value range: 0–255; unit: second.

The default unit is 10 seconds.

Example:

Sending: 0000,A84,1

Reply: 353358017784062,A84,OK

According to the previous example, the device will generate a piece of data every 1 second.

7.7 Setting a Positioning Mode – A85

Send the following SMS text to the embedded SIM card phone number: 0000,A85,X.

X: indicates the device's positioning mode. Decimal; value range: 0–3.

- X = 0: GPS + LBS positioning
- X = 1: WiFi + LBS positioning
- X = 2: GPS + WiFi + LBS positioning
- X = 3: LBS positioning

Example:

Sending: 0000,A85,1

Reply: 353358017784062,A85,OK

7.8 Setting the SMS Time Zone – B35

This command is used to set the time zone of an SMS report. The default time zone of the tracker is GMT 0.

To change the time zone, follow the following instructions:

- SMS text:

0000,B35,*SMS minute*

Send the text to the embedded SIM card phone number.

- The P99G automatically replies to the SMS: IMEI,B35,OK. It indicates that the time zone is set successfully.

Note: The time zone is in unit of minutes. The default time zone of the tracker is GMT 0, and the time zone of SMS reports is different from that of GPRS/UMTS data packets. The GPS Log time zone is GMT 0.

When **SMS minute** is 0, the time zone is **GMT 0** (default time zone).

When **SMS minute** is a value ranging from -720 to 720, set time zones. Set the China time zone value to **480**.

Example:

Sending: 0000,B35,480

Reply: 353358017784062,B35,OK (The time zone is set to Beijing time successfully.)

7.9 Powering Off the Device by Command – C76

This command is used to power off the device.

Send the following SMS text to the embedded SIM card phone number: 0000,C76.

Example:

Sending: 0000,C76

Reply: 353358017784062,C76,OK

7.10 Disabling the Power-off Function of the Power Button – C77

Send the following SMS text to the embedded SIM card phone number: `0000,C77,X`.

X: Whether to disable the power-off function of the power button.

- **X = 1:** You can turn off the device by power button.
- **X = 0:** You cannot turn off the device by power button.

Example:

Sending: 0000,C77,1

Reply: 353358017784062,C77,OK

7.11 Backing up Device Parameters – F10

This command is used to back up and restore the device parameters.

Send the following SMS text to the embedded SIM card phone number: `0000,F10,X,User-defined parameters`.

Description:

- **X = 0:** Obtain a user-defined device parameter name.
- **X = 1:** Restore user-defined device parameters.
- **X = 2:** Set the user-defined device parameters to the system parameters. Please save device parameter names that you set.
- **X = 3:** Delete user-defined device parameters and corresponding parameter names (non-numeric ASCII characters like 00 or FF).
- **User-defined parameters:** At most 32 ASCII characters. If the value is less than 32 characters, add non-numeric ASCII characters like 00 or FF.

For details about SMS commands, see the *MEITRACK SMS Protocol*.

Note:

1. The default SMS command password is **0000**. You can change the password by using Meitrack Manager and SMS command.
2. The device can be configured by SMS command with a correct password. After an authorized phone number is set, only the authorized phone number can receive the preset SMS event report.

8 Configuring Device Parameters by Meitrack Manager

This section describes how to use Meitrack Manager to configure the P99G on a computer.

Procedure:

1. Install the USB-to-serial cable driver and Meitrack Manager.
2. Connect the P99G to a computer by using the magnetic charging cable.
3. Run Meitrack Manager, then the following dialog box will appear:



Meitrack Manager will detect the device model automatically and the parameter page will appear accordingly.

For details about Meitrack Manager, see the *MEITRACK Manager User Guide*.

Note: The software language will be automatically switched according to the operating system language. Press **Ctrl + L** to manually switch the language.

9 Logging In to MS03 Tracking System

Visit <http://ms03.trackingmate.com>, enter the user name and password, and log in to the MS03. (Purchase the login account from your provider.)

For more information about how to add a tracker, see the *MEITRACK GPS Tracking System MS03 User Guide* (chapter 4 "Getting Started").

The MS03 supports the following functions:

- Track by time interval or distance.
- Query historical trips.
- Set polygonal geo-fences.
- Bind driver and vehicle information.
- View various reports.
- Send commands in batches.
- Support OTA updates.

For details, see the *MEITRACK GPS Tracking System MS03 User Guide*.

10 Tracking by App

Scan the following QR code to download the MS03 app.



MS03 app for Android



MS03 app for iOS

Note: Please use your MS03 account to log in to the app. Contact Locat Administrator

11 Safety and Usage Instructions

Use only Meitrack-approved accessories.

Incompatible accessories may cause serious injuries or damages to your device.

Handle the battery and charger carefully.

- Use batteries specified by Meitrack and chargers exclusively designed for your device. Incompatible batteries and chargers may cause serious injuries or damages to your device.
- Do NOT place batteries or devices on fire or in heating devices, such as microwave ovens, ovens, or radiators. Batteries may explode when overheated.

12 Battery Disposal



(Waste Electrical and Electronic Equipment Directive – Applicable in European Union and other European countries with separate battery return system.)

This symbol in the manual indicates that this product and its accessories (such as chargers, batteries and the USB cable) cannot be disposed of with other household wastes when they reach the end of their life. If batteries are not properly disposed of, these wastes may cause harm to human health and the environment. To prevent the harm, please dispose of or recycle them separately from other waste so as to boost resource recycling and reuse.

If you have any questions, do not hesitate to email us at info@Gps-trackers.gr.