MEITRACK T366G User Guide

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2 Product Overview

The T366G is a vehicle GPS tracker with IP67 water-resistance rating and can be installed into cars, motorcycles, yachts, and boats. It is equipped with built-in GPS and GSM antennas. The unit can work well in extreme environments.

2.1 Product Features

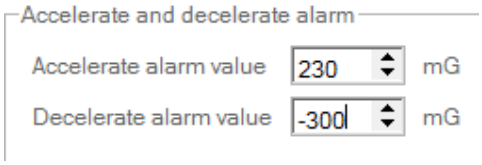
2.1.1 Sudden Acceleration/Deceleration Alarm

You can detect the sudden acceleration/deceleration alarm by setting the limit value.

Cautions on device installation:

1. The device should be installed into the vehicle according to the following direction.
2. The device installation angle cannot exceed 15 degrees.

The default sudden acceleration and deceleration alarm values are 230 mG and -300 mG respectively.

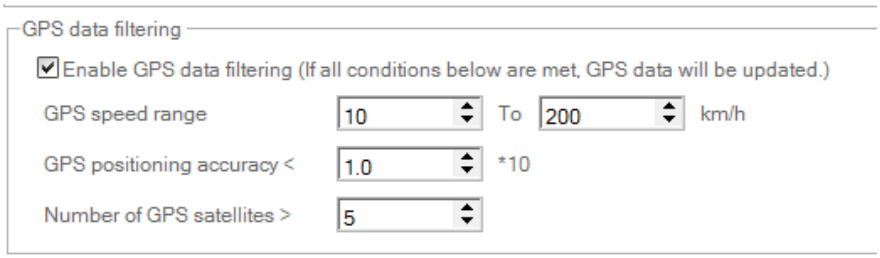


Note: The alarm results vary according to the device installation, vehicle model, vehicle weight, and driving behaviors. After the device has been installed properly, you can use the Meitrack Manager software to adjust the sudden acceleration and deceleration alarm values by every 10 mG. You can also use the D79 command to set the values.

2.1.2 GPS Data Filtering

The GPS data filtering function can ensure GPS data accuracy and eliminate static drifting.

You can set the following parameters by Meitrack Manager: **GPS speed range**, **GPS positioning accuracy**, and **Number of GPS satellites**. When the GPS data filtering function is enabled, if all conditions are met, GPS data will be updated.



Note: This function can be enabled by Meitrack Manager.

2.1.3 Activating Output by Event

You can activate output by event.

For example:

1. When speeding is detected, the buzzer will make sounds.
2. When unauthorized ignition or GPS antenna cut-off is detected, the engine will not be able to start.
3. When iButton triggering is detected, the vehicle door will open or close.
4. When input or output status is detected, the output will be active or inactive.

3 Product Function and Specifications

3.1 Product Function

3.1.1 Position Tracking

- GPS + LBS positioning
- Real-time location query
- Track by time interval
- Track by distance
- Track by mobile phone
- Speeding alarm
- Heading change report

3.1.2 Anti-Theft

- Polygon geo-fence alarm
- Engine or vehicle door status alarm
- Remote vehicle fuel/power cut-off alarm
- GPS blind spot alarm
- Towing alarm

3.1.3 Other Functions

- SMS/GPRS (TCP/UDP) communication (Meitrack protocol)
- Built-in 8 MB buffer for recording driving routes

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- IP67 water-resistance rating
- Mileage report
- Support Over-the-Air (OTA) update.
- Smart sleep mode
- Built-in 3D acceleration sensor
- Online Parameter Editor
- GPS data filtering
- Activate output by event
- Halt to Start and Start to Halt alarms
- Vehicle power protection

3.1.4 Functions of Optional Accessories

Optional Accessories	Function
iButton	Identify the driver ID and grant permission to start the vehicle.
A53 fuel sensor	Check the fuel level and detect a fuel theft alarm.
Digital temperature sensor	Check temperature (Used with the A61 sensor box).
400 mAh/3.7 V high-temperature battery (-20°C to 80°C)	Extend device's usage time after the external power supply is cut off. When the battery power is low, a low battery alarm will be generated.
400 mAh/3.7 V normal-temperature battery (-20°C to 60°C)	Extend device's usage time after the external power supply is cut off. When the battery power is low, a low battery alarm will be generated.

3.2 Specifications

Item	Specifications
Dimension	80.5 mm x 60 mm x 23.5 mm
Weight	Without an external GPS antenna: 100g
	With an external GPS antenna: 122g Battery weight: 8g
I/O power cable length	50 cm
Power supply	DC 11–36 V/1.5 A
Power consumption	Current in standby mode: 65mA
Operating temperature	-20°C to 80°C
Operating humidity	5% to 95%
LED indicator	Green indicator showing the GSM signal Blue indicator showing the GPS signal
Button/Switch	1 upgrade button (used to manually upgrade the firmware) 1 power button
Memory	8 MB buffer
Sensor	3D acceleration sensor (for wake-up by vibration and towing alarms)
Frequency band	T366G-E: UMTS/HSDPA: 900/2100 MHz GSM/GPRS: 900/1800 MHz T366G-A:

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	UMTS/HSDPA: 850/1900 MHz GSM/GPRS: 850/900/1800/1900 MHz T366G-T: UMTS/HSDPA: 850/2100 MHz GSM: 850/900/1800/1900 MHz Note: Select proper device according to the local frequency band.
GPS sensitivity	-161 dB
Positioning accuracy	2.5m
I/O port	2 digital inputs (input 1: negative trigger by default, but can be configured as positive trigger; input 2: positive trigger, connected engine detection by default) 1 analog detection input (0–30 V) 1 output 1 USB port 1 1-wire interface

4 T366G and Accessories

T366G and standard accessories:

T366G (without an external GPS antenna)

T366G (with an external GPS antenna)

USB cable

CD

L wrench

Optional accessories:

iButton

A53 fuel sensor

A52 digital temperature sensor

Battery

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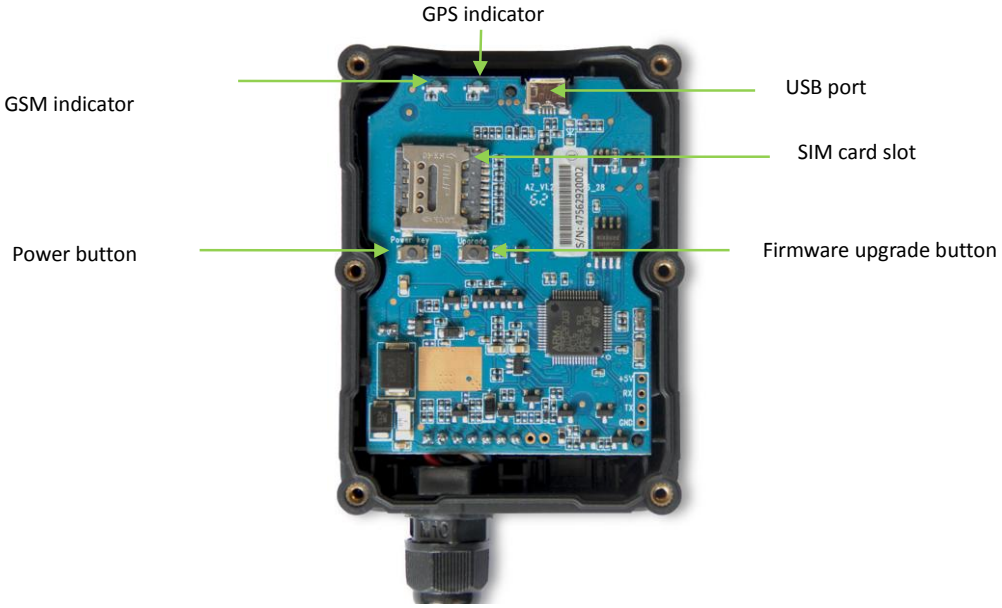
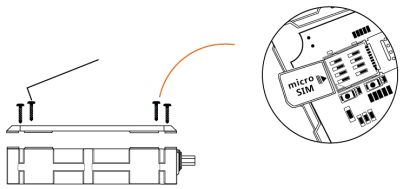
5 Device Panel



6 First Use

6.1 Installing the SIM Card



1. Use the screwdriver to open the back cover.
2. Insert the SIM card into the card slot (card chip facing down).
3. Close the cover, and tighten the screws.

Note:

- Power off the device before installing the SIM card.
- Ensure that the SIM card has sufficient balance.
- Ensure that the phone card PIN lock has been closed properly.
- Ensure that the SIM card in the device has subscribed the caller ID service if you want to use your authorized phone number to call the device.

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6.2 LED Indicator

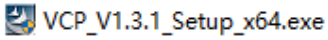
Press and hold down the power button for 3–5 seconds to start the device.

GPS Indicator (Blue)	
Blink (every 0.1 second)	The device is being initialized or the battery power is low.
Blink (0.1 second on and 2.9 seconds off)	A GPS signal is received.
Blink (1 second on and 2 seconds off)	No GPS signal is received.
GSM Indicator (Green)	
Steady on	A call is coming in or a call is being made.
Blink (every 0.1 second)	The device is being initialized.
Blink (0.1 second on and 2.9 seconds off)	A base station signal is received.
Blink (1 second on and 2 seconds off)	No base station signal is received.

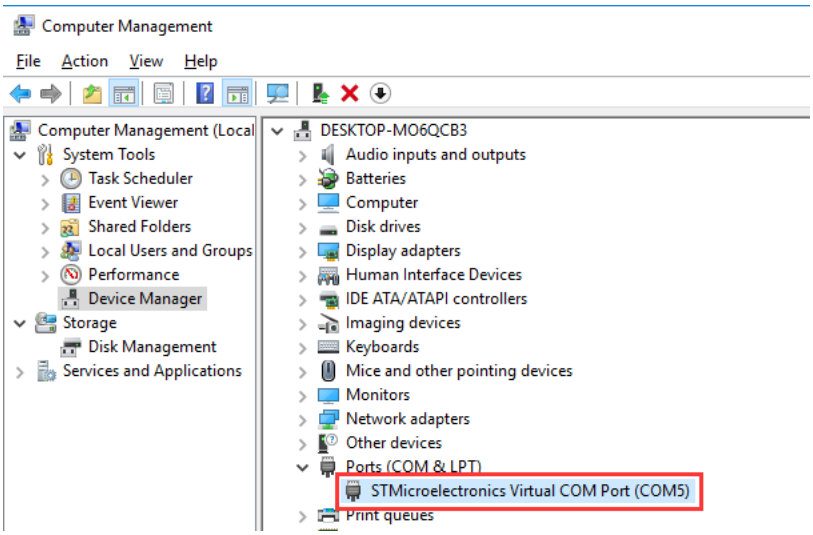
6.3 Device Configuration

6.3.1 Installing the USB Driver

1. Decompress the **stsw-stm32102.zip** file provided by Meitrack, locate the following file, and install the USB driver on a computer with 64-bit Windows system.



2. After the installation is finished, connect the tracker to the computer by USB cable. If **STMicroelectronics Virtual COM Port (COM5)** is displayed on the **Computer Management** page, the driver is installed successfully.
   Note: Please power on the tracker and then connect the tracker to the computer by USB cable. Otherwise, Meitrack Manager will be unavailable.



Note: After you finish the driver installation, if the preceding figure is not displayed, copy the **mdmcpq.inf** file to the **c:/windows/inf/** directory and **usbser.sys** file to the **C:/windows/system32/drivers/** directory. Then restart the computer.

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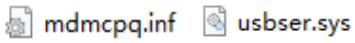


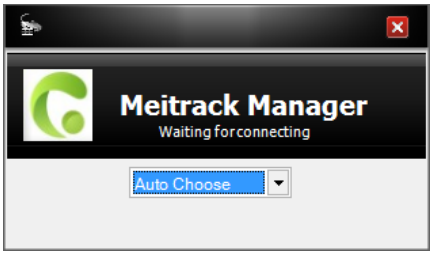
6.3.2 Configuring Device Parameters by Meitrack Manager

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

Procedure:

1. Install the USB-to-serial cable driver and Meitrack Manager.
2. Connect the device to a computer by using the USB-to-serial cable.

3. Run Meitrack Manager, then the following dialog box will appear:



4. Turn on the device, then 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*.

6.4 Tracking by Mobile Phone

Call or send the **0000,A00** command by SMS to the device SIM card number. The device will reply 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: Ensure that the device SIM card number has subscribed the caller ID service. Otherwise, the tracking function by mobile phone will be unavailable.

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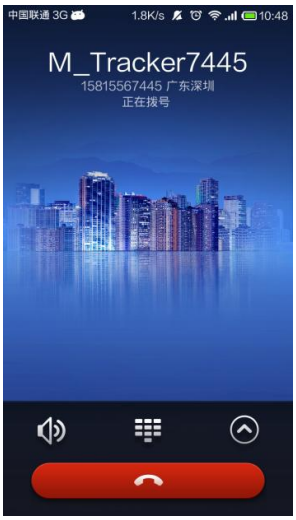

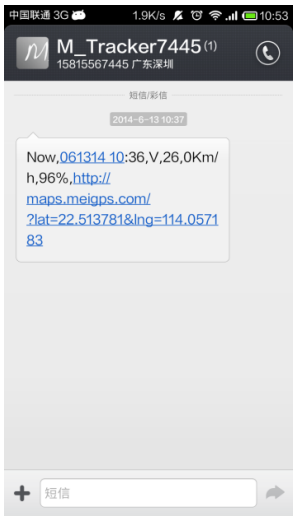

SMS example:

Now,061314 10:36,V,26,0Km/h,96%,http://maps.meigps.com/?lat=22.513781&lng=114.057183

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.
061314 10:36	Indicates the date and time in **MMDDYY hh:mm** format.	None
V	The GPS is invalid.	A = Valid V = Invalid
26	Indicates the GSM signal strength.	Value: 1–32 The larger the value is, the stronger the signal is. If the value is greater than 12, GPRS reaches the normal level.
0Km/h	Indicates the speed.	Unit: km/h
96%	Indicates the remaining battery power.	None
http://maps.meigps.com/?lat=22.513781&lng=114.057183	Indicates the map link. Latitude: 22.513781 Longitude: 114.057183	None

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

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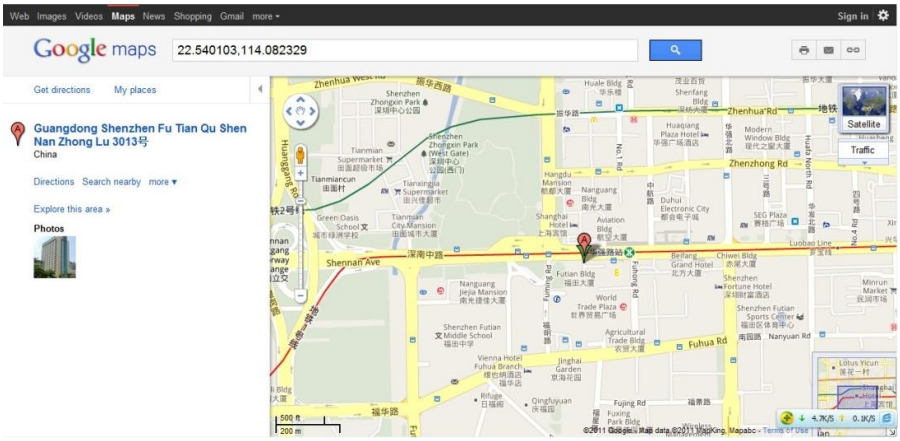

6.5 Common SMS Commands

6.5.1 Real-Time Location Query – A00

SMS sending: 0000,A00

SMS reply: Now,*Date and time*,*Positioning status*,*GSM signal strength*,*Speed*, *Remaining battery power*,*Map link*

Description: This command is used to query tracker's current location.

Example:

Sending: 0000,A00

Reply: Now,160721 16:40,V,12,56Km/h,97%,http://maps.meigps.com/?lat=22.513015&lng=114.057235

6.5.2 Setting Authorized Phone Numbers – A71

SMS sending: 0000,A71,*Phone number 1*,*Phone number 2*,*Phone number 3*

SMS reply: IMEI,A71,OK

SMS reply:

Phone number: A phone number has 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: Set these phone numbers to authorized 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 and SMS notification or a call about the unauthorized door open and unauthorized ignition.

If you need to delete all authorized phone numbers, send **0000,A71**.

Example:

Sending: 0000,A71,13811111111,13822222222,13833333333

Reply: 353358017784062,A71,OK

6.5.3 Setting the Smart Sleep Mode – A73

SMS sending: 0000,A73,*Sleep level*

SMS reply: IMEI,A73,OK

Description:

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

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When the sleep level is **1**, the tracker enters the normal sleep mode. The 3G 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 the deep sleep mode. If no event (SOS, button changes, incoming calls, SMSs, or vibration) is triggered after five minutes, the GPS module will stop working, and the 3G module will enter sleep mode. Once an event is triggered, the GPS and 3G modules will be woken up.

Note: In any condition, you can use an SMS command to disable the sleep mode, and then the tracker exits the sleep mode and returns back to the normal working mode.

Example:

Sending: 0000,A73,2

Reply: 353358017784062,A73,OK

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 commands with a correct password. After an authorized phone number is set, only the authorized phone number can receive the preset SMS event report.

7 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 traces.
- Set polygon 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*.

8 Installing the T366G

8.1 Installing an I/O Cable

8.1.1 Interface Definition

The I/O cable is a 7-pin cable, including the power, analog input, and negative/positive input and output interfaces.

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1	2	3	4	5	6	7
Power (+)	GND (-)	Input 1 (-)	Input 2 (+)	AD input 1	Output 1	1-wire interface

Pin Number	Color	Description
1 (Power +)	Red	Positive charge of the power input, connected to the positive charge of the vehicle battery. Input voltage: 11–36 V. 12 V is recommended.
2 (GND)	Black	Ground wire, connected to the negative charge of the vehicle battery or to the negative terminal.
3 (Input 1)	Grey	Digital input, negative trigger by default. The port can be configured as positive trigger. Connect to a door trigger signal cable to detect vehicle door status. (Most Chinese, Korean, and Japanese cars are negative edge-triggered.)
4 (Input 2)	White	Digital input, positive trigger Connect to the vehicle ACC cable by default to detect the vehicle ACC status. Connect to a door trigger signal cable to detect vehicle door status. (Most Europe and American cars are positive edge-triggered.)
5 (AD input 1)	Blue	Analog input with 12-bit resolution and valid voltage 0–30 V. Connect an external sensor, such as the fuel sensor.
6 (Output 1)	Yellow	Valid: low level (0 V) Invalid: open collector Maximum voltage for output open collector (invalid): 60 V Maximum current for output low level (valid): 500 mA Connect to an external relay to remotely cut off the vehicle fuel cable or engine power supply.
7 (1-wire interface)	Green	Connect to the iButton and other devices supporting 1-wire protocol.

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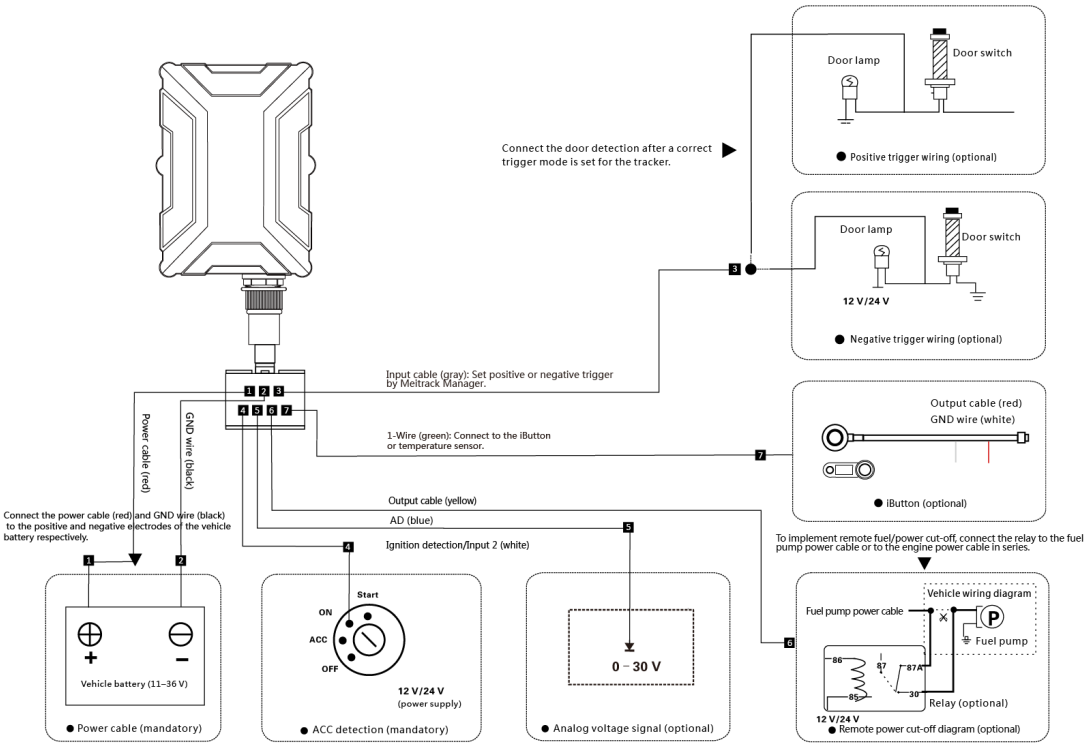
8.1.2 Wiring Diagram



8.2 Mounting the T366G

Mount the device in the vehicle by cable tie.

Note: Do not install it at a metal covered place.

If you have any questions, do not hesitate to email us at info@meitrack.com.

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