MEITRACK T355G/T355 User Guide

Change History

File Name	MEITRACK T355G/T355 User Guide	Created By	Vincent Chang
Project	T355G/T355	Creation Date Update Date	2016-08-23 2017-06-08
Subproject	User Guide	Total Pages	15
Version	V1.2	Confidential	External Documentation

Contents

1 Copyright and Disclaimer

The user manual may be changed without notice.

Without prior written consent of Meitrack Group, this user manual, or any part thereof, may not be reproduced for any purpose whatsoever, or transmitted in any form, either electronically or mechanically, including photocopying and recording.

Meitrack Group shall not be liable for direct, indirect, special, incidental, or consequential damages (including but not limited to economic losses, personal injuries, and loss of assets and property) caused by the use, inability, or illegality to use the product or documentation.

2 Product Introduction

The T355G is a 3G (WCDMA) magnetic GPS tracker. It is mainly used to track goods, valuables, equipment, and other assets.

Two internal magnets make the tracker attach to the vehicle body and free of installation. If the tracker drops, a drop alert will be generated.

The unique rugged design of the shell ensures that the tracker is water resistant, dustproof, shockproof, and durable.

2.1 Product Features

2.1.1 Asset Tracking Mode

To enable the asset tracking mode, you need to enable the deep sleep mode and disable the 3D-Shake Wake Up mode. After starting the device, you are not required to activate the drop alert. When a heartbeat packet is generated, the GPS module will enable to obtain the latest location information. If the GPS positioning is still invalid (for example, in a basement) after five minutes, no positioning data will be generated.

The device will upload data every one hour by default. But you can use Meitrack Manager or A11 command to set the heartbeat packet reporting interval.

Heartbeat Packet Reporting Interval (GPS Valid)	Working Hour (Day)
30 minutes	19
1 hour	38
4 hours	77
6 hours	151
8 hours	224
12 hours	429
24 hours	792

Note:

1. Device's working hour depends on the surroundings, parameter settings and events. The preceding data is for

reference only.

2. You can use the A73 command to set the deep sleep mode and the A11 command to set the heartbeat packet reporting interval.

2.1.2 Continuous Tracking Mode

To enable the continuous tracking mode, you need to disable the deep sleep mode (default: enable) and set the tracking time interval. Positioning data will be uploaded at the preset time interval, so as to achieve smoother tracking routes.

Time Interval	Working Hour (Day)
1 minute	5.0
5 minutes	5.1
10 minutes	5.2
30 minutes	5.4

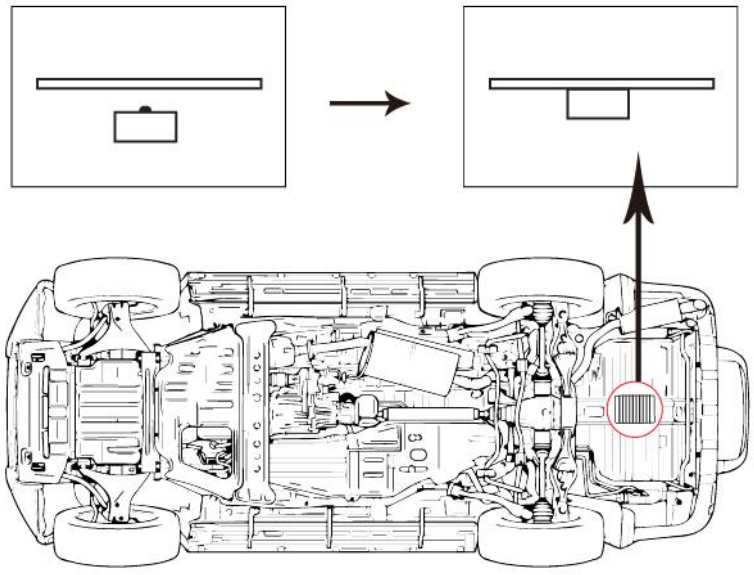
Note:

1. Device's working hour depends on the surroundings, parameter settings and events. The preceding data is for reference only.
2. You can use the A73 command to set the deep sleep mode and the A12 command to set the tracking time interval.

2.1.3 Vehicle Tracking Mode

To enable the vehicle tracking mode, you must:

1. Enable the deep sleep mode (default: enable)
2. Enable the 3D-Shake Wake Up mode (default: enable)
3. Set the tracking time interval and heartbeat packet reporting interval.
4. Press the drop switch.



Note:

1. Confirming the device installation: After the device is installed correctly, the drop switch will be triggered within a long time period. After 5 seconds, two beeps will sound, indicating that the device has been installed successfully.
2. Generating a drop alert: When the device is disconnected from the vehicle for more than five seconds, a drop alert will be generated and the device will enter the normal working mode instead of the sleep mode. The device will send data at the specific time interval until its battery power is empty.
3. You can use the A73 command to set the deep sleep mode and the A12 command to set the tracking time interval.

2.1.4 Fixed Asset Anti-Theft Mode

To enable the fixed asset anti-theft mode, you must:

1. Enable the deep sleep mode (default: enable)
2. Enable the 3D-Shake Wake Up mode (default: enable)
3. Set the tracking time interval and heartbeat packet reporting interval.

When the device detects that the asset is still, data will be uploaded at the heartbeat packet reporting interval (GPS invalid).

When the device detects that the asset is moving, data will be uploaded at the tracking time interval (GPS valid).

Heartbeat Packet Reporting Interval (GPS Invalid)	Working Hour (Day)
30 minutes	31
1 hour	62
4 hours	242
6 hours	354
8 hours	462
12 hours	663
24 hours	1173

Note:

1. Device's working hour depends on the surroundings, parameter settings and events. The preceding data is for reference only.
2. You can use the A73 command to set the deep sleep mode, the A11 command to set the heartbeat packet reporting interval, the A12 command to set the tracking time interval and the B09 command to set the sensitivity level of the 3D vibration sensor.

3 Product Functions and Specifications

3.1 Product Functions

- GPS + LBS positioning
- Power magnet, easy to install
- Drop alert
- Long standby time
- IP66 water resistant

- Embedded vibration sensor
- Tracking on demand, and by time interval and distance
- Polygonal geo-fence alert
- Get a location by call
- Rugged/shockproof design
- Cornering report
- Speeding alert
- External GPS antenna disconnect alert
- Heartbeat report

3.2 Specifications

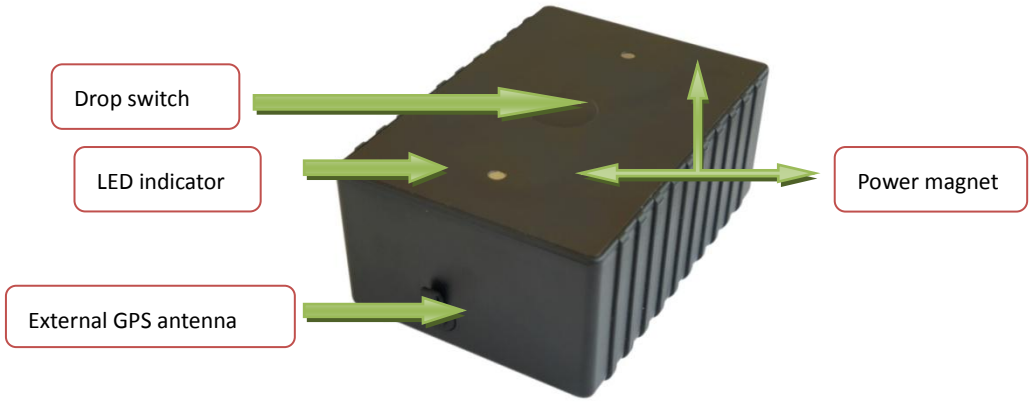
Item	Parameter	Specifications
Outer case	Dimension	105 mm x 75 mm x 45 mm (L x W x H)
	Material	ABS
	Water resistance rating	IP66
Power consumption	Working voltage	3.7 V
	Average current	50 mA
	Current in standby mode	50 uA
	Internal battery	7400 mAh/3.7 V
I/O port	1-Wire interface (optional)	1
	A/D interface (optional)	1
GSM (T355G/T355)	Frequency band	850/900/1800/1900 MHz
	Antenna	Internal antenna
WCDMA (T355G)	Frequency band (T355G)	800/850/900/1900/2100 Mhz (Global)
	Frequency band (T355G-A)	850/1900 Mhz (America)
	Frequency band (T355G-E)	900/2100 Mhz (Europe and Asia)
	Frequency band (T355G-AU)	850/900/2100 Mhz (Australia)
	Frequency band (T355G-JP)	800/2100 Mhz (Japan)
GPS	Positioning accuracy	2.5 meters
	GPS sensitivity	-162 dBm
	Positioning time	Cold start: < 42 seconds Hot start: < 3 seconds Recapture time: < 2 seconds
	Satellite receiving channel	56 channels
	Antenna	Internal/External antenna
Ambient environment	Operating temperature	-15°C to 65°C
	Storage temperature	-25°C to 70°C
	Operating humidity	5%–95% non-condensing
Weight	322g	
Sensor	Built-in 3-axis accelerometer (used to determine movement, stillness, and vibration.)	
Memory	8 MB buffer (Store up to 8,192 GPRS/UMTS cache records and 100 SMS cache records)	
LED indicator	LED indicators showing power, GPS, 2G, and 3G status	

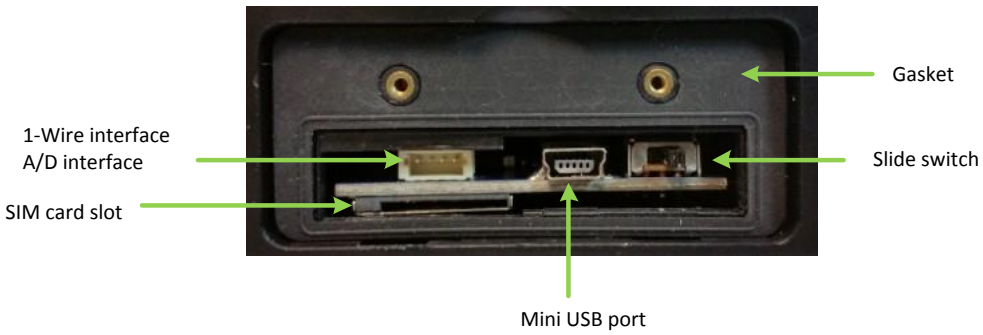
4 Device and Accessories

Standard Accessories	Tracker	Travel adapter	Mini USB cable
	CD	Switch sticker	
Optional Accessories	External GPS antenna		

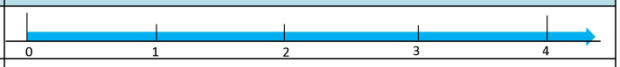
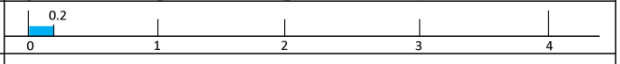
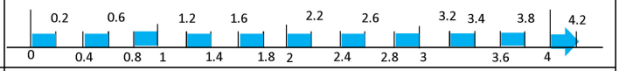
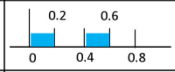
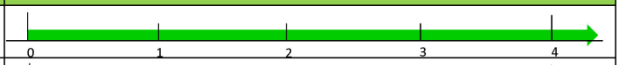
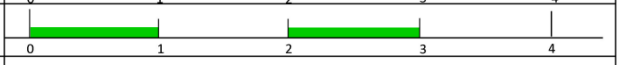
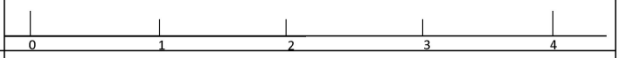
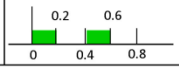
5 Panel

5.1 Appearance





5.2 LED Indicator

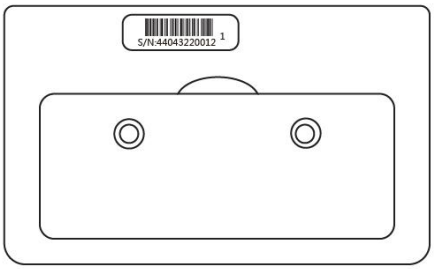
Blue Indicator Status	Blue Indicator Description	Blue Indicator Diagram (Unit: second)
Steady on (Consecutive)	The device is charging	
1s on and 1s off (2 cycles within 4s)	The GPS is invalid or the device is being initialized	
0.2s on and 3.8 off (1 cycle within 4s)	The GPS is valid	
0.2s on and 0.2s off (10 cycles within 4s，then indicator is steady on)	The battery power is low	
0.2s on and 0.2s off (2 cycles within 1s)	The device starts (Press the drop switch 3 times within 5s)	
Steady off (Consecutive)	The device enters sleep mode	
Green Indicator Status	**Green Indicator Description**	**Green Indicator Diagram (Unit: second)**
Steady on (Consecutive)	The battery power is full	
1s on and 1s off (2 cycles within 4s)	The GSM fails to be registered or is being registering	
2 times on within 1s, and then 1s off (2 cycles within 4s)	The GPRS fails to be connected or is being connecting	
Steady off (Within 4s)	The GPRS connection is complete	
1 time within 4s	The phone is busy	
0.2s on and 0.2s off （2 cycles within 1s）	The device stops (Press the drop switch 3 times within 5s)	

The blue and green LED indicators will alternately blink every 8 seconds.

6 First Use

1. Remove the device cover.

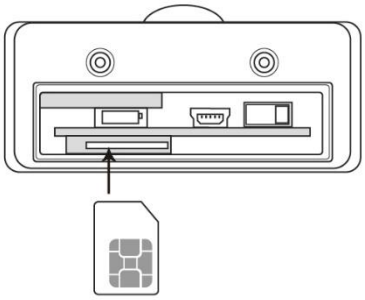
   Use the mini screwdriver to remove the two screws to release the cover.



2. Insert the SIM card.

   Gently push the SIM card into the card slot until you hear a click with its gold-plated contacts facing up. Ensure that the device is turned off before replacing the SIM card. Hot plugging is not supported.

   Note: Ensure that the SIM PIN lock is closed, and the SIM card has sufficient balance and has subscribed the call ID service. If you want to use the GPRS/UMTS function, learn about the SIM card GPRS/UMTS charging first.



3. Charge the battery.

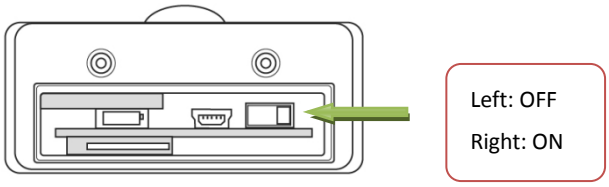
   To charge the battery, you can connect the device to the wall charger or a computer through the USB cable. When using the device for the first time, you are advised to turn off the device and then charge the battery fully. When the battery power is full, the LED indicator turns green.

   Note: While charging, the device may heat up. This is normal, and this does not affect your device's lifespan or performance. If the battery power is low, it may affect positioning and data transmission. In this way, charge the battery before use.

4. Start the device.

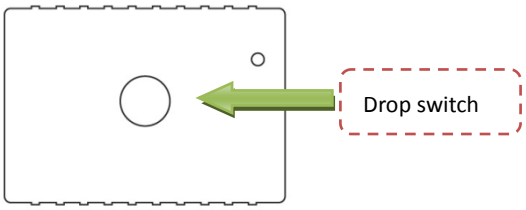
   Turn the slide switch (main power) to the rightmost position, then press the drop switch 3 times within 5 seconds. The blue LED indicator will blink 0.2 seconds on and 0.2 seconds off, indicating that the device has started. After power-on, wait for 15 seconds to allow the device to complete the power-on self-test (POST) process.

   Note: Ensure that the SIM card had properly installed before starting the device.



5. Stop the device.

   Press the drop switch 3 times within 5 seconds. The green LED indicator will blink 0.2 seconds on and 0.2 seconds off, indicating that the device has stopped. After the device has stopped, wait for 5 seconds before restarting the device.



6. Install the device cover.

   Place the back cover, and tighten the two screws by using the mini screwdriver.

7 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 driver and Meitrack Manager.
2. Connect the device to a computer with the USB cable.
3. Run Meitrack Manager, then the following dialog box will appear:

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*.

Note: The CD delivered with the tracker contains Meitrack Manager. The software language will be automatically switched according to the operating system language. Press **Ctrl + L** to manually switch the language.

8 Quick Operation Command

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

8.1 Tracking by Mobile Phone

This section describes how to query device's current location, ensuring that the GPS is working normally.

1. Call the device's SIM card phone number, and hang up after the dial tone rings 2–3 times. The device will reply to an SMS with a map link.
2. 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 authorized phone number can call the SIM card phone number and receive device's location information.

SMS example:

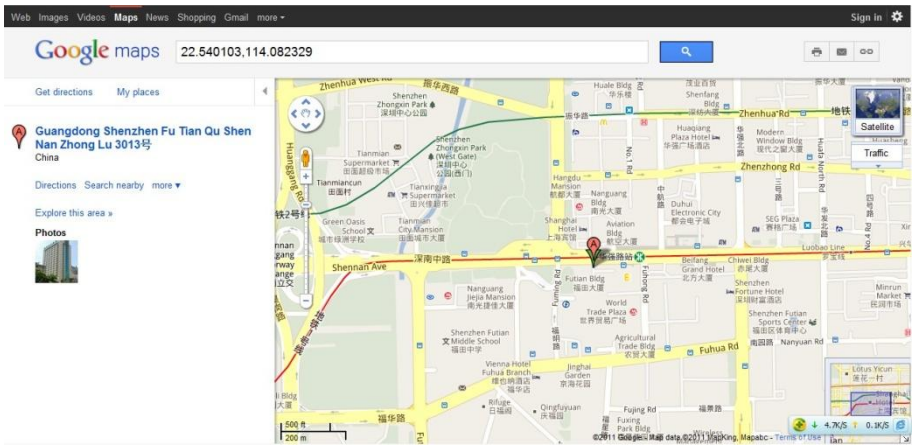
Now,072714 02:48,V,16,23Km/h,61%,http://maps.google.com/maps?f=q&hl=en&q=22.540103,114.082329

The following table describes the SMS format:

Parameter	Description	Remarks
Now	Indicates the current location.	SMS header: indicates the current location or the alert type. For details about the SMS header, see the *MEITRACK SMS Protocol* and *MEITRACK GPRS Protocol*.
072714 02:48	Indicates the date and time in **MMDDYY hh:mm** format.	None
V	The GPS is invalid.	A = Valid V = Invalid
16	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/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	Indicates the 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, along with GSM LBS information by AGPS.

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



Note: The default password of the tracker is 0000. The password can be changed by using Meitrack Manager or SMS command. After the password is changed successfully by using an SMS command, only the authorized phone number can receive SMS reports. The common format of an SMS command is: *Password,Command,Parameter*.

8.2 Setting the Sensitivity Level of the 3D Vibration Sensor – B09

SMS sending: 0000,B09,*Sensitivity level*

SMS reply: IMEI,B09,OK

Example:

SMS sending: 0000,B09,2

SMS reply: 353358017784062,B09,OK

Description:

Sensitivity level = [0…100]: The smaller the value is, the more sensitive the 3D vibration sensor is. The default value is 10.

Sensitivity level = [101…110]: indicates the vibration times within one second. For example, **101** indicates that the sensor vibrates 1 times within one second and **110** indicates that the sensor vibrates 10 times within one second.

8.3 Tracking by Time Interval – A12

SMS sending: 0000,A21,*Time interval*

SMS reply: IMEI,A21,OK

Example:

SMS sending: 0000,A21,2

SMS reply: 353358017784062,A21,OK

Description:

Unit: x10 seconds

Set the GPRS tracking time interval.

Interval = 0: function disabled.

The maximum time interval is 65535 x 10 seconds.

8.4 Setting the Smart Sleep Mode – A73

This command is used to enable a smart sleep mode. In this mode, the scheduled tracking and location tracking functions are disabled. The standby time can last more than 10 years.

- SMS text:
  0000,A73,*Sleep level*
  Send the text to the embedded SIM card phone number.
  The device automatically replies to the SMS: *IMEI*,A73,OK. It indicates that the sleep mode is set successfully.
- If the scheduled tracking function is required, disable the sleep mode.

Note:

When the sleep level is **0**, the sleep mode is disabled.

When the sleep level is **1**, the tracker enters the normal sleep mode. The 2G/3G module always works, and the GPS module occasionally works at 5-minute intervals. You can set device parameters by Meitrack Manager to enable or disable the normal sleep mode. The settings about enabling the mode will take effect after five minutes, while the settings about disabling the mode will take effect immediately.

The mode is not recommended for users who set the scheduled tracking at a short interval. This setting will affect tracking integrity

When the sleep level is **2** (default value), the tracker enters the deep sleep mode. If no event (drop/incoming call/SMS/vibration) is triggered after five minutes, the tracker will enter deep sleep mode, and the GPS and 2G/3G modules will stop working. In this way, a triggering event (drop/vibration) can wake the device up, and then the

device will enter working mode. GPS and 2G/3G modules can be enabled intelligently based on vehicle status, which saves power.

In deep sleep mode, the tracker can be woken up only when the tracker drops or vibrates. If a vibration event is triggered, sleep level 0 will be enabled. In the device running mode, sleep level 0 or 2 will be enabled alternatively. In sleep mode, the scheduled tracking and distance tracking functions will be disabled. If a drop event is triggered, the sleep mode will be disabled. The device does not enter the deep sleep mode until it is installed into the vehicle again.

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

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").

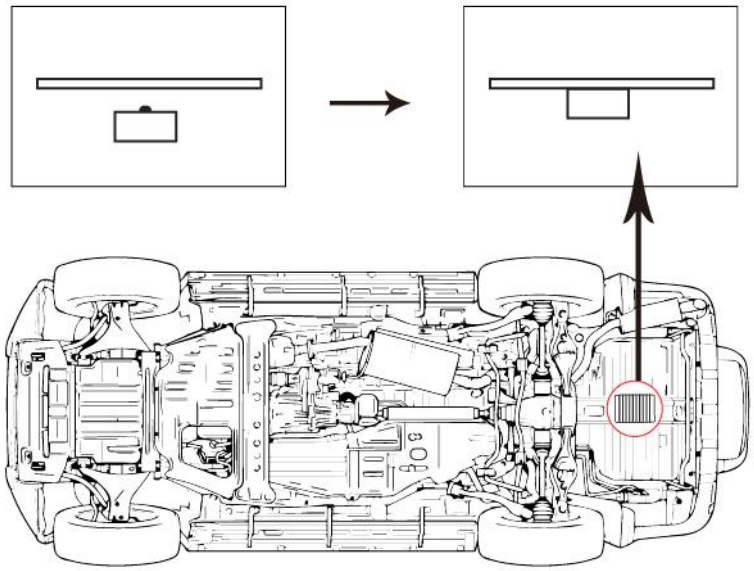
The MS03 supports the following functions:

- 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 Installing the Device

After the device is attached to the body of the vehicle, the drop switch will be triggered within a long time period. After 5 seconds, two beeps will sound, indicating that the device has been installed successfully.



Note:

1. When the device is disconnected from the vehicle for more than five seconds, a drop alert will be generated and the device will enter the normal working mode instead of the sleep mode. The device will send data at the specific time interval until its battery power is empty.
2. If the ambient temperature exceeds 65°C, the device may not work normally. So you are advised to test the ambient temperature before the installation.

11 Safety and Use 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.

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