

Tracking Mate T355G User Guide



Version Control

File Name	Tracking Mate User Guide	Created By	Matthew Bransdon
Project	T355G	Creation Date	09/08/2017
Version	V1.2	Total Pages	15

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2. Copyright and Disclaimer



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3. Product Overview

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.

3.1 Product Features

3.1.1 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.

3.1.2 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 pre-set time interval, so as to achieve smoother tracking routes.

Time Interval	Working Hour (Day)
1 Minutes	5.0
5 Minute	5.1
10 Minute	5.2
30 Minute	5.4

Note:

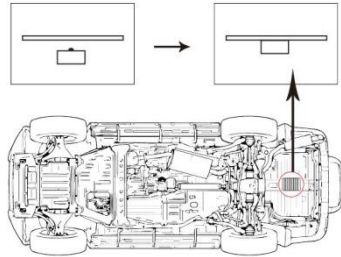
1. Device's working hour depends on the surroundings, parameter settings and events. The preceding data is for reference only.

2. You can use the A73 command to set the deep sleep mode and the A12 command to set the tracking time interval.

3.1.3 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.

3.1.4 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.

4. Product Functions and Specifications

4.1 Position Tracking

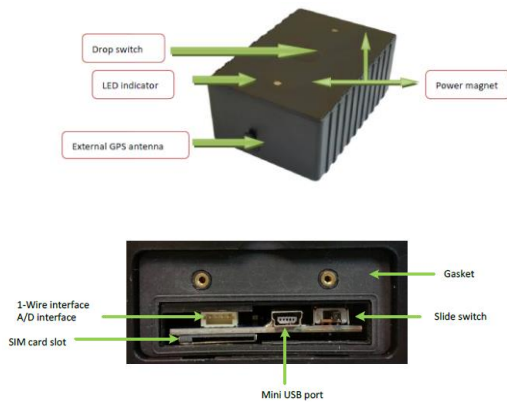
- GPS + LBS positioning
- Power magnet, easy to install
- Drop alert
- Long standby time
- IP66 water resistant
- Embedded vibration sensor
- Tracking on demand, and by time interval and distance
- Polygonal geo-fence alert
- Get a location by call
- Rugged/shockproof design
- Cornering report
- Speeding alert
- External GPS antenna disconnect alert
- Heartbeat report

4.2 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
	Average Current	50mA
	Current in Standby	50uA
	Internal battery	7400 mAh/3.7 V
I/O port	1-Wire interface (optional)	1
	A/D interface (optional)	1
WCDMA (T355G)	Frequency band (T355G)	800/850/900/1900/2100 Mhz (Global)
	Frequency band (T355G-AU)	850/900/2100 Mhz (Australia)
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 45°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

5. Panel

5.1 Appearance



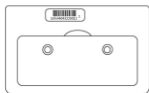
5.2 LED Indicator

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

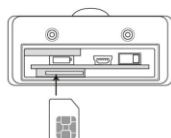
1. Remove the device cover.
Use the mini screwdriver to remove the two screws to release the cover.



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.

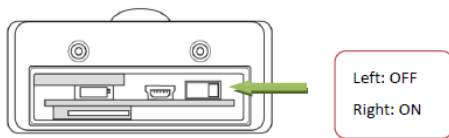
To charge the battery, you can connect the device to the wall charger or a computer through the USB cable. When using the device for the first time, you are advised to turn off the device and then charge the battery fully. When the battery power is full, the LED indicator turns green.

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.

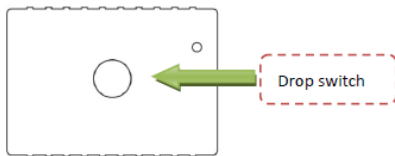
Turn the slide switch (main power) to the rightmost position, then press the drop switch 3 times within 5 seconds. The blue LED indicator will blink 0.2 seconds on and 0.2 seconds off, indicating that the device has started. After power-on, wait for 15 seconds to allow the device to complete the power-on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

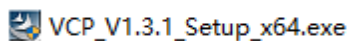
Place the back cover, and tighten the two screws by using the mini screwdriver.

7. Configuring Device Parameters by Meitrack Manager

PLEASE NOTE: Your tracker will be configured by Tracking Mate prior to dispatch. Individuals purchasing the tracker only, will need to follow the configuration process.

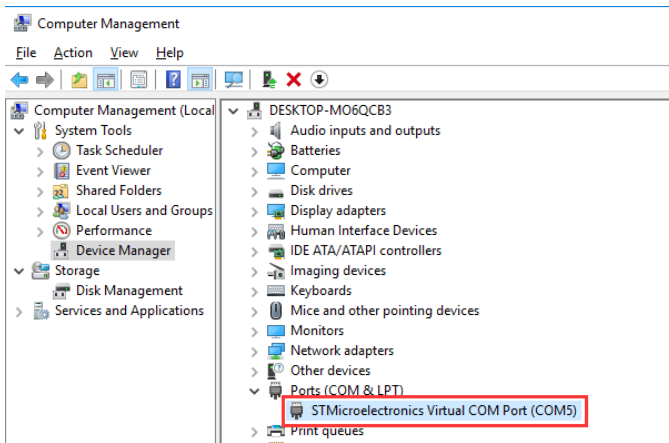
7.1 Installing the USB Driver

1. Decompress the stsw-stm32102.zip file provided by Tracking Mate, 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.

 mdmcpq.inf

 usbser.sys

7.2 Configuring Device Parameters by Meitrack Manager

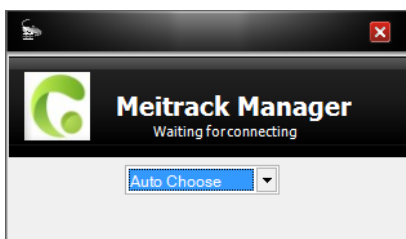
This section describes how to use Meitrack Manager to configure the device on a computer.

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.

7.3 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.



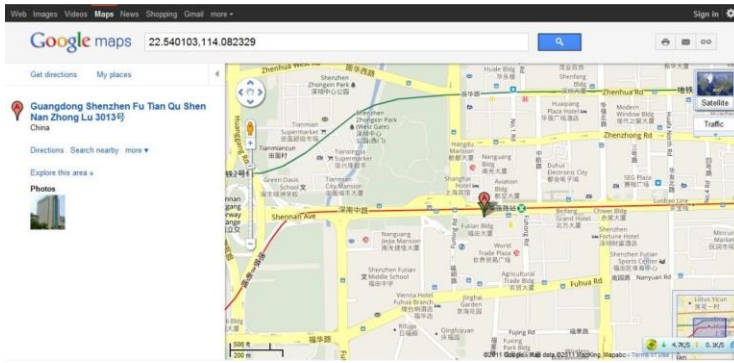
SMS example:

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.



7.4 Common SMS Commands.

PLEASE NOTE: Please refer to your package for SMS pricing. Addition charges may apply for this feature.

7.4.1 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>

7.4.2 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

7.4.3 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).

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.

7.4.4 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. Logging In to MS03 Tracking System

Visit www.trackingmate.com.au, select client log in, enter the user name and password, and log in to the MS03. (Purchase the login account from your provider.)

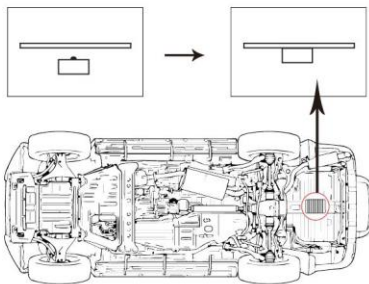
For more information about how to add a tracker, see the MEITRACK GPS Tracking System MS03 User Guide (chapter 4 "Getting Started").

- 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.

9. Installing the T355G

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.

10. Safety and Use Instructions

Use only Tracking Mate-approved accessories.

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

Handle the battery and charger carefully.

- Use batteries specified by Tracking Mate 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 support@trackingmate.com.au