

Cow tracker USER GUIDE

1. Features

- Water-proof GPS tracker with 3000mAh or 5000mAh or 10000mAh or 15000mAh or 20000mAh battery.
- Special Collars with the lock to hold the tracker for cow.
- GSM+GPS positioning with Google map tracking.
- Solar panels build-in to provide non-stop power for tracker(optional)

Hardware Specifications:

- GPRS:MTK 6260D
- Quad band; GSM 850/900/1800/1900 MHz
- Antennae: Internal, GPRS Class 12
- Built-in Vibration/motion sensing
- GPS: U-BLOX G7020-ST, 50 channel
- Antennae: Internal
- Position Accuracy: <5m
- Sensitivity: Tracking: (R)C161 dB, Cold starts: (R)C148 dB, Hot starts: (R)C156 dB
- Cold start:<27s, Warm Start: <5s, Hot Start: 1s
- A-GPS: AssistNow Online and AssistNow Offline services

2. Product Image



3. Model No. List

| Model No. | Battery capacity | With Solar panel |
|-----------|------------------|------------------|
| T300 | 3000mAh | No |
| T300S | 3000mAh | Yes |
| T500 | 5000mAh | No |
| T500S | 5000mAh | Yes |
| T5010 | 10000mAh | No |
| T5010S | 10000mAh | Yes |
| T5015 | 15000mAh | No |
| T5015S | 15000mAh | Yes |
| T5020 | 20000mAh | No |
| T5020S | 20000mAh | Yes |

4 Installation Manual

4.1 SIM Card Pre-installation, specification note

- a. GSM Sim Only
- b. SIM card should have its GPRS function enabled.
- c. SMS request will function only if Caller ID function is enabled.
- d. If SIM card is locked via PIN, please unlock SIM.

4.2 SIM Card Installations and Removal

- b. Open waterproof rubber
- c. Insert SIM card into the SIM slot, metal face up, clipped corner to the right.
- d. Green light is flashing for couple seconds and turn to on always on
- e. Call the device SIM number and it is supposed to get through without answer.
- f. Ensure the waterproof rubber is closed after SIM installation

4.3 Device Installations

- a. Avoid all metal environment to make sure device is able to receive GSM and GPS signal.
- b. Avoid high temperature environment like above the car engine

5. Operation Commands Guide

5.1 Set APN: (VERY IMPORTANT AND MUST BE DONE 1ST) For the device to send data to the server, this command MUST be enabled.

SMS: *apn*AXXX*BXXX*CXXX* This command sets the telecom **Access Point Name**. BXXX refers to user name, CXXX refers to password.

If there is no user name and password required, send as ***apn*AXXX***

If there is user name but no password required, send as ***apn*AXXX* BXXX***

APN information can be checked on local telecom website.

You will receive the following text: "Notice: APN is set to XXX. User name: XX. Password: XX"

5.2 Registering the "Master" Controller

SMS to the device: ***master*123456*+1XXXXXXXXXXXX***, (For instance, master controller phone number is +1XXXXXXXXXXXX. +1 refers to the country code. XXXXXXXXXXXXX is the cellphone number. Please make sure country code is included, and digit 0 is not needed before cell phone number)

Device Response: "Notice: Cell Phone # xxxxxxxxxx is set to master controller, the password is 123456." (The device has a default password of "123456" to initially program in your PDA/Phone.

NOTE: The device will **ONLY** listen and respond to instructions from this number unless you choose to turn on the multi controller function and open the device to any cell phone number.

5.3 Changing the Password:

SMS: *password*654321* (654321 refers to new password)

You will receive the following text: "Notice: The password change is successful for +1XXXXXXXXXXXX. The new password is 654321."

Note: Changing password command has to be sent from master controller number.

6. Motion Detected Alert

The Master Controller will receive an alert (call or SMS) once the device detects vibration indicating possible motion.

6.1 Vibration sensitivity:

The device you have purchased is equipped with a sensitive Vibration detection system. The motion sensor sensitivity rate can be set by SMS command.

SMS: *sensitive*1-5* (where X = 1-5, 1 being the most sensitive, 5 the least, default setting is 1)

1=3 seconds continued vibrating

2= 6 seconds continued vibrating

3= 9 seconds continued vibrating

4=12 seconds continued vibrating

5=15 seconds continued vibrating

Device Response: "Notice: Vibration sensitivity is set to 1-5."

6.2 SMS or CALL Alert Settings:

With the vibration detection system. There will be a Call alert (call master number 2 times) or a SMS alert generated and send to master number, when any motion is detected after 3 minutes of non-movement. **The system default setting is call alert, and can be turned off by SMS command**

SMS: *alertoff*

Device Response: "Notice: System has ended alert function."

SMS: *smsalert*

Device Response: "Notice: System has entered SMS alert function."

SMS: *callalert*

Device Response: "Notice: System has entered call alert function."

6.3 Period Motion Alert

System will enable motion alert function at appointed periods, up to 3 time periods. Time format need to be in military time and can be set to hour. e.g. 0811 , 1418 refers to 8:00-11:00,14:00-18:00 of the day.

SMS : *continuousalert*0-23*0-23*

Device Response: "Notice: System has enabled period alert function at appointed time period."

SMS : *continuousalertoff*

Device Response: "Notice: System has ended period alert function."

7. SMS Location Query

The GPS module establishes location and creates an event, which is sent immediately. The data packet returned via SMS includes battery level and any applicable alert mode. User can track the device location via SMS whenever, wherever.

7.1 SMS: *locate*

This command "Pings" the unit from the master controller for a spot location report delivered via SMS back to the Master Controller.

Device Response: You will receive back a text include latest information of latitude, longitude, date, time and ranking. And you can find this location in details from the tracking website.

7.2 SMS: *locateaddress*

Device Response: You will receive back a text include rough address information of the device. Tracking website is not required.

7.3 SMS: *locatemap*

You will receive back a text message with a google map link, click the link in order to view the location through cellphone browser. It is suitable for smart phone user only.

8. Website Tracking

Tracking Website: www.miitown.com

Account Login ID: Registered Master phone number. It's the same number as 5.2.

Account Login Password: Default as 123456.
It can be changed on the tracking website.

Recommended Web browser are Chrome, Firefox or cellphone default browser.

9.1 Real-time Tracking

This function delivers a highly granular tracking record of a specific route. Once motion is detected, every 10 seconds locate records are uploaded every 1 minute to the server during motion.

This function is suitable for speed moving object tracking. And it works in motion only.

9.1 By SMS

SMS: *routetrack*1-99* (1-98 represents hours of accumulated data, 99 means always on)

Device Response: "Notice: System has entered routetrack function for *XX* hours." If you sent 99 the device responds: "Notice: Routetrack function is set to always on."

9.1.1 Real-time tracking location data collecting interval.

The smaller interval, the higher accuracy, but the higher power consumption.
SMS *rsampling*1-999* (1-999 represents seconds of data collecting interval, default as 10 seconds)

9.1.2 Real-time tracking location data upload interval. The smaller interval, the higher accuracy, but the higher power consumption.

SMS *rupload*60-999* (60-999 represents seconds of data uploading interval, default as 60 seconds, minimum rate should not be less than 60)

SMS ***routetrackoff***

Device Response: "Notice: System has ended routetrack function."

9.2 Check Location

This check function enables device to collect location data regularly and uploaded to server in appointed interval. This command can be used both in idle and in motion, and able to work with route track function at the same time.

Check by hour

SMS: *check*0-99*(0-99 represents hours of data upload interval, default as *check*0*)

Check by minute

SMS: *checkm*10-999*(5-999 represents minutes of data upload interval,)

SMS : *checkoff*

Device Response: "Notice: System has ended check function."

Noted:

1. Check function is able to work with routetrack command at the same time.
2. System is default as *check*72*. One location will be uploaded to server every 72 hours.
3. Location will be uploaded to server no matter device is in motion or not

9.3 Appointed Time Tracking

Appointed Time Map Location. Check map location at appointed time, up to 3 time points. Time format need to be in military time and can be set to every half hour. e.g. 0830, 1400,1830 refers to 8:30, 14:00,18:30 of the day.

SMS : *timinglocatemap*XXXX*XXXX*XXXX*

Device Response: You will receive back a text message with a google map link, click the link in order to view the location through cellphone browser. It is suitable for smart phone user only.

SMS : ***timinglocateoff***

Device Response: "Notice: System has ended timing locate function."

9.4 Period Tracking

Period Tracking. GPS Location data will be uploaded to server during the appointed periods, up to 3 time periods. Time format need to be in military time and can be set to every half hour. e.g. 08001100 , 14001830 refers to 8:30-11:00,14:00-18:30 of the day.

SMS : ***periodlocate*XXXXXXXX*XXXXXXXX***

Device Response: "Notice: System has enabled period locate function at appointed time period."

SMS : ***periodlocateoff***

Device Response: "Notice: System has ended period locate function."

9.5 Track Off

Track off will end all the tracking functions except check function.

SMS : ***trackoff***

Device Response: "Notice: System has ended all tracking functions."

9.6 Upload Alert

The upload alert function enables device upload alert status to the server including **motion alert, low battery alert** and **wire cut alert, drop alert** etc. User can track alert status on the tracking website.

This function is default as ON.

SMS : ***uploadalert*on***

Device Response: "Notice: System has enabled upload alert function."

SMS : ***uploadalert*off***

Device Response: "Notice: System has disabled upload alert function."

9.7 Online Control

The online command function enables device to connect with server for 15

minutes, and user will be able to send online command from the tracking website.

SMS : **onlineon**

Device Response: "Notice: System has enabled online control function. Data will be uploaded every 30 seconds for 15 minutes."

SMS : **onlineoff**

Device Response: "Notice: System has disabled online control function."

10. Deep Sleep

The Deep Sleep function enables the device to be available for long working periods as needed, tracking remotely when either the timer wakes the unit or motion is detected.

10.1 Sleep

Device will enter deep sleep in appointed time interval and will be awake for 12 minute to upload 1 GPS location. If no new command, call or new motion is received during the 12 minutes, device will enter sleep function again.

SMS: **sleep*1-99** (1-99 represents hours of deep sleep period.)

Device Response: "Notice: System is going to enter deep sleep function, data will be uploaded every XXX hours."

10.2 Motion Sleep

Device will enter deep sleep and will be awaked by motion, meanwhile upload the current location, and will wait for 12 minutes for further command. If no new command, call or new motion is received during the 12 minutes, device will enter sleep function again. And the circle repeats.

10.2.1 SMS: **sleepv**

Device Response: "Notice: System has enabled deep sleep with motion call alert function."

10.3 Period Motion Sleep

Device will enter deep sleep for appointed time period and will be awaked by motion, meanwhile upload the current location, and will wait for 12 minutes for further command. If no new command, call or new motion is received during the 12 minutes, device will enter sleep function again, until appointed period ends. Please input time period.

SMS: **sleepv*1-99** (1-99 represents hours of deep sleep period, system will

be activated with motion during this period.)

Device Response: "Notice: System has enabled deep sleep with motion call alert function for XXX hours."

10.4 Sleep Off

SMS: * **sleepoff** *

Device Response: "Notice: System has ended all sleep functions."

11. Status query

SMS: * **status** *

System Health and status check. Returns text message indicating various system diagnostics

12. Multi Controller

This allows any SMS enabled cell device to query the unit for location, status, etc.

121. 1 SMS: * **multiquery** *

"Notice: Multi query feature enabled."

121. 2 SMS: * **multiqueryoff** *

The unit will now only respond to the Master controller.

Device Response: to the Master Controller: " Notice: Multi query feature disabled."

13. Device Information

SMS: * **about** *

You will receive a text message include software edition information and device's serial number.

14. Timezone

The timezone need to be set before using the period motion alert, appointed time tracking or period tracking function.

System is UTC time format and time zone need to be set by SMS.

SMS: *timezone*0-24*(0-24 represents different timezone, default as 8) eg Italy= *timezone*2* UK= *timezone*0* Australia Perth = *timezone*8*

16. Low battery Alert:

The device is equipped with an automatic "Low Battery" detection and alert when the battery drops to 20% of its capacity. An alert SMS will be sent to appointed phone number and the real-time tracking function will be turned off for power saving.

Appointed alert number settings

Default alert phone number is registered master number, and it can be changed as needed.

SMS: *lowbat* +1XXXXXXXXXXXX*, (For instance, master controller phone number is +1XXXXXXXXXXXX. +1 refers to the country code. XXXXXXXXXXXX is the cellphone number. Please make sure country code is included, and digit 0 is not needed before cell phone number)

17. Wire cut alert function

The device will receive a SMS alert and a locate address of the device when the wire is cut.

Device response: Notice: Primary Power Disconnect.

Command Setting List

| Function | Command | Description |
|----------------|------------------------------------|--|
| APN Setting | *apn*AXXX*BXXX*CXXX* | This command sets the telecom Access Point Name . BXXX refers to user name, CXXX refers to password. |
| Master Setting | *master*123456*+1XXXXX XXXXXXX* | +1 refers to the country code. XXXXXXXXXXXX is the cellphone number. Please make sure country code is included, and 0 is not needed before cell phone number |

| Function | Command | Description |
|-------------------------------|------------------------------|---|
| Password Changing | *password*654321* | Original password is default as 123456. 654321 refers to new password. |
| Vibration Sensitivity Setting | *sensitive*1-5* | 1 being the most sensitive, 5 the least. Default setting is 1. |
| Motion Alert | *callalert* | Call alert will call master number 2 times when motion is detected after 3 minutes non-movement. |
| | *smsalert* | SMS notification will sent to master number when motion is detected after 2 minutes non-movement. |
| | *alertoff* | End Call/SMS alert |
| Period Motion Alert On | *continuous alert*0-23*0-23* | Device will enable motion alert function at appointed period of time |
| | *continuousalertoff* | End Period Motion Alert |
| LLC Query | *locate* | Latest information of latitude, longitude, date, time and ranking. |
| Address Query | *locateaddress* | Address information of current location. |
| Google Map Search | *locatemap* | Google Map link with current location. |
| Real-time Tracking | *routetrack*1-99* | 1-98 represents hours of accumulated data, 99 means always on. |
| Sampling Interval | *rsampling*1-999* | 1-999 represents seconds of data collecting interval, default as 10 seconds. |

| Function | Command | Description |
|-------------------------|--------------------------------------|---|
| Upload Interval | *rupload*60-999* | 60-999 represents seconds of data uploading interval, default as 60 seconds, minimum rate should not be less than 60. |
| Real-time Tracking Off | *routetrackoff* | End routetrack function. |
| Check Location | *check*0-99* | Track by hour. 0-99 represents hours of data upload interval, default as *check*0* |
| | *checkm*10-99* | Track by minute. 5-99 represents minutes of data upload interval |
| | *checkoff* / *check*0* | End check function |
| Period Tracking | *periodlocate*XXXXXXXX*XXXXXXXX* | GPS location data will be uploaded to server at appointed periods, up to 3 time periods. |
| | *periodlocateoff* | End period tracking function. |
| Appointed Time Tracking | *timinglocatemap*XXXX*X XXX*XXXX* | Check map location at appointed time |
| | *timinglocateoff* | End appointed time tracking function |
| Track Off | *trackoff* | End all the tracking functions expect check function. |
| Upload Alert | *uploadalert*on* | All alerts will be uploaded to server |

| Function | Command | Description |
|---------------------|-------------------|--|
| | *uploadalert*off* | End upload alert function |
| Online Control | *onlineon* | Enable online control function |
| | *onlineoff* | End online control function |
| Deep Sleep Setting | *sleep*1-99* | 1-99 represents hours of deep sleep period. |
| Period Motion Sleep | * sleepv*1-99* | Period Motion Sleep. 1-99 represents hours of deep sleep period. |
| Motion Sleep | * sleepv* | Motion Sleep function with motion alert. |
| Sleep Off | *sleepoff* | End Deep Sleep function. |
| Status query | *status* | Check system status |
| Multi Controller | *multiquery* | Enable multi controller function |
| | *multiqueryoff* | End multi controller function |
| Device Information | *about* | Software edition information and device's serial number. |