

TK05 USER GUIDE

1. TK05 Features

- Maximum 400 days working time
- Police & Detector's Best Choice
- 5000mAh Lithium-Polymer battery
- Drop-trigger alarm build-in
- GSM+GPS positioning with Google map tracking
- Water-Proof design with strong magnets built-in
- Remote Bug Monitoring function with DSP within five meters of effective

Hardware Specifications:

- Size:117*59*30 (mm), Weight: 227g
- GPRS:MTK 6260D
- Quad band; 850/900/1800/1900 MHz
- Antennae: Internal, GPRS Class 12
- Power:Rechargeable, 5000 mAh, Lithium-Polymer Battery
- 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. Installation Manual

3.1 SIM Card Pre-installation, specification note

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

3.2 SIM Card Installations and Removal

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

4. Button Operation

For the first time activating the device, once Sim is inserted, device will be on automatically. No any button operation is needed.

4.1 Button Operation for GPS function

NOTE: "button" presses must be less than 2 seconds each in all uses

This control button is at the bottom of the device

- a. **On:** Press control button 5 times. The green indicating light will be on for 30 seconds. (System default as ON)
- b. **Off:** Press control button 10 times. The blue indicating light will flash for 5 times
- c. **Reset:** Press control button 15 times to reset all settings. The blue indicating light will flash for 5 times, and then the green indicating light will be on for 30 seconds.

4.2 Drop Alert

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 **A**ccess **P**oint **N**ame. 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. XXXXXXXXXXXX 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 +1XXXXXXXXXX. 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=3seconds continued vibrating

5=15seconds 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 every half hour. e.g. 08001100 , 14001830 refers to 8:30-11:00,14:00-18:30 of the day.

SMS : *continuousalert*XXXX*XXXX*

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. Remote Listening

The device is equipped with an audio DSP which enable master controller to monitor the environmental sound via calls. Master controller can enable the bugging function either by calling the device or command the device to call back.

8.1 SMS: *callin*

Enables the Master controller to call the device to start listening within 30mins after the SMS is sent.

8.2 SMS: *callback*

The device will call the master controller enabling the Maser Controller to listen when the call is accepted.

9. 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, very 10 second 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.

9.1.1 By button

Press and hold On button at the back of the device for 3 seconds to turn on routetrack function, LED flashes 5 times indicates routetrack function is on.

9.1.2 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.”

9.1.2.1 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)

9.1.2.2 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)

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*24*. One location will be uploaded to server every 24 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*XXXX*XXXX**

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

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. I 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. Low battery Alert:

The Bikelight is equipped with an automatic “Low Battery” detection and alert when the battery drops to 20% of it’s 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)

As a reminder, the LED light will stop flashing and remains on as a constant during low battery period.

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* +1XXXXXXXXXXXX*	+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
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.

Function	Command	Description
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	*continuousalert* 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.
Audio Monitoring Call in	*callin*	Call the device to start listening within 30mins after the SMS is sent.
Audio Monitoring Call back	*callback*	The device will call the master phone number and enabling the Maser Controller to listen when the call is accepted.
Real-time Tracking	*routetrack*1-99*	1-98 represents hours of accumulated data, 99 means always on.

Function	Command	Description
Sampling Interval	*rsampling*1-999*	1-999 represents seconds of data collecting interval, default as 10 seconds.
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
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*	End Deep Sleep function. 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.