

# T8800 USER GUIDE (Full Functions)

## 1. T8800 Features

Designed to survive in the harshest conditions, delivering regular and accurate location records using state of the art GPS over the cellular network, the T8800 delivers superb performance less expensively than ever before. Built to exacting specifications, the T8800 is weatherproof and durable. With the built in super-magnets in the case, the T8800 requires over 50 pounds of direct lift to be dislodged from any ferrous surface, making it an ideal manager for remote, and un-powered installations such as heavy construction equipment, RV's and vehicles of all descriptions. With its super-magnet case, the T8800 can be installed under a vehicle for a quick and accurate covert tracking installation.

Flexible in its programming options, the T8800 can be easily re-programmed via SMS by the user to set and reset it's scheduled and motion detected location reporting. The T8800 also supports a deep sleep function, and with it's internal 8800 mAh rechargeable Lithium-Ion battery, can wait for months in a true "sleeping standby" for motion or vibration to wake it into pre-programmed periodic location reporting when it starts moving.

## Hardware Specifications:

Size:	110mm x 88mm x 42mm
	Storage Temp: -40 to 85°C
	Operating Temp: -10 to 55°C
GPS:	U-BLOX G6010-ST, 50 channel
	Antennae: Internal
	Frequency: L1 1575.42 MHz
	Position Accuracy: <5m
Sensitivity:	
	Tracking: -161 dBm
	Cold starts: -148 dBm
	Hot starts: -156 dBm
	Cold start: <27s
	Warm Start: <5s
	Hot Start: 1s
A-GPS:	AssistNow Online and AssistNow Offline services,
	OMA SUPL compliant
GPRS:	MTK 6223D
	Quad band; 850/900/1800/1900 MHz
	GPRS Class 12
	Antennae: Internal
Power:	Rechargeable, 8800 mAh, Lithium-Ion Battery
	Built-in Vibration/motion sensing

## 2. Product Image



## 3. Operation

### 3.1 Button Operation for GPS function

**NOTE: "button" presses must be less than 3 seconds each in all uses**

This control button is at the middle top of the device

- On:** Press control button 5 times. Both blue and green LED's visible in the GPS function Indicator, will be on for 30 seconds.
- Off:** Press control button 3 times. Green LED light will flash for 10 seconds
- Reset :** Press control button 10 times to reset all settings.

**If your T8800 is equipped with the optional power bank feature;**

### 3.2 Button Operation for power supply function

This control button is at the middle top of the device

- On:** Press and hold control button for 1.5 seconds. 4 Blue indicating lights will show current power status, each light equals approximately 25% of the power capacity available.
- Off:** Press and hold control button for 1.5 second. Indicating lights will be off.

## 4. Installation Manual

### 4.1 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.

## 4.2 SIM Card Installations and Removal

### a. MAKE A NOTE OF THE SIM SMS PHONE NUMBER

- 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 second 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

## 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. 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 (see NO.13 for details) .

### 5.3 Emergency takeover function:

With the proper password, any phone number could takeover of full functionality under emergency situation.

**SMS: \*master\*123456\*+1XXXXXXXXXX \*** (For instance, master controller phone number is +1XXXXXXXXXX. +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)

You will receive back a text that says: "Notice: Master controller change is successful for +1XXXXXXXXXX, the new master controller is +1XXXXXXXXXX."

### 5.4 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."

## 6. Motion Detection 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. Since certain applications are more sensitive to external vibration sources, the sensor has variable sensitivity settings. The unit comes from the factory pre-set to #1, on a scale of 1-5, with 1 being the most sensitive. If you notice you are getting excessive false movement alerts (like when a heavy truck drives by), you can simply send the following SMS to the unit, and reset the variable:

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

1=3seconds continued vibrating

5=15seconds continued vibrating

Default setting is 1 (per the explanation above)

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

### 6.2 SMS or CALL Alert Settings:

The Alert function(s) can be set accordingly with the following SMS commands. **The system default setting is call alert.**

**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."

Note:

\* By Default, the Alert System automatically initiates a notification to the Master Controller when the motion sensor is activated after 3 minutes of non-movement, indicating vibration that may indicate motion.

\* Call alert will call master controller 2 times when motion is detected.

\* Moving (motion) alert can only be turned off by SMS.

### 6.3 Continuous Alert

Once device start moving, master controller will receive continuous alert every 30 seconds until the device stop moving. The continuous call alert can be set to function for appointed period of time.

**SMS: \*continuousalert\* 0-23\*0-23\*** (The first 0-23 represent start time, the second one represent stop time, 24 hours format. Example, \*continuousalert\*17\*07\* = from 5-PM until 7-AM the following morning, device will begin continuous alert functionality upon motion.)

**Device Response:** "Notice: System has enter continuous alert function. Period is set to XX-XX "

**SMS: \*continuousalertoff\***

**Device Response:** "Notice: System has ended continuous 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\*

**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.

\* Note: Device will start positioning once it is powered on, location data will be saved and retained in memory every minute automatically. If GPS positioning fails, the nearest GSM cell tower data will be saved instead.

## 8. Remote Listening

The device is equipped with an audio DSP, enabling master controller to monitor the surrounding sounds via "call". The Master Controller activates the Listening function either by calling the device or commanding the device to call back via SMS.

### 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

The T8800 is purchased with an account on the [www.miitown.com](http://www.miitown.com) website. Tracking data, per the default and variable settings is transmitted via GPRS to the server where it is viewable from ANY web browser, where the user has unlimited access to the full suite of reports and data displayed on Google Maps.

Tracking Website Login ID: Master controller phone number. It's the same number as 5.2.

Tracking Website Login Password: Default as 123456. New password please see 5.3 for details

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

There are different tracking modes that can be selected by SMS command. Route Track and Interval Track.

**NOTE:**

**The default setting is OFF due to GPRS data and extra power is required for each tracking mode.**

### **9.1 Routetrack**

This function delivers a highly granular tracking record of a specific route. Initiate the start with a SMS command. 10 second locate records are uploaded every 1 minute to the server during periods of motion detected by the internal vibration sensor.

This function is suitable for speed moving object tracking.

#### **9.1.1 By button**

Press On button at the back of the device 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 Routetrack data Collecting Interval**

**SMS \*rsampling\*1-999\*** (1-999 represents seconds of data collecting interval, default as 10 seconds)

##### **9.1.2.2 Routetrack data Uploading Interval**

**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 Function**

This check function allows for Power savings over route track of 30%-60% by controlling sampling frequency and data upload interval. The device can be set to collect location data regularly and uploaded to server at appointed interval. Initiate the start of interval tracking with a SMS command.

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

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

**SMS : \*checkoff\***

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

Noted: Check function is able to work with routetrack command at the same time.

### 9.3 Track Off

**SMS : \*trackoff\***

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

## 10. Deep Sleep

The Deep Sleep function enables the T8800 to be available for extremely long working periods needed, tracking remotely when either the timer wakes the unit or motion is detected. The GSM and GPS are both off during deep sleep, with only the timer drawing power. Since both the radio and GPS are off, the device requires a minute or two to establish a location and send the first record upon waking. There are several options of "Deep Sleep".

1. **Tosleep** : Device will enter deep sleep in appointed time
2. **Callsleep** : Call alert when system ends deep sleep function.
3. **Intervalsleep** : Device will enter deep sleep in appointed time interval
4. **Sleeptime** : To set deep sleep period
5. **Timed Data Upload** : 10 consecutive location data packets will be uploaded based on a start time
6. **Periodsleepoff** : Location data will be upload at appointed time period, up to 10 periods

### 10.1 To Sleep

When non-movement is detected for appointed time period (minutes), system will enter deep sleep function. The device will end deep sleep when movement is detected. Once motion stops, the Device will enter Deep Sleep again after the appointed time period if no new motion, command or call is received.

**10.1.1 SMS: \*tosleep\*3-99\***(3-99 represents minutes of non-movement. )

**Device Response:** "Notice: System will enter deep sleep function after XX minutes non-movement."

**10.1.1.1 SMS: \*tosleepcall\*3-99\***(3-99 represents minutes of non-movement. )

When no movement is detected for XX minutes, system will enter deep sleep function with a call alert to the Master Controller every time.

**Device Response:** "Notice: System will enter deep sleep function after XX minutes no movement with call alert."

**10.1.1.2 SMS: \*tosleepsms\*3-99\*** (03-99 represents minutes of non-movement. )

When non-movement is detected for XX minutes, system will enter deep sleep function with an SMS alert to the Master Controller to notice owner tracker is going to enter deep sleep mode

**Device Response:** "Notice: System will enter deep sleep function after XX minutes non-movement with SMS alert."

**10.1.2 SMS: \*tosleepoff\***(3-99 represents minutes of non-movement. )

**Device Response:** "Notice: System has ended tosleep function."

## **10.2 Call sleep**

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

The Device will enter deep sleep function immediately when command is received. The Master Controller will receive a call alert when system ends deep sleep function.

**Device Response:** "Notice: System is going to enter deep sleep function, and will be ended with call alert for every XX hours."

**SMS: \*callsleepoff\***

**Device Response:** "Notice: System has ended deep sleep function."

## **10.3 Interval sleep**

In Interval Sleep, The Device will enter deep sleep function once the command is received. After the deep sleep interval, the device timer activates the device for 12 minutes to acquire and upload current location data and check for new commands on SMS. If no new command is received, the device returns to sleep for the next interval. The Master Controller will not receive any call alert when system ends deep sleep function.

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

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

**SMS: \*intervalssleepoff\***

**Device Response:** "Notice: System has ended deep sleep function."

**It is critical to note, that once you engage Deep Sleep, the device is incapable of receiving or procesing commands until the interval passes and the device wakes up. Make sure you have ALL configuration and time settings done BEFORE engaging Deep Sleep.**

#### **10.4 Sleep time**

The Sleep Time function is to allow Deep Sleep for periods when you are not concerned about movement, but closer periodic updates for time periods you are. The Device stays in Deep Sleep until a certain time of day, and begins periodic location updates in two hour intervals until the "end" of the day.

**SMS: \*sleeptime\* 0-23\*0-23\*** (The first 0-23 represent start time, the second one represent stop time, 24 hours format) Example: \*sleeptime\*17\*05\* = The device Sleeps between 5PM and 5Am the following morning. From 5AM until 5 PM, the device will report every two hours.

**Device Response:** "Notice: System is going to enter deep sleep function from XX to XX. Deep sleep period is XX hours"

**SMS: \*sleeptimeoff\***

**Device Response:** "Notice: System has ended deep sleep function."

#### **10.5 Timed Locate**

**10.5.1 SMS: \*timinglocate\*XXXX\*XXXX\*\*XXXX\*** (XXXX represent time and minutes, minimum unit is 30 minutes, maximum timing setting is 10. EG \*timinglocate\*0800\*1100\*1400\*1830\* means 8am, 11 am, 2pm and 6:30pm

of the day)

- a. Device will enter deep sleep function once command is received.
- b. System will be activated at appointed time, starts GPS and upload location data in 3-7mins.

Master controller 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.

- c. If no GPS signal is found, cell tower information will be sent instead.
- d. System will enter deep sleep function again if no new command is received during the 12 minutes activating time.

You will receive a text message "Notice: System has entered timing locate function."

**10.5.2 SMS: \*timinglocateaddress\*XXXX\*XXXX\*\*XXXX\*** (XXXX represent time and minus, minimum unit is 30 minutes, maximum timing setting is 10. EG **\*timinglocateaddress\*0800\*1100\*1400\*1830\*** means 8am, 11 am, 2pm and 6:30pm of the day)

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

**10.5.3 SMS: \*timinglocatepmap\*XXXX\*XXXX\*\*XXXX\*** (XXXX represent time and minus, minimum unit is 30 minutes, maximum timing setting is 10. EG **\*timingsleepmap\*0800\*1100\*1400\*1830\*** means 8am, 11 am, 2pm and 6:30pm of the day)

You will receive back a text message with a Google map link. Click the link in order to view the location through your smartphone browser.

**10.5.3 SMS: \*timinglocateoff\***

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

## **10.6 Period Data Upload**

**SMS: \*periodlocate\*XXXXXXXX\*\*XXXXXXXX\*** (XXXX represent time and minutes, minimum unit is 30 minutes, maximum timing setting is 10. EG **\*periodlocate\*08001100\*14001830\*** means 8am-11am, 2pm-6:30pm of the day)

Device will enter deep sleep function once command is received.

Device will be activated at appointed period of time, starts GPS and upload location data in 3-7mins.

Master controller will receive back a text include latest information of latitude, longitude, date, time and ranking.

If no GPS signal is found, cell tower information will be sent instead.

Device will enter deep sleep function again if no new command is received during the 12 minutes activating time.

### **10.7 SMS: \*periodlocateoff\***

**Device Response:** "Notice: System has ended deep sleep function."

\*Note This command will only be received when system is activated after the previous deep sleep period.

## **11. Geofencing**

The device is equipped with an automatic GeoFencing function that will, on command set a 01-99km radius "bubble" around the device. Movement within this area is ignored. Crossing outside can become an SMS alert. To set the GeoFence, from the master controller;

### **11.1 SMS : \*fence\*1-99\***

**Device Response:** "Notice: The GeoFence is set. Radius is set to XXX km"

Movement that exits the geofence will be immediately texted to the master controller as a "Notice: GeoFence Exit Alert."

To disable the Geofence,

### **11.2 SMS : \*fenceoff\***

**Device Response:** "Notice: The Geofence is disabled."

It should be noted, that if you disable the SMS, Movement Alert and the Movement Call Alert; but have the GeoFence Alert in place, the first message notifying you of movement will be the GeoFence Exit.

## **12. Status query**

### **SMS: \*status\***

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

## **13. Multi Controller**

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

### **SMS: \*multiquery\***

"Notice: Multi query feature enabled."

### **SMS: \*multiqueryoff\***

The unit will now only respond to the Master controller.

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

## 14. Device Information

**SMS: \*about\***

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

## 15. Branding Settings

Send a command enable you to use your own brand in the reply text message.

This is a factory command.

**SMS: \*brd\*XXX\*** (XXX refers to the new brand name)

**Device Response:** "XXX inform: The new brand name is set."

## 17. Power Bank

### 17.1 Features

- a. Capacity: 8800mAh
- b. Mini USB input, USB-A output. Support charging tablet, cellphone, PDA, MP3, MP4, digital camera etc.
- c. Low and high voltage protection.
- d. DC-DC efficiency 89-95%
- e. LED indication light indicates power capacity as follows:  
1light < 25% , 2lights <50% , 3lights<75% , 4lights<100%

### 17.2 Power Bank Operation

- a. Connect device with DC5V via the mini USB cable and LED indication light will show the power capacity and device will start being charged.
- b. Connect the USB-A slot of the device with output cable provided, then press and hold the power on button for 1.5 second, and device will start charging other device. LED indication light will show the power capacity.
- c. LED indication light will be off for power saving, turn the power on (Button for 1.5 seconds) to turn on the light again.
- d. 1 Led indication light flash indicates low power, the device needs to be recharged.

### Notes

1. The battery protection electronics will self-discharge in standby-shipping mode, please fully charge the device before using.
2. Battery will automatically shut down the output function when over-voltage
3. The full charging time of the device is about 5.5 hours.
4. Please recharge the device every 3 -5 months if it is not in use.
5. When charging, a moderate increase in device temperature is present. The device should always be re-charged in a well-ventilated area.
7. While charging, keep the device away from water, fire, cellphone etc.

### 17.3 Specification

- a. Input: 5V DC 2000mA min (Mini USB)
- b. Output: 5V DC 1000mA max±5% (USB-A)
- c. Battery capacity: 8800mAh
- d. Charging time: 5.5 hours
- e. Standby power consumption: ≤250uA

## Command Setting List

Function	Command	Description
APN Setting	*apn*AXXX*BXXX*CXXX*	This command sets the telecom <b>A</b> ccess <b>P</b> oint <b>N</b> ame. 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
Alert Setting	*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
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.
Routetrack Setting	*routetrack*1-99*	1-98 represents hours of accumulated data, 99 means always on.
Routetrack Sampling	*rsampling*1-999*	1-999 represents seconds of data collecting interval, default as 10 seconds.
Routrack Upload	*rupload*60-999*	60-999 represents seconds of data uploading interval, default as 60 seconds, minimum rate should not be less than 60.
Routetrack Off	*routetrackoff*	End routetrack function.
	*check*0-99*	0-99 represents hours of data upload interval, default as *check*0*

Function	Command	Description
Check Function Setting	*checkm*10-99*	10-99 represents minutes of data upload interval
	*checkoff* / *check*0*	End check function
To Sleep	*tosleep*3-99*	3-99 represents minutes of non-movement.
	*tosleepcall*3-99*	Enable sleep mode with call reminder after appointed interval
	*tosleepsms*3-99*	Enable sleep mode sms reminder after appointed interval
	*tosleepoff*	End to sleep function
Call Sleep	*callsleep*1-99*	1-99 represents hours of deep sleep period.
	*callsleepoff*	End call sleep function
Interval Sleep	*intervalssleep*1-99*	1-99 represents hours of deep sleep period.
	*intervalssleepoff*	End interval sleep function
Sleep Time	*sleeptime* 0-23*0-23*	The first 0-23 represent start time, the second one represent stop time, 24 hours format
	*sleeptimeoff*	End sleep time function
Timed Locate	*timinglocate*XXXX*XXX X**XXXX*	XXXX represent time and minutes, minimum unit is 30 minutes, maximum timing setting is 10. EG *timinglocate*0800*1100 *1400*1830* means 8am, 11 am, 2pm and 6:30pm of the day

Function	Command	Description
Timed Locate Address	*timinglocateaddress*XXX X*XXX**XXX*	XXXX represent time and minus, minimum unit is 30 minutes, maximum timing setting is 10
Timed Locate map	*timinglocatemap*XXXX*X XXX**XXX*	XXXX represent time and minus, minimum unit is 30 minutes, maximum timing setting is 10
Timed Locate off	*timinglocateoff*	End Timed location function
Period Data Upload	*periodlocate*XXXXXXXX **XXXXXXXX*	XXXX represent time and minutes, minimum unit is 30 minutes, maximum timing setting is 10
	*periodlocateoff*	End period location function
GeoFence Setting	*fence*1-99*	1-99 represents 01-99km radius “bubble” around the device.
	*fenceoff*	End Geofence 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.