

## Spylamp Bicycle Tracker

Patent GB1016601.5



### Technical Specifications :

- Quad band GSM 850/900/1800/1900 MHz
- GPS Position Accuracy 5m - 25m
- Hot start 1sec.,average
- Cold start 36sec.,average
- Fallback GSM position (approx 200m accuracy)
- Dimension 60mm x 20mm x 45mm
- Vibration activated
- 3 x red superbright LED
- Voltage 3.7V (Built in Lithium Ion rechargeable)
- USB charging cord and mains adaptor plug (USB mini B)
- Average Current When stand-by < 1  $\mu$ A
- Average Current when GSM active 1.5 mA
- Average Current when GPS active 68 mA
- Battery life approx 1 year depending on light use and wakeup intervals
- The device is completely configured by SMS text message.

An instruction manual will be provided with the device listing all of the SMS text messages used to control the device

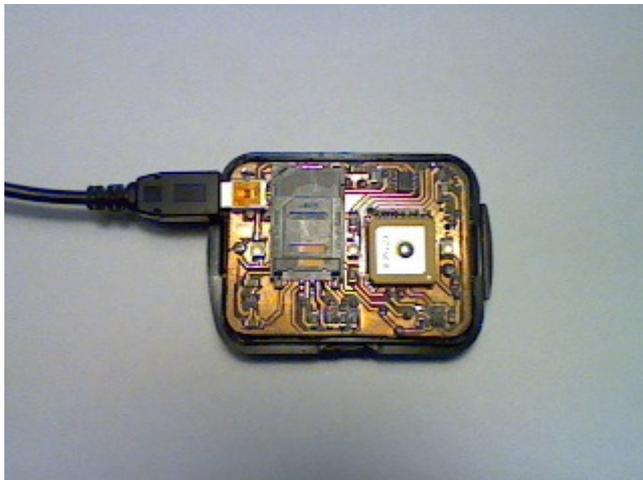
## SIM Card

Remove the light cover and insert a local SIM card (usually pay-as-you-go is cheapest). Any GSM SIM card should be compatible.



## Battery

The tracker is powered by a lithium ion battery. Under the cover is a USB mini plug which is used to charge the battery. The lamp is supplied with a charging cord.



### **Vibration Sensor**

The lamp has a regular on/off button on the back. If you hold the button down for 3 seconds the lamp will flash and the vibration sensor is now activated. Excessive movement will wake up the tracker and it will text you, telling you your bike is moving.

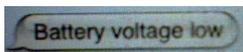


The tracker will then try to obtain a GPS lock and send this to you.

The idea behind this, is that when you leave your bicycle on a public cycle rack, you can activate the device and get some forewarning if it is being tampered with.

### **Battery Life**

The tracker spends most of its time "asleep" and only wakes at preset intervals. (i.e. twice a day) In this way it uses little battery and can last for more than a year off one battery charge. You can configure how often it wakes.



Battery life is dependant on many factors.

- 1) How much you use the light at night
- 2) How many times you request the trackers location
- 3) How often the tracker wakes to check its text messages (and checks if it is stolen)
- 4) How good the mobile phone coverage is. This is a large factor as the longer the device has to take to attempt to connect to a weak signal, the more power it will use (Use a good network provider with plenty of coverage in your area) If it cannot connect within 90 seconds it will go back to sleep.
- 5) How long the device takes to get a GPS lock when requested

Should the battery level become low, you will receive a text message. The tracker will also send you a periodic 'checkin' message. (i.e. once per week) to let you know its still doing its job.

## GSM fallback

If the tracker can't get a GPS lock then it will send you a GSM triangulated position instead. This is less accurate, usually within a few hundred meters.

## What triggers the device ?

The device is triggered if the vibration sensor is active and the tracker detects excessive movement (a little bump will not activate it)

If your bicycle is stolen when the vibration sensor is not active, then you can text the word "**stolen**". This will activate the tracker the **next time it wakes up**. It will then report its location to you.

It will continue to report this every time it wakes (i.e. twice per day) until you send it the text "**found**"

You can also remotely activate the vibration sensor by text message

Additionally the tracker will send you its location any time the light is used after it has been reported stolen

You can also send the tracker the text '**whereareyou**' to get its location while it is active.



*Note : The tracker is completely disconnected from the network until it wakes up. So if the vibration sensor is not active and it is stolen then you will not be able to find out its location for several hours.*

## Clip :

There is a small screw on the light so it cannot just be unclipped without removing the whole device from the seat post.

The idea is that it is disguised so the average thief wouldn't know what it really hides.



## Changing the trackers settings

You can change any of the settings in the tracker by sending it SMS text messages. The tracker will need to be 'active', that is, the GSM modem is connected, before it will respond.

The GSM modem will connect and stay active for 5 mins (configurable) after the light has been switched on. So to change the trackers settings, first switch the light on and off and then send it a text! The 5 min timer will restart after each text

Some common settings :

- whereareyou** - Send me the current GPS location
- help** - Send me some common commands
- settings** - What are the current settings
- reset** - Reset to factory settings
- setphone1** - Set my current phone number
- stolen** - Report device stolen. It will now periodically report its location
- found** - Device is no longer stolen. Periodic reporting will stop
- setwakeup** - How often should the device wake. i.e. **setwakeup 12 hours**
- setwaketime** - How long should the GSM modem stay on for after device wakes
- setstatus** - How often should 'check in'. i.e. **setstatus 7 days**
- flash** - Flash the light.
- networkinfo** - Send me the GSM triangulated position and local cell information
- checkbattery** - How much charge does the battery have left
- setvibration** - Turn the vibration sensor on or off i.e. **alarm on**