



iottag[™]

Monitor. Locate. Alert

USER GUIDE

IOTTAG GPS PDA

Product Overview

This device is an advanced PDA and personal locating alarm that is waterproof with an IP rating of IPX7.

It is an innovative tiny personal remote positioning unit with built-in U-blox GPS and GSM/GPRS technology. Designed for your personal protection and safety. The SOS system is monitored 24 hours a day, 7 days a week. If you trigger an alert, an operator will be ready to dispatch emergency services.

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GETTING TO KNOW YOUR DEVICE:



Turning your PDA ON and off

If the lights on the front of the device are not flashing, your device is OFF and will NOT protect you.

To Turn On the PDA device: Press the side Phone button for 1 second, the device will vibrate, and all LEDs on the front will flash rapidly.

The device can be also turned on automatically by charging via USB or put it into the docking station.

*To ensure the device is working correctly please ensure that both Green and Blue lights are flashing rapidly, twice a second.

Location may take up to 5 minutes to update correctly, best to ensure you are near a window or outdoors to aid the device to fix onto multiple satellites.

To Turn Off the device: Press and hold the SOS button on the front and the side phone icon together for 3 seconds until the LEDs turn off.

What do the Lights Mean?

GREEN LED - GSM Connection

LED	Rapid single flash	Rapid double flash every 3 seconds	Slow flash / No LED
State	GOOD GSM connected	GOOD GPRS connected	NOT GOOD SIM issue (please restart) or Out of battery (put on charge)

BLUE LED - GPS Location

LED	Rapid single flash (every 3 seconds)	Rapid double flash every 3 seconds	Slow flash / No LED
State	GOOD The device has a GPS positioning fix	GOOD The device has a GPS positioning fix	NOT GOOD SIM issue (please restart) or Out of battery (put on charge)

RED LED - Power Status LED

LED	Rapid single flash	Blue Blinking Quickly	Solid light
State	Low battery (put on charge)	Battery power is lower than 15%	Device fully charged

Device Charging

PDA device must be on charge for a minimum of 40 minutes every 24 hours to ensure sufficient battery life for your safety during use.

Using the docking station to charge;

- Place the device in the docking station. The device should click into place when correctly seated. The device must be straight, button facing the front.
- Ensure the USB-C cable is connected to the docking station port and connect the other end of the cable to the designated AC power source (USB/AC adaptor).
- When charging, the RED LED (on the docking station) will be blinking. After fully charging, the RED LED will become solid on the device.

Quick Start Guide:



Is Your Device Operational:

Step 1. Take device off charger.

Step 2. Check if the **green light (A)** is flashing rapidly.

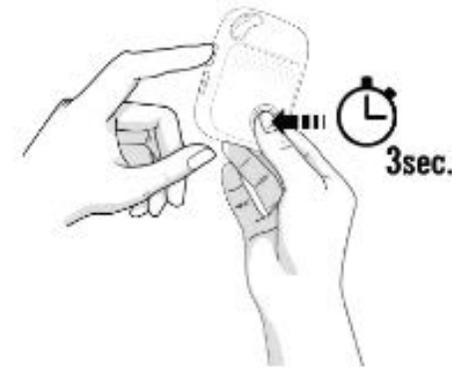
Step 3. Check if the **blue light (B)** is flashing rapidly.

***If not operating as described, proceed to Reboot Procedure**

Reboot Procedure:

Step 1. Turn the device off;

Please and hold the front button and side (Phone) button for 3 seconds. The device will vibrate, and lights will turn off.

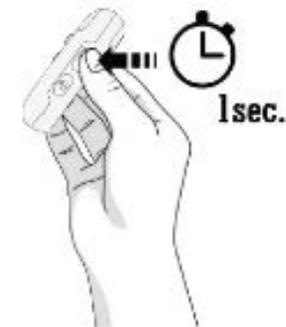


Turning it OFF

Step 2. Turn the device on;

Wait 30 seconds before turning back on. To turn ON press and hold the CALL button on the side (phone icon) for 1 second, the device will vibrate, and all the LEDs will flash rapidly.

Once on ensure that the both Green and Blue LED's are flashing rapidly.



Turning it ON

***If not operating as described, proceed to Reboot Procedure again preferably outside or near a window. If Green and Blue lights still not operating correctly please report the device.**

Activate SOS Alert:



In an Emergency Activate SOS:

This device is for your safety. If you feel threatened or in danger and need assistance, push the **"SOS"** button (c) on the front of the device to activate the SOS Alert.

1. The device will vibrate and instantly send an alert message + your current location to the monitoring service.
2. The operator will contact the device as soon as the message has been received.
3. The device will vibrate three times, this will turn the device into a two-way communication tool and open connection with an operator.

Note: The operator will be able to hear background activity, to determine if it is appropriate/safe to proceed with two-way communication.

When Verbal Communication Is Not Possible:

If operator is able to determine there is a high risk situation and the device location provided is sufficiently accurate the operator will dispatch the police instantly to device location.

If the location is not accurate the operator will request a verbal location confirmation, if safe to do so should this information not be available the operator will dispatch emergency services to the available device location.

The operator will remain on the line for an additional 5 minutes then disconnect, if you require further assistance or circumstances change activate the SOS button again.

The operator will then notify site department contacts of the incident, activating internal procedures.

Safe to Commence Two-way Communication:

If the operator can determine that it is safe to commence with standard two-way communication procedure they will ask two questions;

"Do you require Police/Medical assistance?" "Please confirm your location?"

Staff to respond with the location of the incident, and if police/medical assistance is required. Should further information be provided, the operator will relay this to the emergency services.

The operator will instantly dispatch the emergency services, if required.

The operator will notify all defined site department contacts of the incident to activate internal site procedures.

The operator will remain on the line for an additional 5 minutes then disconnect, if you require further assistance or circumstances change activate the SOS button again.

False Alarm:

There will be false alarms, and this is ok!

When a false alarm is activated the standard procedure will commence, the operator will listen and determine the validity of the Emergency.

If you indicate to the operator that it was a False Alarm they will ask:

“Please confirm your Staff Number, Stand Down orders, and current location”

Note: To deescalate the alert, you will only need to state your HE number. If you do not provide your HE number, the operator will still dispatch the police to your location and notify your site department contacts to commence internal site procedures.

Activate SOS Alert FAQ's:

Why it is important to confirm my Location?

As a GPS device that connects with a minimum of three satellites to gain its location can be affected by its environment and external elements. By nature, the GPS can present the wrong location when indoors or in multi-level buildings, just like a mobile phone. This is why we must always confirm your location with the operator.

Who will be notified?

The operator will notify Police and any other emergency services required/requested, as well as notify all defined site department contacts of the incident.

For how long can I speak with the operator?

The operator will remain on the line for generally between 5 and 10 minutes, this will allow the operator time to monitor and gain an understanding of the situation. The operator will disconnect after 10 mins to preserve the battery of your device. If you require further assistance or circumstances change you can activate the SOS button again to speak with the operator. Voice communication over the device will consume significant power, it is advised that you keep this to a minimum.

Are conversations recorded?

All communication between staff members and the operator are recorded and will be provided to EMHS management upon request.

Device Operation:

Your PDA devices are not tracking you all the time everywhere you go. Your devices have been optimised to gain allocation on activated of SOS via button on the front of the device, or via significant movement.

If PDA is not lasting long enough throughout the day, please consult your IOTTAG account manager to assist with optimising configuration.

Low Battery alerts:

Low battery alerts will be sent to defined site department contacts when a device reaches on or below 15% capacity.

Audit / History:

EMHS representatives can obtain GPS historical location data of an incident upon request. This will be shown on the map and recorded as Longitude and Latitude within an export CSV file.

Device Details:

All devices have been given a unique number. The allocated number that can be located on the back. E.g. 275

Hardware Specifications

Content	Specs.
Mainframe Dimension (HxWxD)	62mm*47.9mm*18mm
Net Weight	60g
Supported Bands	AU: B1/B3/B5/B7/B28 / EU: B1/B3/B7/B8/B20 North America: B2/B4/B5/B7/B12/B17/B13
GPS chip	Support GPS and Glonass
Receiver frequency:	1575.42MHz
GPS accuracy	<2.5m
Time to First Fix	Cold: approx 26s Warm: approx 2s Hot: approx 1s
Charging Voltage	5V DC
Battery	Rechargeable, 3.7V,1000mAh
Battery life	Up to 72 to 240 hours under normal usage
Storage Temperature	-30°C to +70°C
Operation Temperature	-20°C to +80°C
Waterproof	IP67 Standard

Please adhere to the following guidelines to extend the unit life:

- 1. Do not use or store the unit in dusty places.**
- 2. Do not put the unit in overheated or over cooled places.**
- 3. To clean the unit, use a dry cloth. Do not clean using chemicals or detergent.**
- 4. Do not disassemble or refit the unit.**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FAQ's Device Operation:

How can I charge the PDA Device?

You can charge SEEK PRO using either the cradle or wireless charging mat. The device will vibrate once to confirm successful charge in progress.

Rebooting your Tracker

Your device can be rebooted remotely by IOTTAG customer care team, or by turning off and on again - to do so, hold both buttons for 3 seconds, then press side button once.

How does the SOS alarm work?

SOS Alerts are triggered by holding the SOS button. Your device must be on and have network coverage.

What is the SIM coverage?

This depends on the Service Provider. Refer to below links for coverage maps of each: Telstra - <https://mobilemaps.net.au/maps/mcm/3G.html>

What do the lights mean?

The LEDs on the side of the device indicate SIM Modem and GPS Chip status. Please refer to table in User Guide for further details.

What kinds of alerts can the tracker provide?

SOS and Low Battery are the available by default.

How can I receive alerts?

All alerts will be managed by IOTTAG and sent to the allocated site contacts via Email / SMS.

After Sale Support:

For support please contact your account manager direct, or contact IOTTAG teams via;

- Live Chat at www.iottag.com.au 10am-5pm EST Monday to Friday
- Support Hotline 1300 66 22 80 10am-5pm EST Monday to Friday
- Email support@iottag.com.au all emails will be responded to within 24-48hrs

Glossary / Definitions:

Technology:

GNSS

GNSS stands for Global Navigation Satellite System. It is a method of calculating location, velocity and precise timing anywhere on earth based on the signals visible from a satellite constellation, using a combination of trilateration and TDOA (Time Difference of Arrival) algorithms. In order to obtain a location, a GPS device must be receiving signal from at least 3 satellites.

GPS

GPS stands for Global Positioning System. There are 33 satellites in orbit in the southern hemisphere.

AGPS

AGPS stands for Assisted GPS - a method of utilising internet resources to decrease the TTFF (Time to First Fix).

GPS Almanac

The Almanac contains information on satellite trajectory and timings, must be downloaded by the GPS device for use in location calculations.

Ephemeris Data

Details on each satellite's detailed orbital information. Transmitted every 30 seconds and required for each satellite, used in a location calculation.

GPS Chip

The GPS chip is the component which receives and processes the Satellite signals.

Time To First Fix

The TTFF is the time taken for a GPS device to acquire satellite signals and calculate a position. It is faster outdoors where there are less sources of interference for the satellite signals.

There are three scenarios - Cold / Factory (first use or after long distance travel / Long period without use); Warm / Normal; and Hot / Standby.

Cold start

When the device has no estimates of Satellite positions and must start by acquiring a Satellite signal. Once found, the device can then receive the almanac from this satellite; the almanac is transmitted repeatedly over 12.5 minutes. Once obtained, position calculations can begin based on visible satellites. A Cold Start can take up to 15 minutes.

Warm start

The device has estimates of current time within 20 seconds, current position within 100km and its velocity within 25 m/s, and valid almanac data. The device must obtain ephemeris data for each satellite used in a calculation. A Warm Start can take between 35 seconds and 3 minutes.

Hot start

The device has valid time, position, almanac and ephemeris data. This enables a rapid acquisition of Satellite signals. Hot Starts are the fastest and can take between 1 and 20 seconds.

Location Accuracy

Consumer GPS devices have an accuracy of up to 5m, meaning that the calculated position will typically be within 5m of the precise location.

External factors such as weather and obstructions - including heavy roofing, tall buildings, and carparks - can impact the accuracy due to interference with satellite signals.

SIM Modem

In order for the GPS device to communicate its position back to an app it needs to connect to the internet via a cellular service. A SIM modem is used to facilitate this connection.

IMEI

The IMEI (International Mobile Equipment Identity) is a 16 digit number used to uniquely identify a SIM Modem.

GSM

Global System for Mobile communications - this is a type of SIM connection used to provide access to SMS and calling ability. It is used as a fall back when 3G/4G is not available.

GPRS

General Packet Radio Service - this is the SIM connection which provides access to 3G internet.

SIM Modem Frequency

Each SIM Modem is able to communicate on specific Frequencies, determining which SIM cards are compatible. *AU: B1/B3/B5/B7/B28 / EU: B1/B3/B7/B8/B20 / North America: B2/B4/B5/B7/B12/B17/B13*

Device:

Power Button

Located on the side of the device, press this button to turn device on. To turn off, hold both power and SOS button for 1 second. The device will vibrate when turned on / off.

SOS Button

Located on the front of the device, hold this button for 3 seconds to trigger an SOS alarm. Device will vibrate to confirm SOS. This button is also used to answer / end calls for two-way communication.

Indicator Lights

Located on the front of the device, there are three indicator LEDs. The Green light indicates SIM Modem status. The Blue light indicates GPS Chip status. Red indicates power.

Green LED

Single long flash every 3 seconds - searching for nearby cell towers. Single rapid flash every 3 seconds - Active GSM connection. Double rapid flash every 3 seconds - Active GPRS connection. Constantly on - SIM error.

Blue LED

Single long flash every 3 seconds - acquiring satellite signals.

Single rapid flash every 3 seconds - active satellite signals and position recently calculated.

Constantly on - currently on charge.

Microphone

Located on the front of the device, the microphone facilitates two-way communication.

Speaker

Located on the rear of the device, the speaker facilitates two-way communication and the listen-in functionality.

Charging Cradle

The cradle allows a quick and simple method of charging, thanks to the auto-locating notch effortlessly aligning the charging contacts. The device will vibrate once and a red LED on the front of the cradle will remain illuminated when placed on charge.

Basic Terminology:

Device - Online

A device is online if it has an active connection to the IOTTAG server.

Device - Offline

A device is offline if it does not have an active connection to the IOTTAG server.

Location Update

Each time the tracker calculates a position is a location update, the frequency of updates depends on the selected Operating Mode and Reporting Interval.

SIM Coverage

You can find coverage maps for each provider below:

Telstra - <https://mobilemaps.net.au/maps/mcm/3G.html>

Melbourne

Melbourne Head Office:
Level 2 40 Porter St Prahran VIC
3181 Phone: [1300 66 22 80](tel:1300662280)
Email: info@iottag.com.au