NUTAG

USER GUIDE

NUTTAG GPS GUARDIAN WATCH

Product Overview

This device is an advanced PDA watch and personal locating alarm that is waterproof with an IP rating of IPX8.
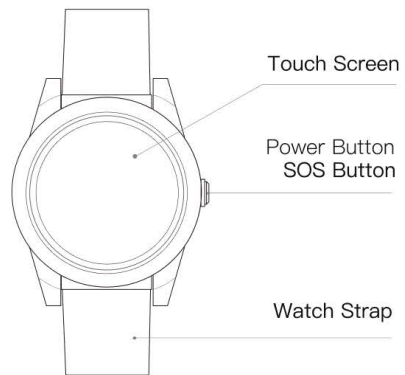
It is an innovative tiny personal remote positioning unit with built-in U-blox GPS and GSM/GPRS/Wifi technology. Designed for your personal protection and safety. The SOS system can be monitored 24 hours a day, 7 days a week. If you trigger an alert, an operator will be ready to dispatch emergency services.
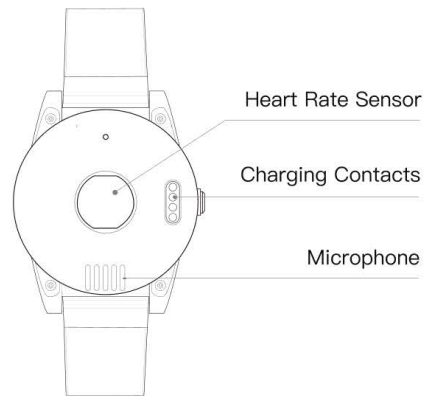
CONTENTS

GETTING TO KNOW YOUR DEVICE:

− Front

Touch Screen

Power Button
SOS Button

Watch Strap

− Back

Heart Rate Sensor

Charging Contacts

Microphone

− Side

SIM Card Holder

Speaker
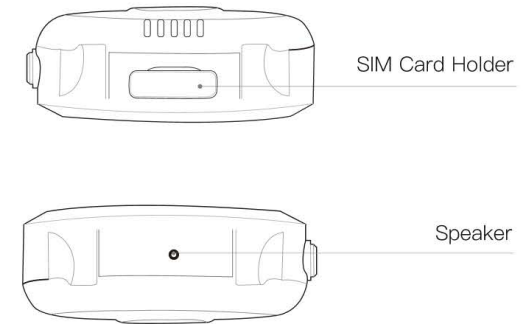
Turning your PDA ON and off

If the watch face does not light up when you touch the face or the watch or push the side button, your device is OFF and will NOT protect you.

To Turn On the PDA device: Press the side button for 1 second, the watch face should light up.

The device can be also turned on automatically by placing it on charge.

*To ensure the device is working correctly please ensure that on the watch face you can see both the battery icon and the network had reception.

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: Scroll right to "Settings". Scroll down to select "System"and then tap "Power off.

If the watch face does not light up when you touch the front of the device, your device is OFF and will NOT protect you.
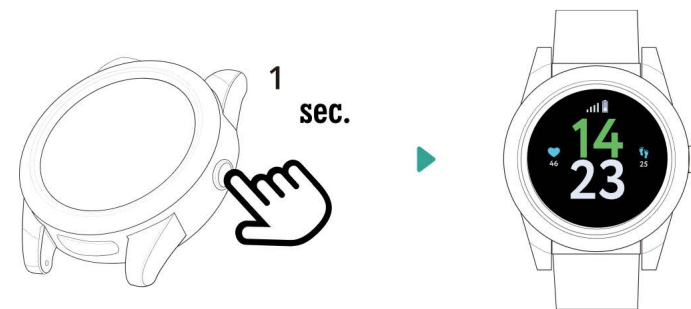
Device Charging

PDA device must be on charge for a minimum of 20 minutes every 24 hours to ensure sufficient battery life for your safety during use.

Using the docking station to charge;

- Connect the USB cable from charging base to the AC adaptor.

- Place the watch into the charging base correctly, you will hear spoken confirmation "your watch is charging".

- Please fully charge the battery daily for around 1 hour or when battery is low. 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.
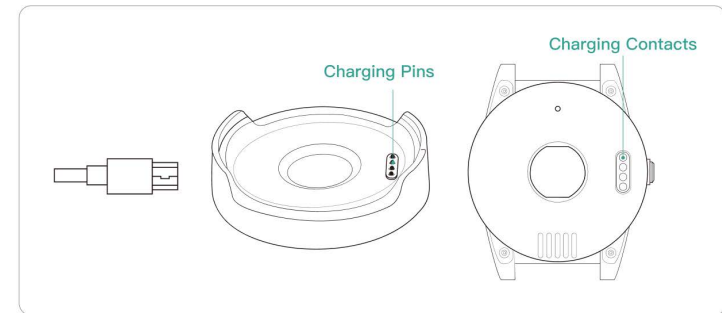
Quick Start Guide:

Is Your Device Operational:

Step 1. Check the battery is fully charged on the watch face (A)

Step 2. Check connectivity on the watch face (B)

Step 3. Check that Watch is online on the Portal

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

Reboot Procedure:

Step 1. Turn the device off;
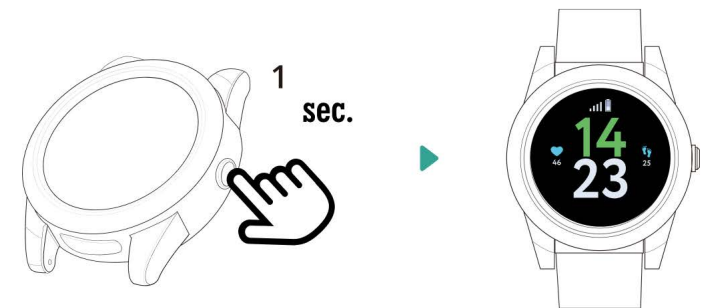
Turn the device OFF: Scroll right to "Settings". Scroll down to select "System"and then tap "Power Off".

Step 2. Turn the device on;

Wait 30 seconds then, press side button once for 1 second to turn back on.

*If not operating as described, proceed to Reboot Procedure again preferably outside or near a window. If it's 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 side of the device or pushing on the watch face to activate the SOS Alert. If professionally monitored:

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 professionally monitored:

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.

If not professionally monitored:

After SOS alarm is activated, you will hear a voice prompt confirming the activation of the SOS alert and allowing you approximately 10 seconds to cancel the alarm. If the SOS is not cancelled in time an SOS alert text message is immediately sent to the emergency contact numbers and potentially followed by the outgoing calls

If the watch fails to connect to the first number, it will call the second number after delay of 10 seconds. In case the second number fails to be connected as well, the system will connect to the third number etc.

Between each call, it will have 10 seconds delay, during this time, user can stop call sequence or prevent a possible false alarm by pressing SOS button.

SOS call contacts are encouraged to turn off voice mail

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?"

Please 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 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 a defined ID, Stand Down orders, and current location"

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?
If monitored, the operator will notify Police and any other emergency services required/requested, as well as notify all defined contacts of the incident. If not monitored, the device will contact your defined contacts

For how long can I speak with the operator?
The operator will remain on the line for generally between 5 minutes, this will allow the operator time to monitor and gain an understanding of the situation. The operator will disconnect after 5 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.

Device Operation:

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

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

Audit / History:

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
Dimension:	47.5mm*16.9mm
Weight:	65g
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:	MT6625L
Receiver Frequency:	1575.42MHz
Support:	GPS, Glonass and Beidou
Time to first fix:	Cold start: 26s Warm start: 2s, Hot start: 1s
Charging voltage:	5V DC
Battery:	Rechargeable, 3.7V, 580mAh
Battery life:	Up to 48 hours under normal use
Storage Temperature:	-30°C to +70°C
Operating Temperature:	-20°C to +80°C
Waterproof:	IPX8 Standard

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

1. Do not put the unit in overheated or over cooled places.
2. To clean the unit, use a dry cloth. Do not clean using chemicals or detergent.

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 the Watch using either the cradle. The device will vibrate once to confirm successful charge in progress.

Rebooting your Tracker

Your device can be rebooted remotely by NUTTAG customer care team, or by turning off and on again.

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

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 NUTTAG and sent to the allocated site contacts via Email / SMS.

After Sale Support:

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

- Live Chat at www.nuttag.com.au 10am-5pm EST Monday to Friday
- Support Hotline 1 300 66 22 80 10am-5pm EST Monday to Friday
- Email support@nuttag.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 o arder 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 **NUTTAG** server.

Device - Offline

A device is offline if it does not have an active connection to the **NUTTAG** 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

Melbourne

Melbourne Head Office:
Level 2 40 Porter St Prahran VIC
3181 Phone: 1 300 66 22 80
Email: support@nuttag.com.au