

# T-SPOT GEN3 USER GUIDE AND MANUAL

*This document describes T-Spot's purpose and functions*

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# 1 VERSION CONTROL

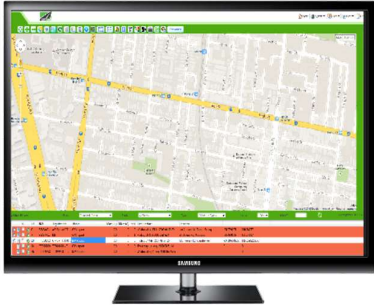
Table 1 shows the history of versions of this document.

Version	Date	Comments
1.0	22 July 2014	Initial version.
1.1	24 July 2014	Corrections made.
1.2	29 September 2014	Added screenshots.
1.3	2 April 2019	Review and rework.

**TABLE 1 - VERSION CONTROL HISTORY**

## 2 PURPOSE OF THE T-SPOT GEN3

The T-SPOT GPS Satellite Messenger (T-SPOT) is a handheld satellite personnel safety and tracking device, designed to be used in remote areas covered by the Globalstar Simplex Satellite only Network. (This unit does **NOT** operate over mobile GSM/GPRS telecommunication networks).



When used with Teletrac Navman's NextGen tracking and monitoring system, T-SPOT is an ideal tool for monitoring the safety of remote workers.

The system has been specifically designed to maximise the functionality of T-SPOT in an OH&S monitoring environment, making it simple to manage groups of remote workers, track workers locations and give them the ability to call for help if required. This functionality does not rely on the worker being in mobile telephone range.

The purpose of this guide is to provide an understanding as to how the various elements of this functionality come together to make the T-SPOT together with NextGen an effective tool to maximise your remote worker safety.

## 3 GETTING STARTED

Before you start, here are a few important things to remember to get maximum reliability from your T-SPOT:

- 1 Turn device ON outside at least 15 minutes prior to testing or using the device, and ensure it has a clear view of the sky. This will ensure that the device locks onto as many satellites as possible.
- 2 The T-SPOT needs a clear view of the sky to obtain a GPS signal and provide the most accurate location information. It is not reliable indoors, under dense trees, or next to large objects that can deflect signals from satellites.
- 3 Orienting the T-SPOT so that the logo is facing up towards the sky will improve performance as the antenna is located under the logo.
- 4 Keep the T-SPOT at least 30 cm (12 inches) away from other GPS devices as T-SPOT can interfere with signal reception of other GPS devices. (i.e. iFace2)
- 5 For reliable performance only use AAA Energizer<sup>®</sup> Ultimate Lithium 8x batteries (L92), The power light will blink red when batteries are low. Colder conditions and extreme heat can impact battery life. Always carry an extra set of batteries with you. Test your SPOT device before each trip by sending a Check In message to yourself.

## 4 DEVICE FUNCTIONALITY



The -SPOT has 6 buttons and 8 LEDs.

Each button has a backlight that blinks when that button is active. To activate (or if applicable, cancel) any function, you must press and hold the button until the function light starts blinking (approximately 3 seconds).

The GPS light notifies you whether T-SPOT is able to see the GPS satellites and obtain your GPS location.

- **Green** – The GPS light blinks green while the T-SPOT has a connection with GPS satellites and is resolving your GPS location.

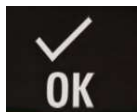
Once the GPS location is obtained, the GPS light and Message Sending light blink green for approximately 15 seconds to notify you that your message was sent with your GPS location.

- **Red** – The GPS light blinks red if T-SPOT doesn't see the GPS satellites and /or can't resolve your GPS location. To rectify move to a location with a clearer view of the sky.

### 4.1 POWER ON/OFF

The Power On/Off switches the T-SPOT on and off. If switched off whilst any message function is currently operating the function will be terminated. Press and Hold the On/Off button until the button blinks green. If the button blinks red, the batteries need to be replaced.

### 4.2 OK BUTTON



Press and Hold the OK button until the button flashes green. This button will send a single location message to NextGen.

For maximum reliability your T-SPOT will send the message to the T-SPOT Satellite network 3 times over a 20 minute period. The message may be received by NextGen between 1 and 30 minutes after the button is pressed.

If the T-SPOT cannot get a GPS signal it will not send a check-in/OK message.

The OK message is used for scheduled check-ins, and may also be used for ad-hoc check-in/OK messages as determined between the T-SPOT user and the NextGen monitoring staff.

### 4.3 CUSTOM BUTTON



The custom button is not used at this stage.

## 4.4 TRACK BUTTON

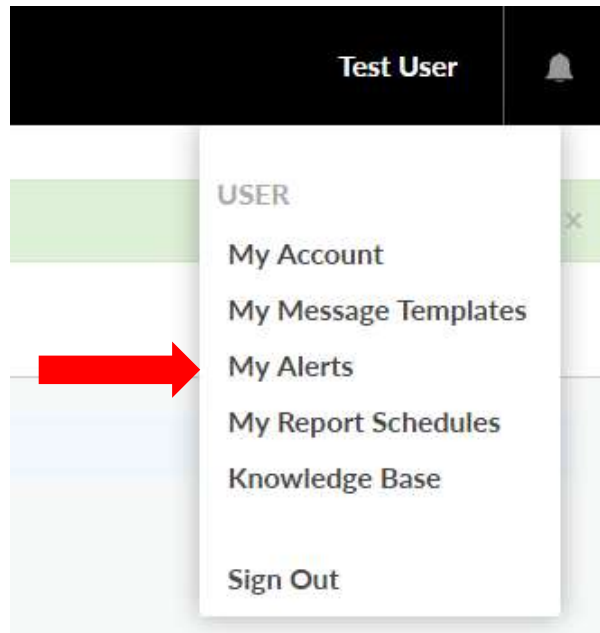


Press and Hold the Track button until the button flashes green. This button is used to send a location message every 10 minutes for 24 hours or until it is cancelled. If your T-SPOT cannot acquire a GPS signal it will not send that particular waypoint, however it will attempt to send the next scheduled waypoint. Your track progress is displayed on a map in NextGen. After 24 hours the button will need to be pressed again to continue tracking.

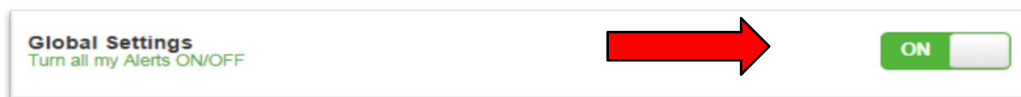
## 4.5 SETTING UP ALERTS IN NEXTGEN

Duress Alerts and Notifications can be set up in NextGen.

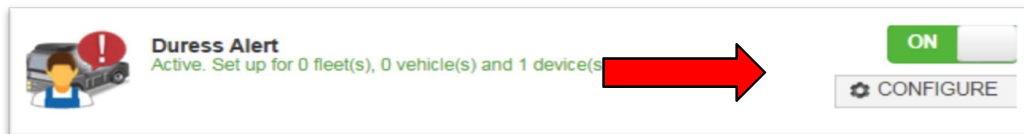
- To set up the alerts, click on the User Name>My Alerts



- Turn on Global Settings



- Turn on Duress Alert and click on Configure



- Click on the fleet that contains the device, and click on the desired check boxes.

**SMS** - message sent to your phone

**Email** - message sent to your email address

**On Screen** - alert notification visibility provided on your dashboard in NextGen

**Pop Up** – displayed in NextGen which disables all functions until alert is acknowledged

## 4.6 HELP BUTTON



The Help button is used when the user requires assistance that is not critical, and a NextGen user needs to be alerted via Email and/or SMS.

The Help button is covered to prevent accidental or unintended use. Lift the cover and hold the Help button until the light blinks green. Your T-SPOT will send the message and current GPS location every 5 minutes for one hour to create maximum reliability and redundancy.

The alert status will be changed in NextGen with emails and SMS's sent as configured in NextGen.

## 4.7 SOS BUTTON



The SOS button is used when a critical situation occurs, and an NextGen user needs to be alerted via Email and/or SMS.

The SOS button is covered to prevent accidental or unintended use. The SOS button may be used for emergency and critical situations where urgent assistance is required. Lift the cover and hold the SOS button until the light blinks green. Your T-SPOT will send the message and current GPS location every 5 minutes until cancelled or the batteries run out. If your T-SPOT cannot get a GPS fix it will still attempt to send a message without a GPS location.

The alert status will be changed in NextGen with emails and SMS's sent as configured in NextGen.



It is critical that once a HELP/ SOS message has been sent from a T-SPOT, the alert must be turned OFF via the T-SPOT device before unit is deployed again.

If this is not completed correctly, new HELP/SOS messages sent from the same GPS device will not generate email/SMS messages from NextGen.

To remove HELP or SOS alerts from NextGen.

1 – When the HELP or SOS light is flashing green, hold down the corresponding button until it flashes red. The button will blink red for a minimum of 15 seconds until the message can be sent/received by the satellites.

2 – Turn the T-SPOT off, then repower it back on. Hold down the OK or TRACKING button until it blinks green.

## 5 TESTING

Performing tests will allow you to identify any issues or faults that the unit may have sustained on its last journey. By performing an initial system test to evaluate your entire messaging system, from the operational condition of the T-SPOT to the readiness of those you've chosen to receive your messages.

### 5.1 INITIAL TEST

1. Turn device on outside and press the ON/OFF button until the function light blinks green.
2. At least 15 minutes after turning on device, hold the Check-In/OK button until the function light blinks green.
3. The GPS indicator light blinks green as the T-SPOT acquires a GPS fix. Once the T-SPOT acquires your GPS location, the Message Sending light and GPS light will blink green in unison for ~15 seconds to notify you that your message is being transmitted with GPS location.

The Message Sending light will continue to blink green over the remainder of the 20 minute message cycle and for one (1) hour after the end of the message cycle (this is to provide you with additional time to check if you're most recent message was transmitted).

The Check-In/OK function light will turn off once the message cycle is complete.

4. Verify that the location message was received NextGen, your position should be shown on the map.

If the GPS light blinks red, the T-SPOT does not have a clear view of the GPS satellites and you must move to an area with a clearer view of the sky for proper operation. Then repeat steps 2 through 4.

### 5.2 SOS TEST

1. Firstly turn T- SPOT on at least 15 minutes prior to needing to issue an alert message. To do this hold down the ON/OFF button.
2. When needing to issue an emergency alert, lift-up the SOS button cover and hold the button down until the light blinks green.
3. Providing the "envelope" icon is flashing green, Your T-SPOT will send a message and current GPS location every 5 minutes until cancelled or until the batteries run out. If your T-SPOT GPS icon is flashing red, the device is unable to get a GPS fix - it will still attempt to send a message without a GPS location however the message will be delayed for up to an hour.

It is critical that once this message has been received and noted, the SOS alert must be turned OFF by the T-SPOT device. If this is not completed correctly, other SOS messages sent from the same GPS device will not be received.

4. Check NextGen that you have received alerts via email/SMS (if set up).
5. To clear the SOS alert from the T-SPOT, hold down the SOS button again until it blinks red. The device will blink red for a minimum of 15 seconds until the message can be sent/received by the satellites. Once again please ensure you have clear sky and if your T-SPOT GPS icon is flashing red, the device is unable to get a GPS fix. It will still attempt to send a message without a GPS location, however the message will be delayed for up to an hour.

Alternatively you can turn the alert off by switching the T-SPOT off, then repower it back on. Hold down the OK or TRACKING button until it blinks green.

## 6 SYSTEM FUNCTION AND INDICATORS

The T-SPOT is designed to provide outstanding quality and reliability. With a perfect view of the entire sky, the T-SPOT is designed to transmit virtually every message. In everyday conditions, the view of the sky is often blocked due to hills, buildings, or other obstructions so it is normal for some messages to be blocked. That is why the T-SPOT automatically sends multiple messages in every mode, giving you excellent overall reliability.

In some modes this means multiple attempts to send the same message, while in other modes it means regularly updating GPS coordinates and sending a new message. Placement of your T-SPOT unit can make a difference. Experiment with placement until you are familiar with the reliability of your operating environment.

### 6.1 MESSAGE INDICATORS

For all functions, the T-SPOT let's you know what it's doing.

INDICATOR	BLINKING GREEN	BLINKING RED
GPS	Searching for GPS signal	GPS location fix failed. Move to a new location
Message Sending	Message transmission schedule in progress	Last Message was not sent
Check-In O.K	Check in O.K message sequence in progress	N/A
Help	T-SPOT in help mode	Help has been cancelled
SOS	SOS engaging	SOS has been cancelled
Track Progress	T-SPOT in track progress mode	N/A
On/Off	On	Low Battery - replace



## 6.2 HOW THE LIGHTS BLINK – BY FUNCTION

IF T-SPOT FINDS YOUR GPS LOCATION				
FUNCTION	MESSAGE FUNCTION LIGHT	GPS LIGHT	MESSAGE SENDING LIGHT	MESSAGE STATUS
CHECK-IN/OK	Function light blinks green until the message cycle is completed or cancelled	GPS light blink green	Blinks green after transmitting the most recent message as appropriate for each function and for one (1) hour after the message cycle ends	Message and location transmitted to satellites
TRACK PROGRESS				
HELP				
SOS EMERGENCY				
IMPORTANT NOTES				
The blinking light in each function button lets you know that you have successfully engaged that function.				
After you engage the function, T-SPOT looks for a GPS signal and location as indicated by the blinking green light.				
Once the GPS location is obtained, T-SPOT sends your message and the GPS and Message Sending lights blink green together for 15 seconds, indicating a successful GPS fix and starting the message sending cycle.				

IF T-SPOT DOESN'T FIND YOUR GPS LOCATION					
FUNCTION	FUNCTION BUTTON LIGHT	GPS LIGHT	MESSAGE SENDING LIGHT	MESSAGE STATUS	TO TRY AGAIN
CHECK-IN/OK	Blinks Green	Blinks Red	Blinks Red	Message not sent	Move to an area with a clear view of the sky. Press selected function again.
TRACK PROGRESS	Blinks Green	Blinks Red. T-SPOT looks for GPS for 4 minutes, then rests for 6 minutes	Blinks Red	Message not sent	Move to an area with a clear view of the sky. T-SPOT will try to get a GPS location during the next message interval
HELP	Blinks Green	Blinks Red. T-SPOT looks for GPS for 4 minutes, then rests for 1 minutes	Blinks Green	Message sent without GPS	Move to an area with a clear view of the sky. T-SPOT will try to get a GPS location during the next message interval
SOS EMERGENCY	Blinks Green	Blinks Red. T-SPOT looks for GPS for 4 minutes, then rests for 1 minutes	Blinks Green	Message sent without GPS	Move to an area with a clear view of the sky. T-SPOT will try to get a GPS location during the next message interval
IMPORTANT NOTES					
CHECK-IN/OK: T-SPOT must get a GPS signal before sending your Check-In. If no GPS signal is found, the GPS light blinks red and T-SPOT deactivates the function without sending any messages.					
Track Progress: T-SPOT must get a GPS signal before sending your waypoint. However, T-SPOT will stay in the Track Progress function, and again look for a GPS signal at the next scheduled message interval.					
HELP: T-SPOT sends HELP messages even without a GPS location. T-SPOT will again look for a GPS signal prior to sending the next scheduled message (4-5 minutes), and repeat the entire message cycle.					
SOS EMERGENCY: T-SPOT sends SOS messages even without a GPS location. T-SPOT will again look for a GPS signal prior to sending the next scheduled message (4-5 minutes), and repeat the entire message cycle.					

## 6.3 TROUBLESHOOTING

The T-SPOT performs a self-diagnostic test each time it is powered on. T-SPOT recommends that you send and verify a Check In/OK message before each trip. This also allows you to evaluate your entire messaging system, from the operational condition of the T-SPOT to the readiness of those on your contact list.

If you find your messages being delayed, it could be from the following reasons:

1. GPS signal is poor and interference from surroundings is causing a delay in messages being sent to satellites.
2. Provider of SMS and email data experiencing delays (i.e. User's mobile phone carrier or internet provider experiencing delays when sending information to recipient)
3. User did not clear original SOS alert properly, and message was only cleared when testing out function again.

Eg. *User creates SOS – T-SPOT is turned off – SOS created again – SOS message turned off.*

In this instance the second SOS will not come through, as the first SOS message was not cleared.

4. Ensure all information entered into NextGen for SMS and email alerts is correct.
5. For reliable performance only use AAA Energizer® Ultimate Lithium 8x batteries (L92). The power light will blink red when batteries are low. Colder conditions and extreme heat can impact battery life. Always carry an extra set of batteries with you. Test your SPOT device before each trip by sending a Check In message to yourself.

