

OnAsset Sentinel Product Line User Manual

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Published by:

OnAsset Intelligence, Inc.
8407 Sterling St.
Irving, TX 75063

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INTRODUCTION

OnAsset Sentinel tags are intended to enable a variety of asset tracking and monitoring applications using low cost Bluetooth Low Energy (BLE) multi-sensor devices. This user manual describes the features, functions and uses of each Sentinel tag type.

SENTINEL TAG TYPES

Sentinel 100 – a compact, battery-powered sensor tag that can be used to track and monitor a variety of assets.

Sentinel 100A – a compact, battery-powered sensor tag that can be used to identify a specific asset, location or area.

Sentinel 100L – a compact, battery-powered sensor tag that can be used to track and monitor a variety of assets with capability to save sensor information for later download.

Sentinel 100P – a compact, battery-powered sensor tag that can be used to identify, track and monitor aviation unit load devices (ULDs).

Sentinel 100B – BLE accessory for OnAsset's SENTRY 500 FlightSafe® cellular tracking device that enables a SENTRY to act as a gateway for Sentinel 100, 100A, 100P and 100S tags.

Sentinel 100S – BLE scanning accessory that can be used to scan other Sentinel tags and relay data to SENTRY 500 FlightSafe® devices or other peripherals.

PRODUCT USAGE & HANDLING INFORMATION

Handle the device with care. To avoid damage to the product and possible injury to the user, please observe the following:

- Do not attempt to open or disassemble the product. Sentinel tags are not user-serviceable devices.
- Do not use or store Sentinel tags outside of the stated operating temperatures. High or low temperatures can shorten the life of the device.
- Do not modify the Sentinel tags. Unauthorized modifications may damage the device and violate regulations governing radio devices.
- Dispose of Sentinel tags properly. Always return your used electronic products, batteries, and packaging materials to dedicated collection points.

PRODUCT Notifications

- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.
- 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.
- This device complies with ISED Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

- This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

SENTINEL 100 OVERVIEW



The Sentinel 100 is a compact, battery-powered BLE sensor tag that can be used to track and monitor a variety of assets.

To use the Sentinel 100, simply include the tag in a package or shipment, or attach to any suitable surface of an asset using double-sided adhesive tape.

Communication

Bluetooth Low Energy v5.0

| | |
|---------------|--|
| Battery | Two ER14050 lithium thionyl chloride batteries |
| Sensors | Shock / Temperature / Humidity / Light |
| Environmental | Operating Temp: -40°C to 85°C |
| Dimensions | 64.5mm x 50mm x 13mm |
| Weight | 1.8 oz. (51g) |

SENTINEL 100A OVERVIEW



The Sentinel 100A is a compact, battery-powered BLE sensor tag that can be used to identify a specific asset, location or area.

To use the Sentinel 100A, simply place the tag in a location or attach to any suitable surface of an asset using double-sided adhesive tape.

| | |
|---------------|--|
| Communication | Bluetooth Low Energy v5.0 |
| Battery | Two ER14050 lithium thionyl chloride batteries |
| Sensors | Shock / Temperature / Humidity / Light |
| Environmental | Operating Temp: -40°C to 85°C |
| Dimensions | 64.5mm x 50mm x 13mm |
| Weight | 1.8 oz. (51g) |

SENTINEL 100L OVERVIEW



The Sentinel 100L is a compact, battery-powered BLE sensor tag that can be used to track and monitor a variety of assets while storing its sensor data for later download via BLE.

To use the Sentinel 100L, simply include the tag in a package or shipment, or attach to any suitable surface of an asset using double-sided adhesive tape.

| | |
|---------------|--|
| Communication | Bluetooth Low Energy v5.0 |
| Battery | Two ER14050 lithium thionyl chloride batteries |
| Sensors | Shock / Temperature / Humidity / Light |
| Environmental | Operating Temp: -40°C to 85°C |
| Dimensions | 64.5mm x 50mm x 13mm |

| | |
|---------------|---------------|
| Weight | 1.8 oz. (51g) |
|---------------|---------------|

SENTINEL 100P OVERVIEW

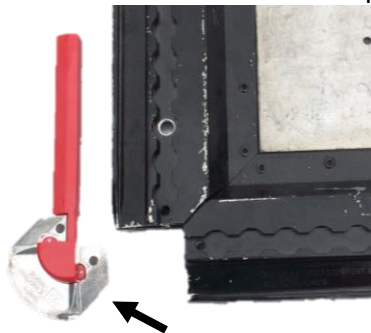


The Sentinel 100P is a compact, battery-powered BLE sensor tag that can be used to track and monitor an aircraft ULD.

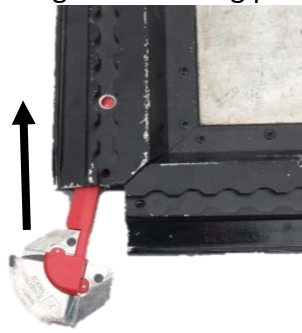
To use the Sentinel 100P, follow the installation process below.

| | |
|----------------------|--|
| Communication | Bluetooth Low Energy v5.0 |
| Battery | Two ER14050 lithium thionyl chloride batteries |
| Sensors | Shock / Temperature / Humidity / Light |
| Environmental | Operating Temp: -40°C to 85°C |
| Dimensions | 64.5mm x 50mm x 13mm |
| Weight | 1.8 oz. (51g) |

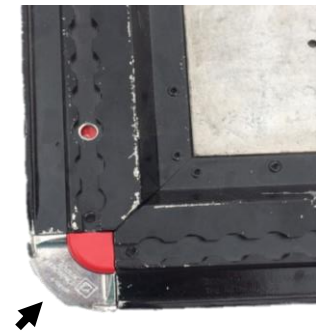
Install the Sentinel 100P into the pallet using the following process:



Place Sentinel 100P in cutout section on pallet corner piece.



Slide Sentinel 100P tag into extrusion rail on pallet.



Slide Sentinel 100P and corner piece into pallet extrusion rail until corner piece is flush.

SENTINEL 100B OVERVIEW

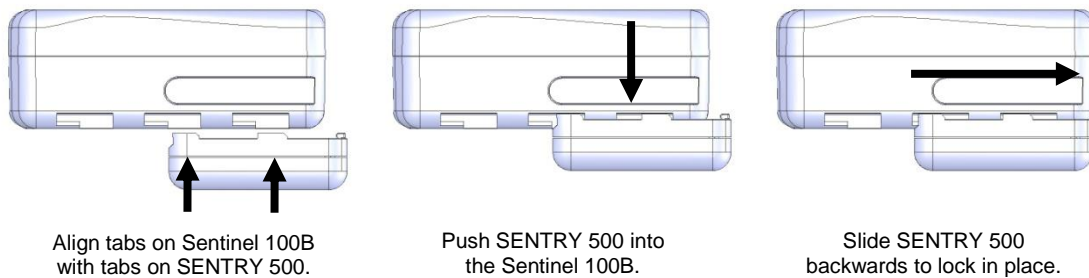


The Sentinel 100B is a BLE accessory for OnAsset's SENTRY 500 FlightSafe® cellular tracking device that enables a SENTRY to act as a gateway for other Sentinel tags.

To use the Sentinel 100B follow the installation process below.

| | |
|---------------|--|
| Communication | Bluetooth Low Energy v5.0 |
| Battery | Two ER14050 lithium thionyl chloride batteries |
| Sensors | Shock / Temperature / Humidity / Light |
| Environmental | Operating Temp: -40°C to 85°C |
| Dimensions | 64.5mm x 50mm x 13mm |
| Weight | 1.8 oz. (51g) |

Attach the SENTRY 500 unit to the Sentinel 100B using the following process:



SENTINEL 100S OVERVIEW



The Sentinel 100S BLE scanning accessory that can be used to scan other Sentinel tags and relay data to SENTRY 500 FlightSafe® devices or other peripherals.

To use the Sentinel 100S, simply plug the tag into power using the cable and power supply included.

| | |
|---------------|--|
| Communication | Bluetooth Low Energy v5.0 |
| Battery | Two ER14050 lithium thionyl chloride batteries |
| Sensors | Shock / Temperature / Humidity / Light |
| Environmental | Operating Temp: -40°C to 85°C |
| Dimensions | 64.5mm x 50mm x 13mm |
| Weight | 1.8 oz. (51g) |