

GlobalTrak™ Assembly 203026, E-Seal with ZigBee Interface V2 Operation Manual



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GlobalTrak™ Assembly, E-Seal with ZigBee Interface V2 Operation Manual

The purpose of the GlobalTrak™ Assembly, E-Seal with ZigBee Interface V2 Operation Manual is to:

- Familiarize the user with the functions and capabilities of the GlobalTrak E-Seal with ZigBee Interface V2
- Provide a guide for operation procedures for the GlobalTrak E-Seal with ZigBee Interface V2

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1.0 GlobalTrak E-Seal with ZigBee Interface V2 Overview

1.1: GlobalTrak E-Seal with ZigBee Interface V2 Overview

The GlobalTrak E-Seal with ZigBee Interface V2 provides enhanced security capability to the GlobalTrak Asset Monitoring Units using a CT-PAT electronic barrier seal. Users have the ability to monitor real-time location and seal status on a variety of assets, including intermodal containers, trailers, semi-trailers, and rail cars. When the bolt is cut, a notification is generated.

The GlobalTrak E-Seal with ZigBee Interface V2 is used in conjunction with any of the GlobalTrak Asset Monitoring Units.

The assembly consists of three components:

- Body of the GlobalTrak E-Seal with ZigBee Interface V2
- Bolt
- Locking Cap



Figure 1. Body of the GlobalTrak E-Seal with ZigBee Interface V2



Figure 2. Bolt



Figure 3. Locking Cap

1.2: Feature List

The product is designed to provide additional security information for assets monitored by Asset Monitoring Units. This is accomplished by equipping the GlobalTrak E-Seal with ZigBee Interface with the following features:

- a) **ZigBee Wireless:** The wireless standard for low-power short-range bi-directional communications, suitable for mesh networks and sensor reads. Line-of-sight of up to 250 meters.
- b) **Long Battery Life:** Non-rechargeable lithium thionyl chloride battery can remain active for a minimum of 180 days. Shelf life up to 3 years.
- c) **Physical Security:** Barrier-type bolt seal requires more than 2,000 lbs (907 kgs; kN) of pull-out strength.
- d) **Location Reporting:** The on-board high sensitivity of Assisted GPS receiver calculates its position within a few meters of accuracy even from within containers or trailers.
- e) **Environmental robustness:** Can operate across a spectrum of temperatures (-20°C to +70°C) and up to 95% humidity (non-condensing at +70°C)

2.0: Using the GlobalTrak E-Seal with ZigBee Interface V2

2.1: Device Power Instructions

2.1.1: Power On

1. Insert the bolt into the hole on the side that says “enter”.



Figure 4. Insert Bolt

2. Red and yellow LEDs will flash until the GlobalTrak E-Seal with ZigBee Interface V2 begins communicating with a GlobalTrak Asset Monitoring Unit. The GlobalTrak E-Seal with ZigBee Interface V2 will search for up to four minutes.

Note: If the GlobalTrak E-Seal with ZigBee Interface V2 is not within the vicinity of an Asset Monitoring Unit, and if the LEDs stop flashing prematurely, the battery may be low.



Figure 5a & 5b. Searching for Asset Monitoring Unit. LEDs flashing.

2.1.2: Power Off

1. Remove the bolt and wait for the red LED to flash twice.



Figure 6. Remove bolt, red LED flashes twice.

2. Insert the bolt again, and remove it after 1-3 seconds.

Note: A solid red light will show for 3 seconds, indicating that the device will shut down after sending a shutdown message.

2.2: Installation

1. Close container door.
2. Seal the container by threading the bolt through the locking aperture on the truck door, and then through the “enter” port on the GlobalTrak E-Seal with ZigBee Interface V2.



Figure 7. Thread locking bolt through locking aperture and “enter” port.

3. Push the bolt through the GlobalTrak E-Seal with ZigBee Interface V2 until the “enter” port is sealed by the rubberized stopper on the bolt.



Figure 8. Rubberized stopper on bolt seals “enter” port.

4. Seal the bolt by attaching the locking body to the bottom of the bolt. Pull on the locking body after it is sealed to ensure a secure fit.



Figure 9. Attach locking body to bottom of bolt.

5. Cut bolt at final destination.

2.3: Removal & Deactivation

1. Remove the GlobalTrak E-Seal with ZigBee Interface V2 by cutting the chimney of the locking body.

Note: Bolt cutters are needed for removal.

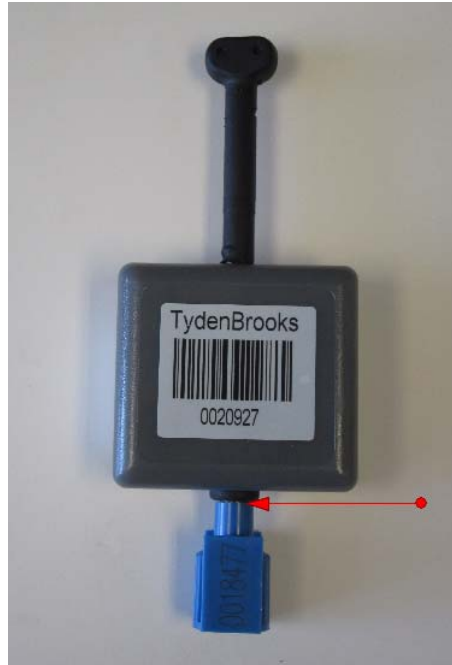


Figure 10. Cut locking body chimney.

2. Once the locking body is removed, proceed by pulling the GlobalTrak E-Seal with ZigBee Interface V2 off of the bolt by using a downward motion.



Figure 11. Pull body downwards.

Per FCC 15.21: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Per FCC 15.105: **NOTE:** 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 in-stalled 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.

Per FCC 2.1093: 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.

For Industry Canada:

This device complies with Industry Canada licence-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.