

# IMPACT ALERT

Impact Alert Hardware | Installation Manual



***ROADCONNECT***<sup>™</sup>  
BY LINDSAY

0174458 Rev A ECN 60426

## Safety

### General Safety Information

The safety practices described in this manual are meant as guidelines for safe operation under most conditions and are meant to supplement any safety rules and/or laws that have been established at your worksite.



#### **WARNING!**

Read this entire manual prior to conducting the maintenance procedures described in this manual. Failure to follow these instructions could result in injury or death.

### Signal words

Throughout this manual are statements preceded by a special attention symbol: "⚠". The symbol is used with the following signal words to attract your attention to information regarding safety issues.



#### **WARNING!**

Indicates a hazardous situation which, if not avoided, could result in serious injury or death.



#### **CAUTION!**

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



#### **NOTICE - DAMAGE ALERT!**

Indicates information that should be acted upon to avoid significant equipment or machine damage that could result in unplanned downtime or maintenance.

Additional signal words that are not preceded by the attention symbol are:

**IMPORTANT:** Indicates information that possesses special significance to the maintenance procedures.

**TIP:** Indicates information that may simplify the maintenance procedures or make your job easier.

### Personal safety



#### **WARNING!**

When performing the work described in these instructions, use proper personal protection equipment to help avoid injury. To avoid injury to bystanders, keep them a safe distance from the work area.

### Additional Safety Procedures and Important Information

**IMPORTANT:** hardware ships with a lithium metal battery that needs to be installed within the device prior to installation. The chemical composition is lithium manganese dioxide. The product packaging is acceptable for air cargo shipments of lithium battery contained in the device.

If the product is repackaged it is the responsibility and liability of the shipper to ship products according to all applicable shipping laws and regulations for shipping lithium batteries.

**WARNING!**

Impact Alert hardware contains an installed lithium battery. Lithium batteries pose a fire, explosion, and severe burn hazard. To reduce the hazard risk, lithium batteries are NOT to be recharged, disassembled, heated above 100°C (212°F), incinerated, punctured or contents exposed to water. DO NOT strike or subject the hardware to direct impacts.

**WARNING!**

If welding or other hot work needs to be conducted near the Impact Alert hardware, the hardware must be removed from the mounting location. DO NOT puncture the hardware casing during removal.

**WARNING!**

Disposal of the Impact Alert hardware must comply with applicable electronic e-waste disposal requirements.

**IMPORTANT:** There are two strips of adhesive tape on the back surface of the enclosure. Do not remove the protective film from the adhesive until ready to be attached to another surface.

"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."

## Impact Alert Hardware Installation

These instructions contain detailed information for installation of the Lindsay Impact Alert transmitting hardware for asset monitoring and management. The device can be attached to any asset for management using the Road Connect app. The instructions include selecting a mounting location, installation of the device and activation of the device.

**IMPORTANT:** The following steps show a crash cushion for instructional purposes, but the Impact Alert device may be used on guard rails, bridges, cable barriers, poles, and other valuable assets.

**IMPORTANT:** Below outlined steps are for installation on to smooth non-porous surfaces i.e. galvanized steel and other non-porous smooth surface. Alternate surface attachment procedures are outlined toward the end of this document.

### Step 1

Remove the 4 screws in the top cover covering battery compartment using a Phillips screwdriver and lift to remove.

**IMPORTANT:** When removing the cover, do it slowly so the harness attached to the antenna on backside of cover does not break.



### Step 2

Remove the plastic tabs from the positive side of the installed "C" lithium battery as indicated in the image to activate the battery / device.

**IMPORTANT:** Within approximately 5 seconds, you will see several colored LED's begin to flash as the device is powered on.

**TIP:** Red flashing LED's will appear within 30 seconds, indicating the internal cellular modem has established communications.

**IMPORTANT:** Use only the supplied "C" lithium metal battery for the device to operate and perform to the target specification.



### Step 3

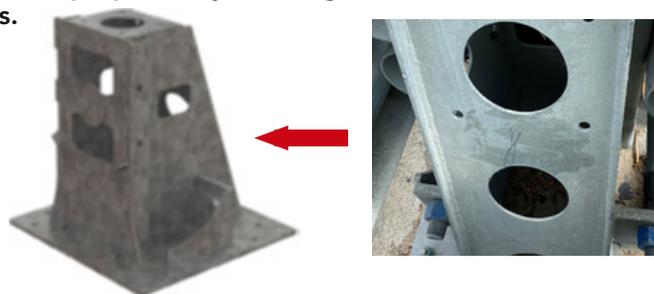
Reposition the cover over the box and tighten the screw using a Phillips screwdriver. Do not over-tighten.

**IMPORTANT:** Ensure the small rubber gasket is still seated in the groove on inside the top cover.

### Step 4

Identify and clean the attachment location on the asset.

**TIP:** Non-porous substrates are best prepared by cleaning with a 50:50 mixture of isopropyl alcohol (IPA\*) and water prior to applying adhesive tapes.



## Step 5

Peel the protective film from the adhesive tape and firmly press the device in place. Apply pressure for 60 to 90 seconds to ensure adhesive takes a hold.

**TIP:** Ensure the cleaned surface is dry prior to applying the device.

**IMPORTANT:** Ensure the vent is pointing downwards or parallel to ground.



## Alternate Impact Alert Attachment Methods - Porous And Fibered Material Surfaces

- When attaching to a wood, particleboard, concrete surfaces, Impact Alert should be attached using a fast cure liquid adhesive such as:
  - LOCTITE Power Grab Multi-Purpose Construction Adhesive.
  - LOCTITE PL Premium Fast Grab Multi-Purpose Construction Adhesive, or similar high-initial tack for fast grab on vertical surfaces.
- Adhesive can be applied over the tape – no need to remove tape when using liquid adhesive
- When attaching to a vertical surface, apply a generous amount of adhesive to the surface or back of the enclosure
- Temporarily hold the Impact Alert in place using a zip tie or Velcro band to hold the device in place per manufactures instructions to allow the adhesive set and hold the device without slipping.

Exceptions to the general procedure that may require additional surface preparation include:

- Heavy Oils: A degreaser or solvent-based cleaner may be required to remove heavy oil or grease from a surface and should be followed by cleaning with IPA/water.
- Abrasion: Abrading a surface, followed by cleaning with IPA/water, can remove heavy dirt or oxidation and can increase surface area to improve adhesion.



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Installation manual for the IMPACT ALERT system is subject to change without notice to reflect improvements and upgrades.

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