

# **ISEEN** IRIS 860 sensor



IRIS 860 trial guide

# **Trialing SEEN IRIS 860 sensors**

#### Introduction

Thank you for your interest in Seen Safety's IRIS 860 sensors. This document will help you get the most out of your IRIS 860 trial and gain a better understanding of how IRIS 860 technology can improve the safety of your operation.

Please read this guide in full before starting your trial.

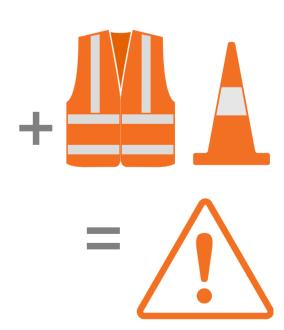
# Technology overview

- SEEN IRIS 860 sensors are mounted on mobile equipment and detect retroreflective tape on high-visability workwear and objects tagged with reflective tape.
- The highly targeted detection zone monitors critical risk zones (often behind the machine as it reverses).
- The sensor gives an audible alert to both the driver and the pedestrian if the pedestrian breaches the critical risk zone.
- Detection is unaffected by lighting conditions, from total darkness to bright sunlight.
- The sensor is rated IP-67 and is suitable for outdoor use.

The sensor gives an **audible alert** to both the driver and pedestrian if the pedestrian breaches the predefined exclusion zone.







#### Before getting started

#### 1. Check your reflective workwear

It is important that the workers involved in the trial are wearing a reflective vest (or equivalent) that can be detected by an IRIS 860 sensor. Please refer to the **SEEN Safety High-vis Workwear Recommendations** at the end of this guide. If you have any questions or concerns please contact SEEN customer support.

# Inspect the trial area for sources of retroreflective material

IRIS 860 sensors work best when the main source of reflective tape is the high vis vests worn by people, or on objects specifically tagged for detection. If your site has a lot of road-cones, bollards, or reflective signs that will activate the IRIS 860 sensor and cause irrelevant alerts, think about how this might be managed. Too many non-relevant detections will result in operator annoyance and undermine the effectiveness of the system.

If protecting people is your main concern avoid over tagging property because this will reduce the effectiveness of the alert when a person is detected. **Remember people are invaluable while property can always be replaced**.

### 3. Engage your workers

The best outcomes result from early engagement with your staff. **Before** the trial begins, meet with the operators and workers involved and talk them through the system and explain how it works. Explain that the sensors detect reflective tape and ask them for their feedback on what the detection zone settings should be.

When assigning the trial machines, choose drivers who will give reliable and constructive feedback.

#### 4. Choose an appropriate detection zone

Setting the right detection zone is important to the success of the trial. While it is critical that the detection distance is set to alert before a person gets dangerously close to the machine, it is equally important that the detection zone is not set too large because this may result in irrelevant detections and an annoyed operator. Achieving this careful balance may require some experimentation during the trial.

There are 5 main aspects to consider when setting the detection zone:

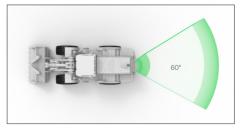
- 1. Where should detection be targeted?
- 2. At what distance should the alarm be activated?
- 3. Is a Pre-alert needed?
- 4. What shape should the detection zone be?
- 5. Should detection be dependent on the machine's direction of travel?

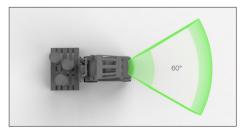
Please refer to **SEEN IRIS 860 Detection Zone Guide** at the end of this guide for more information about each aspect.











# **During the trial**

#### 1. Demonstration

Once the sensors are installed on the trial machine/s, but before they have been activated, demonstrate the system during a Tool Box meeting. Explain how the sensor and detection zone have been set, and what the alert sounds mean.

Let the operators know that although the number of alerts may be high at first, the idea is to encourage positive behaviour change and motivate pedestrians to stay out of the detection zone. The ultimate goal is to have as few detections as possible. Mention that the detection settings can be changed during the trial if necessary.

IMPORTANT Please ensure your operators are aware that although IRIS 860 sensors can provide collision warning assistance, they do not replace the need for best practice safe operating procedure and they remain fully responsible for the safe operation of the equipment.

#### 2. Monitor the trial

Closely monitor the trial, especially in the first few days, and ask the drivers for their feedback. If the detection zone settings need adjustment, for example to reduce the number of non-critical detections, use SEEN's USB Config Cable and config software to make the required changes.

Plan to have a follow up meeting with the operators to seek further feedback.

#### 2.1 Alert volume

If the sensor is mounted close to the driver's head (such as on a small forklift), the sensor's alert tone may be uncomfortably loud (94dB at 1m). Although the alarm is loud it is not harmful to hearing, even with continuous exposure.

The alert tone is deliberately loud to motivate positive behaviour change.

If someone asks if the alarm can be made quieter – tell them 'Yes the simplest way to do this is to maintain a safe distance from the machine!'

If the driver complains the alert is too loud, this could be symptomatic of:

- 1. Too many irrelevant detections. In this case refine the detection area and/or reduce the amount of unnecessary reflective material in the environment.
- 2. Too many pedestrians in the critical risk zone. This safety issue needs to be addressed.

If the alert volume is an issue, the sensor can be set to 'reduced volume' in the config settings. If this reduction is not sufficient, please contact SEEN about other options.



#### **Trial checklist**

| Engage affected staff early.   |
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| Ensure people are wearing suitable reflective high vis gear.   |
| $\hfill\Box$ Find a safe and practical balance between too many and too few detections.                          |
| $\ \square$ Survey the environment for sources of retroreflective material that may cause irrelevant detections. |
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| ☐ Closely monitor the trial.   |
| ☐ Seek driver feedback early in the trial and make adjustments if needed   |

#### Stay in touch

SEEN are here to help your trial be a success. If you encounter any problems or would like to speak to SEEN customer support, please email support@seensafety.com or phone +64 (0)4 381 4475.

IMPORTANT. SEEN IRIS 860 sensors can provide collision warning assistance to the operator but do not replace the need for proper operator training and best practice safe operating procedure. While IRIS 860 sensors can alert the machine operator to a potential collision, the operator is always fully responsible for the safe operation of the equipment. IRIS 860 sensors do not comply with the regulatory standards required for devices which are intended to directly control vehicle or machine safety functions. Using the sensor accessory port to control a vehicle or machine function is entirely your own risk. Detection can never be guaranteed.

