

**SHOCKWATCH®**

Damage Prevention and Safety Solutions

# Intelligent Proximity Alert System (IPAS)





## Protection for all your assets – both people and machinery.

The ShockWatch Intelligent Proximity Alert System (IPAS) by KIGIS is designed to reduce the risk of collision between pedestrians and moving vehicles in industrial workplaces.

Using the latest Ultrawide Band (UWB) technology, IPAS precisely measures distances, both vehicle-to-vehicle and vehicle-to-pedestrian, and provides a highly reliable collision warning in light, sound and voice-alert format.



# Mining.



**Suitable for all types of heavy machinery, with an extensive detection range of up to 30 metres.**

# Construction.



**Latest Ultrawide Band technology accurately measures distances between moving vehicles and pedestrians.**

# Shipping.



**Accurate proximity detection designed to reduce the risk of collisions, especially in fast-paced environments.**

# Operation Diagram.

## Vehicle-to-Pedestrian



Pedestrian Tag (PT)



Vehicle Tag (VT) + Indicator



Vehicle Tag (VT) + Indicator



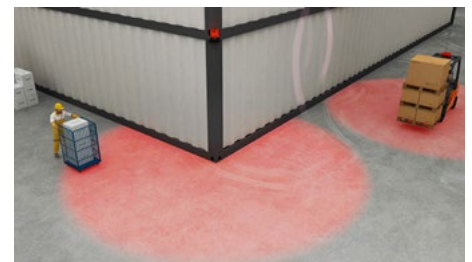
Crossway Zone Tag (CZT)



Flashlight Zone Tag (FZT)



Vehicle-to-Zone  
(Crossway)



Vehicle-to-Zone  
(Blindspot)

# System Components.



## Vehicle Tag (VT)

Installed on top of vehicle, Vehicle Tag detects Pedestrian Tag, Zone Tag and another Vehicle Tag using UWB (Ultrawide Band) Technology.

- Installation: Exterior
- Interaction: PT, VT, FZT, CZT
- Alarm: Light/Voice Alert via Indicator

### Specifications

Power	12/24VDC Input (9/32VDC)
Current Consumption	300mA
Interface	CAN Bus 2.0
Dimension / Weight	177.8 x 84.1 x 86mm / 444g
Mount Type	Magnet Mount
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operating Temp / Storage Temp	-30~85°C / -40~85°C
Enclosure	IP65



## Indicator

Installed inside the cabin, Indicator provides light and voice alert when Vehicle Tag detects other tags. This device can be used to configure both warning ranges and volume levels.

- Installation: Interior (Connected with VT)
- Range: Configurable up to 30m (Caution/Danger Area of Vehicle Tag)
- Alarm (Pedestrian / Vehicle):
  - Caution Range** – Repeating "Watch Out"
  - Danger Range** – Repeating "Danger"

### Specifications

Power	12/24VDC Input (9/32VDC)
Current Consumption	500mA
Interface	CAN Bus 2.0
Sound Level / @	92dB / 0.1m
Dimension (w/bracket) / Weight	93 x 130.5 x 47.5mm / 207g
Mount Type	Screw Fix (or Adhesive Tape)
Operating Temp / Storage Temp	-30~85°C / -40~85°C
Enclosure	IP65



# System Components.



Optional Accessory

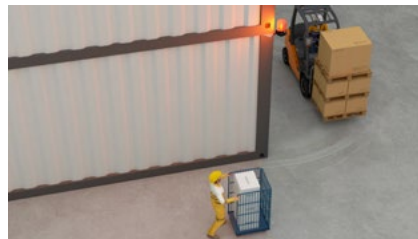
## Pedestrian Tag (PT)

When people enter the Caution/Danger Range, Pedestrian Tag creates both vibration and sound alarm. This device is configurable and rechargeable.

- Installation: Carried by people (Armband / Helmet Clip)
- Interaction: VT
- Alarm:
  - Caution Range** – Beep sound, Vibration
  - Danger Range** – Siren sound, Vibration
  - Low Battery** – Short beep sound - 5 times every 10 minutes

### Specifications

Sound Level / @	87dB / 0.1m
Battery	Li-Polymer 950mA
Operation Voltage	3.7V
Charge Interface	Micro USB Type-B (5V/1A)
Charging Time / Operation Time	~90min / 6 Days (@8hrs/day)
Dimension / Weight	40 x 72 x 19.5mm / 58.5g
Mount Type	Armband / Helmet Clip
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operating Temp / Storage Temp	-20~55°C / -20~55°C
Enclosure	Waterproof



## Flashlight Zone Tag (FZT)

Installed in areas where collisions are possible, Flashlight Zone Tag provides both audible and visual alert to oncoming workers.

- Installation: Vulnerable Area
- Interaction: VT
- Range: 5 – 30m
- Alarm: Default – Beep Sound, Flash  
Speaker (optional) – Repeating **“Watch Out”**

### Specifications

Power	110/220VAC (90-264VAC)
Current Consumption	500mA
Interface	CAN Bus 2.0
Sound Level / @	88dB / 1m
Dimension / Weight	122.7 x 140.6 x 111.5mm / 483g
Colour	Red or Amber
Mount Type	Magnet Mount
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operating Temp / Storage Temp	-30~85°C / -40~85°C
Enclosure	IP65





# System Components.



## Crossway Zone Tag (CZT)

When multiple vehicles enter an intersection simultaneously, Crossway Zone Tag sounds a voice alert and projects a spotlight onto the floor when a Vehicle Tag is detected.

- Installation: Ceiling of the intersection
- Interaction: VT
- Alarm: **No Vehicle** – Green Circle Sign

**1 Vehicle** – Orange Triangle Sign, LED Spot (Flashing), Voice Alert: **"A vehicle is approaching. Watch Out"**

**2+ Vehicles** – Red Cross Sign, LED Spot (Flashing), Voice Alert: **"Another vehicle is approaching. Watch Out"**

### Specifications

Power	110 / 220VAC (90-264VAC)
Dimension / Weight	380 x 380 x 281.5mm / 5.5kg
LED Spot Colour	Red or Blue
Mount Type	Wire (indoor only)
Frequency	3993.6MHz
Bandwidth	499.2MHz
Operating Temp / Storage Temp	-30~85°C / -40~85°C



Connection Example

## External Output Device (EOD)

The External Output Device (EOD) allows additional modules to combine with the IPAS warning system. The EOD can be used with various devices such as a speed controller, flashing light, alarm, etc.

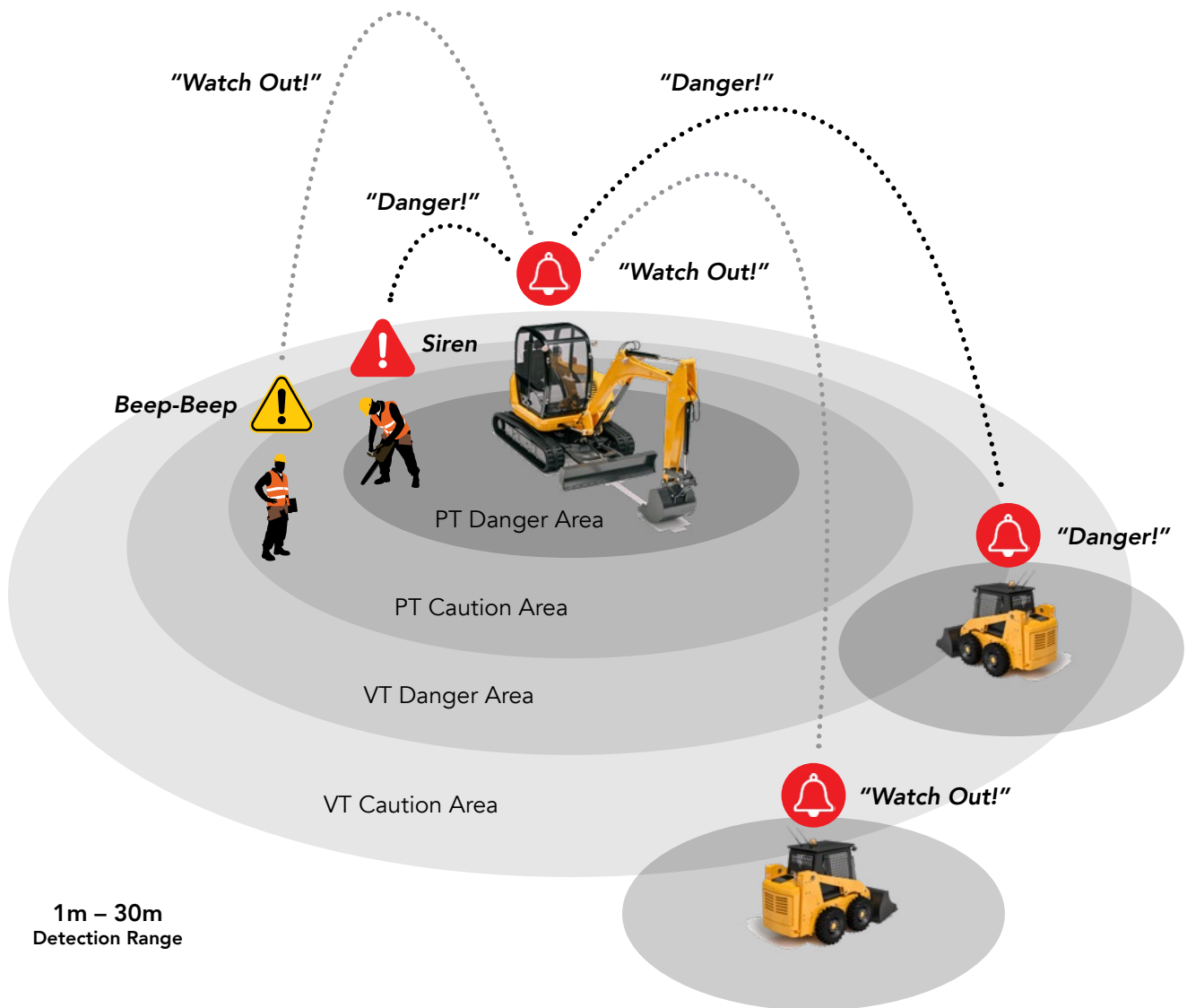
### Specifications

Power	12/24VDC Input
Current Consumption	100mA
Interface	CAN Bus 2.0
Maximum Load Voltage	32V
Maximum Load Current	5A
Dimension / Weight	131 x 95.6 x 38mm / 203g
Mount Type	Screw Fix
Operating Temp / Storage Temp	-30~85°C / -40~85°C



# How It Works.

[Click for Video](#)



## Main Operating Characteristics

- IPAS is applicable to all industrial vehicles: excavators, forklifts, loaders, tractors, etc
- Detection of pedestrians and moving vehicles in the area of operation of vehicles
- Detection range is adjustable from 1 – 30 metres in ideal conditions
- System components are all rugged and long-lasting

# Warranty.

A limited one-year warranty ('Warranty Period') is standard with all units and software and warrants for material or construction defects provided the instructions included in the manuals and documentation have been followed correctly.

The Warranty Period begins on the date of product shipment. Repair for functional failures and/or cosmetic touch up for units out of warranty is available on a time and materials basis.

## Terms of One-Year Limited Warranty

We warrant that during the Warranty Period each unit will be:

- Free from defects in materials and workmanship
- In compliance with its specifications

ShockWatch declines any responsibility for defects that may appear during the warranty period when:

- The instructions included in the manual have not been observed
- Any repairs have not been made by our professionals
- The failure has been caused by abnormal wear or erosion
- Unauthorised replacement parts have been used
- The system has not been used correctly

# Our Training and Support.

## Technician Training

We provide training for technicians on the installation of the system and how it works. All units have installation manuals and wiring diagrams enclosed.

## Customer Training

We will take you over some of the facets of the system. Once installed it is reasonably straightforward as the system will operate without any required intervention to the main unit.

## Technical Support

Technical Support is provided by contacting us during business hours between Monday - Friday 8am to 5pm AEST.

**1300 074 625**

[solutions@shockwatch.com.au](mailto:solutions@shockwatch.com.au)

# Our Clientele.

## Australia



## Worldwide



# SHOCKWATCH®

Damage Prevention and Safety Solutions

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