

Site Zone PWS Proximity Warning System

Personal protection
& identification
to help safeguard
personnel from vehicle
& machinery hazards

Site Zone PWS

What is Site Zone PWS?

Site Zone PWS is a proximity warning system that produces an invisible detection zone around a vehicle, machine or restricted area. If personnel wearing a Site Zone PWS Transponder enter the detection zone an event is triggered.

The simplest form of event is an audible and visual alarm alerting the machine operator to the danger that somebody has breached the zone. Although the machine operator is the only person that can stop the machine an optional external alarm can be provided to warn pedestrians and others in the area of the breach.

Complements existing safety warning measures

Site Zone PWS can be used in a whole range of applications including:

- Construction and Civil Engineering
- Warehouses
- Material Handling Sites
- Waste & Recycling Facilities
- Quarries & Mines
- Ports & Depots

And anywhere where the proximity of people and plant is a concern.

"Site Zone is instrumental in changing the behaviour of operatives working with mobile plant"

John Wellard
General Manager McArdle Group

Site Zone PWS key facts

- Reduces the risk of work place transport accidents and complements existing safety measures
- Active warning to the machine operator – the only person that can stop the machine
- Optional warning for personnel working near plant
- Customisable zone shape & size including full 360°
- Permanent & quick fit installation options
- Data recording & analysis including internet option for multiple machines on multiple sites
- Fits most machines in most applications
- Fully upgradeable including Authorised Driver & Access Control
- Supported by our network of independent engineers

All round protection

Site Zone PWS can be configured to provide full 360° protection at varying ranges around a machine. It can also be used to provide front or rear detection zones only.

The use of Site Zone PWS's unique null zone antenna allows for further zone customisation in specialist applications such as drainage or when excavators are being used in lifting operations.

The importance of data

The Site Zone PWS system has the ability to record a range of events including any zone breaches. Each Site Zone PWS transponder is individually identified and the time/date stamp logged data can be downloaded locally or via the internet.

Site Zone PWS's data can be a useful tool for workplace transport safety management and training purposes.

Designed to meet your needs

Site Zone PWS has a number of features which have been specifically designed around the needs of our customers, these include:

- Configurable detection zones
- Quick fit installation option that takes less than 1 hour to fit
- Warnings for machine operator & pedestrians
- Remote access to event logs via the internet
- Long life personal transponders for low cost of ownership

More than personnel protection

Site Zone PWS technology has other uses which can help ensure your site remains safe, secure and productive, these include:

- Critical asset Detection. Site Zone PWS Transponders can be used to tag valuable assets to prevent vehicle collisions.
- Exclusion Zone. Site Zone PWS can be used to create exclusion zones around no go areas or hazardous machinery.

Workplace transport is one of the most common causes of fatalities and serious injuries across many industries with over 50 fatalities and over 1500 major accidents per annum. Almost half of these incidents involve being struck by a moving vehicle.

Based on 2010-2011 Health and Safety Executive Data

Site Zone PWS can be deployed on a number of vehicle types



Product Matrix

		Site Zone PWS Proximity Warning System	What is this, why is it important?
Basic operation & features	Alerts Machine Operator		The machine operator is the only person that can stop the machine to prevent a collision.
	Alerts Pedestrian	Option	Alerting the pedestrian to the potential risk of an approaching hazard is important but ultimately the pedestrian cannot stop the machine.
	No Interference Between Machines		Any PWS system should not be affected by the location of another, with less advanced systems where detection zones cross they can cancel each other out.
	Heart Beat Warning		Site Zone has a unique heart beat warning that warns when multiple persons enter the zone of a machine.
	Works around blind corners, stockpiles etc		One of the significant benefits of RF based proximity warning systems over other technologies is they can see around blind corners.
	Allows legitimate approaches to Machine		It is important for operational efficiency that onsite staff with a legitimate reason e.g. a banksman can approach the machine, it is also important the machine be in safe state of operation when the approach is made. Site Zone Systems come standard with an alarm mute button which can be operated in a number of different ways.
	Authorised Driver ID - Basic		It is important that only authorised persons drive machines. Site Zone comes as standard with a basic driver ID function.
	Integrate with machine safety system (Deadman 's handle)	Option	Integrating Site Zone to the deadmans handle ensures the machine can be put into a safe state of operation if the need for the zone to be breached arises. This method is an advancement on the simple alarm mute button feature.
	Permanent Visible System Diagnostics		It is important that the machine operator knows at all times that his system is functioning correctly. All site zone systems have on board diagnostic which constantly checks system operation, not just on start up.
Flexible	Long life anti tamper proof tags		Long life tamper proof tags are not only convenient but also important for safe operation of the system.
	Variable Zone Size		Variable zones allow the system to be configured for different applications and environments.
	Multiple Antenna Configuration		Multiple Antenna Configurations give increased flexibility and allow suitable zones to be created around larger vehicles.
	Zone Change Selection (or second operating duty)	Option	Duty switching allows for two pre set zones to be used for when the machine is involved in different applications.
Safety management	Null Zone		The use of null zones allows for a hole to be put in the field surrounding the machine, this can be especially useful when machines are involved in operations such as drainage or lifting when a closer proximity to a particular part of the machine is required.
	Accountability		Safety is everybody's responsibility. Site Zone ensures accountability at all levels, machine operator, pedestrian and site management. The accountability is supported by a variety of alarm options and data logging.
	Event Data Logger		Recording the events that occur on a site is vital and can identify: staff training needs, potential areas of operational improvement and be used for incident investigation.
	Measurement of Effectiveness of Workplace Transport Practices		Use of the data allows customers to see if improvements are being made in behavioural patterns when staff are operating near machinery.
Expansion	Telemetry Based Data Transmission	Option	Site Zone has an optional telemetry module which allows multiple machine data to be downloaded and viewed from any office based location (or where there is Internet access).
	Site Zone has range of expandable options available or coming soon, please contact us for further details		
	Critical Asset Detection		Site Zone can be used for access control ensuring only those that have been inducted or are authorised to do so can access a site.
Ownership	Vehicle to Vehicle Detection		Site Zone first and foremost is designed to warn the operator of the presence of a collision risk, because of this it can be used to protect high value site assets or objects simply by tagging the object in the same way you would a person.
	Portable Mounting System	Option	Site Zone is also suited to the plant hire market with a range of quick fit options available. In most cases installation can be completed in less than 60 minutes and in many cases much quicker
	Rental Option		Site Zone is available to rent for those that are involved in short term contracts.
	Purchase Option		Site Zone is available to buy or lease purchase for those that wish to invest long term in site safety. When plant is replaced Site Zone Systems can be removed from old plant and onto new incoming equipment.
	National Support Network		It is essential that safety systems are kept operational. OnGrade has a national network of independent support engineers which can fully support any of our products wherever you or your equipment are.

Key



Front & Rear Antenna providing protection to the front, rear or 360°



Alarm box, audible & visual alarm if safe zone is breached



personal transponder, individually identified



Optional external alarm

Site Zone

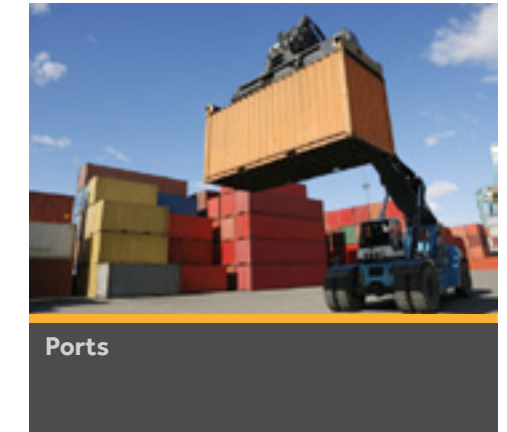
Application Areas



Civil Engineering



Warehousing & Logistics



Ports



Material Handling



Waste Management & Recycling



or anywhere the proximity of people and mobile machinery is a concern

How does Site Zone PWS Work?

Site Zone PWS uses RF (Radio Frequency) to generate an invisible RF field which is transmitted from the vehicle mounted antenna. This field completely surrounds the vehicle and is used to detect the presence of the personal transponders, which if present within the pre defined safety zone, cause the relevant alarms to be activated.

Site Zone

Key Functions & Options



Proximity Warning



Authorised Driver



Access Control



Critical Asset Detection



Exclusion Zone



Site Management

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CETA Construction
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