



# PANDA

'Pedestrian & Driver Alert' System



inventisgregory



## our vision

To be a leader in the development of innovative products and inspired solutions for consistent and sustainable shareholder value.



## about



Inventis Technology develops custom innovative control electronic solutions for millions of consumers, commercial, industrial and military organisations that improve productivity, efficiency, safety and products.



SafeZone is a brand of Inventis Technology's 'Wireless Warning Solutions' group.

SafeZone specialises in wireless warning beacon (flashing light) solutions and wireless vehicle detection systems for road and rail applications. We are pioneers in the development and deployment of low cost, wireless solutions for railway crossings, pedestrian crossings and other public and private road applications; anywhere that hazards need to be made more obvious in order to deliver improved response times required to avoid them. Protecting people and assets.

SafeZone was launched in 2007, following 'proof of concept trials' that showed the viability of our wireless repeater technology and the greater level of safety achieved with the use of road-side warning systems. The inherent ability of our systems to heighten driver and pedestrian awareness of hazards as well as the lowering of costs, coupled with the inherent benefits of wireless technologies, are helping our customers deliver more effective solutions faster.

All in all, our wireless solutions deliver increased levels of modularity, scalability, flexibility and effectiveness that road, rail and premises safety groups seek.

If your role is to ensure improved safety outcomes on your work site, or addressing pedestrian or driver safety issues in your community, then SafeZone is the product for you.



## PANDA Pedestrian And Driver Alert System

A low cost, wireless solution for enhancing pedestrian and driver safety

The PANDA (Pedestrian And Driver Alert) System is an Australian developed 'active advance visual warning system' that uses wirelessly controlled flashing lights to deliver more effective warnings in locations where pedestrians and road vehicles interact. By combining flashing road-side warning lights with optional in-road warning lights, this system has been shown to deliver more effective warnings than passive (unlit) signs, or road-side lights on their own.

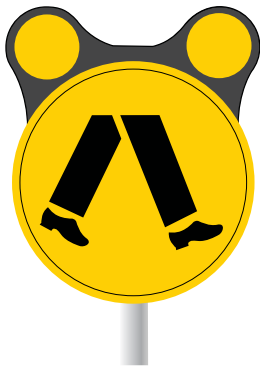
Designed for pedestrian crossings, carpark exits and other 'black spots' where drivers and/or pedestrians need more visible warnings in advance for them to change their behaviour (i.e. slow down and stop), PANDA helps in delivering improved response times for drivers and pedestrians to avoid danger, helping to reduce the risk of accidents and near misses.

What makes PANDA unique, is that it's a simple, modular, wireless solution that can be easily adapted to almost any application and location. A range of activation options (automated or manual), and a total absence of power and external control cabling means it can be far more quickly deployed and for a lot less cost, than other hard-wired active warning systems.

While road-side and in-pavement flashing lights are not unique, the combination of a secure wireless control system with high output LED lighting in modular housings that can be easily applied to new or existing applications, makes PANDA a highly flexible and easily applied solution. It also makes PANDA incredibly affordable.

PANDA's modular system is comprised of pole-mountable, solar-powered, wirelessly networked road-side warning lights, as well as (optional) battery powered, wirelessly networked in-road lights. Once installed, the chosen activation system then activates all lights simultaneously so that they flash in unison.

A range of activation options, including pedestrian or vehicle presence triggers, as well as automated systems for time-of-day based warnings (e.g. for school zones), combined with local engineering and support, make PANDA not only the most flexible 'advance visual warning' solution in Australia for enhancing pedestrian and driver safety, but also the best value-for-money solution on the market.



“ PANDA helps in delivering improved response times for drivers and pedestrians to avoid danger, helping to reduce the risk of accidents and near misses. ”

## Features

## Benefits

Modular architecture

Can be adapted to suit most applications

Wirelessly networked components

No inter-connecting cables means lower cost of installation and ownership

Solar and battery powered

Road-side and In-Road lights can be installed anywhere, even in locations without 240V power

Retrofittable Road-Side Light modules

Can be easily fitted to existing pole-mounted 'passive' warning or hazard signs

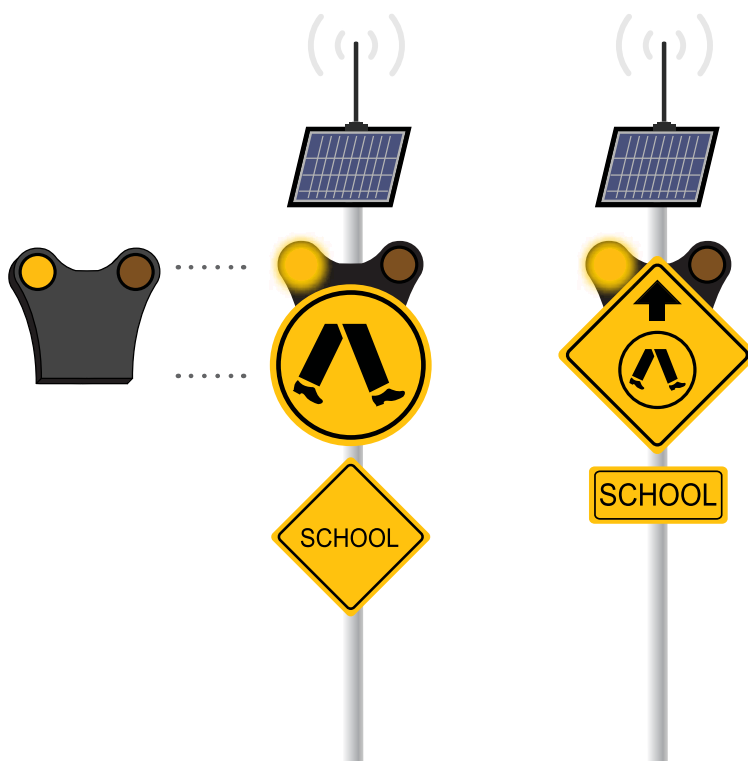
No radio license required

Simplifies installation and commissioning

Warning Lights provide enhanced advance warnings to drivers and pedestrians

Deliver the improved response times required to avoid danger

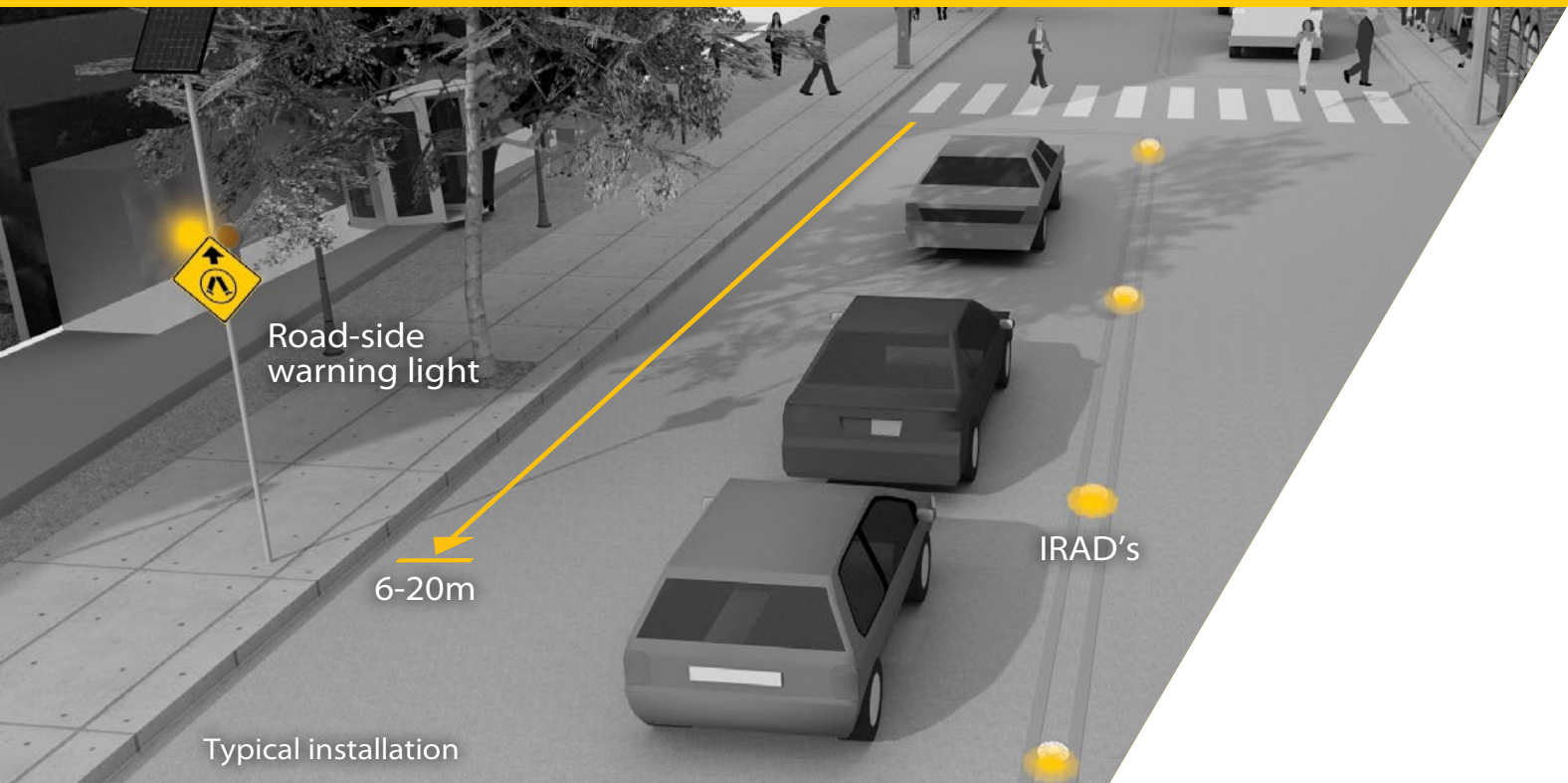
## Road-side warning light module





# PANDA

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Road-side  
warning light

6-20m

IRAD's

Typical installation

## Applications

- Pedestrian Crossings, to warn drivers that a crossing ahead is in use
- School Zones, to warn drivers they are in an active zone within school hours
- Pedestrian precincts (e.g. in factories, warehouses & distribution centres) where pedestrians & vehicles interact, to warn pedestrians of entering vehicles
- Aged Care / Retirement facilities to warn drivers to go slow in pedestrian areas
- Car Parks exits, road or private premise 'black spots'



# Installation

A typical PANDA System comprises a pair of wirelessly networked road-side warning lights that are installed behind pole-mounted warning signs. In a pedestrian crossing application, these would be placed 6-20 metres in advance of the crossing. Optional in-road warning lights can also be placed down the roadway, along the lane markers and/or centre line, typically every 4-10 metres.

Similar configurations are used on the approaches to concealed driveways, carpark exits, or other locations where drivers and/or pedestrians need better advance warnings of a hazard ahead. When activated, the lights flash to warn of the danger ahead.

The warning lights can be activated in a number of ways (see below), depending on the application and site-specific issues.

These activation devices communicate with a local PANDA Alert Device Controller (ADC) that signals all warning elements in that system to turn on (or off).

Network security (and separation from adjacent PANDA networks) is by means of software encryption which is set at time of delivery and installation.

## System architecture

Activation Options	PEDESTRIAN		<p><b>Push-button</b></p> <p>Used where pedestrians manually activate the warning system. These pole-mounted push-buttons are connected to an adjacent Alert Device Controller (ADC - see below) that in turn wirelessly activate the warning lights.</p>
	TIMER		<p><b>Automatic</b></p> <p>In applications where the warning system is required to operate automatically at set times, e.g. at a school crossing during school zone hours. The pre-programmed times and dates are factory configured.</p>
	ATTENDANT		<p><b>Handheld (Portable) Wireless Remote Control</b></p> <p>For applications where an attendant on duty (e.g. a school crossing 'lollipop person'), manually activates the warning system. A simple press of a button activates/deactivates the warning system. Remotes are security coded to the PANDA System they are supplied with.</p>
			<p><b>Building Mounted (Fixed) Wireless Remote Control Panel</b></p> <p>For applications where a remote attendant (i.e. not at the crossing/hazard zone, but, for example, in the administration office of a local school that a crossing services) manually activates/deactivates the warning system.</p>
Warning Options		<p><b>Wireless Road-Side Warning Lights</b></p> <p>These self-contained modules are comprised of flashing warning lights and an Alert Device Controller (ADC - see below). They are fitted to pole-mounted signs on the approaches to pedestrian crossings or other hazardous locations. These solar powered Warning Lights feature optional fail-to-safe capabilities if they lose network connection.</p>	
		<p><b>Wireless In-Road Warning Lights (IRAD)</b></p> <p>These waterproof, impact resistant modules are installed, as required, in the road on the approaches to pedestrian crossings or other potential hazardous zones, starting at the position of the Road-side Warning Light, and ending at the crossing or the end of the hazard zone. These battery powered lights feature optional fail-to-safe capabilities.</p>	
Control		<p><b>Alert Device Controller</b></p> <p>Supplied as stand-alone units or integrated into the Road-side Warning Light module (depending on system configuration), these units coordinate inputs from activation devices (e.g. such as Pedestrian Pressure Pads) and the warning lights (both road-side and in-road). In applications where road-side lights are activated by a timer, ADCs are not required.</p>	





# Specifications

System Control Unit	Security-coded Wireless Alert System DC 19V-30V or DC12V Solar Panel input 5 x Digital Input (3.3V-12V level) 6 x Digital Output (12V, 1.4A) Programming port Serial COM port RF operating Freq. 433.40 Mhz 10mW Battery 12V 12AH
Pedestrian Push-Buttons	Single button RF Wireless connection Size 11 x 11 x 7 cm box
Timer	12V DC Input 8 On/Off Settings Switching capacity: 16A @240VAC
Handheld (portable) Wireless Remote Control	2 Button Remote RF Wireless connection 150m range
Building Mounted (Fixed) Wireless Remote Control Panel	2 Button wall mount unit RF wireless connection 150m range Size 11 x 11 x 7 cm box
Road-side warning Lights	Dia 200mm/100mm LED lights (1 or 2) 12V DC 4W Flashing or steady option 3 colour LED lights option Sign option
In-road Warning Lights	4 cells Lithium battery Wired or self-contained 14 flashing LEDs Amber colour Wireless controlled by system control unit Waterproof



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