



A better Advanced Warning System

RAIL SIGNAL PASSED AT DANGER (S.P.A.D.)

SafeZone is designed to provide train drivers with an advanced warning reminder as they approach a high risk stop signal at danger location.

SafeZone addresses safety, primarily targeting human behaviour by awakening & stimulating the subconscious brain & heightening a drivers state of mind and level of alertness. Drivers approaching a high risk stop signal at danger are repeatedly alerted, awoken with an advanced warning when a train is on approach to a stop or caution signal.

Wireless directional beacons (IRADs) provide the advanced warning by being positioned at set intervals between the tracks.

The train is detected approaching a signal (either by existing train detection infrastructure or by a stand alone rail axle sensor), if the signal ahead is at a stop or caution condition, an advanced warning is generated & the beacons ahead begin to flash, reminding the driver of the signal ahead and to prepare to stop.

When the **SafeZone** system is triggered the beacons emit a continuous strobed runway effect, which is the key to awakening & stimulating the subconscious & heightening a driver's state of mind & level of alertness.

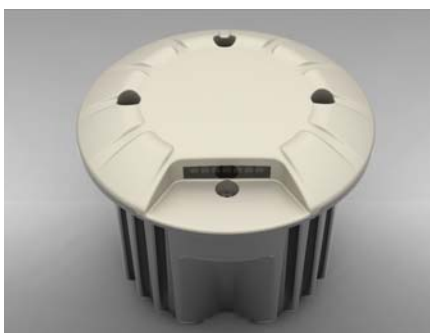
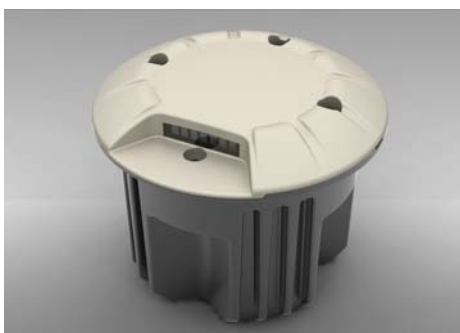
This continuous & repeated runway effect gives drivers a reminder of the approaching signal condition allowing a longer reaction time & confidence that multiple levels of redundancy are built into the system.

SafeZone delivers added safety because it provides advanced warning day, night, during poor visibility and bad weather. Unlike other solutions where single reminder signs can be driven passed without noticing them, the **SafeZone** solution ensures that the "warning cannot be missed".



To ensure drivers' safety is not compromised, the system incorporates a Fail Safe mode of operation. If a beacon loses contact with the wireless controller, beacons will activate (Fail Safe flash mode). This safety feature ensures that in the unlikely event of a controller failure, the beacon operates independently and continuously in the fail safe mode.

The **SafeZone** system can be integrated into existing rail detection circuits or can be interfaced directly to a rail axle detection device via a Safezone Wireless Controller. **SafeZone** is perfectly suited to isolated, un-powered sites as the system is powered independently by its own solar and battery source. There are no cabling requirements to install the system, which reduces installation costs & increases reliability.



HOW DOES IT WORK?

SafeZone comprises two elements:

SafeZone ADC (Alert Device Controller)

- These are the trackside, pole-mounted, AC mains or solar powered zone control units that act as the bridge between the controlling authority (eg rail authority or council), & the in-rail lights. They provide the signal that activates the in-rail beacons & controls their flashing pattern, as well as receives information used for remote management & fault diagnostics.

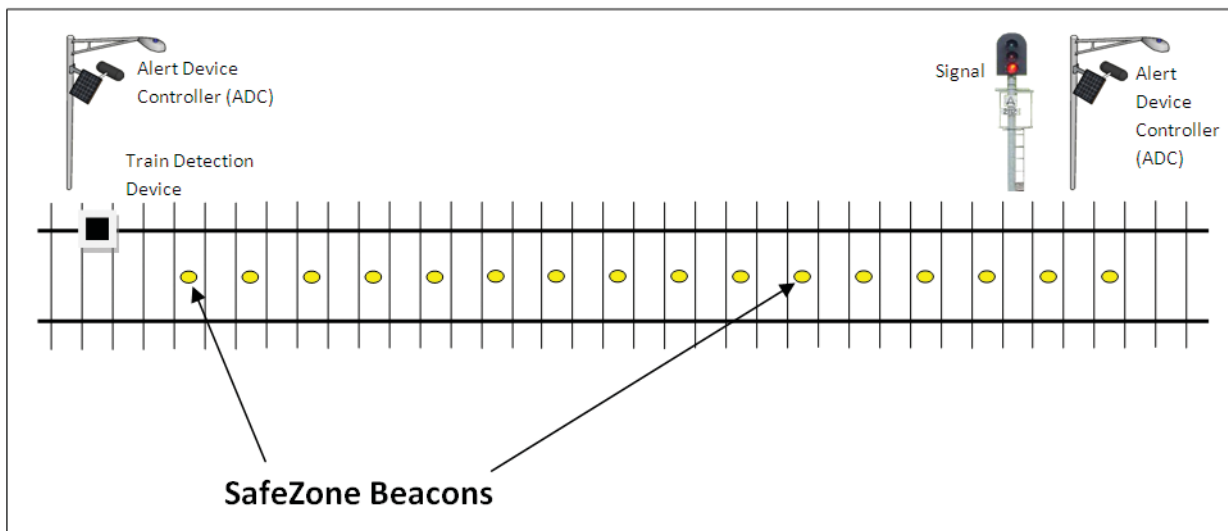


SafeZone IRADs (In-Rail Alert Devices)

- These are the in-rail, ultra-bright flashing LED warning beacons.
- Battery powered
- Wireless control
- Remotely programmable
- Remote diagnostics
- Variable light output



A typical Rail Signal Installation:



WHY SAFEZONE?

SafeZone:

- Is inexpensive & easy to install
- Is more reliable & has greater levels of redundancy due to an array of in-built smarts
- Is a fully managed intelligent system with back to base diagnostics
- Wireless architecture and is scalable
- Can be stand alone or integrated with other control systems
- Can be customised
- Is designed for outdoor & hazardous conditions
- Is Australian designed & manufactured