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ATC
Moving Traffic

Aldridge Traffic Controllers Pty Ltd

AWSC4 RAILWAY CROSSING SOLUTION

**ADVANCED WARNING SIGN
CONTROLLER (AWSC4)**

**SOLAR POWERED ADVANCED WARNING
SIGN CONTROLLER (AWSC4-SOL)**

Significantly improves safety

Warns of an approaching train

Low maintenance

Robust construction

ADVANCED WARNING SIGN CONTROLLER (AWSC4) SOLAR POWERED ADVANCE WARNING SIGN CONTROLLER (AWSC4-SOL)

To improve safety, reduce fatalities and minimise risk at railway crossings ATC has developed the AWSC4 Advanced Warning Sign Controller. The system warns road users approaching an uncontrolled level crossing that the railway level crossing is currently in use and to prepare to stop. It is particularly beneficial in locations where visibility is often limited (due to fog or other weather conditions). This advanced warning is beneficial for all motorists, but in particular heavy trucks that require a much greater stopping distance and therefore earlier warning to stop.

Key Features

- Capable of driving from 1 to 4 signs each fitted with two Yellow aspect LED Lanterns that are Extra Low Voltage and low power units.
- The warning sign lights driven by the AWSC4 flash alternately once a second for the duration of the train presence at the level crossing. All warning sign lights flash synchronously.
- An independent Flasher Unit is the central module that interfaces with the Railway signalling system to act on a signal from the Railway Crossing Train Detection system that a train is about to go through a level crossing.
- Monitoring of all main functions in the system is achieved via a 3G (UMTS) modem communications link that can be customised to any client requirements.
- The main electronics have been tested in harsh environments and provide the functions that monitor the Flasher unit, UPS and internal systems.
- Remote support means an operator at a Traffic Management Centre can dial into the unit and request any diagnostic information.
- The AWSC4 is capable of detecting tilting of the signs as well as the loss of a LED Lantern, informing maintenance crews of response work requirements.
- A stand-alone solar system is also available and is ideally suited for remote locations.



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Functionality

- Fail to Flash Safety Function
- Drives from 1 to 4 Warning Sign LED Lantern Pairs
- Independent Flasher Unit with Lamp status
- Interfaces to Railway Presence Detector Relays
- Monitors all Warning Sign Cables
- Monitors Railway Interface Cable
- UPS Battery Backup for 12 Hours

Controller

- Solid State switching of LED Lantern Loads
- Remote Dial In Capability
- Industrial Grade CPU
- Fail to Flash unit
- Manual Test Switch to test Flashing Warning Signs
- Flasher independent of Logic Rack CPU operation

Traffic Signal Displays Signs

- Two 200mm Yellow AS2144 compliant LED Lanterns per sign
- Use of Extra Low Voltage (ELV) power for safe maintenance
- Cable sensing for all signs (up to 4)
- Tilt Sensing in case sign is pushed off vertical axis



Advanced Warning Display Sign in action - look closely - there is a train approaching!



ADVANCED WARNING SIGN CONTROLLER (AWSC4) SOLAR POWERED ADVANCE WARNING SIGN CONTROLLER (AWSC4-SOL) RAILWAY CROSSING SOLUTION

Railway Interface

- Dry contact relay interface for feedback to Railway
- Cable Monitor to Railway Signal Controller
- Provides 28vac to Railway Signal Controller "Rail Call" Relay

Communications

- UMTS (3G) Modem Data and Voice Circuit.
- ACMA Approved (850MHz)
- Optional fibre optic modem
- Optional radio communications
- RMS Protocol (XML-based) Command Set

Laptop User Interface

- Serial Port RS-232 interface
- Easy to use Windows-based user interface to view system status
- Comprehensive fault log with colour coded faults and errors
- External input status in real time
- UPS status points in real time
- Status of all LED lantern aspects
- Status of Railway Cable interface



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