A.D. ENGINEERING INTERNATIONAL
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A.D. Engineering International Pty Ltd - Product Range

Over the last 36 years A.D. Engineering International has specialised in the design, manufacture and supply of high quality electronic equipment to provide information, traffic control and road safety. We are not an importer of electronic equipment – we design and manufacture 100% in Australia. We are committed to producing the most innovative, reliable and longest service life electronic equipment. We provide our clients with ongoing support and back up service for the life of the product.

Please find below a summary of our product range. We have the skills and capabilities to design and build almost any type of electronic product, from single prototype to mass volume packaged product. We can custom design, manufacture and supply products to meet your specific requirements. For more information, please contact us on 1800 048 700 or +61 8 6401 6292 or via email on info@adengineering.com.au or visit our website at www.adengineering.com.au

Advertising LED Signs / Variable Message Signs (VMS)

AD315 Advertising Variable Message Sign (VMS) features an LED screen display capable of displaying high quality video, images, graphics and text to promote your business, products and events. The web based *Control Point* software provided allows you to easily set up a presentation with multiple images and video clips. Screens can be set up to be remotely controlled securely via the internet. An extensive range of formats and media sources provide great flexibility for display content.

We can provide a wide range of display sizes and pixel resolutions with various mounting options. Installations can be designed to be wall mounted, pole mounted or gantry mounted. The display can be double sided, wide screen, portrait or long strip format, for either indoor or outdoor installations.

With its easily programmable features, superior reliability, power efficiency and long service life, our VMS is the ideal solution for local advertising and promotion of your business, products, events and special deals.


Transportable Variable Message Signs (TVMS)

AD320 Full Colour Transportable Variable Message Sign (TVMS) features a large 2.82m x 1.28m full matrix LED display area and is Australia's first solar powered full colour, picture capable, transportable variable message sign. It is ideally suited for displaying full colour, high-resolution images and graphics, not just text. In addition to its informative and advisory purpose for road and highway use, the AD320 is ideal for advertising and promotion of business, products, events and special deals. The web based *Control Point* software provided allows you to easily set up a presentation with multiple dynamic images.

AD308 Small Transportable Variable Message Sign (TVMS) features a 1.92m x 0.96m full matrix LED display area and is capable of displaying text and graphics. It is ideally suited for informative and advisory purpose, road work messaging or promotion of up-coming events and advertising store specials. It can display up to 3 lines of 8 characters at 280mm in height. Displays can be manufactured with single colour (amber or red) or full colour 20mm pitch pixels.

The TVMS that we produce is easily transportable, programmable and has low maintenance requirements with a long service life. Easy to power up with both powerful solar recharging for field use and integrated mains recharging for onsite use. Display deployment is easy with a built-in electric lifting mechanism which lifts the display screen up to two meters above the ground, providing motorists with an unobstructed view of your message. A jockey wheel and four fold down corner stays make positioning safe and simple for single operators. An optional high speed camera, radar speed detection and logging can be installed to monitor motorists' speed.

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Mini Full Colour Transportable Variable Message Signs (TVMS)

AD333 Mini Full Colour TVMS feature a solar powered full matrix LED display capable of displaying images, graphics and text. The transportable variable message sign is ideally suited for road traffic management or roadside advertising and promotion. The web based *Control Point* software allows you to easily set up a presentation with multiple dynamic images.

The mini TVMS has a display area of 1.28m x 0.89m and is designed with P16 RGB modules. If you are after a video capable trailer, the AD333 can also be fitted with P10 RGB modules for higher resolution. The P10 version is intended to run from mains power as operating from solar will not be sustainable over extended periods.

The mini TVMS trailer that we produce is easily transportable, programmable and has low maintenance requirements with a long service life. Easy to power up with both powerful solar recharging for field use and integrated mains recharging for onsite use. Display deployment is easy with a built-in electric lifting mechanism, which lifts the display screen up to two metres above the ground providing motorists with an unobstructed view of your message. A jockey wheel and four fold down corner stays make positioning safe and simple for single operators.

Traffic Gantry Mounted Variable Message Signs (VMS)

AD302 Traffic Gantry Mounted Variable Message Sign features an ultra-bright full matrix LED display designed for high visibility and guaranteed to get your message across. It provides large format text and graphics which advise motorists of current traffic conditions, safety messages and upcoming events.

With low maintenance requirements, superior reliability and power efficiency, our AD302 is designed to have a long service life and is ideally suited to Australia's harsh environmental conditions. We design and manufacture equipment to suit customers' specific requirements - large or small scale, we can provide custom engineering solutions. Our signs are fully STREAMS compliant for road authority use and it conforms to Australian standards.

We are familiar with the logistics of remote site preparation and the transportation of large electronic equipment in a careful and timely manner for installation and commissioning on site.

Intuitive user software is provided to program messages locally and remotely. An optional facility key switch for Road Workers, Police or Emergency Services can also be provided for additional security.

Changeable Message Signs (CMS)

AD319 Changeable Message Sign (CMS), also known as a prism sign, allows up to three different messages to be displayed and provides effective and power efficient road signage. Triangular slats or prisms have three sets of graphics applied to the three separate faces and rotate together to display each message. Power is only required when the message changes.

The AD319 CMS can be manufactured in a variety of sizes and configurations from single to multiple sections. It can be solar or mains powered and has a battery for back-up. A CMS controller provides the interface between the CMS and the traffic management system and can be controlled remotely or locally. A facility switch allows for manual selection of a sign face.

The CMS that we produce is highly visible and has a highly reliable drive mechanism. It is power efficient, maintenance free and has a long service life. Supplied with a high quality aluminium frame construction, it is ideal for Australia's harsh environmental conditions. Its control system is capable of interfacing to existing traffic management systems and custom protocols, including STREAMS.

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LED Flashing Arrow Signs

A.D. Engineering International's LED Flashing Arrow Signs provide motorists with a clear and early indication of lane changes ahead. The ultra-bright LED lamps are easily seen in bright daylight and are automatically dimmed for low-light conditions, ensuring optimum visibility at all times.

Designed for continuous use, our vehicle cab mounted or portable solar powered Flashing Arrow Signs are a reliable work-horse for on-site traffic management requirements.

- Vehicle cab mounted: The display can be mounted on top or at the back of any vehicle and display is powered by the vehicle's electrics.
- Solar powered trailer: Easily transportable and set up by single operators, the display can be lifted up to 2 metres via cabled winch and a jockey wheel and four fold down corner stays make positioning safe and simple.

The LED Flashing Arrow Signs that we produce have a robust weatherproof and vandal resistance design, low maintenance requirements with a long service life. It is ideal for Australia's harsh environmental conditions.

AD303 ESLS

AD307 VSLS

Electronic and Variable Speed Limit Signs (ESLS & VSLS)

AD303 Electronic Speed Limit Signs (ESLS) can display up to 3 different speed limits from 10 to 110Kph in increments of 10 or 5 Kph. Different versions can be manufactured to meet specific requirements.

AD307 Variable Speed Limit Signs (VSLS) incorporates a full matrix display area capable of displaying any text and graphics allowing any speed limit to be displayed. Optional flashing LED conspicuity lamps can be also installed.

The VSLS that we produce features an ultra-bright, high quality, long-life LED display and is available in the Australian standards types A, B, C & D sizes. It can be solar or mains powered and is designed for hassle free installation and high reliability. The signs can be controlled locally or remotely and can interface with existing control networks. An optional facility key switch for Road Workers, Police or Emergency Services can also be provided for additional security.

What makes our VSLS better than our competitors? We use high quality powder-coated aluminium enclosure, IP65 impact resistant polycarbonate screen and Australian made electronics. With low maintenance requirements, superior reliability and a long service life, our VSLS is ideally suited for Australia's environmental conditions.

AD305 (fixed speed)

AD305 (electronic variable speed)

Flashing Speed Limit Signs (School Zone Signs)

AD305 Flashing Speed Limit Signs (fixed speed or **electronic variable speed)** are highly visible and innovative, creating instant awareness of school zone areas where a low speed limit applies at different times of the day. These signs help create safe local traffic conditions for the community, warning drivers to slow down during the school start and end times.

The AD305 features an ultra-bright, high quality and long-life LED display capable of displaying different speed limits from 10 to 100Kph in increments of 10 or 5Kph. Features also include a programmable flashing annulus with 3 rows of red LEDs. Our Electronic School Zone Signs are time activated at pre-programmed times by the internal clock and calendar scheduling software provided, allowing you to easily set up times and dates for operation.

Low maintenance, ultra-reliability and easy installation make our speed limit signs the ideal choice not only for school zone areas, but also mine sites, residential areas and other high-risk zones. Our signs meet MRWA compliance and can be manufactured as mains powered or fully solar powered for 24/7 operation. We can customise our signs to meet any Road Authority specification.

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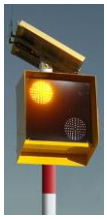

Crosswalk Signs

A.D. Engineering International's Crosswalk Signs are highly visible and innovative, creating instant awareness of pedestrian crossing areas.

The AD309 Wig-Wag sign features super-bright LED flashing lanterns whereas the AD305 Static Crosswalk Sign Face features an ultra-bright flashing annulus. Low maintenance, ultra-reliability and easy installation make our Crosswalk Signs the ideal choice for schools, mine sites, residential and other high-risk areas.

The Crosswalk Signs are designed to operate 24hrs a day, 7 days per week. It can also be time activated at pre-programmed times by the internal clock and calendar scheduling software provided, allowing you to easily set up times and dates for operation.

Radar Speed Displays (RSD)

AD322 Radar Speed Display (RSD) features an ultra-bright LED display (24x16 pixels at 25mm pitch) integrated with radar speed sensor and data logger for traffic analysis. It provides motorists with a direct indication of their vehicle's speed and an effective trigger (message) to warn them about their speed. The radar can be set to trigger the display when vehicles are above the set limit. Ranges can be set with different response message (up to 2 lines of 4 characters can be displayed).

An optional high speed camera with invisible infrared flash can be fitted to allow images to be recorded to a SD card of vehicles detected over the speed limit

The AD322 RSD can be controlled remotely or locally, and can be used for dual speed zones (e.g. school zones) via time and day selector. It is designed to be easily mounted to a pole using clamps. It can be mains or solar powered and has a weatherproof and vandal resistant display to ensure a long service life.

Transportable Variable Speed Limit Signs (TVSLS)

AD334 Transportable Variable Speed Limit Sign (TVSLS) is a stand-alone, solar and battery powered operated device designed for constant operation. The type C size TVSLS incorporates a 40 x 24 pixels full matrix LED display and a 5 ring LED annulus capable of displaying alpha numeric and graphic data, allowing virtually any speed and short safety instruction to be displayed (up to 3 lines of 6 characters each).

The TVSLS is ideal for areas requiring temporary speed limit signs, and is effective in reducing motorists' speed approaching roadworks and temporary speed restricted areas. This device will assist road traffic management and help improve motorists, road workers and pedestrians' safety across the roads network. We can customise our signs to meet any road authority specification.

The TVSLS that we produce is easily transportable, fully programmable and has low maintenance requirements with a long service life. It features an ultra-bright, high-quality and long-life LED technology, impact-resistant polycarbonate screen, and a high-power solar panel. The trailer is made with aluminium and galvanised steel and receives a durable weather-resistant powder-coat finish.

The display and solar panel are mounted on a mast, which is lowered during transportation. The solar panel is mounted flat and does not require any tilt or rotational setup. Display deployment is easy with a built-in electric linear actuator system which lifts the display screen into position. A jockey wheel and four fold-down corner stays level the trailer and make positioning safe for single operator.

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Transportable Radar Speed Displays / Speed Alert Mobile (SAM Trailer)

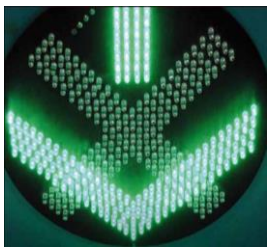
AD300 Transportable Radar Speed Display features an ultra-bright LED display integrated with a radar speed sensor and data logger for traffic analysis. It provides motorists with a direct indication of their vehicle's speed and is effective in reducing speeding motorists approaching road works or other temporary speed restricted areas. The radar can also trigger warning messages to approaching vehicles such as "Slow Down", "Road Works" or "Accident Ahead".

An optional high speed camera can be fitted to allow images of vehicles detected over the speed limit to be recorded to an SD card.

The AD300 SAM trailer includes powerful solar panel recharging for continuous field use and integrated mains recharging for depot use. It has a weatherproof and vandal resistant display which is locked down for safe and easy transportation. Rapid deployment is easy with a gas-assist strut providing assistance to lift the display screen into position, giving motorists an unobstructed view of your message. A foldable jockey wheel and four fold down stabiliser legs (with a removable handle) make positioning our SAM Trailer a safe and simple operation for single operators.

The Speed Alert Mobile that we produce is easily transportable, fully programmable, has low maintenance requirements and a long service life. It is ideally suited to government and private organisations looking for a convenient traffic management and speed control solution.

Lane Use Signals (LUS)



AD360 Lane Use Signals (LUS) feature a long life ultra-bright LED display that provides drivers with high visibility signals. 200mm and 300mm diameter signals are incorporated into tough UV stabilised ABS plastic traffic signal housings, or powder-coated aluminium enclosures.

We manufacture individual or combined Green Arrow/Red Cross units and solid colour signals. We can also custom manufacture signals to suit your size, display design and colour requirements. Up to eight units can be grouped together to run from one control system using optional group controller.

The Lane Use Signals incorporate into complete management systems and can integrate with a variety of control systems. The multi-lane and tidal flow traffic management signals are usually used for signalling in tunnels, bridges and urban arterial roads.

With low maintenance requirements, superior reliability and a long service life, our Lane Usage Signals are ideally suited for Australia's environmental conditions. They conform to Australian standards.

Ramp Control Signs (RCS)

AD321 Ramp Control Signs (RCS) feature a high quality ultra-bright full matrix LED display capable of displaying text and graphics. It is usually used to display colour-coded travel time information, messages like "Freeway Closed" and symbolic signs like "No Right Turn" and "No Entry".

Our Ramp Control Signs are manufactured to conform to required specifications. It is designed to be easily mounted to a pole using clamps and has front service access. The controller board is compatible with RTA and STREAMS protocols and has two RS232 and one RS422/485 serial port. Other communication protocols are available on request. The sign is generally mains powered with the option of battery backup. Depending on site suitability, solar powered option is also available.

The Ramp Control Signs that we produce use high quality powder-coated aluminium weatherproof enclosures to ensure low maintenance and a long cabinet life. Conforms to RC1, RC2 and RC3 signs requirements.

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Portable Traffic Signals (PTS)

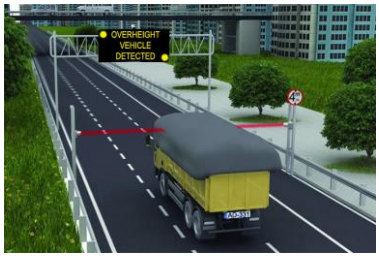
AD311 Portable Traffic Signal (PTS) set consists of two mini-trailers with mounted portable traffic signals, each with corner stands, radar detectors, control equipment and solar power system. Each traffic signal unit incorporates three 200mm high quality ultra-bright LED traffic signal lanterns and k-band radar vehicle detectors.

The pair operates as a “Master & Slave” configuration with RF communications link (up to 2km line of sight wireless range between trailers). A radar unit detects approaching vehicles to allow automatic mode operation. A hand-held remote control unit is included for manual operation. Other modes of operation can be configured to allow the PTS to be used in many different applications.

Portable Traffic Signals are usually used for shuttle control operations where a section of the roadway is closed and opposing traffic needs to alternately use a shared single lane.

Our Portable Traffic Signals are manufactured with high quality material with a weather resistant powder-coat finish. The mini-trailers feature aluminium/galvanised steel construction and are light enough to be moved by one person. They are designed to be connected together and towed as one unit, allowing the set to be transported to site with one vehicle.

With low maintenance requirements, superior reliability and a long service life, our PTS are ideally suited for Australia’s environmental conditions.



Overheight Vehicle Detection Systems

A.D. Engineering International provides complete Overheight Vehicle Detection Systems including detectors, electronic warning signs, alarm, mounting poles and all needed accessories.

AD331 Overheight Detection System monitors vehicles height and warn drivers if their vehicle exceeds the maximum height for the approaching overhead structure, whether that be a tunnel entrance, low bridge underpass or a gantry sign. When an overheight vehicle is detected by the system, the electronic warning signs and flashing lamps are activated. If connected, it can also trigger an audible alarm in the central control room. The detectors are capable of detecting overheight vehicles traveling at up to 100 km/h, even in rain, snow, or dusty conditions. Overheight Detection Systems are proven to minimize or eliminate the occurrence of incidents caused by overheight vehicles.

Our Overheight Vehicle Detection Systems typically consist of: Dual infrared beam transmitters and receivers, electronic warning signs with flashing LED lamps and uninterruptable power supply.

Flip-Dot Variable Message Signs

AD350 Flip-Dot Variable Message Sign is a great information or architectural feature display for indoor areas. The display can be customised to meet your specific requirements and we can provide a range of dot sizes, dot colours and custom display resolutions. Display sizes can range from small desk mounted to huge stadium display. Our driving technology is able to flip the dots in near full motion video for amazing effects.

The monochrome dot display is capable of displaying text and graphics with extremely low standby power consumption, as they only use power when they flip. Once flipped, they remain in their flipped state without consuming any power. The light reflecting dot elements provide excellent visibility over a wide range of ambient light conditions. Visibility increases with an increase in the ambient light level. Additional illumination is not needed during day time and only small external illumination is required at night.

The display is controlled via a software application and can also be set up to be remotely and securely controlled via the internet.

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Car Parking Signs and Monitoring Systems

AD306 Car Parking Signs and Monitoring Systems provide high quality electronic LED display and vehicle detection system to inform motorists of car parking status and bay availability. Entry and exit may be monitored by ground loops and a central control system that tracks car parking status and displays the appropriate messages to the electronic displays. This type of system minimises traffic congestion and is also able to redirect some of the traffic flow to less congested areas.

The car parking signs and monitoring systems can be solar or mains powered, depending on site suitability and power requirements. Communications can be either wired or wireless, utilising RF wireless or 3G/4G communications. We can create stand-alone parking applications to manage the signs and vehicle counts, or we can integrate our electronic signage with existing parking systems. We have successfully integrated our signs with other parking systems, such as Skidata, S&B (Scheidt & Bachmann), Cellopark, Indect and Designa.

We design and manufacture equipment and solutions to suit specific requirements. All our products are endorsed with a 2-year warranty, ongoing support and back up service for the life of the product.

LED Digital Clocks

AD312 LED Digital Clocks have been designed for use in extreme conditions. They are ideally suited for train station platforms, bus stations, airports, sports facilities, shopping centres, educational institutions, offices, main reception areas or any application where accurate time keeping is needed.

The LED Digital Clocks that we produce feature a high quality, ultra-bright, highly legible LED display with real-time synchronization and automatic brightness control that adjusts brightness according to ambient light conditions. The display comes in 4 different sizes: 50, 100, 150 or 200mm digits with either single or double sided options. An embedded microprocessor design enables interfacing to various time synchronization sources as well as existing systems to ensure the clock remains accurate. Sources include GPS, NTP, Time Domain II, etc.

The AD312 range has additional isolation for communications and surge protection for the mains power input, impact resistant polycarbonate screen and high quality powder-coated aluminium enclosures. With low maintenance requirements, superior reliability and a long service life, our LED Digital Clocks are ideally suited for any indoor and outdoor applications.

Scoreboards

AD318 Scoreboards feature high quality ultra-bright LED displays which can be custom designed to your requirements and are suitable for any indoor and outdoor areas. We can provide a wide range of screen colours, sizes and pixel resolutions, which are capable of displaying impressive video, graphics and text. Installation can be wall mounted, pole mounted or gantry mounted.

The scoreboards can also be used to promote business, products and events, and may therefore attract additional advertising revenue for your business. An extensive range of image formats and media sources provide flexibility for display content. Screen display software can cater for different sports formats and provides the setup and control of the screens. Multiple scoreboards can be linked wirelessly to an easy to use single hand held controller.

With low maintenance requirements, superior reliability and a long service life, our scoreboards are designed to meet your specific requirements. Contact us today to make your sports come alive!

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