

**Aldridge  
Traffic Systems**

A subsidiary of Traffic Technologies Ltd

# TRAFFIC SIGNALS & HARDWARE



# ABOUT ALDRIDGE TRAFFIC SYSTEMS



ALDRIDGE TRAFFIC SYSTEMS PTY LTD (ATS), A SUBSIDIARY COMPANY OF TRAFFIC TECHNOLOGIES LTD HAS OVER 40 YEARS EXPERIENCE WITH A STATE OF THE ART MANUFACTURING CENTRE SITUATED AT RHODES, NSW, AUSTRALIA AND HEAD OFFICE AT ELTHAM, VICTORIA, AUSTRALIA.

Our substantial resources and efforts are totally committed to designing, manufacturing and supplying products and services to the traffic signaling industry.

Our distribution network includes offices throughout Australia and the United Kingdom. We have agents and distributors in Ireland, Denmark, France, Spain, Singapore, Malaysia, Thailand, Sri Lanka, India, New Zealand, USA, North America, South America, Canada and UAE.

Aldridge Traffic Systems Pty Ltd is quality endorsed to ISO 9001-2008, licence number QEC0128. Our quality management system covers all the requirements of this standard and embodies our core processes of customer service, product development, manufacture and delivery, while a dedicated Quality department ensures the management, monitoring and improvement of the system.

Aldridge Traffic Systems Pty Ltd is represented on Australian Standard Committees, as well as other industry associations, and has received numerous awards in recognition of its contribution to the economic growth of New South Wales.

An experienced team of managers and engineers have exceptional knowledge of the traffic signal industry, along with a consistent research program ATS ensures that our products incorporate the latest technology and enables us to meet and exceed the expectations of our customers.

We continue with new product development and obtaining product approvals and through this activity we continue to broaden our product base.

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# 200mm LED VEHICLE LANTERNS

## FEATURES

- Meets all requirements of AS/NZS2144:2002
- High luminous output
- Operates in high temperatures
- Moisture resistance
- LED's driven at low current in order to avoid premature ageing
- Compatible with existing Traffic Controllers in relation to dimming and monitoring
- Long term reliability and operational life
- Low output degradation
- Low sun-phantom intensity
- No veiling reflection
- Coloured lens in compliance with colour requirement of CIE/AS/NZS2144:2002
- Meets the "Shut-down" requirement of CIE/AS/NZS2144:2002
- Can operate with solar power
- Durable thermoplastic components
- Exceptional structural strength
- Injection moulded or aluminium pressure diecast modular housing components



## SPECIFICATIONS – VEHICLE

	RED	YELLOW	GREEN
<b>LUMINOUS OUTPUT</b>	460cd	800cd	520cd
<b>POWER CONSUMPTION (TRUE R.M.S)</b>	5.4 watts	10 watts	5 watts
<b>TYPICAL CHROMATICITY CO-ORDINATES</b>	X = 0.687 Y = 0.311	X = 0.540 Y = 0.438	X = 0.099 Y = 0.611

## SPECIFICATIONS – ARROWS

	RED	YELLOW	GREEN
<b>LUMINOUS OUTPUT</b>	8247cd/m <sup>2</sup>	17216cd/m <sup>2</sup>	7000cd/m <sup>2</sup>
<b>POWER CONSUMPTION (TRUE R.M.S)</b>	6 watts	6 watts	5 watts
<b>TYPICAL CHROMATICITY CO-ORDINATES</b>	X = 0.688 Y = 0.311	X = 0.568 Y = 0.434	X = 0.099 Y = 0.542

Complies with requirements of AS/NZS2144:2002

Electromagnetic Compatibility:

Complies with the requirements of AS/NZS4252.1,  
IEC61000-4-5, IEC1000-6

FEATURES

- U.V. stabilise components
- Adjustable lantern mounting centres
- Dual hinging doors
- Available with wide range of accessories
- IP35 protection
- Lanterns are available in 1,2,3 or 4 aspects
- Door locking clips available as an anti theft device

BENEFITS

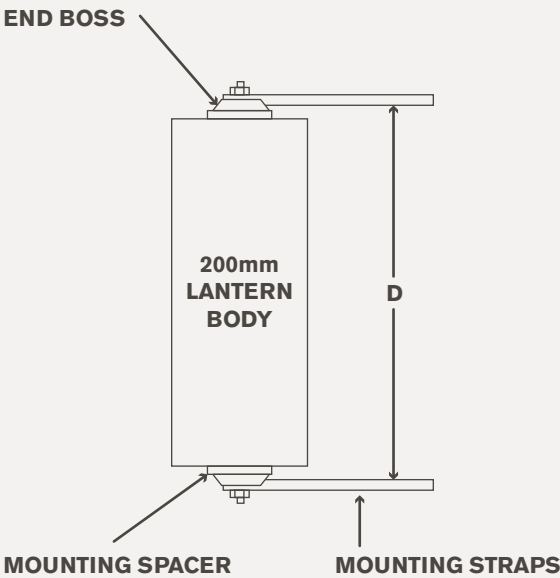
- Substantial energy and cost saving
- Long reliable service life
- Low maintenance
- Uniform lens illumination
- LED lanterns can be made available to meet specification of American ITE, British Standard B5505, DIN 6163 and BSEN 12368:2006

LANTERN OPTIONS

ATS 200mm LED's Lanterns are normally available in one, two or three aspect sizes, but the modular design permits ATS to supply lanterns with four or more aspects to order.

Lanterns may be supplied with arrow (or special) display in any specified combination of aspects.

Customers may specify ATS lanterns fitted with target boards, visors, mounting straps and louvres etc. Special length interconnecting cable is also available on special order.



MOUNTING DIMENSIONS

BODY DIMENSION - 260mm width x 208.2mm depth	
ASPECT	DIMENSION "D"
One Aspect	Min 295mm
	Standard 317mm
Two Aspect	Min 549mm
	Standard 577mm
Three Aspect	Min 802mm
	Standard 858mm
Four Aspect	Min 1056mm
	Standard 1112mm
Dimensions +/-2mm (Other dimensions in 7mm adjustments available)	



# 300mm LED VEHICLE LANTERNS

## FEATURES

- Meets all requirements of AS/NZS2144:2002
- High luminous output
- Operates in high temperatures
- Moisture resistance
- LED's driven at low current in order to avoid premature ageing
- Compatible with existing Traffic Controllers in relation to dimming and monitoring
- Long term reliability and operational life
- Low output degradation
- Low sun-phantom intensity
- No veiling reflection
- Coloured lens in compliance with colour requirement of CIE/AS/NZS2144:2002
- Meets the "Shut-down" requirement of AS/NZS2144:2002
- Can operate with solar power
- Durable thermoplastic components
- Exceptional structural strength
- Injection moulded or aluminium pressure diecast modular housing components



## SPECIFICATIONS – VEHICLE

	RED	YELLOW	GREEN
<b>LUMINOUS OUTPUT</b>	850cd	1800cd	900cd
<b>POWER CONSUMPTION (TRUE R.M.S)</b>	29 watts	32 watts	30 watts
<b>TYPICAL CHROMATICITY CO-ORDINATES</b>	X = 0.671 Y = 0.319	X = 0.562 Y = 0.431	X = 0.128 Y = 0.491

## SPECIFICATIONS – ARROWS

	RED	YELLOW	GREEN
<b>LUMINOUS OUTPUT</b>	9000cd/m <sup>2</sup>	22000cd/m <sup>2</sup>	8000cd/m <sup>2</sup>
<b>POWER CONSUMPTION (TRUE R.M.S)</b>	11 watts	13 watts	14 watts
<b>TYPICAL CHROMATICITY CO-ORDINATES</b>	X = 0.671 Y = 0.319	X = 0.562 Y = 0.431	X = 0.128 Y = 0.491

Complies with requirements of AS/NZS2144:2002

Electromagnetic Compatibility:

Complies with the requirements of AS/NZS4252.1,  
IEC61000-4-5, IEC1000-6

FEATURES

- U.V. stabilise components
- Adjustable lantern mounting centres
- Dual hinging doors
- Available with wide range of accessories
- IP35 protection
- Lanterns are available in 1,2,3 or 4 aspects
- Door locking clips available as an anti theft device

BENEFITS

- Substantial energy and cost saving
- Long reliable service life
- Low maintenance
- Uniform lens illumination
- LED lanterns can be made available to meet specification of American ITE, British Standard B5505 and DIN 6163

LANTERN OPTIONS

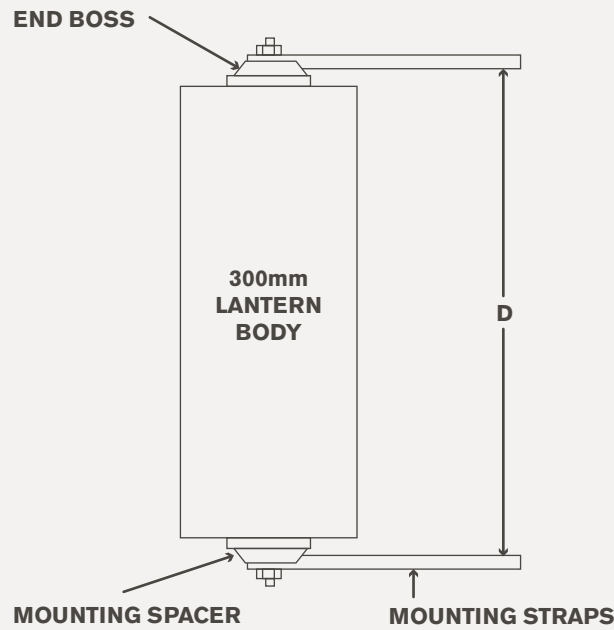
ATS 300mm LED's Lanterns are normally available in one, two or three aspect sizes, but the modular design permits ATS to supply lanterns with four or more aspects to order.

Lanterns may be supplied with arrow (or special) display in any specified combination of aspects.

Customers may specify ATS lanterns fitted with target boards, visors, mounting straps and louvres etc. Special length interconnecting cable is also available on special order.

MOUNTING DIMENSIONS

BODY DIMENSION - 260mm width x 208.2mm depth	
ASPECT	DIMENSION "D"
One Aspect	Min 360mm Standard 397mm
Two Aspect	Min 720mm Standard 74mm
Three Aspect	Min 960mm Standard 1097mm
Four Aspect	Min 1420mm Standard 1437mm
Dimensions +/-2mm (Other dimensions in 7mm adjustments available)	



ACCESSORIES

ATS vehicle lanterns are available with a full range of accessories including:

- Target boards with white border
- Target boards without border
- 250mm, 300mm & 500mm mounting straps

Our 300mm diameter visors come in the following sizes:

- 300mm long, open type visors
- 300mm long, closed type visors
- Left and right cutaway visors in 300mm & 400mm lengths
- Half and full vertical louvres
- Half and full horizontal louvres

# 200 & 300mm LED RETROFIT OPTICS

## FEATURES

- Meets all requirements of AS/NZS2144:2002
- High luminous output
- Operates in high temperatures
- Moisture resistant
- LEDs driven at low current in order to avoid premature ageing
- Compatible with existing Traffic Controllers in relation to dimming and monitoring
- Long term reliability and operational life
- Low output degradation
- Low sun phantom intensity
- No veiling reflection
- Coloured lens in compliance with colour requirements of CIE/AS/NZS2144:2002
- Meets the "Shut-down" requirements of AS/NZS2144:2002
- Can operate with solar power
- Durable thermoplastic components
- Exceptional structural strength
- Can be fitted to ATS injection moulded or aluminium pressure diecast modular housing components
- U.V. stabilised components
- Dual hinging doors
- IP35 protection or IP65 protection
- Door locking clips are available as an anti theft device
- Can operate with 240V, 48V, 42V, 24V and 12V

## BENEFITS

- Substantial energy and cost saving
- Long reliable service life
- Low maintenance
- Uniform lens illumination
- LED lanterns can be made available to meet specification of American ITE, British Standard B5505 and DIN 6163 and BSEN 12368:2000

## TECHNICAL SPECIFICATIONS

For technical specifications, refer to product specifications page of relevant brochure.

For electromagnetic compatibility and immunity complies with the requirements of AS/NZS2144:2002 as per AS/NZS4252.1. IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC1000-4-6.





## RETROFITS INSTALLATION

1. Remove exiting door and optical system (red, yellow and green)
2. Click LED assembly into reflector carrier holes
3. Connect to transformer
4. Click in the new LED door assembly



# 240/42V DUAL VOLTAGE LED SIGNAL LANTERN

A high quality 240/42V AC operated / IP65 Rated LED signal lantern.

As 42V AC is rated ELV, traffic operators and on-site installers avoid the risk of electrical contact. As most of the intersections operate on 240V AC ATS has developed a 240/42V AC Dual Voltage LED traffic lantern to make the transition progressive.

## FEATURES

- Selectable voltage between 240V & 42V AC
- Dual stage connection for simple installation
- Fused 42 AC input for overvoltage protection
- Wide temperature tolerance –from -15°C to +60°C
- Lamp failure monitoring and shutdown system
- Linear dimming on both 240V and 42V operation
- Uniform luminous intensity
- Low sun phantom
- IP65 rated enclosure - Dust and moisture resistant
- Designed for AS/NZS2144:2002
- Retrofit optics available

## Power Performance

Aldridge LED signal consumes less power than a conventional halogen lamp, allowing a massive reduction of 89% in operating cost.

## Optical Performance

The Aldridge LED signal ensures uniform luminous distribution. Each aspect presents a pattern of light points that are uniformly distributed across the circular aperture, which results in a constant light source without variation when viewed from any angle within the viewing range.



## Lamp Monitoring

Aldridge LED signals have integrated lamp failure monitoring to the requirements of AS/NZS2144:2002. If 20% LEDs fail in any aspect of signal or Luminous Intensity drops less than 80%, the aspect will shut down automatically.

## Low Output Degradation

Aldridge LED signals are driven at very low current. Hence have very low output degradation over long period of time.

## Light Output Dimming

Aldridge LED lanterns can achieve light dimming by controlling input voltage magnitude or phase. The signals have linear dimming characteristics.

<b>NORMAL VOLTAGE</b>	240V AC	42V AC
<b>DIMMING VOLTAGE RANGE</b>	110 ~ 240 V	19 ~ 42 V
<b>MAX. OPERATIONAL VOLTAGE</b>	280 V	49 V
<b>SHUT DOWN VOLTAGE</b>	110 V	19 V

## SPECIFICATIONS

<b>TECHNOLOGY</b>	High Intensity LED
<b>OPERATING TEMPERATURE</b>	-15°C to +60°C
<b>LANTERN ENCLOSURE</b>	IP65
<b>LANTERN CONNECTOR</b>	IP68
<b>NORMAL OPERATING VOLTAGE</b>	42VAC 240VAC
<b>DIMMING VOLTAGE RANGE</b>	19 – 42VAC 110 – 240VAC
<b>DIMMING LUMINANCE RANGE</b>	0 ~ 100 % 0 ~ 100 %
<b>SAFETY SHUT DOWN VOLTAGE</b>	19VAC 110VAC
<b>POWER FACTOR</b>	>0.97
<b>POWER CONSUMPTION</b>	10 ~15 W
<b>SWITCH-OFF TIME</b>	<120ms

## BENEFITS

- Safety Consideration
- Substantial energy and cost saving
- Long reliable service life
- Low maintenance
- Uniform light illumination
- Enhanced dust and moisture protection
- Dual Voltage LED Lantern will make transition progressive between 240V and 42 V and there will be direct benefits of Purchasing, Installation, Warehousing and Stock Control

## ACCESSORIES

ATS Vehicle lanterns are available with a full range of accessories including:

- One, two and three aspect lantern housing
- Target boards with white border
- Target boards without border
- 250mm, 300mm and 400mm mounting straps
- Front visor and Louvre

# LED TRAFFIC SIGNAL LANTERNS

FOR EUROPEAN AND BRITISH  
STANDARDS AS PER BSEN12368-2006

High quality LED lanterns specifically designed to meet European and UK standards. Available in 200mm, 300mm diameter sizes, and 230V, 48V, 42V AC power supply

## FEATURES

- Clear front lens for maximum visibility
- Coloured lens corresponds to LED colour to minimize chance of false recognition
- Available in 200mm and 300mm sizes
- Available in 230V, 48V and 42V AC
- Optically tested LED array for uniform light output
- High luminous output
- IP65 protection against dust and moisture
- Specifically designed to comply with BSEN12368:2006
- Operates in high temperatures
- Low power consumption
- LED light source for long term reliability and operational life
- Low output degradation
- Low sun-phantom intensity
- Low veiling reflection
- Retrofit optics available



### HIGH POWER EFFICIENCY

- ATS LED lanterns consume less than 20% of power compared to a halogen lantern.

### ACCREDITED MECHANICAL RELIABILITY

- ATS LED lanterns has passed rigorous environmental test such as solar radiation, vibration, temperature, bump and IP65 specified in BSEN12368:2006. It has a proven field record of long term reliability.

### LAMP FAILURE MONITORING

- ATS LED signals are fitted with power supply with self monitoring of LED failure. If 20% or 30% (can be customized) of LED fails, the aspect will shut down automatically. The shut down is latched permanently by a relay until manual reset by press of a button to ensure maximum safety.

### LIGHT OUTPUT DIMMING

- Luminance intensity is controllable by varying input voltage or by phase control. The signals have linear dimming characteristics.

### RETROFITTING

- ATS lanterns comes in standard 200mm or 300 mm diameter. Therefore lanterns can fit directly into various brand of lantern housing.

### SPECIFICATIONS – VEHICLE

<b>TECHNOLOGY</b>	InGaN and AlInGap High intensity LED
<b>SPECIFICATIONS:</b>	
<b>UNITED KINGDOM</b>	TR2206
<b>EUROPE</b>	BSEN12368:2006 HD638
<b>LUMINOUS INTENSITY</b>	Class3:2 400-2500 cd
<b>ANGULAR DISTRIBUTION</b>	Table 4 Medium Wide Beam
<b>LUMINOUS UNIFORMITY</b>	1:10
<b>SUN PHANTOM</b>	Class 5
<b>SIGNAL COLOUR</b>	Complies with BSEN12368:2006
<b>COMBINED COLOURS</b>	Complies with BSEN12368:2006
<b>OPERATING TEMPERATURE</b>	-15°C to +70°C

### SPECIFICATIONS – VEHICLE

	<b>230V MODEL</b>	<b>48V MODEL</b>	<b>42V MODEL</b>
<b>NORMAL BRIGHTNESS VOLTAGE</b>	230VAC	48VAC	42VAC
<b>DIMMED BRIGHTNESS VOLTAGE</b>	165VAC	32VAC	28VAC
<b>LINEAR DIMMING RANGE</b>	160~230VAC	28~48VAC	26~42VAC
<b>OPERATING VOLTAGE RANGE</b>	120~280VAC	20~55 VAC	18~49VAC
<b>POWER CONSUMPTION</b>			
<b>NORMAL</b>	10~12W	10~12W	10~12W
<b>DIMMED</b>	5~6W	5~6W	5~6W
<b>POWER FACTOR</b>	>0.97	>0.97	>0.97
<b>SWITCHING TIME</b>	<120ms	<120ms	<120ms



# 200mm Q.H VEHICLE LANTERNS

Aldridge traffic Systems (ATS) lantern utilises a proven lantern housing design. Through the use of thermoplastic or diecast material selection and production control, a long life and durability of the lanterns is ensured.

The dust sealed lens/reflector beam enclosure significantly reduces optical system cleaning requirements, thereby reducing maintenance costs.

Lenses are available which will meet American ITE, British Standards BS505 and Australian AS/NZS2144:2002 chromaticity performance requirements. The colour fast properties of lenses are operationally proven.

The lanterns are designed to nest, permitting compact multi-lantern post (pedestal) mounting. Visors and target boards are specially designed for easy in-field replacement, in the event of damage.

The vacuum impregnated and conservatively rated transformers provide reliable, safe performance and manufactured to AS3108, VL11.



## FEATURES

### 200mm QUARTZ HALOGEN LANTERNS

- High Intensity
- Durable thermoplastic components
- Exceptional structural strength
- U.V. stabilised components
- High reflectivity reflectors
- A range of acrylic lenses
- Adjustable lantern mounting centres
- Dust sealed beam enclosure
- Double insulated wiring
- Quality Class H transformers
- Meets international Standard specifications
- Injected moulded or aluminium pressure diecast modular housing components
- Suits all weather and operating environments
- Available in 35 or 50 Watts configuration

- Accepts Q. H. lamps produced by a number of leading
- Dual hinging doors
- Simple reliable lamp holder one handed operation
- IP35 Protection
- IP65 Upon request

## LANTERN OPTIONS

ATS 200mm lanterns are normally available in one, two or three aspect sizes but the modular design permits ATS to supply lanterns with four or more aspects, to order. Lanterns may be supplied with arrow(or special) display in any specified combination of aspects. Lunar white lenses are also available to order. Customers may specify ATS lanterns fitted with target boards, visors mounting straps and louvers. Special length inter-connecting cable is also available on special order.

## MOUNTING DIMENSIONS

Please refer to the LED Lantern brochure for the mounting dimensions.

## ACCESSORIES

ATS vehicle lanterns are available with a full range of accessories including:

- Target boards with white border
- Target boards without border
- 150mm, 300mm and 500mm mounting straps
- 200mm long , open type visors
- 200mm long, closed type visors
- 300mm long, closed type visors
- Left and right cutaway visors in 200 and 300mm lengths
- Half and full horizontal louvers
- Half and full vertical louvers

## TRANSFORMER

<b>PRIMARY</b>	240V
<b>SECONDARY</b>	9.95V to 10.02V MAX
<b>TYPE</b>	Class H
<b>RATING</b>	50 VA
<b>FREQUENCY</b>	50 / 60Hz
This vacuum impregnated transformer is manufactured to AS3108, VL11. Other transformers are available for other primary Input voltages and 12 volt secondary, to order.	

## LAMP

<b>WATTAGE</b>	20 Watts	30 Watts
<b>RATED VOLTAGE</b>	10V	10V
<b>LIGHT OUTPUT</b>	8200lm	525lm
<b>BURNING POSITION</b>	Horizontal	Horizontal
The lantern will accept Philips type No. 13526 6611, Tungsram No. 32160 or Wontan (Osram) Cat.No.64015 type lamps, having base type PKX.22S.		

## TYPICAL CHROMATICITY CO-ORDINATES

RED	YELLOW	GREEN
X = 0.680	X = 0.567	X = 0.218
Y = 0.319	Y = 0.431	Y = 0.524

Complies with requirements of AS/NZS2144:2002

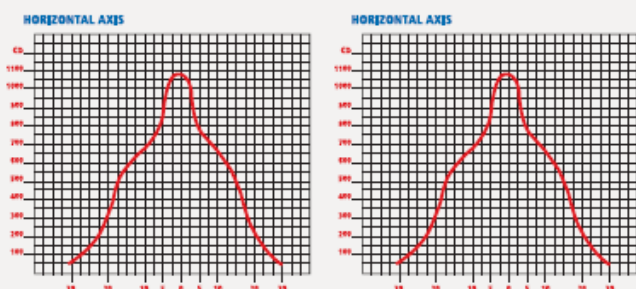
## OPTIONAL DISPLAYS

To give reliable arrow and other similar lantern aspect display, ATS offer internal mounting masks punched and formed to fit snugly inside the lens. These masks are manufactured from polypropylene or aluminium. They serve to eliminate peeling problems plus enhance lantern cleaning and product versatility.

The masks available for vehicles lanterns include:

1. Arrow masks to AS/NZS2144:2002 and BS505. These universally suit right turn left turn, straight ahead applications. The masks may be mounted in any red, yellow or green aspect.
2. Special masks to suit Bus (B), Tram (T), or similar are available and the internal mask concept permits ATS to generate displays to suit a variety of client needs and specifications.

## TYPICAL POLAR CURVES - RED & GREEN



The Polar curves given above are typical of the performance characteristics of ATS 200mm Q.H. lanterns for red and green aspects and serve as a guide only.

Detailed test results from recognised laboratories are available upon request. Values for yellow aspects will be approximately 2½ times the above values.

# 300mm Q.H VEHICLE LANTERNS



## FEATURES

### 300mm QUARTZ HALOGEN LANTERNS

- High Intensity
- Durable thermoplastic components
- Exceptional structural strength
- U.V. stabilised components
- High reflectivity reflectors
- A range of polycarbonate and acrylic lenses
- Anti sun-phantom septums
- Adjustable lantern mounting centres
- Dust sealed beam enclosure
- Double insulated wiring
- Quality Class H transformers
- Meets international Standard specifications
- Injected moulded or aluminium sheet metal housing polyester powder coated
- Suits all weather and operating environments
- Available in 50 Watts configuration
- Accepts Q. H. lamps produced by a number of leading manufacturers
- Dual hinging doors
- Simple reliable lamp holder one handed operation to change globe
- Available with wide range of accessories
- Compatible with 200mm lanterns for mounting of mixed combinations
- IP35 Protection

Aldridge Traffic Systems (ATS) 300mm lantern utilises a proven lantern housing design. Through the use of thermoplastic or diecast material selection and production control, a long life and durability of the lanterns is ensured.

The dust sealed lens/reflector beam enclosure significantly reduces optical system cleaning requirements, thereby reducing maintenance costs.

Lenses are available which will meet American ITE, British Standards BS505 and Australian AS/NZS2144:2002 chromaticity performance requirements. The colour fast properties of lenses are operationally proven.

The lanterns are designed to nest, permitting compact multi-lantern post (pedestal) mounting. Visors and target boards are specially designed for easy in-field replacement, in the event of damage.

The vacuum impregnated and conservatively rated transformers provide reliable, safe performance and manufactured to AS3108.

## LANTERN OPTIONS

ATS 300mm lanterns are normally available in one, two or three aspect sizes but the modular design permits ATS to supply lanterns with four or more aspects, to order. Lanterns may be supplied with arrow(or special) display in any specified combination of aspects. Lunar white lenses are also available to order. Customers may specify ATS lanterns fitted with target boards, visors mounting straps and louvers. Special length inter-connecting cable is also available on special order.

## MOUNTING DIMENSIONS

Please refer to the LED Lantern brochure for the mounting dimensions.

## ACCESSORIES

ATS vehicle lanterns are available with a full range of accessories including:

- Target boards with white border
- Target boards without border
- 150mm, 300mm and 500mm mounting straps
- 200mm long , open type visors
- 300mm long, closed type visors
- 400mm long, closed type visors
- Left and right cutaway visors in 300 and 400mm lengths
- Half and full horizontal louvers
- Half and full vertical louvers

## TRANSFORMER

<b>PRIMARY</b>	240V
<b>SECONDARY</b>	9.95V to 10.02V MAX
<b>TYPE</b>	Class H
<b>RATING</b>	50 VA
<b>FREQUENCY</b>	50 / 60Hz
This vacuum impregnated transformer is manufactured to AS3108, VL11. Other transformers are available for other primary Input voltages and 12 volt secondary, to order.	

## LAMP

<b>WATTAGE</b>	50 watts
<b>RATED VOLTAGE</b>	10V
<b>LIGHT OUTPUT</b>	820 lm
<b>BURNING POSITION</b>	Horizontal
The lantern will accept Philips type No. 13526 , Tungsram No. 32160 or Wontan (Osram) Cat.No.64015 type lamps, having base type PKX.22S	

## TYPICAL CHROMATICITY CO-ORDINATES

RED	YELLOW	GREEN
X = 0.680	X = 0.567	X = 0.218
Y = 0.0319	Y = 0.431	Y = 0.524

Complies with requirements of AS/NZS2144:2002

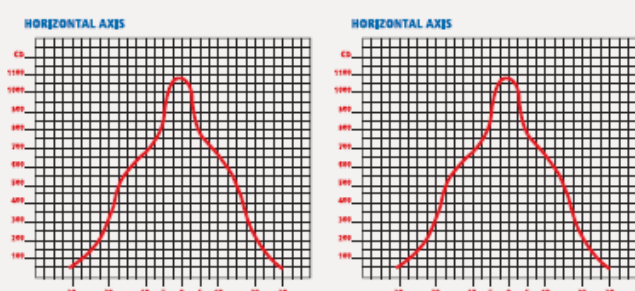
## OPTIONAL DISPLAYS

To give reliable arrow and other similar lantern aspect display, ATS offer internal mounting masks punched and formed to fit snugly inside the lens. These masks are manufactured from polypropylene or aluminium. They serve to eliminate peeling problems plus enhance lantern cleaning and product versatility.

The masks available for vehicles lanterns include:

1. Arrow masks to AS/NZS2144:2002 and BS505. These universally suit right turn left turn, straight ahead applications. The masks may be mounted in any red, yellow or green aspect.
2. Special masks to suit Bus (B), Tram (T), or similar are available and the internal mask concept permits ATS to generate displays to suit a variety of client needs and specifications.

## TYPICAL POLAR CURVES - RED & GREEN



The Polar curves given above are typical of the performance characteristics of ATS 300mm Q.H. lanterns for red and green aspects and serve as a guide only.

Detailed test results from recognised laboratories are available upon request. Values for yellow aspects will be approximately 2½ times the above values.

# KRYPTON ELV VEHICLE LANTERNS

Aldridge Traffic Systems (ATS) Krypton lantern utilises a proven lantern housing design. Through the use of thermoplastic or diecast material selection and production control, a long life and durability of the lanterns is ensured. The use of Krypton lamps allows major energy savings and longer lamps give a performance close to AS/NZS2144:2002 and have a recommended lamp replacement of 18 months.

Lenses are available which will meet American ITE, British Standards BS505 and Australian AS/NZS2144:2002 chromaticity performance requirements. The colour fast properties of lenses are operationally proven.

The lanterns are designed to nest, permitting compact multi-lantern post (pedestal) mounting. Visors and target boards are specially designed for easy in-field replacement, in the event of damage.

The vacuum impregnated and conservatively rated transformers provide reliable, safe performance and manufactured to AS3108.

## FEATURES

### 200 & 300MM LANTERNS FEATURE:

- High Intensity
- Durable thermoplastic components
- Exceptional structural strength
- U.V. stabilised components
- High reflectivity reflectors
- A range of polycarbonate and acrylic lenses
- Adjustable lantern mounting centres
- Available in both 10V-10.5V versions
- Double insulated wiring
- Quality Class H transformers
- Meets international Standard specifications
- Injected moulded or aluminium pressure diecast modular housing components
- Suits all weather and operating environments
- Available in 20, 30 and 45 Watts configuration
- Accepts lamps produced by a number of leading manufacturers
- Dual hinging doors
- Simple reliable lamp holder
- Available with wide range of accessories



## LANTERN OPTIONS

ATS 200mm lanterns are normally available in one, two or three aspect sizes but the modular design permits ATS to supply lanterns with four or more aspects, to order. Lanterns may be supplied with arrow(or special) display in any specified combination of aspects. Lunar white lenses are also available to order. Customers may specify ATS lanterns fitted with target boards, visors mounting straps and louvers. Special length inter-connecting cable is also available on special order.

## MOUNTING DIMENSIONS

Please refer to the LED Lantern brochure for the mounting dimensions.



## ACCESSORIES

ATS vehicle lanterns are available with a full range of accessories including:

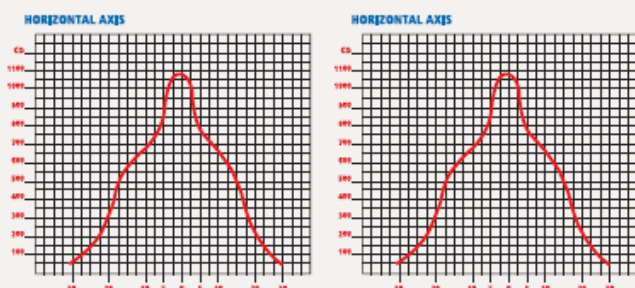
- Target boards with white border
- Target boards without border
- 150mm, 300mm and 500mm mounting straps
- 200mm long , open type visors
- 200mm long, closed type visors
- 300mm long, closed type visors
- Left and right cutaway visors in 200, 300 and 400mm lengths
- Half and full horizontal louvers
- Half and full vertical louvers

## TRANSFORMER

<b>PRIMARY</b>	240V
<b>SECONDARY</b>	9.95V to 10.02V MAX
<b>TYPE</b>	Class H
<b>RATING</b>	50 VA
<b>FREQUENCY</b>	50 / 60Hz

This vacuum impregnated transformer is manufactured to AS3108, VL11. Other transformers are available for other primary Input voltages and 12 volt secondary, to order

## TYPICAL POLAR CURVES - RED & GREEN



The Polar curves given above are typical of the performance characteristics of ATS 200mm Krypton, lanterns for red and green aspects and serve as a guide only.

Detailed test results from recognised laboratories are available upon request. Values for yellow aspects will be approximately 2½ times the above values.

## LAMP

<b>WATTAGE</b>	20 watts	30 watts	45 watts
<b>RATED VOLTAGE</b>	10V	10V	10V
<b>LIGHT OUTPUT</b>	270lm	490lm	590lm
<b>BURNING POSITION</b>	Horizontal	Horizontal	Horizontal
<b>1. PHILIPS TYPE NO</b>	13584	13582	13583
<b>2. WOTAN TYPE NO</b>	Sig 12270	Sig 12380	Sig 12590

## TYPICAL CHROMATICITY CO-ORDINATES

<b>RED</b>	<b>YELLOW</b>	<b>GREEN</b>
X = 0.680	X = 0.567	X = 0.218
Y = 0.319	Y = 0.431	Y = 0.524

Complies with requirements of AS/NZS2144:2002

## OPTIONAL DISPLAYS

To give reliable arrow and other similar lantern aspect display, ATS offer internal mounting masks punched and formed to fit snugly inside the lens. These masks are manufactured from polypropylene or aluminium. They serve to eliminate peeling problems plus enhance lantern cleaning and product versatility.

The masks available for vehicles lanterns include:

1. Arrow masks to AS/NZS2144:2002 and BS505. These universally suit right turn left turn, straight ahead applications. The masks may be mounted in any red, yellow or green aspect.
2. Special masks to suit Bus (B), Tram (T), or similar are available and the internal mask concept permits ATS to generate displays to suit a variety of client needs and specifications.

# 24V DC LED SIGNAL LANTERNS

Aldridge Traffic Systems have been developing LED traffic signal lanterns with a field record of high reliability optics. These LED signals lanterns can operate directly from 24V DC supply and are designed with smooth, uniform light distribution with IP65 rated protection against moisture and dust, which make them ideal for use in mining applications.

## FEATURES

- Operate directly from 24 V DC
- High power (lux/watt) efficiency
- IP65 rated enclosure protection against dust and moisture
- High quality InGaN and AlInGap LED
- Low power consumption
- Light weight design
- Low sun-phantom
- No veiling reflection
- Coloured clear lens in compliance with requirement of CIE/AS/NZS2144:2002
- Durable thermoplastic components
- Exceptional structural strength
- High temperature tolerance



## SPECIFICATIONS – VEHICLE

	RED	YELLOW	GREEN
<b>VOLTAGE (VDC)</b>	24V	24V	24V
<b>POWER CONSUMPTION (TRUE R.M.S)</b>	4 watts	4 watts	4 watts
<b>COLOUR CHROMATICITY CO-ORDINATES</b>	X = 0.687 Y = 0.311	X = 0.540 Y = 0.438	X = 0.099 Y = 0.611
<b>DIAMETER</b>	200mm	200mm	200mm
<b>OPERATIONAL TEMPERATURE</b>	-15°~70° C	-15°~70° C	-15°~70° C

# PEDESTRIAN LANTERNS

## FEATURES

These lanterns are produced using the same modular construction techniques and many of the same components used in producing the Aldridge Traffic Systems ATS range of vehicle lanterns. Many component parts of the housing are therefore interchangeable. The pedestrian lantern housing therefore features:

- Durable thermoplastic components
- Exceptional structural strength
- U.V. stabilised components
- Adjustable lantern mounting centres
- Injection moulded or aluminium pressure diecast modular housing components
- Suits all weather and operating environments
- Available in 200mm and 300mm lanterns

Pedestrian lantern are normally supplied complete with the rectangular visors as illustrated. Two basic optical systems, the incandescent lamp and quartz halogen lamp options are available. The features of these two optical systems are detailed below.

## INCANDESCENT LAMP OPTIONS

- Anodised aluminium reflectors
- Performance to AS/NZS2144:2002
- Internal mounting symbolic masks
- Easy access for cleaning and lamp replacement
- Operationally proven product
- Pre-focused lamp sockets

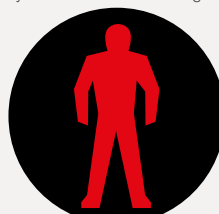
## QUARTZ HALOGEN LAMP OPTIONS

- Top quality reflectors
- Performance to International standards
- Internal mounting symbolic masks
- Dust sealed beam enclosure
- Quality Class H transformers
- Accepts Q.H. lamps available from several leading lamp manufacturers
- Simple reliable lamp holder. One handed operation to replace lamp



## AVAILABLE SYMBOLS

Australian Standard AS/NZS2144:2002  
Symbols for Pedestrian Signals



**"DON'T WALK" (DONT CROSS)  
SYMBOL**

British Standard BS505, BS1376  
Symbols for Pedestrian Signals



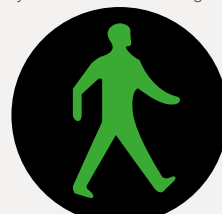
**"DON'T WALK" (DONT CROSS)  
SYMBOL**

Australian Standard AS/NZS2144:2002  
Symbols for Pedestrian Signals



**"WALK" (CROSS)  
SYMBOL**

British Standard BS505, BS1376  
Symbols for Pedestrian Signals



**"WALK" (CROSS)  
SYMBOL**

## TYPICAL CHROMATICITY CO-ORDINATES

RED	GREEN
X = 0.687	X = 0.204
Y = 0.313	Y = 0.520

# 200mm LED PEDESTRIAN LANTERNS

## FEATURES

- Meets all requirements of AS/NZS2144:2002
- High luminous output
- Operates in high temperatures
- Moisture resistance
- LED's driven at low current in order to avoid premature ageing
- Compatible with existing Traffic Controllers in relation to dimming and monitoring
- Long term reliability and operational life
- Low output degradation
- Low sun-phantom intensity
- No veiling reflection
- Coloured lens in compliance with colour requirement of CIE/AS/NZS2144:2002
- Meets the "Shut-down" requirement of AS/NZS2144:2002
- Can operate with solar power
- Durable thermoplastic components
- Exceptional structural strength
- Injection moulded or aluminium pressure diecast modular housing components



## SPECIFICATIONS

	RED	YELLOW	GREEN
<b>LUMINOUS OUTPUT</b>	350cd	720cd	305cd
<b>POWER CONSUMPTION (TRUE R.M.S)</b>	11 watts	15 watts	15 watts
<b>TYPICAL CHROMATICITY CO-ORDINATES</b>	X = 0.671 Y = 0.319	X = 0.562 Y = 0.431	X = 0.128 Y = 0.491

Complies with requirements of AS/NZS2144:2002

Electromagnetic Compatibility:

Complies with the requirements of AS/NZS4252.1,  
IEC61000-4-5, IEC1000-6

## FEATURES

- U.V. stabilise components
- Adjustable lantern mounting centres
- Dual hinging doors
- Available with wide range of accessories
- IP35 protection
- Door locking clips available as an anti theft device

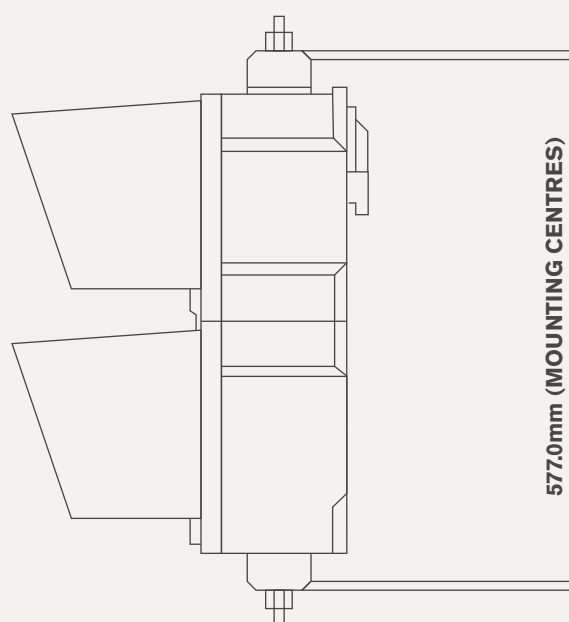
## BENEFITS

- Substantial energy and cost saving
- Long reliable service life
- Low maintenance
- Uniform lens illumination
- LED lanterns can be made available to meet specification of American ITE, British Standard B5505 and DIN 6163

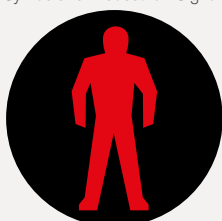
## ACCESSORIES

- Pedestrian lanterns are supplied complete with visors and mounting straps

## MOUNTING DIMENSIONS



Australian Standard AS/NZS2144:2002  
Symbols for Pedestrian Signals



**"DON'T WALK" (DON'T CROSS)  
SYMBOL**

British Standard BS505, BS1376  
Symbols for Pedestrian Signals



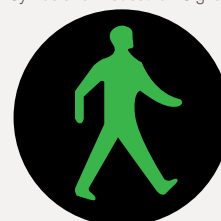
**"DON'T WALK" (DON'T CROSS)  
SYMBOL**

Australian Standard AS/NZS2144:2002  
Symbols for Pedestrian Signals



**"WALK" (CROSS)  
SYMBOL**

British Standard BS505, BS1376  
Symbols for Pedestrian Signals



**"WALK" (CROSS)  
SYMBOL**



# PEDESTRIAN COUNT DOWN DISPLAY

Aldridge Traffic Systems (ATS) Pedestrian Count-Down Display (PCD) utilises the latest in microprocessor and LED technologies to provide a cutting edge product.

The PCD has been manufactured in accordance with the operation of Pedestrian Traffic Signals in RTA Specification TSC/4. The PCD is powered by 240Vac (or 42Vac in 42Vac version), which is taken from the signal lantern (typically the RED standing man / Don't Walk lantern used to flash the clearance period).

No programming is required for the PCD as it auto detects the flashing clearance period. Auto detection occurs for at least one complete cycle before displaying the correct count down sequence on the following cycle. Timing and synchronisation with the flashing clearance is taken from the flashing lantern (typically the RED standing man / Don't Walk lantern is used to flash the clearance period).

## FEATURES

- Utilising the latest in LED technology for low power, high brightness, and long operational life.
- Built-in intelligence to detect the pedestrian clearance period.
- Designed to operate with RTA Equipment Specification No. TSC/4 for Pedestrian Traffic Signals.
- On-site configurable leading zero digit blanking.
- No additional programming or configuration required
- Works in conjunction with Aldridge Pedestrian Signal Lanterns which are compliant with Australian and International standards
- Australian designed and Manufactured
- Available with IP65 Signal Lanterns Housings
- U.V stabilised components
- Modular components for easy maintenance
- Fits standard 200mm Traffic Signal Lantern Housings.
- Simple installation for new or existing traffic signals.



Mounting of the PCD is standard as it is designed to mount into existing Traffic Signal Housings and can be provided with or without the step down transformer.

The PCD is typically used with standard Pedestrian Traffic Signals to provide an indication of the remaining time for the flashing clearance period. The two-digit display only lights during the flashing clearance period and displays a count down of the remaining seconds for the clearance period. The PCD is blank during the GREEN Walk period and RED Don't Walk Periods.

A configuration jumper is used to enable or disable leading zero digit blanking. Leading zero blanking provides additional visual feedback to distinguish clearance periods below 10 seconds.

#### **DIGIT DISPLAY**

- Two 7-segment digits
- Standard Leading Zero Digit Blanking or Non-leading Zero Digit Blanking option

#### **POWER SUPPLY**

- 240Vac 50Hz (or 42Vac 50Hz in 42Vac version)
- Power is taken from the Signal Lantern input.

#### **SIGNAL LANTERN INPUT**

- Connects to the Signal Lantern used to indicate the flashing clearance period for pedestrian crossings. (typically the RED standing Man or Don't Walk Lantern)
- Typically connected in parallel to the signal lantern.

#### **SIGNAL LANTERN INPUT**

- Meets all requirements of AS/NZS2144:2002
- High luminous output
- IP65 protection
- Coloured lens in compliance with colour requirements of CIE/AS/NZS2144:2002
- LED type with long term reliability and operational life



# ELECTRONIC SPEED LIMIT SIGNS

ATS Electronic Speed Limit Sign offers a high visibly, program-mable speed display for use in variable speed zone. The sign uses high intensity white LED display, red annulus and yellow conspicuity device. Utilizing latest electronic hardware and software technology, the sign is able to display bright, clear and concise speed limits as per AS1743, which is variable at user's preference. The sign has been designed as per AS5156-2010. The sign is designed to communicate via the most commonly used RTA protocol on the existing road.

## FEATURES

- Full Dot Matrix display
- Two or Three digit speed display or optional message display
- High Brightness White LED Display
- Red LED Annulus Display
- Designed in reference to latest Australian Standard draft
- Automatic ambient light sense dimming
- Communication Protocol in accordance to RTA TSI-SP-003
- Yellow LED conspicuity module at four corner
- Matt black sign enclosure
- 240V AC Input
- Time based schedule display function
- Sign Dimension as per AS1743



## SPECIFICATIONS – VEHICLE

<b>DISPLAY CONFIGURATION</b>	40 Across x 20 Down
<b>LED SIZE</b>	5mm
<b>NO OF PIXELS</b>	800
<b>DISPLAY SIZE</b>	Variable (As Per AS1743 Type A, B, C)
<b>POWER</b>	240V AC input
<b>COLOUR</b>	White (Main Display) Red (Annulus) Yellow (Conspicuity Device) Matt Black (Sign Enclosure)



# LED “NO RIGHT & LEFT TURN” SIGNS

Aldridge Traffic System's LED “No Right Turn” (NRT) Signs are designed for smooth, uniform light distribution with IP55 rated enclosure and lamp failure monitoring. These signs comply with Australian Standards and Vic Roads specifications.

## FEATURES

- Available in 240V and 42V AC
- High luminous output
- IP55 protection against dust and moisture
- EMC as per AS4251.1
- Specifically designed to comply with Road Rules Victoria and AS 1743-2001
- Optometric lab designed front lens for uniform display
- Operates in high temperatures
- Low power consumption
- LED light source for long term reliability and operational life
- Low output degradation
- Low sun-phantom intensity
- Low veiling reflection
- Complies colour as per AS/NZS2144:2002

## OVERVIEW

- High Power Efficiency  
ATS LED No Right Turn consume less than 50% of power compared to a Fibre Optics lamp source.
- Light Output Dimming  
ATS LED NRT has a variable lamp dimming and LED display which can be dimmed between 80% and 30% of the normal dimming.
- Uniform Luminous Distribution  
ATS NRT display has uniform luminous Distribution and is visible from minimum of 100m.

## SPECIFICATIONS

TECHNOLOGY	InGaN and AlInGap High intensity LED
SPECIFICATIONS	AS/NZS2144:2002 AS 1743-2001 AS 4251.1 Road Rules, Victoria
LUMINANCE	5000 cd/m <sup>2</sup>
COMBINED COLOURS	Complies with AS/NZS2144:2.2
EMC	Complies with AS4251.1





# LED FLASHING BEACONS

At Aldridge Traffic Systems we offer Australia's affordable high quality LED Beacons. These 12 V LED Beacons provide High Intensity Illumination light and require very less power to operate. With the versatility of several mounting options, LED Beacons can most commonly be magnetically mounted allowing users to remove the beacon when not required. Led Beacons are the latest type of lighting technology available allowing the user to have a product that lasts longer, has no operational or maintenance costs and perform better.

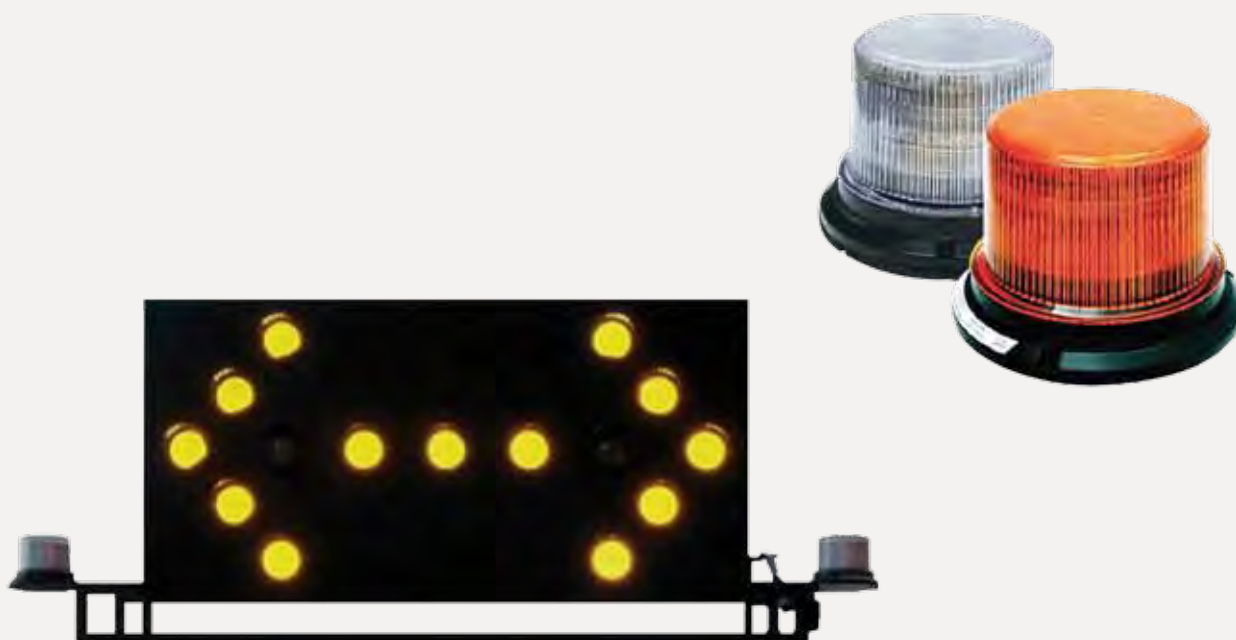


## FEATURES

- 30 built in flash patterns
- 36 horizontal high intensity LEDs
- Waterproof, shock resistant potted circuit board
- Amber LEDs with clear polycarbonate lens
- Black powder coated die-cast base
- Permanent mount standard also available with magnetic base
- 25mm pipe mount adaptor available
- Alternate or simultaneous flash patterns
- Powered via Auxiliary socket
- Lamp Colours: Amber, Clear
- Lens Colours: Amber, Clear

## SPECIFICATIONS

<b>VOLTAGE</b>	12V
<b>POWER CONSUMPTION</b>	4 Amp draw
<b>DIMENSIONS</b>	H 114.3mm D 165.1mm
<b>WARRANTY</b>	5 year LED warranty
<b>RATING</b>	Amber LEDs SAE J845, Class I



# ICE SNOW WARNING SIGN

The Ice / Snow Warning Sign is mounted on a pole with a solar panel and control box housing the solar battery, charger and sign controller. The sign can optionally be fitted with a radar detector for detecting the approaching traffic at a maximum distance of 140m and a minimum speed of 10kph, allowing the sign to conserve power by only flashing in the presence of approaching traffic.

A temperature sensor probe is typically installed into the road surface for monitoring of ice and snow conditions, which may be prone to mechanical damage, or alternately an optional remote infrared sensor could be installed on the sign for monitoring the road surface temperature, which would not be prone to mechanical failure or road resurfacing.

The solar cell and battery would be sized to operate for at least 2 hours of solar charging per day and up to 2 weeks on a fully charge battery without charging.

## RADAR DETECTOR (OPTION)

Minimum speed 10km/hr

Max Range 140m

(Can reduce power by flashing only on approaching traffic)

## SOLAR PANEL

## INFRARED ROAD SURFACE TEMPERATURE SENSOR (OPTION)



## CONTROL BOX (ILLUSTRATION ONLY)

Contains Solar Controller

Battery and Light Controller

# TRUCK ENTRY WARNING SIGN

The Truck Entry Sign uses microwave radar to detect vehicles (trucks) entering or approaching the intersection. The sign will be mounted on a pole with a solar panel and control box housing the solar battery, charger and sign controller.

## RADAR DETECTOR (OPTION)

Minimum speed 10km/hr  
(or 4km/hr\*)

Max Range 140m  
(or 60m\*)



For installations where the sign is not in the line of sight with the approaching vehicle, the radar detector can be mounted on a separate pole with its own solar panel and battery and either a radio or hard wire link could be used to communicate with the sign(s). More than one sign could be connected in the radio or hard wired link to operate off the remote radar detector.

The solar cell and battery would be sized to operate for at least 2 hours of solar charging per day and up to 2 weeks on a fully charge battery without charging.



## RADAR ANTENNA

Used for communication link between RADAR and SIGN



# AUDIO TACTILE PEDESTRIAN DETECTOR

The system comprises two separate units, a post mounted weatherproof box which accommodates the electronic control circuitry, power supply and ambient noise monitor microphone plus an Aldridge Traffic Systems(ATS) audio tactile push-button assembly. The push-button assembly accommodates the tactile transducer fitted to the front escutcheon plate and also houses the audio signal transmitter. Two models are available, the push-button assembly as illustrated or an ATS CW series type assembly.

## Audio Tactile Pedestrian Detector Push Button Assembly

Representing a major technology advance from ATS, the audio tactile detector and push-button assembly, is available with a selection of either audio only, tactile only or audio plus tactile indication. The audio tactile facilities can be partnered with either the ATS pedestrian push-button assembly, where uniformity at existing installations or visual wait sign indication is desired. All pedestrians, including those with sight and/or hearing impairments, are catered for with the ATS pedestrian detection and indication system.

## FEATURES

- Provides both tactile and audio indication facilities
- Emits a continuous audio signal to aid push-button assembly location and identification
- Distinct audio and tactile signal for positive walk (cross) indication
- Audible signal level controls automatically adjust for ambient noise
- Time lapse sensing electronics ensure smooth automatic level control
- Only responds to consistent increases in ambient noise, ignoring isolated transient fluctuations
- Maximum level audio tone adjustment
- Reliable proven audio and tactile adjustment
- Reliable proven audio and tactile transducer
- Sensitive ambient noise monitoring
- Factory adjustable zero set, change tone, tactile, walk tone and don't walk tone levels
- Operationally proven design
- Utilisation of Standard push button assemblies universal pedestrian acceptance and to facilitate maintenance support
- Solid state circuitry, proven transducer and means of signal interlocking ensure ultimate safety and reliability



## AUDIO INSTALLATION AND MAINTENANCE

The audio tactile detector is simple to install and commission. Full details for installation and servicing are provided in the product manual. The plug-in printed circuit board in the audio tactile drive unit serves to facilitate maintenance procedures. The all weather drive unit CW45-5 housing is supplied with U bolt mounting facilities to suit 100mm nominal bore traffic signal posts (pedestals).

## LEVEL CONTROL SELECTION

The Standard unit is wired to provide automatic level control over the Don't Walk tone only. Facilities are available to expand this control to also include automatic Walk tone adjustment.

## SIGNAL DETAILS AUDIBLE LOCATION SIGNAL

- Tone approximately 1000 Hz with a slow repetition rate(0.52 Hz)

## AUDIBLE CROSSING SIGNALS

- Change Tone: Initial burst of tone (2.KHz) decaying in frequency to 500 Hz
- Pulse Tone: A tone of approximately 50 Hz a fast repetition rate(8.3hz)

## TACTILE SIGNALS

### Tactile Don't Walk Signal:

- Pulse repetition rate(0.52 Hz)

### Tactile Crossing Signal:

- Rapid pulse tactile indication (8.3Hz)

## AUDIO TACTILE SIGNALS

The system produces two distinct types of audio signals and two distinct tactile pulse rates. The functions of these signals are:

1. The audible location signal continuously present for the Don't Walk condition. This serves to assist pedestrians with sight impairment to locate the push-button assembly thereby permitting use of both audio and tactile indication facilities available.
2. The audible crossing signal comprises two tone audible signals, the first of which is a change tone which immediately peaks and then decays followed by a rapid pulsing tone of a fixed frequency. This sequence ensures positive Identification by pedestrians with sight impairments and also serves to enhance pedestrian walk indication to all pedestrians at the traffic signal installation.
3. During the Don't Walk condition, a tactile signal pulses at the same rate as the corresponding audio signal, thereby giving second sensory confirmation of the Don't Walk condition.
4. During Walk (Cross) interval the tactile indication pulse rate operates coincident with the distinctive audible Walk (Cross) signal pulse rate.

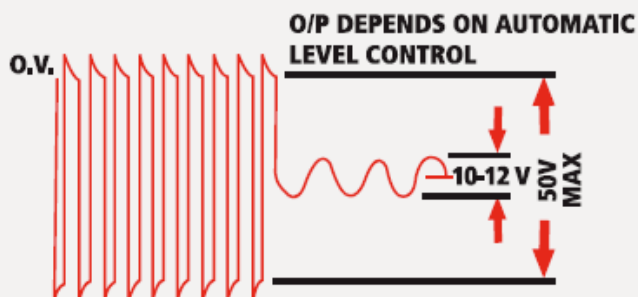
## SUPPLY VOLTAGE

Standard voltage: 240V, 50Hz

(Models to suit 50/60Hz, 110 Hz, 240V, are also available.



### Don't Walk Tone Waveform



# SHUTTLE TRAFFIC SIGNALS

Aldridge Traffic Systems (ATS) Shuttle Traffic Signal (STS) utilises the latest in microprocessor and RF technologies to provide a cutting edge product.

The STS is a dual-control system, which consists of a Master and Slave unit. Both units are housed in an IP55 rated enclosure with a built-in 240Vac 50Hz power supply and battery back-up system.

The battery backup is suitable for up to 6 hours of operation. The battery charger requires at least of 16 hours to charge a flat battery.

A Liquid Crystal Display (LCD) and keyboard provides a user friendly menu driven interface that allows for on-site configuration and diagnostics with the built-in fault log and warning system.

Status and Mode indicators on the control units provide feedback on the status of the signal lanterns and the mode of operation.



## FEATURES

- Powered by 240V AC (Mains Supply)
- Battery backup up to 6 hours operation
- Built-in Battery charging system
- Single Lane Shuttle Control
- Radio Link Master/Slave operation (optional Cable Connection)
- Infra-red beam detection for vehicle detection
- Designed for RTA Equipment Specification No. PTS/3 for Portable Traffic Signals part A and B
- Compliance with AS4191:1994 and other standards available
- LCD with user friendly menu and Keyboard interface
- Built in fault log and Warning on Display
- Fail-safe operation under fault
- On-site configurable
- Uses Aldridge Signal Lanterns which are compliant with Australian and International standards
- Australian designed and Manufactured
- IP55 control enclosure
- IP35 Signal Lanterns (IP65 optional)
- U.V stabilised components
- Modular components for easy maintenance



The STS is typically used on construction sites or road work sites where two-way traffic is reduced to a single lane that is alternated between directions (Shuttle Operation). It can be used anywhere there is a requirement to converge two-way traffic down to a single lane, such as a car park entrance, or a truck loading dock, etc.

Shuttle Operation can be operated automatically by an infra-red beam detector (or a microwave detector) that senses approaching traffic, or cyclically on a fixed time basis. Disconnecting the vehicle detector will place priority (i.e. defaults to green) on the direction controlled by the disconnected controller. Disconnecting both vehicle detectors will revert to the fixed time operation. (Note: when operating on backup battery the vehicle detectors are disabled and the system operates on a fixed time basis).

Infra-red Beam Vehicle Detection of approaching traffic has a rated range of 6m (a width of up to 2 lanes). It can detect at a maximum frequency of 20 Hz.

Microwave Vehicle Detection of approaching traffic has a typical range of 35m with a width of up to 2 lanes. The minimum detection speed of approaching traffic is 8 km/h, which can be adjusted to 4 km/h.

### MODES OF OPERATION

- Vehicle actuated Shuttle Auto
- Fixed cycle Shuttle Timed
- Yellow Warning Flash
- All RED
- Blank

### INFRA-RED BEAM DETECTOR

- Rated range of 6m (width up to 2 lanes)
- Maximum Detection Frequency of 20 Hz
- IP67 enclosure

### MICROWAVE DETECTOR (OPTION)

- Typical range of 35m
- Detection width up to 2 lanes
- Minimum detection speed of 8 km/h (adjustable to 4 km/h)

### RADIO COMMUNICATION LINK

- 900Mhz operating frequency
- Channel Hopping
- 1 km range (line of sight)



### SIGNAL LANTERNS

- Visual range of 100m
- Meets all requirements of AS/NZS2144:2002
- High luminous output
- IP35 protection (IP65 optional)
- Coloured lens in compliance with colour requirements of CIE/AS/NZS2144:2002
- LED type with long term reliability and operational life

### POWER SUPPLY

- 240 Vac 50Hz input / 13.8V dc output at 4.5A
- 7.2 A hr 12V sealed lead acid battery
- 13.8 Vdc 0.5A Battery charging

### DIMENSIONS

- (W x H x D mm):
- Enclosure: 400 x 400 x 200
- Mounting Plate: 400 x 500 x 3
- Total Enclosure Dimension: 400 x 880 x 203
- Traffic Signal: 260 x 858 x 208

### WEIGHT

- Enclosure: Under 18 Kg
- Traffic Signal: Under 10 Kg

# LANTERN HARDWARE

## LANTERN HARDWARE AND ACCESSORIES

To partner their wide range of lantern products, Aldridge Traffic Systems ATS offer a comprehensive range of lantern mounting hardware and accessories. ATS customers can select suitable items from the ATS range to meet the needs of widely varying lantern visor and lantern mounting requirements. Manufactured from quality materials, all these products offer durable and reliable long term field service.

## TARGET BOARDS

ATS have an extensive Standard range of grey target boards for both 200mm and 300mm lanterns. Models are available to suit single or multiple aspect lanterns as well as double lantern column applications. The target boards feature modular construction of a design which permits target boards to be replaced or added in the field without the need to remove the existing fixed lanterns. These are available with or without white borders. The target board components are manufactured from flame retardant ABS material which ensures minimum damage in event of an accident or polyester powdercoated aluminium.

## ARROW SYMBOLS

To achieve reliable and versatile arrow symbol lantern displays, ATS offer arrow masks which fit snugly against the inside curvature of 200mm and 300mm lenses. This concept eliminates any peeling problems. Both symbol shapes to AS/NZS2144:2002 and BS505 are available, but the concept also allows ATS to offer alternate symbol displays including T, X, B and other symbol requirements.

## ATS POST TOP MOUNTING ASSEMBLY

Designed to mount on Standard 100mm posts (pedestals) the ATS upper mounting bracket, terminal assembly and finial cap combine to form the upper mounting post top assembly. A selection of terminal assembly requirements to meet individual needs and international wiring regulations are available. The upper mounting bracket provides for 4 lantern mounting points and up to 8 cable entry points. Standard assemblies are available in either a natural finish, traffic signal yellow, green or smoke blue.



### CLOSED TYPE VISORS

ATS closed type visors are also available in varying lengths as follows:

- 200mm-200mm
- 300mm
- 400mm
- 300mm-300mm
- 400mm

These visors may be fitted with half or full, horizontal or vertical louvres.

### CUTAWAY VISORS

The Standard range of ATS cutaway visors is the same as detailed closed type visors. Both left hand and right models are available. The visors may be fitted with half louvres or full, horizontal or vertical.

### OPEN TYPE VISORS

Open visor types are designed for fitting to primary signal lanterns-that is lanterns which are normally situated adjacent to the associated phase stop line. As with all ATS visors, these visors are fitted to the lanterns using convenient reliable springs to facilitate assembly on installation and maintenance. The 200mm diameter and 300mm diameter open type visors are 200mm and 300mm long respectively.

### OTHER AG HARDWARE ITEMS

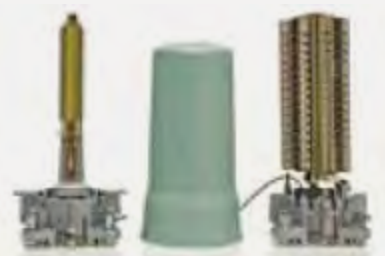
ATS are able to supply all customer needs for a traffic signal installation including the items described above together with

- Standard posts(pedestals)
- Overhead posts(pedestals)
- Mast arm assemblies
- Gantries to specification
- Lantern mounting straps in a variety of sizes
- Mounting plinths, underground terminal boxes, junction boxes etc.



Louvres

The finial cap section which provides complete weather protection for the terminal points are manufactured from insulating material for safety.



### POLE MOUNTING BRACKETS

Designed to partner the ATS upper mounting bracket assembly, (post top mounting assembly) The ATS lower mounting bracket assembly is available in half section offering two mounting points or double section offering four mounting points and is designed to suit 100mm posts (pedestals).



### VISORS

ATS manufacture a wide selection of visors(cowls)for both their 200mm and 300mm vehicle lanterns. The visors are manufactured from polypropylene which ensures minimum damage in the event of an accident.

### VERTICAL AND HORIZONTAL LOUVRES

Both half and full horizontal anti sun-phantom louvers together with vertical louvers, are available from ATS. 200mm and 300mm sizes are available. The louvers are manufactured from polypropylene.



Visors

# OUR LOCATIONS



## AUSTRALIA

Victoria  
 South Australia  
 Western Australia  
 New South Wales  
 Queensland  
 Tasmania  
 Northern Territory  
 Australian Capital Territory

## OVERSEAS

United Kingdom  
 New Zealand  
 Malaysia  
 Singapore  
 Ireland  
 Denmark  
 France  
 Spain  
 Thailand  
 Sri Lanka  
 India  
 USA  
 North America  
 South America  
 Canada  
 UAE  
 Hong Kong

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