A NEW ERA FOR PORTABLE TRAFFIC SIGNALLING

Signals
FOR THE JOURNEY

The portable traffic signals you have been waiting for are here

Siignals FOR THE JOURNEY

Welcome to the UK's most advanced smart portable traffic signals

Rethink everything you thought you knew about portable traffic signals.

Introducing SiigSense™ by Siignals - the game changing smart portable traffic system the industry has been waiting for.

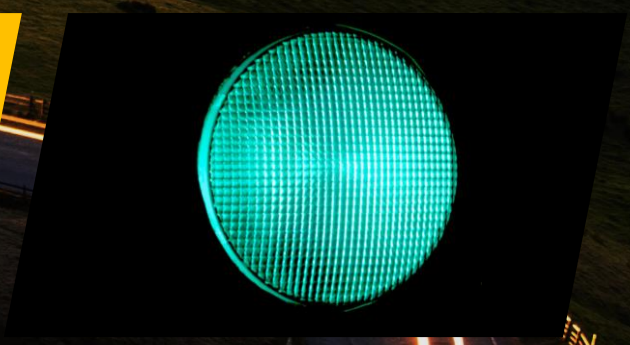
SiigSense ™ redefines, delivering industry firsts to portable traffic signal operation, such as the hi-tech SiigSense™ touch screen controller, Prioritised Demand Strategy (PDS) and Adaptive Ambient Dimming (AAD).

The results are improved traffic flow, ease of operation, real time system reporting, reductions in operating costs, time on site and numerous environment benefits.

TOPAS
Traffic Open Products and Specifications

Approved to TOPAS 2540A

SIIGNALS FOR THE JOURNEY... WITH YOU



"SiigSense™ is set to redefine every aspect of portable traffic signal operations"

The most technologically advanced portable traffic signals in the UK

Configurable SiigSense™ touch screen operation

SIMPLE: Function and form is at the heart of the SiigSense™ controller. Designed with the user in mind, an all-weather rugged, 7" full colour, high contrast, wide viewing angle touch screen with intuitive swipe, scroll and tap menus bring ease of operation. The touchscreen software is updatable making the system future-proof and adaptable. The SiigSense™ controller houses dedicated ON/OFF and All Red IPX6 rated buttons.

SAFE: The SiigSense™ controller automatically configures for vehicle or pedestrian setup, minimising set-up time and reducing the chance of error. Primary and secondary unit identification allows for enhanced safety protocols. The reconfigurable interface ensures that not only do you have total control of the site, but the site codes enhances security and communications.

SMART: SiigSense™ operates with an Intelligence driven Prioritised Demand Strategy (PDS). Constantly monitoring traffic flow in all operational modes to ensure optimised sequencing, further assisting in avoiding frustratingly long driver waiting times and reducing vehicle emissions. With hierarchical control within all operational modes, the SiigSense™ controller issues demands with differing levels of importance ensuring that the signals react dynamically to the ever-changing requirements of the site.

Enhanced VA modes

The SiigSense™ controller automatically adjusts the system green times within specified limits to cope with changing traffic conditions on each approach, providing additional green time where needed. The resulting benefits are adaptive tidal flow periods, reduced vehicle waiting time and most importantly, a reduction in the need for on site operators continually monitoring traffic conditions and applying manual timing adjustments. Supporting up to eight phases, it represents the most sophisticated traffic control technology available today.

SMARTER

- ***Configurable SiigSense™ touch screen operation on each unit***
- **Intelligence driven prioritised demand strategy (PDS)**
- **Multiphase enhanced VA**
- **Integral GPS to optimise fleet utilisation**
- **Firmware updatable and reconfigurable**
- **Bespoke Siignals Radio technology**
- **All red can be activated from every unit**
- **Pod coding**
- ***SiigSense™* Site identifier codes**

"Deploy and monitor your portable traffic signals knowing they have the power to last"

Siignals places full control at your fingertips with simple touch-screen configuration on each unit

Integral GPS to optimise fleet utilisation

As standard, each pod has an on-board Global Positioning System (GPS) which when activated can be used for a wide range of safety and security functionality. Easily locate and identify each SiigSense™ when deployed.

Firmware updatable and reconfigurable

The SiigSense™ system employs a range of standard operating features which comply with current National Regulations and industry recognised operational performance requirements. Through the life of the product there may be a requirement to update firmware, perhaps to bring equipment inline with changes in functionality. In addition, there may be a need for alternative operating configurations, for example, site specific timings and signal priorities for on and off highway applications. SiigSense™ has been designed to make this an easily controlled and secure process. Equipment can be updated or reconfigured without the need for complete product disassembly, reducing downtime to an absolute minimum. The firmware status of each SiigSense™ unit can be easily identified and any updates actioned efficiently during the life of the product.*

Bespoke Siignals radio technology

Interfacing with the SiigSense™ controller the bespoke Siignals radio transceiver embraces the very latest radio technologies, designed to improve system communication integrity in the harshest site environments.

Application and operation

Siignals SiigSense™ places full vehicle control at your fingertips with touchscreen configuration of up to 32 pods – 16 vehicle and 16 pedestrian, covering a wide variety of roadworks from simple shuttle working to more complex multiphase layouts. The portable traffic lights configure as single pods or grouped into phases and can be used to control different approaches, incorporating both vehicle and pedestrian flow.

With SiigSense™ the ability to configure each vehicle pod as a primary or secondary head significantly improves layout control whilst continuing to enhance high level safety protocols within the SiigSense™ controller.

**Non safety critical elements of the system*

SMARTER

"Siignals provides up to 32 heads to control both vehicle and pedestrian flow"

Built to withstand the most testing of tasks and environmental conditions

Siignals for the journey – together

Siignals understand cost of ownership and usage. As such every SiigSense™ pod is packed with features and benefits designed to keep your equipment safe onsite. From the visible physical deterrents, such as locks through to the more subtle and sleek technological inclusions such as site codes and pod tracking.

SiigSense™ unique site identifier codes

On deployment the SiigSense™ controller asks for a 4-digit code to be created. This reduces the risk of unauthorised access to controller settings after set-up, but also groups all the units together for ease of setup. If the site code is forgotten, or another approved user needs to access - the code is displayed on the tracking portal.

Security movement sensing and geofencing capability

In addition to the GPS each SiigSense™ controller houses an accelerometer. This allows for best-in-class real-time product in use data. The systems can be geofenced so that any unauthorised removal or redeployment will cause the internal security sensing to activate an alarm.

Pod coding

Each pod holds a unique serial number. This forms part of the data package designed to assist usage diagnostics. As such the utilisation and condition of each pod is always known.

TOUGHER

- Security movement sensing and geofencing capability
- Pod tracking / coding
- Roto-moulded signal head with internal steel sections
- Lockable controller door
- IPX6 rated plug connections
- Electro Plated Base

"GPS allows for secure geofencing of deployed units with tamper-alarming"

Designed with an enhanced ease of charging and maintenance in mind

Roto-moulded signal head with internal steel sections

Our robust three aspect signal head is roto-moulded, self-coloured and U.V. stable with internal steel sections for additional strength. Individual aspect housings provided for enhanced ease of maintenance.

Base Units

Siignals have produced arguably the most robust, vandal- and theft-proof battery box on the market. Two variants are available and interchangeable.

Open Variant

The SiigSense units available with an open base unit option which allows the user to change batteries on site when necessary, making it the perfect solution for long-term jobs. These units allow you to lock the base units using your own coded bullet lock and key for added security.

Sealed Variant

If there is no requirement to exchange batteries, the SiigSense base unit can be fully sealed. Security shear bolts ensure the maximum difficulty for those with criminal intent.

IPX6 rated plug connections

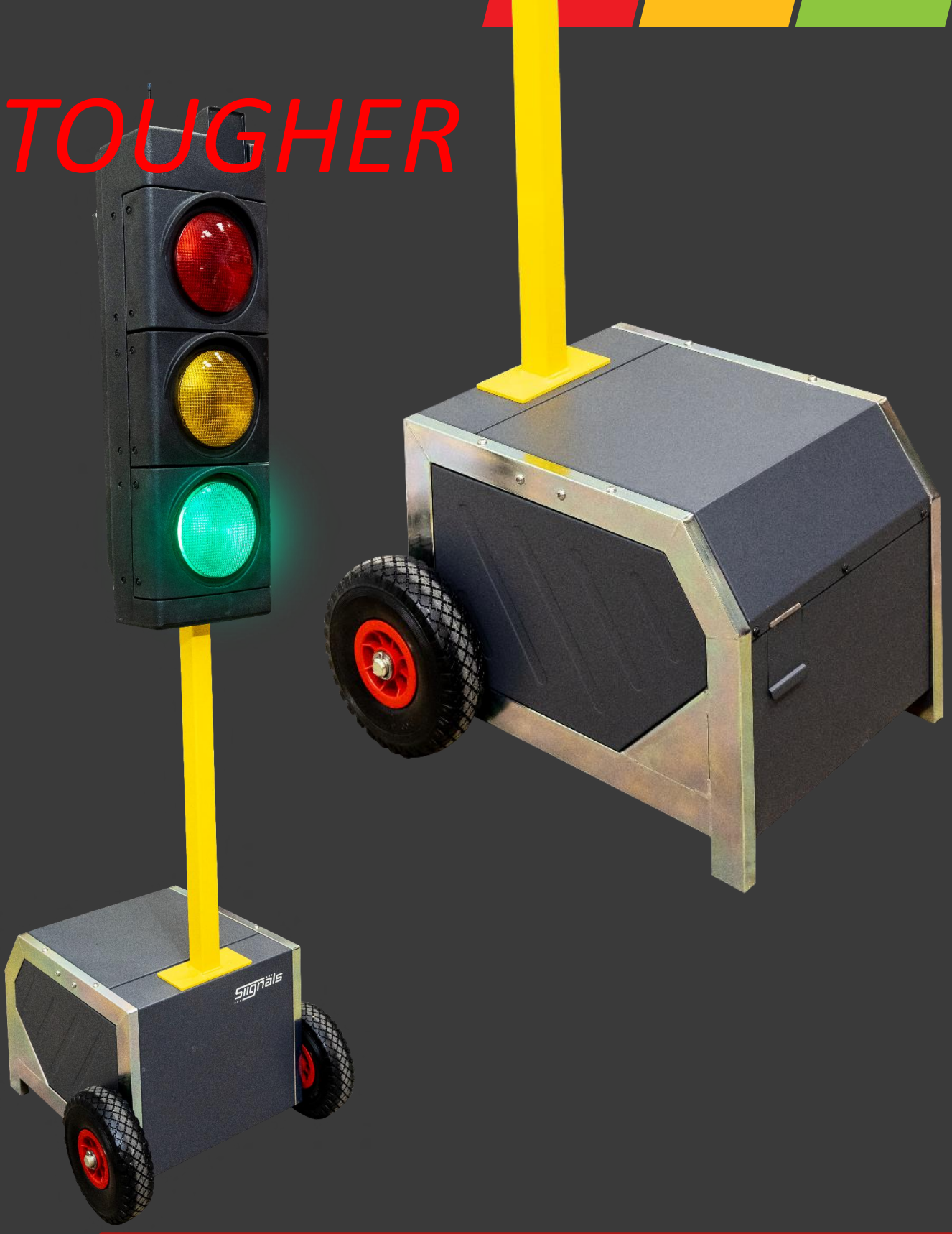
Reliability is key. The harsh environment which the equipment is subject to commands a robust approach to design, as such secure IPX6 rated connectors have been used wherever possible.

Electro plated base

The fabricated mobile signal base unit is electro plated and painted as standard for durability. Designed to withstand the most testing of weather conditions.

The optional personalisation features including company colour painted panels and logo laser etching giving the product strong roadside presence and brand identity.

TOUGHER



"Reliability is key - the harsh environment which the equipment is subject to commands a robust approach to design"

Siignals for the journey – to a more sustainable future

Congestion reduction at its heart.

Deploying Siignals' SiigSense™ enabled portable traffic systems on the highway can reduce the time that vehicles wait at site works and minimise disruption to journey times through much improved control options. This easing of traffic flow contributes to the drive to lower the harmful airborne particles we breathe, especially in the inner cities.

24V operation & industry leading re-charge time

24v DC operation ensures reduced current losses within the system maximising operational run-time, whilst providing the best in sector re-charge time.*

Site visibility from your devices

Siignals equipment gives access to remotely observe unit deployment. The tracking portal can provide warnings and alerts, such as battery level, current mode of operation, Green and Red-light operation, Radar, Communication and Radar status etc. providing key data on operational elements of the system.

'Knowledge is power' as they say and understanding of battery capability before deployment and during operation can reap benefits in saved maintenance cost and pre-emptive disposal of perfectly serviceable batteries.

** Compared to 12v operation*

GREENER

- ***Adaptive Ambient Dimming (AAD)***
- ***Intelligence driven prioritised demand strategy (PDS)***
- ***Designed to aid a reduction in traffic congestion***
- ***24v Operation – optimising Performance***
- ***Fast battery charge and conditioning time****
- ***Intelligent real time battery and aspect health status monitoring and reporting***
- ***Low power LED optics***

** Compared to 12v operation*

"Siignals' advanced technology represents a significant advance in the battle for cleaner air"

SiigSense™ from Siignals hosts several features to minimise environmental impact

Adaptive Ambient Dimming (AAD)

Adaptive Ambient Dimming a feature which is exclusively available on SiigSense™.

Adaptive Ambient Dimming takes information supplied from the onboard GPS and light level sensor, and if the correct criteria are met permits the light output of the aspects to adapt to the ambient light levels in real time. This allows the pods to operate safely in dim mode for an extended time, saving power and extending run times.

Operational longevity and power consumption is further improved by the use of specially designed low power LED optics, featuring on-board lamp monitoring.

The two-piece sealed units are fitted with individual IPX6 rated plug connections. Optic performance complies with EN 12368 European Standards.

Recharging the pods using our SiigTelligent power supply ensures the internal batteries are accurately monitored and conditioned, extending their performance and reliability, when compared to existing industry charging regimes.

Compact & accessible nearside pedestrian design

*The **ONLY** nearside portable pedestrian unit on the market has been designed with functionality and accessibility in mind.*

At only 141cm in height and 110kg in weight, the units permit ease of transportation whilst offering the ability to accommodate the most common layout requirements. The unique Intelligent Auto-Audible function permits for the audible to be automatically turn off during unsociable hours.

Add to this the fact that Tactiles and Audibles are fitted as standard, and the overall package ensures that the user is approaching something familiar and accessible for their needs.

GREENER

"Operational longevity is further increased by the use of specially designed low power dimming LED optics"

Vehicle - *Technical Specification*

Weights and Dims – Vehicle	
Total weight (standard version)	*120kg*
Total weight (long run version)	*164kg*
Total Height	*2320mm*
Total Depth	*675.5mm*
Total Width	*607mm*

Modes	
All-Red	*Yes*
Manual	*Yes*
Fixed time	*Yes*
Standard VA	*Yes*
Datum point	*Yes*
Enhanced VA	*Yes*
Enhanced datum point	*Yes*
Lights Off	*COMING SOON*

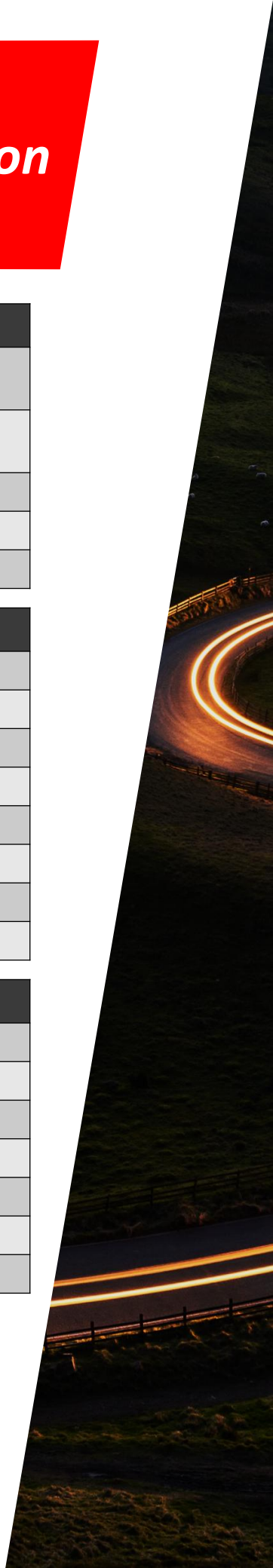
Options	
Keyed alike Base unit	*Yes*
Custom colours	*Yes*
Laser Etched logo	*Yes*
ID tags	*Yes*
Ratchet Brackets	*Yes*
Base unit	*Open or Sealed*
Solar Assist	*Yes*

Pedestrian - *Technical Specification*

Weights and Dims - Pedestrian	
Total weight (standard version)	*110kg*
Total weight (long run version)	*154kg*
Total Height	*1410mm*
Total Depth	*675.5mm*
Total Width	*607mm*

Modes	
All-Red	*Yes*
Manual	*Yes*
Fixed time	*Yes*
Standard VA	*Yes*
Datum point	*Yes*
Enhanced VA	*Yes*
Enhanced datum point	*Yes*
Lights Off	*Yes*

Options	
Keyed alike base unit	*Yes*
Custom colours	*Yes*
Laser Etched logo	*Yes*
ID tags	*Yes*
Ratchet Brackets	*Yes*
Base unit	*Open or Sealed*
Solar Assist	*Yes*

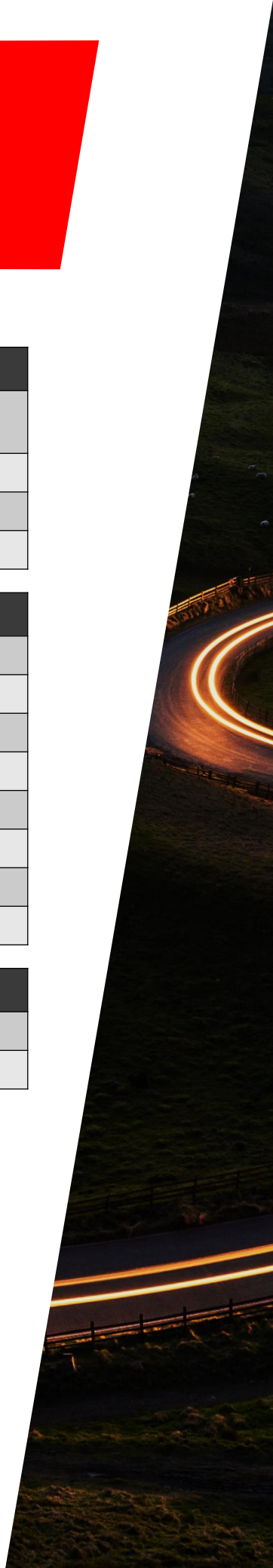


Tripod - *Technical Specification*

Weight and Dims - Tripods	
Total weight (Complete Unit)	*40kg*
Total Height	*2220mm*
Total Depth	*675.5mm*
Total Width	*607mm*

Modes	
All-Red	*Yes*
Manual	*Yes*
Fixed time	*Yes*
Standard VA	*Yes*
Datum point	*Yes*
Enhanced VA	*Yes*
Enhanced datum point	*Yes*
Lights Off	*COMING SOON*

Options	
ID tags	*Yes*
Lithium Battery	*Yes*



Technical Specifications and Approvals

Batteries & Runtime - Veh & Ped	
Operational voltage	24v DC
Siigsense Unit standard	2 off 115Ah AGM
Siigsense Unit long run	2 off 150Ah AGM
Runtime on single charge standard version	up to 14 Days*
Runtime on single charge long run version	Up to 21 Days*

Batteries & Runtime - Tripod	
Operational voltage	24v DC
Tripod Unit standard	2 off 25Ah AGM
Runtime on single charge standard version	up to 48 Hours*
Tripod unit long run	2 off 24v 14Ah Lithium
Runtime on single charge long run version	up to 72 Hours*

Regulatory Tests	
All testing in accordance with TOPAS2130B	
Dry heat	BS EN 60068-2-2:2007
Cold	BS EN 60068-2-1:2007
Damp Cyclic	BS EN 60068-2-30:2005
Drop & Topple	BS EN 60068-2-31:2008
Impact	BS EN 62262:2002
Vibration	BS EN 60068-2-64:2008
Bump	BS EN 60068-2-27:2009
Water ingress	BS EN 60529:1992+A2:2013
Dust Ingress	BS EN 60529:1992+A2:2013

Phases	
Max traffic phases	8
Max vehicle heads	16
Max Pedestrian heads	16
Max heads per phase	16
Max total heads	32

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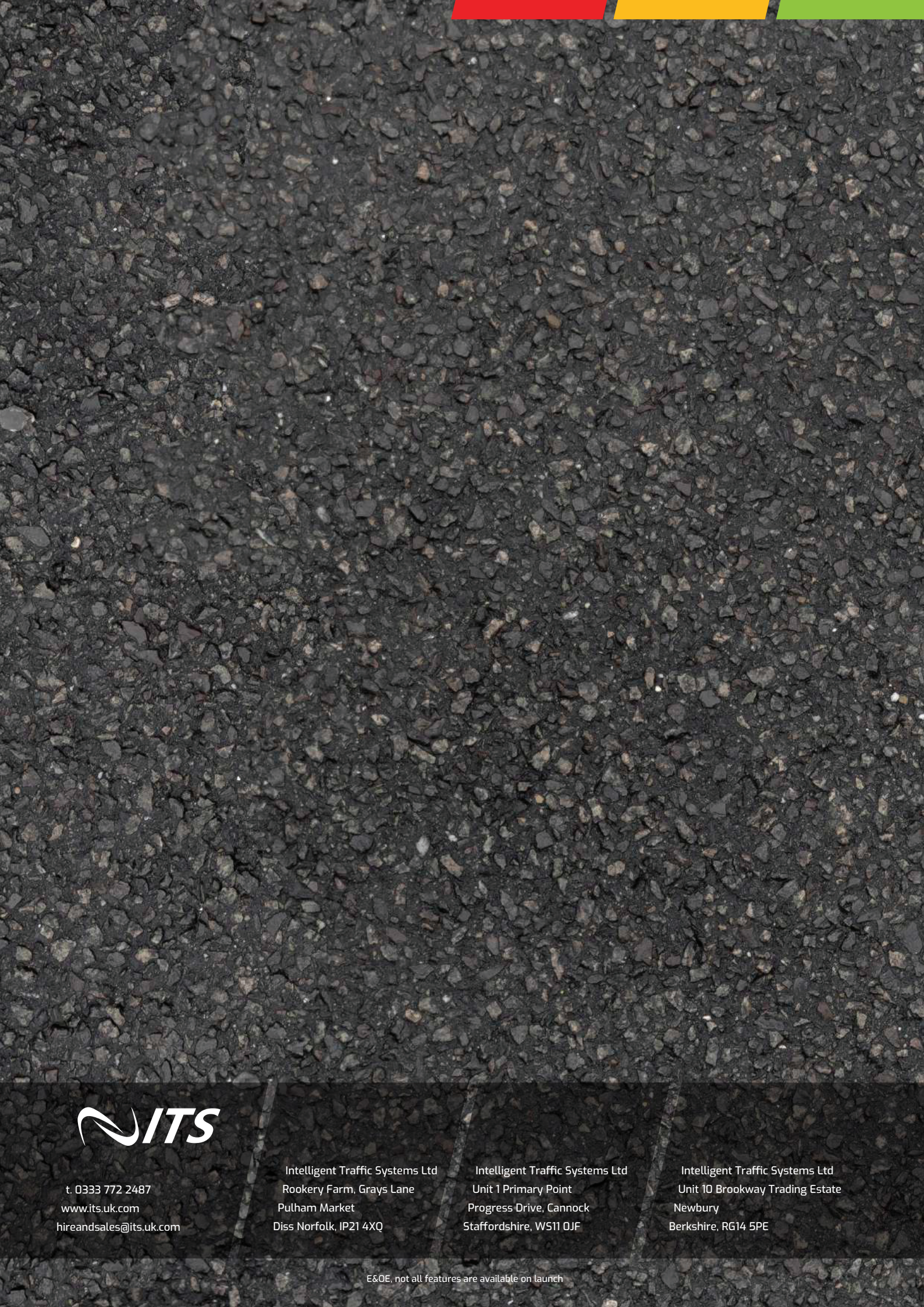
E&OE
Siignals Ltd. reserves the right to make technical changes or modifications to the product without prior notice.

*AGM lead-acid batteries must be charged and maintained in accordance with the manufacturer's recommended charging profile. Incorrect charging practices — including undercharging, overcharging, use of unsuitable chargers, or prolonged storage without recharge — can lead to sulphation, stratification, excessive gassing, or thermal stress. These conditions may significantly reduce available capacity, shorten runtime of connected equipment, and permanently impair overall battery life.



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E&OE, not all features are available on launch