



# **A NEW ERA FOR PORTABLE TRAFFIC SIGNALLING**



**Siignäls**  
FOR THE JOURNEY

**The portable traffic signals you  
have been waiting for are here**

**Signals**  
FOR THE JOURNEY

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

Rethink everything you thought you knew about portable traffic signals.

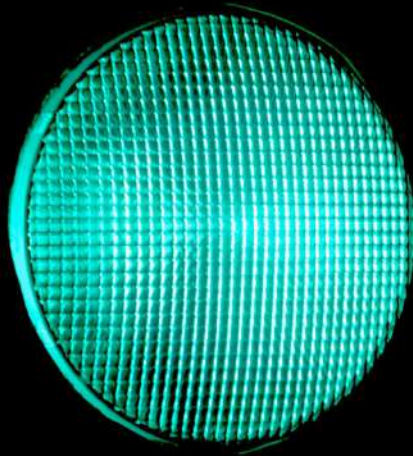
Introducing SiigSense™ by Signals - the game changing smart portable traffic system the industry has been waiting for.

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.



# ***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 and rugged, large 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 remotely 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 option to add user and site codes in addition to your company's brand to the screen, enhances individuality and security.

**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 (dependent on the scenario), the SiigSense™ controller issues demands with differing levels of importance ensuring that the signals react dynamically to the ever-changing requirements of the site (Patent Pending).

### Datum Point

The reduction in excessive vehicle waiting time is important. Datum Point is an operational mode using a nominated central point within the site under control and a distance measurement from each stop line. SiigSense™ converts these distances to time and sets red clearance times for each phase. Depending on the next phase to be shown a green, the simple automatic addition of the corresponding times will run the total clearance time. Effective on most multiphase applications, with a mixture of long and short legs. Standard and Enhanced Datum Point is provided on the SiigSense™ controller.

### 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. This feature applies to both shuttle working and multiphase installations.

# SMARTER.

- ✓ Configurable SiigSense™ touch screen operation on each unit
- ✓ Intelligence driven prioritised demand strategy (PDS)
- ✓ Multiphase enhanced VA
- ✓ Datum Point
- ✓ Integral GPS to optimise fleet utilisation
- ✓ Firmware updatable and reconfigurable
- ✓ Bespoke Siigsignals Radio technology

## **SUSTAINABLE:**

SiigSense™ has an integral GPS, and can be configured as either a Master or Subject unit, essential for maximum fleet utilisation.

SiigTelligent real time battery and LED health monitoring and reporting, maximising operational life of the batteries and reducing environmental impact.

**“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, in transit or ready for use.

## ***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 remotely without the need for 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. Offering both manual and automatic channel selection, it operates on 458Mhz with up to 500mW of power on tap.

## ***Application and operation***

Siignals SiigSense™ places full vehicle control at your fingertips with touch-screen configuration of up to 16 pods 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, controlling both vehicle and pedestrian flow\*\*.

With SiigSense™, the ability to configure each 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

\*\*Pedestrian not available on launch

# SMARTER.



*“Siignals provides up to 16 heads to control both vehicle and pedestrian flow”*

# ***Built to withstand the most testing of tasks and environmental conditions***

## ***Siigsignals for the journey - together***

Siigsignals 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 user codes and pod tracking.

### ***SiigSense™ unique site identifier codes***

On deployment the SiigSense™ controller will provide the option of either a randomly generated or operator set site code to reduce the risk of unauthorised access to controller settings after set-up.

### ***SiigSense™ customer codes***

The SiigSense™ controllers can be customer coded for national use or for specific depots, improving equipment security. In addition, a bespoke customer identification representation, such as a logo or message, can be included on the main controller screen, increasing your brand ethos and individuality.

### ***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. Presented via SiigNet™\* 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 is recorded by the SiigTelligent power supply on every connection, passed back to the equipment owner via SiigNet™ as part of the data package designed to assist usage diagnostics. As such the utilisation and condition of each pod is always known.



# ***TOUGHER.***

- ✓ *SiigSense™ unique site identifier codes*
- ✓ *SiigSense™ customer codes*
- ✓ *Security movement sensing and geofencing capability*
- ✓ *Pod tracking / coding*
- ✓ *Roto-moulded signal head with internal steel sections*
- ✓ *Lockable Lid*
- ✓ *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 (designed for application) 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.

## ***Lockable lid***

Access to the secure battery compartment is by way of a twin lockable access panel under which can be found the onboard battery control and monitoring interfaces along with access to the robust plug and socket connection to the battery charging point.

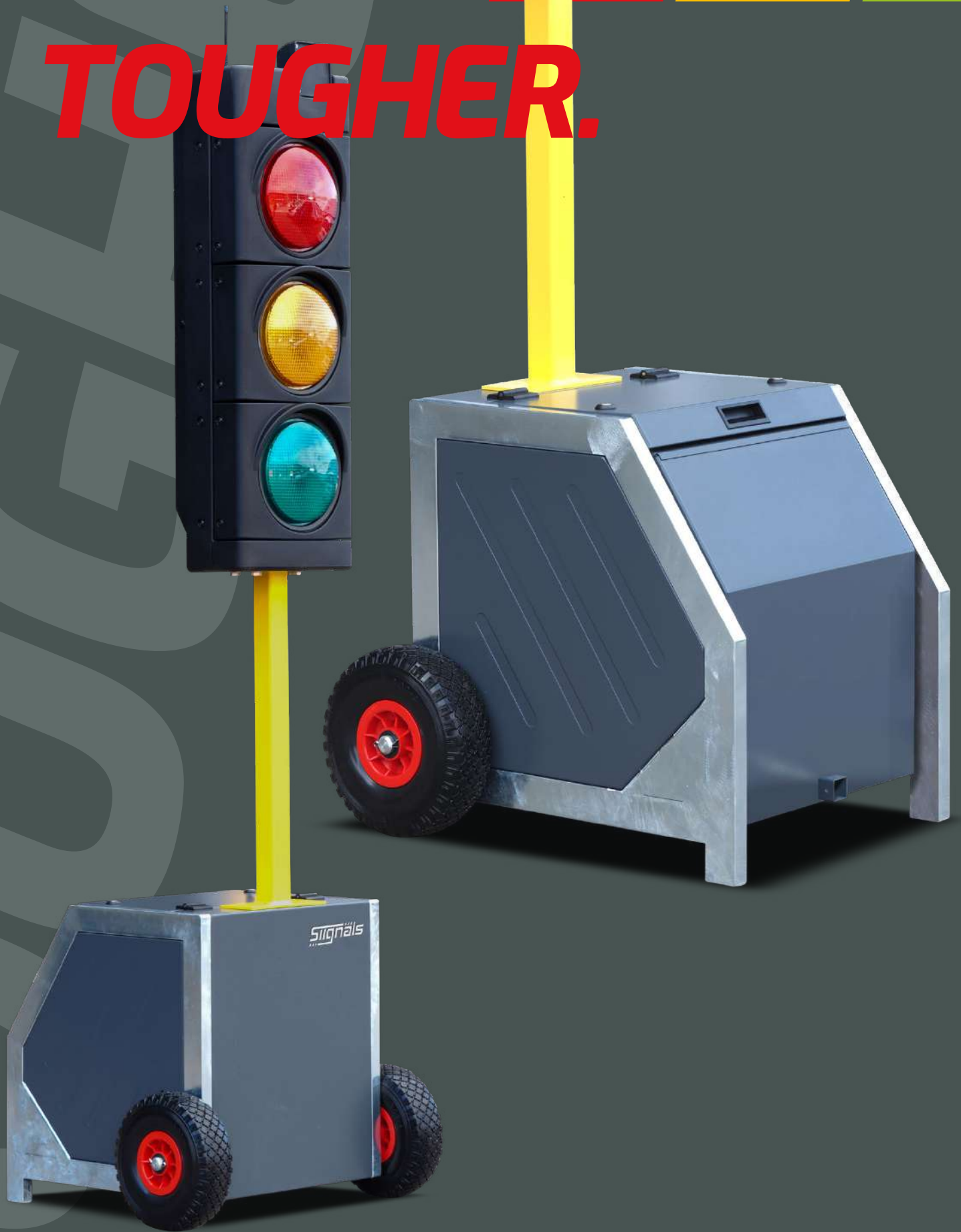
## ***IPX6 rated plug connections***

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 throughout and the optional over painted panels offer a considerable amount of durability. Designed to withstand the most testing of all-weather conditions, whilst offering the owner the opportunity to give the product the roadside identity and presence required.

# ***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 lessen 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 times. The system charge time of 8 hours is achieved with the use of our SiigTelligent™ power supply.

## ***SiigTelligent real time battery and LED health monitoring and reporting***

SiigNet™ - Siignals real-time SiigTelligent power supply and battery monitoring system allows not only smart reporting on battery performance and condition. 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.***

Advanced energy control can also be adapted to customers' particular requirements.

\* Compared to 12v operation.



# ***GREENER.***

- ✓ *Adaptive Ambient Dimming (AAD)*
- ✓ *Designed to aid a reduction in traffic congestion*
- ✓ *24v Operation – optimising performance*
- ✓ *Fast battery charge and conditioning time\**
- ✓ *Intelligent real time battery and LED health status monitoring and reporting*
- ✓ *Low power LED optics*

***“Siignals’ advanced technology represents a significant advance in the battle for cleaner air”***

# ***SiigSense™ from Siignals hosts a number of 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 light / time range 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.

**These self-contained pods eliminate the need to service individual batteries and offer complete user control over the charging, maintenance and lifecycle of the power supply.**

# **GREENER.**



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



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