



Mobile Visual Information Systems



# SPEC SHEET BROCHURE

#TRUSTIN**MVIS**

# Traffic Management Solutions.

## Working together for a safer, more efficient road network.

We deliver portable variable message signs (VMS) and integrated intelligent transport systems (ITS) to Highways and events throughout the UK.

Specialising in solar powered signage through hire and sales, MVIS offer traffic management solutions that help keep roads moving.

Often working in collaboration with National Highways, we provide cost effective solutions to the highspeed network

Our products and solutions don't require any civils, external power or communications sources, making them ideal for temporary traffic management on high speed roads.

Delivery is via our own dedicated specialist team via towable multi-drop vehicles and hiab.

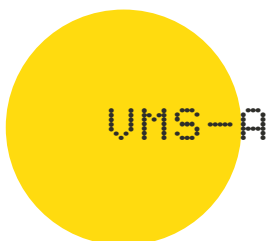
## MEMBERSHIPS & ACCREDITATIONS

We work with accreditation bodies to ensure good business practice and health & safety conformity, so that we can offer our customers, employees and the wider community the very best.



#TRUSTINMVIS





MVIS mobile colour VMS-A is suitable for inner city and urban works or for roads with speed zones up to 50mph. The VMS-A, although small in size, offers a wealth of technology including an autonomous solar charging system and a low power consuming LED display.

The VMS-A can be used as a stand-alone temporary VMS or in conjunction with radar to display:

- A message
- Speed roundels
- Traffic activated 'too high' and 'too fast' message

The VMS-A is versatile, easy to set up and operate, with adjustable legs for a secure small footprint. Reliable under all conditions and offers impact, choice and the flexibility to use red, green, blue and white as well as standard amber.

## KEY FEATURES:

- Full graphics and pictograms
- Non-glare, UV resistant polycarbonate screen
- Speed radar device
- Security features – GPS tracked and padlock covers



- Highest quality LEDs
- Solar powered / environmentally friendly
- Programming options – laptop on site, modem, SMS or App or internet
- Windows-based software

## TECHNICAL SPECIFICATIONS:

### TRAILER

- Overall length: 2420mm (1620mm with towing tongue removed)
- Width (travel position): 1620mm – 1595mm
- Width (operating position): 1620mm
- Height (travel position): 2045mm
- Height (max operating position): 3200mm
- Weight: 580kg
- Coupling: 40mm towing eye

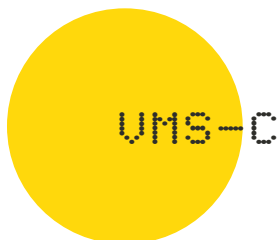
### POWER

- Voltage: 12V
- Solar Panels: 2 x solar panels
- Operation on batteries / solar: Indefinite under recommended conditions

### DISPLAY

- Display Type: LED full matrix
- Display Size: 1610mm x 1040mm
- Communication: SMS, internet, satellite, web-based, serial and App
- Matrix: 48 x 28
- Screen: Non-glare, UV resistant polycarbonate
- Brightness Control: Automatic or manual





5 colour VMS-C for use on all roads – particularly where speeds are greater than 60mph. Versatile, easy to set up and operate, with a fully autonomous solar charging system, the VMS-C will operate continually under recommended operating conditions.

Programming is via SMS, direct serial connection, app or through our live web-based interface.

Available for sale & hire throughout the UK, VMS-C offers impact, choice and the flexibility to use red, green, blue and white as well as standard amber.

## KEY FEATURES:

- Full graphics and pictograms
- Non-glare, UV resistant polycarbonate screen
- Speed radar device
- Security features – GPS tracking, padlock covers

- Highest quality LEDs
- Solar powered / environmentally friendly
- Programming options – laptop on site, modem, SMS, internet or App
- Windows-based software



## TECHNICAL SPECIFICATIONS:

### TRAILER

- Overall Length: 3800mm
- Travel position: width 2100mm, height 2710mm
- Operating position: 2730mm (width), 4030mm (max height)
- Weight: 1020kg
- Coupling: 40mm towing eye

### POWER

- Voltage: 12V
- Solar Panels: 2 x solar panels
- Operation on batteries / solar: Indefinite under recommended conditions

### DISPLAY

- Display Type: LED full matrix
- Display Size: 2730 x 1850mm
- Communication: SMS, internet, web-based, serial and App
- Matrix: 48 x 28
- Screen: Non-glare, UV resistant polycarbonate
- Brightness Control: Automatic and manual



## HD COMPACT VMS

This unit's small foot print and adjustable height makes it highly versatile, especially considering the display content can be updated remotely via our web-based portal or mobile app.

With hidden cabling, this unit is secured against vandalism or accidental damage and benefits from the data collection radar integrated in all our signs.

MVIS' HD Compact was the first of its kind, designed for use within work zones in order to improve safety and to communicate information to the public.

Developed in line with customer feedback and market research, the HD Compact offers the industry a light-weight, portable, solar powered message sign that features a dual colour (red and white) display.





## DATA COLLECTION

All VMS units discreetly contain a data collation radar that can be used to collect the following traffic data;

- Single file traffic count
- Speed
- Time
- Date

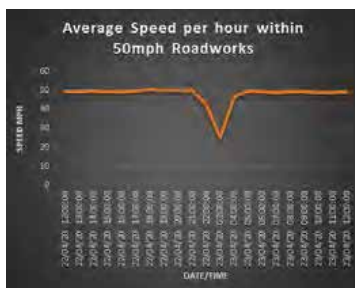
This solution is a low cost alternative to many data collection solutions on the market and is ideal to be used as a data source for the analysis of trends, enabling greater intelligence for planning, reporting and identifying areas of risk.

Collecting traffic data has never been easier, with data uploading to our server every hour, ready to be downloaded at any time by the user via a web based portal.

Combining data collection and VMS in one unit offers a multi-functional solution that can help you make more informed decisions at the same time as communicating important messages.

### KEY FEATURES:

- 28 x 28 matrix with a 20mm pixel pitch
- Compact 680 x 780mm sign case
- Dual colour for text or pictograms



- Small footprint, light weight and highly portable
- Low cost alternative to many data collection solutions
- Solar powered and easy to update content remotely via a web based platform
- 24/7 support, assisting you with placement, deployment and content for the unit

## COMPACT PORTABLE CCTV SOLUTION

This outdoor surveillance camera boasts an ultra-wide viewing angle of 355° pan & 140° tilt and connects through Vodafone 4G.

Offering 1080p HD at 15 frames per second and a 6x Digital Zoom, this camera performs well for a range of applications, made even more impressive by the 10m Night Vision range.

### IDEAL FOR:

- Security
- Queue Management
- Site Safety



## SOLAR POWERED COMPACT BASE.

When combined with our solar powered compact base, the applications of the CCTV camera are much more enhanced.

Offering a small footprint, this unit can be deployed in many locations where competing solutions can't be, enabling you to have eyes on the ground in places where it may be dangerous or where there is limited space.

Being solar powered makes the unit even more versatile, preventing the need for an external power source and offering extended run times in recommended conditions.

Our compact base offers the camera not only portability, but also a 3M mast, allowing users excellent visibility when used in conjunction with the camera's pan, tilt and zoom functions.

With hidden cabling, this unit is secured against vandalism or accidental damage and can be easily moved to the client's requirements.



## COMPACT ENVIRONMENTAL SENSOR

This clever solution integrates our solar powered 'Compact' base with an ITS Environmental Sensor, offering clients the ability to monitor the external environment, producing a wide range of air pollution data that can be used to inform and direct on issues of air pollution safety.

### Air Quality Monitoring

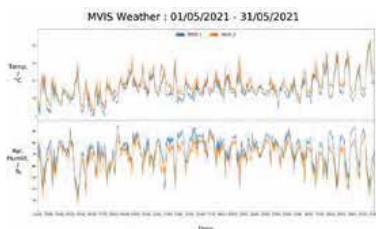
This solution is a low-cost system that offers the ability to build a high-density ambient air quality monitoring network that records data in real-time.

With low power demands, this unit can be powered by our 'compact' solar powered base for air quality monitoring in applications where space is limited, including but not limited to:

- Work places / work areas
- Construction site safety
- Events
- Town centres / Cities
- Urban roads / Highways

These applications make this product a useful tool for a variety of industries, organisations and projects concerned with air quality, such as schools, Tier 1 construction contractors, local authorities and traffic management companies.

Perfect for temporary applications, this solution offers a very low cost alternative to static Air Quality monitoring stations and allows clients to cover more space, quickly and cost effectively.



This products bespoke hardware is manufactured in the UK and uses the latest generation of electrochemical sensor technology and LoRaWAN communication to collect and record real-time data onto its secure online dashboard.

## Real Time Data

Data collected from this solution is displayed in real-time onto an online management dashboard. The status of each unit is displayed together with easy to read dials. More detailed graphs allow clients to drill down and analyse the data on a minute by minute, day by day basis. Fully customer-branded breakdown reports are also available from MVIS for our client's convenience, making presenting and reporting on the data easier than ever.



## Solar Powered Compact Base

When combined with our solar powered compact base, the applications of the ITS Environmental Sensor are greatly enhanced. Offering a small footprint, this unit can be deployed in many locations where competing solutions can't be, enabling you to collect data where it may be dangerous or where there is limited space. Being solar powered prevents the need for an external power source and offers extended run times in recommended conditions. With hidden cabling, this unit is secured against vandalism or accidental damage and can be easily moved to the client's requirements.



## Key Specifications

- Data communication options via 3G/4G/5G, WiFi or Ethernet
- Additional GPS Module can be added
- Power 12Vdc (optional 240Vac supply)
- Environment Operating range: -18 to 50 Celsius
- CE Certified
- Capacity for up to 4 electrochemical sensors from a choice of : CO, SO<sub>2</sub>, O<sub>3</sub>, NO, NO<sub>2</sub>, H<sub>2</sub>S
- Ultra-low noise sensing for gasses (ppb) and particulates (µg/m)
- Photo Ionisation Detector (PID) for detecting VOCs with ionisation potentials < 10.6 eV
- Formaldehyde sensor available
- Particulate matter / dust sensor PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>4</sub>, PM<sub>10</sub>
- Environmental sensors – temperature, humidity and atmospheric pressure
- Sensors are shipped calibrated but require 24hr stabilisation on boot up
- All devices can be accessed remotely for troubleshooting, health checks, software updates, reconfiguration
- Air quality sensors have a 24mth lifespan. Units come with a 12mth manufacturer's warranty
- Compact Base: Length - 880mm, Width - 610mm, Height - 3000mm, Weight - 180kg, Mast - 3m



## OVERHEAD SERVICE UNIT

MVIS' Overhead Service Unit is positioned in advance of overhead structures and services where work is being carried out. The unit was developed to further enhance site safety for the workforce by using editable text or pictograms to warn in advance of overhead obstructions.

### KEY FEATURES

- Compact 680 x 780mm sign case
- Chevron frame for increased impact
- Red and white LEDs for text and pictograms
- Built in radar
- 28 x 28 pixel
- Mounted on a portable base box
- Up to four week run time using just three 100 AH batteries





## SOLAR INTELLIGENT PLATFORM (SIP)

### Take a flexible approach.

Our Solar Intelligent Platform (SIP) has a flexible and responsive approach to your traffic or event management project. Simple and cost-effective to deploy it requires no civils or external communications.

MVIS will deliver an integrated, intelligent transport system (ITS) solution that meets your specific needs using Solar IP and any combination of VMS, ANPR, CCTV and Wavetronix HD radar. If things change, the Solar IP can be quickly and easily reconfigured.

### KEY FEATURES

- Mobile
- Flexible
- Solar powered
- Energy independent
- Environmentally friendly
- Silent
- Cost effective
- Easily deployed.



## TECHNICAL SPECIFICATIONS:

### TRAILER

**Length** (overall): 3000mm  
**Width** (operating position): 1760mm  
**Height** (travel position): 2500mm  
**Height** (max operating position): 6600mm  
**Weight**: 690kg

### POWER

**Voltage**: 12V, 24V, 48V  
**Solar panels**: 2 x 250W panels  
**Operation**: Batteries / solar  
MVIS



## PORTABLE INDIVIDUAL VEHICLE DATA RADAR – IVD

Portable traffic flow monitoring solution, providing real-time traffic data on single and multi-lane highways and roads. Integrating the AGD 343 with the MVIS / Bartco UK Solar IP to grant portability and dramatically enhance road safety, capability and efficiency.

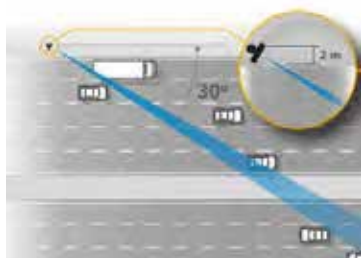
### Traffic Monitoring Radar

This solution employs proven enforcement-grade radar & measurement techniques to track & measure speed, length, lane/direction of individual targets.

Gather detailed data in all weather conditions in order to provide traffic information including traffic flow, vehicle speeds and driver behaviour.

The Portable IVD can replace intrusive high-maintenance loops and other radar mounting options with its use of the Solar IP, which serves as a portable, solar powered 'power bank'.

Collecting traffic data has never been more important and it's never been easier, with remotely downloadable data from a unit that can detect from 2-100m away.





Mobile Visual Information Systems

- Flow monitoring solution for multi-lane real time data
- Ideal for traffic profiling
- Detects from 2-100m away and from 5-250kph speed
- Portable, low power, solar powered
- Remotely access and download data
- Enforcement grade radar
- Deploy as close to 2m to the carriageway
- UK based product
- 24/7 support, placement and deployment



## Technical Specifications

### Solar IP

#### Trailer

**Length (overall):** 3000mm

**Width (operating position):** 1760mm

**Height (travel position):** 2500mm

**Height (max operating position):** 6600mm

**Weight:** 690kg

### Power

**Voltage:** 12V, 24V, 48V

**Solar panels:** 2 x 250W panels

**Operation:** Batteries / solar

### Radar

**Technology:** 24GHz FMCW Radar

**Range:** 2-100 metres

**Speed Range:** 2-250kpm

**Housing Material:** Black

Polycarbonate / Aluminium

**Sealing:** IP66

**Dimensions:** W 113.1mm x D

70mm x L289.1mm

**Radar Output:** RS422

**Weight:** 1.4kg

## PORTABLE SOLAR POWERED INVICTUS CCTV – LOW LIGHT

Our partnership with 360 Vision is one that sees the integration of their Invictus CCTV with our Solar IP, giving rise to a whole new groundbreaking low light solution.

This product boasts an incredibly clear picture and performs excellently in low light conditions.

The Invictus camera itself offers a fully ruggedized housing with exceptional build quality. The toughened optical glass window features a wiper and its Pan & Tilt gearbox is ultra-reliable and resilient. Its integrated high-performance IR lights with intelligent control enables powerful performance in low light conditions.

As a result of the low power demands of this unit, it is able to perform to extended run times using our Solar IP as a power source, filling a strong market requirement for a CCTV product that is also portable, solar powered and has a much clearer image than seen in previous solutions on the market.



## KEY BENEFITS

- Exceptionally clear image even in low light conditions.
- Solar powered and portable.
- Monitor remotely using EdgeVis software.
- 24/7 support from our friendly team.

## TECHNICAL SPECIFICATIONS

### INVICTUS HYBRID

#### Details

- INV-32U-IR
- Invictus ULTRA 32:1
- HYBRID 1080p
- ULTRA low Light
- HMA
- Wiper
- IR

#### SOLAR IP

##### Trailer

**Length** (overall): 3000mm  
**Width** (operating position): 1760mm  
**Height** (travel position): 2500mm  
**Height** (max operating position): 6600mm  
**Weight**: 690kg  
**Power Voltage**: 12v, 24v, 48v  
**Solar Panels**: 2x 250w panels  
**Operation**: Batteries / solar

### FEATURES

**Picture Flip & Freeze**: Yes  
**Focus/Iris**: Auto / Manual  
**Presets**: 101  
**Tours**: 4 (max 90 presets per tour)  
**Learned Patrols**: 4 mimic tours - up to 10 mins duration each  
**Privacy Zones**: Up to 24  
**Variable pan speed / coverage**: 0.1 - 120°/sec, 360° continuous rotation, absolute positioning  
**Variable tilt speed / coverage**: 0.1 - 120°/sec, 160°, absolute positioning  
**Auto Homing**: Goes to preset, tour or mimic tour after prescribed time  
**Col / Mono Changeover**: 4 levels - 3 fixed, 1 custom /user defined  
**Operating temperature**: -30°C to +60°C  
**Certification**: IP66



## NTIS DATEX II PORTABLE TIME SOLUTION

The NTIS DATEX II Portable solution enables real-time journey time information to be displayed on portable VMS using data from the National Traffic Information Service (NTIS), the same data source that Highways England's National Traffic Operations Centre (NTOC) used to display Journey Time information on the Strategic Road Network's fixed VMS, ensuring consistency of information displayed to the public.

The NTIS validates all data collected from Global Positioning System (GPS) probe devices and confirms the quality and accuracy by comparing the measured journey times and speeds with ANPR and MIDAS data. Benefits of using GPS probe devices include:

- Data is provided by the National Traffic Information Service (NTIS)
- Complete journey time sections can be continually monitored in real time.
- Congestions or delays can be pinpointed to within tens of meters as opposed to identifying a section which could comprise several junctions.
- Changes in journey time can be monitored – It is possible to reliably identify when journey times are starting to increase or decrease and predict when traffic conditions will return to normal.
- Less roadside 'kit' required on site with corresponding reduction in maintenance liability.

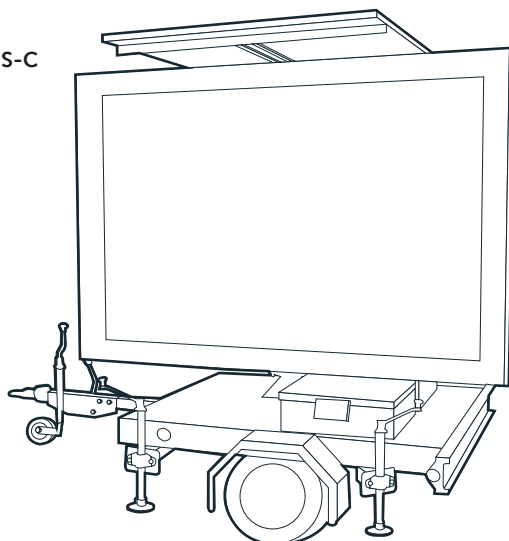




## KEY FEATURES

- Messages can be displayed in amber or white.
- Five minute refresh rate is the default setting compliant with Highways England's Major Projects Instruction (MPI-54-062016).
- Manually set a threshold for each route for the minimum and maximum journey time of any route.
- Display alternative messages if the maximum journey time is exceeded.
- Email alerts to multiple recipients if the maximum journey time is exceeded.
- Override journey time messages at any time to display other messages as required.

### Use with MVIS portable VMS-C



## HD DATA COLLECTION RADAR

**Portable, easy to operate and extremely reliable.**

Our solar powered HD Data Collection Radar supports speed detection, data collection and traffic management applications. Accurate and reliable, the HD Smart Sensor Radar uses the latest technology to collect consistently accurate traffic data and vehicle analysis.

### KEY FEATURES

- Adaptable to all weather and lighting conditions
- Hire with our Solar Intelligent Platform (IP)

### Measures:

- Up to 12 lanes of traffic
- Time stamp
- Volume of traffic
- Speed class
- Length class



## SOLAR POWERED BARRIER

COMING  
SOON

### SIZE

- 1750mm High ( no Boom )
- 700mm wide
- 770mm Deep
- 160kg Weight

### FEATURES

- Remote operated up to 30m
- 3m Telescopic boom
- Anti-contact safety beam feature
- Telematics for battery monitoring, Location, remote operation.
- Solar & Battery Powered – 400+ operations a day

### EXTRA FEATURES

- ANPR Activation – Whitelist/Blacklist up to 200 vehicles (Remote upload and download of whitelist/Blacklist)
- 100m or 1km Remote operation option
- Manual Operation buttons on the unit
- Mains Fed 110Vac or 240Vac (Charger)
- 2.5m Boom, 4m Boom, 5m Boom
- Lithium or PLC Batteries



## QUEUE DETECT

Our clever **Queue Detection** software technology has been designed to give warnings via our VMS to oncoming motorists.

It provides motorists the opportunity to react sooner to traffic congestion by highlighting upcoming hazards on exit slip roads or roads ahead. Queue Detect aims to take away the unpredictability and provide a much more free flowing journey for motorists.

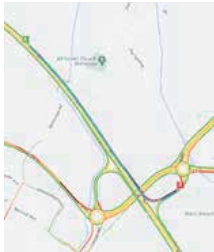


### BENEFITS

- Dashboard & email alerts notify changes in traffic flow reducing the need for 24 / 7 monitoring.
- No hardware installation minimises set-up cost & road worker exposure.
- Highly flexible service enables routes to be implemented & start detecting queues in minutes.
- Heatmaps, reports & graphs quickly.
- Early congestion warning allowing motorists to find / take alternative routes.

## FEATURES

- Traffic Speed & **Queue Detection** using crowdsourced data.
- Interactive Map with user definable colour-coded routes (which changes based on road speed)
- Feed Queue detection information & text to **Variable Message Signs** (VMS) from a single interface.
- Integrated alert system to identify queue detection via email and dashboard.
- Extensive reporting tools with graphical output and heatmap analysis.
- Live view of VMS display through **Web Studio** & ability to override message for emergencies.



## EXPECT DELAYS

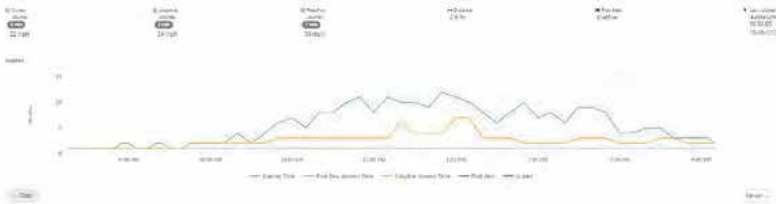
DETECT QUEUES WITHIN MINUTES



DASHBOARD & EMAIL ALERTS



HEAT MAPS, REPORTS & GRAPHS QUICKLY





Mobile Visual Information Systems

MVIS DATA SHEET



## Control **your** communications.

Hire or purchase our portable Variable Message Signs and benefit from using Bartco Web Studio™ technology. This sophisticated web-based platform saves travel time and costs by enabling remote instant communication to the VMS from laptops and PCs. Users can:

- View a map of hired or purchased assets
- Track the exact location
- Gain directions to the VMS
- Program multiple units by the touch of a button
- Build text messages and graphics
- Schedule messages
- Check battery voltages
- Check communication
- Enable speed radar activation messages
- Check history
- Create a restricted login
- Create a library of messages

The Web Studio™ system is ideal for organisations that hire multiple signs.

The Web Studio™ system is ideal for organisations that hire multiple signs.





The BartcoLive™ app enables traffic managers to control the messages displayed on their portable variable message signs (VMS) with greater speed and flexibility, anywhere on the road network.

## Fast and flexible

Developed to further improve the efficiency of our Intelligent Transport System (ITS) Solutions, the BartcoLive™ app is accessible from any Apple or Android smartphone or tablet and enables traffic managers to search VMS asset lists and instantly update messages displayed in direct response to changes to the situation on the road network.

### KEY FEATURES

- Remote access via any Apple or Android phone
- Instantaneous or scheduled message upload to single or multiple assets
- Job Queue: keep up to date with message upload, asset status update, etc.
- Secure login using Web Studio™ credentials which can be memorised to speed up subsequent logins.
- Searchable asset list (VMS, fire sign, etc.) including user-defined groups
- Access asset status information including:
  - GPS location - Communications status
  - Battery voltage levels - Controller status
  - Light output level - Controller information
  - Current message displayed
- Map detailing asset location
- Directions to asset location



You can download the BartcoLive™ app for FREE at

[WWW.M-VIS.CO.UK](http://WWW.M-VIS.CO.UK)



## ELECTRONIC EMERGENCY WARNING SIGN

The Electronic Emergency Warning Sign provides the public and motorists with fast, reliable and accurate information regarding fire ratings...that can save lives. Our signs (EEWS) use LED indicators, an LED message sign for notifications, combined with GPRS communication and web based interface to remotely send information instantly, to a sign or a network of signs.

### KEY FEATURES

- Display Type: Super Bright LED modules
- Message Panel: Dynamic Variable Message Display
- Overall Sign Dimensions: 1840mm x 1420mm
- Power Supply: Solar & Battery Back-up
- Enclosure: Aluminium
- Screen: Non-glare UV polycarbonate
- GPRS Modem
- Temperature Sensor
- Security Locks
- Communication Management (optional using Bartco WebStudio™ & CurbSite™ Lite app) with auto update from RSS Feed
- Brightness Control: Automatic & Manual



## TRAILOR MOUNTED EMERGENCY WARNINGS

EASILY ADAPTABLE FOR THE OTHER CASES - SNOW / NATURAL DISASTERS FLOODING ETC



# WEST NORTH EAST SOUTH NATIONAL COVERAGE.

We cover the entire UK. Providing clients with products from strategically located hubs.

This nationwide coverage is not just about reaching every corner of the country; it represents our commitments to providing exceptional support and service to our customers. Backed by our renowned **#platinumservice** promise.





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