

TOPAS

Traffic Open Products and Specifications

Guidance for Parish and Town Councils on purchasing vehicle activated signs and speed indicator devices

Introduction

This note provides guidance to procurers of vehicle activated signs and speed indicator devices. It may be of particular interest to parish and town councils but is relevant to any public body responsible for procuring this equipment.

Traffic authorities have powers to 'cause or permit' traffic signs and other equipment to be placed on the highway as part of their duties to manage their road networks. Parish councils also have some powers to place traffic signs, provided they obtain prior consent from the traffic authority within their area. These often include signs and devices to remind drivers of the speed limit in place with a view to improving compliance and addressing local concerns about inappropriate speed.

The procurement of Vehicle Activated Signs (VAS) and Speed Indicator Devices (SIDS) is often passed from local traffic authorities to parish councils or dedicated safety officer teams. This note is intended to help them understand what the legal requirements are for such signs, and what safety and operational standards exist that should be met so that they can make informed decisions about what equipment to purchase. Anyone placing equipment on the roadside has a duty of care to ensure that any equipment they purchase meets relevant national requirements.

This guidance discusses the specific use of VAS as speed reminder signs. Alternative sign faces may be displayed for other purposes eg hazard warning signs, but are more generally the remit of traffic authorities.

Advice for local traffic authorities on use of VAS and SIDs is also available from the Association of Directors of Environment, Economy, Planning and Transport (ADEPT).

Relevant legislation

The Road Traffic Regulation Act 1984 (RTRA) defines a traffic sign as "any object or device (whether fixed or portable) for conveying to traffic on roads or any specified class of traffic, warnings, information, requirements, restrictions or prohibitions of any description". Their design must be as specified by regulations, or authorised by the relevant national authority.



In addition, VAS and SIDS must comply with other appropriate national legislation. Much of this relates to technical requirements for the safe construction and operation of the equipment,

including electrical safety and the compatibility of the equipment with its electromagnetic environment and other equipment. The relevant legislation is shown in the table below.

Different legislative arrangements and approaches can apply to the devolved administrations, and anyone considering using one of these devices should discuss with their local traffic authority.

The table below summarises the different requirements that apply to VAS and SIDs:

Note : Where a product is a hybrid of both then the requirements for VAS apply

Legislation, standard or specification	VAS 	SID 
Traffic Signs Regulations & General Directions (TSRGD)	Yes; particularly permitted sign faces and VMS technical requirements.	No; not in TSRGD scope
TOPAS 2541 performance specification for control systems for vehicle activated discontinuous variable messages	Recommended	Recommended
BS EN 12966:2014 UK Designated standard for Road Vertical Signs – Variable Message traffic signs	Yes – as per TSRGD schedule 16.	Recommended
Radio Equipment Regulations 2017	Yes – requirement to have a Conformity Assessment marking (CE/UKCA)*	Yes – requirement to have a Conformity Assessment marking (CE/UKCA)*
Electromagnetic Compatibility Regulations 2016 BS EN 50293 Road Traffic Signal Systems EMC	Yes – requirement to have a Conformity Assessment marking	Yes – requirement to have a Conformity Assessment marking

Electrical Equipment (Safety) Regulations 2016 (Low Voltage/Extra Low Voltage)	Yes – requirement to have a conformity assessment marking	Yes – requirement to have a conformity assessment marking
Construction Products (Amendment etc) (EU Exit) Regulations 2019	Yes	Yes, if permanently installed No, if mobile device
Planning permission/other approval to place	No –traffic authorities have powers to place traffic signs under section 65 of the Road Traffic Regulation Act 1984	Yes

- From 1st January 2022 all VAS/SID products will require UKCA marking in order to be placed on the UK market. Different rules apply to NI.

Vehicle activated signs

The relevant Regulations prescribing traffic signs for use on public roads in England, Scotland and Wales are the Traffic Signs Regulations & General Directions 2016, as amended (TSRGD). This sets out the size, colour, type and meaning of all traffic signs, which include traffic lights, road markings, and variable message signs (VMS).

VMS are signs that are capable of showing different messages or sign faces at different times, usually using digital displays. Vehicle Activated Signs (VAS) are a type of VMS which are activated by passing vehicles exceeding a set speed. They are relatively inexpensive and can be used on roads where physical traffic calming would not be appropriate, as a reminder of the speed limit in place or to warn of specific hazards.

There are a range of permitted sign faces within TSRGD that can be shown as a VAS. This note focuses on VAS that show a speed limit roundel and supplementary ‘slow down’ plate, as shown below.

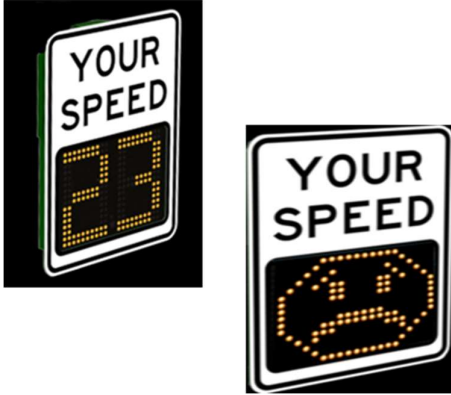


TSRGD requires that any VMS meets the requirements of a technical standard, BS EN 12966:2014. This sets the requirements for parameters such as light output and colours. It also covers testing and manufacturing requirements. In addition, all VMS must meet the requirements for sign faces outlined within TSRGD. Compliance ensures equipment is consistent in design and operation, and is safe for use on the road.

VAS as speed limit reminder signs are typically deployed temporarily (usually recommended for periods of 14 days) to maximise their impact. Where a VAS displays a hazard warning sign it is more typically deployed permanently.

Speed Indicator Devices

Products which do not display regulated speed limit signs, but instead use other messages to remind drivers of their speed are not considered to be 'traffic signs' within the definition in RTRA and are not within the scope of TSRGD. These are known widely as Speed Indicator Devices (SID), and usually display the driver's detected speed, a happy or sad face, along with a 'your speed' message – two examples are shown below.



SIDs are considered to be “information boards” and are therefore permitted on the public highway providing they are placed with the appropriate permissions. SIDs can be helpful as an alternative measure to help reduce speeding, but cannot replace regulated speed limit signing, and cannot be enforced against by the police. They are intended to be placed temporarily for recommended periods of 14 days.

SIDs must comply with the legislation listed in Table above.

Whilst there is no requirement for SIDs to meet BS EN 12966:2014, it is recommended, and many manufacturers produce equipment which does. Councils should aim to purchase equipment that meets BS EN 12966:2014 and has a suitable Conformity Assessment marking (CE/CA mark), to help ensure they are of a suitable quality, will be safe, and will perform as expected. In addition, manufacturers are encouraged to register products with TOPAS as further assurance of quality and compatibility.

Effectiveness of SIDs and VAS

All SIDs provide feedback to drivers related to their speed, but how that feedback will be interpreted by the driver is an important consideration. The current research suggests that whilst SIDs work in the same way as VAS, the resulting changes of driver behaviour are not sustainable once the signs are removed, whilst there is evidence to suggest that the effects of a VAS may extend beyond the period of time the sign is in place, for up to several weeks. (all research studies are referenced below).

Consequently, the Department for Transport and the Association of Directors of Environment Economy Planning and Transport (ADEPT) recommend the use of VAS rather than SIDs.

TOPAS registration

In order to provide for consistency in product functionality TOPAS has produced an equipment specification, TOPAS 2541, covering VAS and SIDs. Registered products will have been assessed to

ensure they meet relevant legislation and standards, giving procurers confidence that what they buy will perform as expected. A list of products registered to this specification is available on the TOPAS website. The Department for Transport and ADEPT recommend use of TOPAS registered products.

Who are TOPAS?

TOPAS is the UK body which manages product registrations against UK procurement specifications approved by its member bodies – UK Governments, road authorities and the manufacture/supplier community (see below).

Whilst TOPAS registration is not compulsory it is intended to supersede the earlier requirement for Secretary of State Type Approval. The Department for Transport, devolved governments, ADEPT and its highway authorities, TfL and Highways England recommend the use of TOPAS registered products on public roads.

The procurement specifications provide a means for procurers to specify and purchase products which have been assessed to be compliant with relevant UK regulations, including TSRGD where required. They also specify additional functionality required in England, Wales, Scotland and Northern Ireland, to ensure it is delivered in a consistent and predictable way, so that products are not only fit for purpose but are also safe for all users, without the need for procurers to necessarily carry out further checks, on a council by council, product by product basis.

Products registered to TOPAS specifications are identified on a publicly accessible site for all procurers. The register also expressly includes any exclusions to the specification identified for the products. <http://www.topasgroup.org.uk/shop/register.htm>

TOPAS registration is recognised by its representative bodies and is identified in the procurement frameworks of those bodies as the preferred choice of purchase.

VAS and SID products are registered under TOPAS 2541.

The TOPAS body comprises representatives from:

- Department for Transport
- NI Transport
- Transport Scotland
- Transport Wales
- ADEPT – Association of Directors of Environment, Economy, Planning and Transport - representing place directors from county, unitary and combined authorities, along with Local Enterprise Partnerships (LEPs), sub-national transport boards and corporate partners drawn from key service sectors throughout England.
- Highways England
- Transport for London
- ARTSM – Association for Road Traffic Safety and Management – the Trade Body representing product manufacturers and service providers

Checklist for parish councils/procurers when purchasing VAS/SIDs

- Check with the local traffic authority what policies and procurement requirements they have in place for placing VAS and SIDS, and obtain consent.
- Check whether planning permission or other approval is required for the intended location, if on the public highway
- Consider what maintenance and operational requirements will be needed – for example, if the device is to be mobile, that a plan is in place to move it as and when necessary.
- Check that the chosen product meets the necessary legislation as identified in the table above, and that the Conformity Assessment (CE/UKCA) mark expressly identifies these.
- Check that VAS have sign faces that comply with TSRGD, comply with BS EN 12966: 2014, and have Conformity Assessment (CE/UKCA) markings accordingly.
- Consider how reliable features such as the speed check calibration and traffic count facilities are.
- Check that the installation process will be carried out in accordance with the guidance in Chapter 8 of the Traffic Signs Manual, or the code of practice Safety at Street Works and Road Works (the ‘Red Book’), as appropriate.
- If the intention is that the device is permanently fixed, rather than mobile and moved between different sites, check compliance under the Construction Product Regulations and BS EN 12899
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- From January 1st 2022 all VAS/SID products will require a Conformity Assessment marking of UKCA to be placed on the UK market (excepting Northern Ireland which has different requirements)
- Finally, if in doubt, contact an expert in the field – TOPAS, ADEPT, ARTSM.

NOTE: A Conformity Assessment mark (CE/CA) alone does not confirm all the required testing has been done. It must be supported by a clear declaration of performance setting out what particular tests and standards the Conformity Assessment mark relates to. If in doubt, ask to see the declaration

Thank you for taking the time to read this.

If you require any guidance on the procurement of Vehicle Activated traffic signs and/or SIDS please contact TOPAS – www.topasgroup.org.uk.

If you have questions about the application of TSRGD please contact DfT.

References:

Know your Traffic Signs, DfT (latest version) - <https://www.gov.uk/guidance/the-highway-code/traffic-signs>

The Traffic Signs Manuals, DfT (latest version) <https://www.gov.uk/government/publications/traffic-signs-manual>

Traffic Signs Regulations and General Directions, DfT (latest edition)
<https://www.legislation.gov.uk/uksi/2016/362/contents/made>

Information for Procurers, TOPAS (latest version) <http://www.topasgroup.org.uk/procurers-information.htm>

Traffic Advisory Leaflet 01/03 Vehicle Activated Signs, DfT (January 2003)
<https://www.gov.uk/government/publications/traffic-advisory-leaflets-1989-to-2009/traffic-advisory-leaflets-1989-to-2009> *

Traffic Calming in Villages on Major Roads (Report No 385) Transport Research Laboratory, 1999
<https://trl.co.uk/uploads/trl/documents/TRL385.pdf> Vehicle Activated Signs, A large Scale evaluation (Report No 548) Transport Research Laboratory, 2002
<https://www.thenbs.com/PublicationIndex/documents/details?DocId=263328>

Clearview Intelligence, A76 Crosshands Case Study (February 2019) https://www.clearview-intelligence.com/uploads/case-studies/CI_A76_Crosshands_Case_Study.pdf

Radio Equipment Requirements in the UK - Radio Equipment Regulations 2016 (BREXIT statement)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/947004/ds-0010-21-radio-equipment-notice.pdf

Guidance on Radio Equipment Regulations 2017 [Radio Equipment Regulations 2017: Great Britain \(publishing.service.gov.uk\)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/947004/ds-0010-21-radio-equipment-notice.pdf)

EMC Requirements in the UK - Electromagnetic Compatibility Regulations 2016 (BREXIT statement)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/942100/ds-0007-21-emc-notice.pdf

Low Voltage Requirements in the UK – Low Voltage Equipment Regulations 2017 (BREXIT statement)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/968675/ds-0009-21-low-voltage-equipment-notice.pdf

Construction Products Regulations 2016
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/946196/ds-0035-21-construction-products-notice.pdf

Safety at Streetworks and Road works Code of Practice (latest edition)
<https://www.gov.uk/government/publications/safety-at-street-works-and-road-works>

Speed Compliance Statistics for Great Britain 2019
<https://www.gov.uk/government/statistics/vehicle-speed-compliance-statistics-for-great-britain-2019>

[Spectrum information for manufacturers, importers and suppliers - Ofcom](#)

Note: References to legislation contained in the TAL 01/03 may be out of date, however for the purposes of this document the content and information provided therein remains relevant and appropriate.