ASSOCIATION FOR ROAD TRAFFIC SAFETY AND MANAGEMENT

GUIDANCE DOCUMENT

WG3/
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PROVIDING GUIDANCE TO MANUFACTURERS AND USER COMMUNITIES

GUIDANCE ON SELECTING SPEED INDICATOR DEVICES (SIDs)

Best Practice guide for procurers of SIDs

A Speed indicator device (SID) is a roadside sign that displays the speed of an approaching vehicle in real time. It may also have an accompanying legend, such as Slow Down or a sad face. Some types of SID also display a message for vehicles under the speed limit, such as 'Thank You' or a smiley face. The speed of approaching vehicles is normally detected by an internal doppler radar, although some designs may have the radar mounted externally to the casing.

SIDs should be portable, as they are proven to be most effective at reducing speed when in position for short periods*. In the UK, local authorities recommend two weeks. It is best practice to ensure that the sign is not returned to that site for at least 6 to 8 weeks after.

Modern SIDs are usually battery operated, and may have the option of solar power, although arrangements for mains power, using sockets in street lighting columns, is not unheard of. This is usually at Local Highway Authority level however, and an UMSUG code will be required for the unit if mains power is to be used. A suitable process for this is now being explored by ARTSM with ELEXON.

- See link to studies below

A SID should meet the following requirements:

- a user defined Minimum Display speed
- a Speed threshold
- a Maximum Display threshold

The sign should ignore everything under the Minimum display speed, change message at and above the speed threshold (activate Slowdown, display flashes etc) and then switch off the Numeric display at and above the maximum display threshold.

If a secondary message is specified then that may continue to display, providing warning to the overspeed vehicle. The Numeric display should be switched off above the maximum threshold to prevent vehicles attempting to speed trial the sign.

As a Purchaser, it is best practice to ensure that all vehicle activated signs comply with BS EN 12966:2014 Road Vertical signs - Variable Message Traffic Signs. Speed Indicator Devices are no exception to this, although it is not a legal requirement. For VAS within TSRGD there is however a mandated requirement to comply to BS EN 12966:2014.

Compliance to BS EN12966 will ensure that the SID product will be built to the same standards as fixed VAS, With compliant optical performance, environmental performance and continuous product quality.

All vehicle activated signs, including SIDs must comply with other UK legislation including radio emissions, electromagnetic compatibility and low voltage regulations. All of which are identified below for ease of reference.

Further guidance on the selection of VAS and SIDS can also be found from TOPAS (see link below).

<u>UK Legislation and studies on effectiveness of SIDs and VAS:</u>

Know your Traffic Signs, DfT (latest version) - https://www.gov.uk/guidance/the-highway-code/traffic-signs
Traffic Signs Regulations and General Directions, DfT (latest edition)
https://www.legislation.gov.uk/uksi/2016/362/contents/made
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
TRL PPR314 "Effectiveness of Speed Indicator Devices on reducing vehicle speeds in London" 2008
Effectiveness of Speed Indicator Devices on reducing vehicle speeds in London. (tfl.gov.uk)
Guidance for Parish and Town Councils on purchasing vehicle activated signs and speed indicator devices, TOPAS 2021 Microsoft Word - VAS for parish councils v10 (topasgroup.org.uk)
Clearview Intelligence, A76 Crosshands Case Study (February 2019) https://www.clearview-intelligence.com/case-studies/improving-route-safety-using-vas/
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)
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
Safety at Streetworks and Road works Code of Practice (latest edition)
https://www.gov.uk/government/publications/safety-at-street-works-and-road-works

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