



# REMA

## Safety Lamps – REMA Information Bulletin

### Introduction

Hazard warning lights have been on the UK roads since the early 1900s: firstly in the form of goose-neck flares and then paraffin lamps, which were very labour intensive, followed in the mid 1960s by battery operated flashing lamps. The paraffin lamp remained in production in the UK until 2000 and its use was still allowed up until the recent withdrawal of BS 3142 Part 1.

Modern battery powered warning lamps utilise energy efficient LEDs and automatic photocell switching, greatly reducing their operating costs. Their extended battery life and improved reliability are helping to improve safety at road works.

### Lamp Types

There are two basic categories of warning lights for use at highway works: Road Danger Lamps (low intensity lights) and Flashing Beacons (high intensity lights). Low intensity lights can emit either a steady or flashing light and are used to delineate the full length of works or obstructions, but are only suitable for night-time use. High intensity lights are suitable for day or night use and are generally used either singly on lane closure boards or in rows in lead-in tapers where they flash sequentially to create the effect of a travelling light, which can greatly improve driver guidance. Amber lights are required for all these applications but other colours are used by the Police and emergency services. For Road Danger Lamps there are uni-directional, bi-directional or omni-directional options, which emit light in one or two directions or through a full 360°, but Flashing Beacons are invariably uni-directional.

### Legal Requirements

The use of battery operated warning lamps on UK roads is governed by the **Traffic Sign Regulations and General Directions** (TSRGD) which state that a lamp “*shall indicate to traffic the limits of a temporary obstruction of the road*” and which require compliance with certain performance classes in the European Standard BS EN 12352 and the National Annex thereto. TSRGD also specifies the mounting heights for lamps, their flash rates and their light intensities. The relevant Regulations in TSRGD (2002) are as follows:

Regulation 54 – Flashing Beacons

Regulation 55 – Road Danger Lamps

**Safety at Street Works and Road Works – A Code of Practice** (known as the Red Book) is a simplified on-site guide to setting out, signing and guarding works on the highway and gives guidance on the use of lamps on pages 12, 13, 17, 19, 22 and 25. It is mandatory only for the Utility Companies.

## Guidance

*The Traffic Signs Manual, Chapter 8: 2009 – Traffic Safety Measures and Signs for Road Works and Temporary Situations*, gives important guidance on the deployment of lamps and requires lamp bodies to be coloured yellow. Chapter 8 is in two parts: 1 – Design and 2 – Operations and the relevant sections are as follows.

Part 1, Pages 35 and 36	Section D 3.12
Part 1, Page 162	Subsections D 6.8.5 to D 6.8.8
Part 2, Pages 52 to 54	Section O 4.7
Part 2, Page 79	Subsections O 7.2.61 and O 7.2.62

## Standards

British Standard BS3143, Parts 1, 3 and 4 covering lamps and beacons has been withdrawn and superseded by **BS EN 12352**. The six combinations of performance and design classes from this standard which TSRGD prescribes for UK roads are given in the National Annex to the standard and are summarised in the table below.

Approved Lamp Type	Approved Road Uses	Speed Limit	Within 50yd of street light?	Light emitted	Auto-switched	Direction of light emitted	Light output class of lamp
WL1	Footways, cycleways and urban roads	≤ 30mph	Yes	Steady or flashing	Yes	Omni-directional	L1
WL2	Urban roads and single carriageway roads	≤ 40mph	Yes	Steady or flashing	Yes	Bi-directional	L3
WL3	Urban roads and single carriageway roads	≤ 60mph	No	Steady	Yes	Bi-directional	L3
WL4	Dual carriageway roads and motorways	≤ 70mph	No	Steady	Yes	Uni-directional	L3
WL5	Dual carriageway roads and motorways	≤ 70mph	No	Flashing	No	Uni-directional	L4
WL6	Dual carriageway roads and motorways	≤ 70mph	No	Flashing	No	Uni-directional	L4

## REMA Safety Lamps Subcommittee – Code of Practice

- To manufacture and/or supply compliant products
- To promote the use of compliant products in the market place
- To promote and improve awareness of applicable standards and best practice
- To contribute to the development of good standards and regulations
- To conform to ethical practices
- To adhere to the REMA Code of Practice
- To support and promote REMA as an association

## REMA

The Retroreflective Equipment Manufacturers Association (REMA) was founded over 30 years ago and is the trade association and co-ordinated voices for manufacturers of retroreflective traffic safety products which are used mainly on the highways but also, for example, at airports and industrial sites.

All REMA members are required to follow the REMA Constitution as well as the REMA Code of Practice. This ensures that products supplied by REMA members conform to the latest Standards, Regulations and Legislation – a guarantee of quality.

## Further Information

Website: [rema.org.uk](http://rema.org.uk)

Enquiries: [info@rema.org.uk](mailto:info@rema.org.uk)

TSRGD and Chapter 8 are downloadable at: <http://www.dft.gov.uk/pgr/roads/tss/>