Retroreflective Equipment Manufacturers Association

Vehicle Conspicuity markings - REMA guide for purchasers:

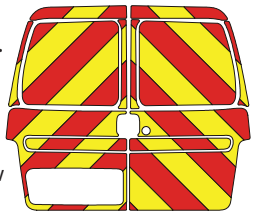
In July 2011 legislation will make marking to ECE104 mandatory on new trucks and trailers, and the new DfT Code of Practice for Safety at Street Works and Road Works will require rear conspicuity markings on all works vehicles, whether new or not. However, vehicle operators are strongly advised to adopt compliant marking for their vehicles now as Highways Agency contracts already require it. DfT Guidance on marking is published in Chapter 8 of the Traffic Signs Manual and failure to follow safety guidelines and best practice carries the risk of substantial legal liability or even criminal charges should this result in a serious accident.

Fleet operators therefore need to select appropriate markings that minimise cost whilst maximising safety and reducing exposure to legal liability. However, the number of compliant marking options coupled with the wide range of available products, each with its particular technical features and cost benefits, can make this a confusingly complex choice.

REMA has been established over 30 years as the UK's only trade association for manufacturers of retro-reflective traffic safety products and has therefore prepared this guide to help users cut through the "red tape" and specify appropriate (and legal) markings for their fleets.

Chevrons:

The rear markings for cars and vans are upward facing chevrons in red and yellow alternating stripes, as shown here -> Each chevron stripe should be no less than 150mm in width (larger on big vehicles), angled upwards between 45 and 60 degrees. The red being stripes must be of retro-reflective material, designed to maximise night-time visibility, whilst the yellow stripes are non-reflective, providing good daytime visibility and contrast to the red. The chevrons should cover as much of the rear as possible without obscuring windows, lights or registration plates. Note that it is also legally acceptable to have complete coverage of red retro-reflective material in place of chevrons on the rear but the red/yellow combination is generally considered to give the greater all round conspicuity.



If you operate:	Legislation and guidelines to consider	High speed road specification (above 40mph) – Recommended by REMA (Microprismatic material)
Vehicles on the public highway that operate or stop for work purposes, under 7.5 tonnes *(typically cars and vans)*	> Chapter 8 > Highways Agency (HA) requirements	> Rear chevrons in microprismatic red and non-reflective fluorescent yellow > Rear facing door edging / lockers / guardrail strips in red microprismatic > HIGHWAY MAINTENANCE or MOTORWAY MAINTENANCE or SURVEYING / SPREADING legends in non-reflective black on plain yellow > 50mm side outline / stripe in yellow microprismatic
Vehicles on the public highway that operate or stop for work purposes, OVER 7.5 tonnes *(including: spreaders, gritters, tippers, Roadsweepers and Recovery trucks)*	> Chapter 8 > ECE104 > ECE69 > ECE70 / 70.1 > Highways Agency (HA) requirements	> Rear chevrons in microprismatic red and non-reflective fluorescent yellow > Rear facing door edging / lockers / guardrail strips in red microprismatic > HIGHWAY MAINTENANCE or MOTORWAY MAINTENANCE or SURVEYING / SPREADING legends in non-reflective black on plain yellow > Directional arrow (Diag 610) in accordance with section 010.8.1 of Part 2; Operations > Rear marker chevron boards (ECE70 / 70.1) > 50mm red rear and yellow side outlines (ECE104)
Incident Support Units *(please consult HA guidelines for full specifications)*	> Chapter 8 > Highways Agency (HA) requirements	> Rear chevrons in red and fluorescent yellow-green microprismatic materials > Door edging strips in red microprismatic > HIGHWAY MAINTENANCE and INCIDENT SUPPORT legends to HA specifications > Side markings at 45 degree angles to HA ISU specifications
Other vehicles on the public highway *(typically trucks, trailers, buses, coaches, curtain siders – N2, N3, M2, M3)*	> ECE104 > ECE69 > ECE70 / 70.1	> White reflective markings to front of vehicle > Yellow reflective partial contour (outline) marking to minimum of 80% of length or a complete box contour > Red reflective outlines to rears

Note: > Engineering grade markings may be used instead of microprismatic material to meet minimum retro-reflective requirement for "low-speed roads" (under 40mph limit), but are not acceptable for vehicles operating on Highways Agency / Chapter 8 contracts.

> All ECE104 & ECE70 / 70.1 materials must be E-Marked to show compliance to UNECE regulations.

3M materials that meet the legislation quoted are given in the table below:

Manufacturer / Supplier	Products – Chapter 8 (and ECE104)	Product codes
3M www.3m.co.uk/traffic	Microprismatic Diamond Grade DG3 Reflective Red, Yellow & Fluorescent Yellow-Green Scotchcal non reflective fluorescent saturn yellow Scotchlite 680 vehicle reflective film - Red and Yellow ECE104 conspicuity marking film	4092, 4091, 4083 3485 680 – 71 & 72 983 & 987

It is the user's responsibility to maintain the markings in accordance with the material manufacturer's guidelines and to inspect and replace them within the materials expected performance life.

Please note that these REMA guidelines are produced for advisory purposes only and are intended to clarify the official guidance and legislation applicable at the time of publication. They are given in good faith but without liability and should not be taken as legal advice.

For further information on REMA and its members, please visit www.rema.org.uk. Or email REMA Secretariat - info@rema.org.uk

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For further information and detail on guidelines and legislation referred to in producing this document, please see:
Chapter 8 (Traffic Safety Measures & Signs for RoadWorks & Temporary Situations 2009) issued by the Department for Transport www.dft.gov.uk/pgr/roads/tss/tsmanual/
Highways Agency (HA) – HA Network Management Manual Section 7.10.4 / Chapter 7 (not currently available online)

ECE104 – www.unece.org/trans/main/wp29/wp29regs101-120.html
ECE70 / 70.1 – www.unece.org/trans/main/wp29/wp29regs61-80.html
ECE69 – www.unece.org/trans/main/wp29/wp29regs61-80.html