

Traffic Signs 2.0

A major upgrade
for Britain's road signs



Clarity, legibility and safety
using universally understood symbols
and units of measurement

1. Use m for metres, not for miles



Services 20 metres ahead ?

The standard symbol for metre is 'm'.

To also use 'm' as an abbreviation for mile causes confusion.

Most directional signs use the word 'miles' or no abbreviation.

2. Use t for tonne, not T



'T' is the symbol for tesla (the SI unit of magnetic flux density).

The correct symbol for tonne is 't'.

The symbols used on road signs for feet and inches are also incorrect.

The symbols, as listed in the Units of Measurement Regulations 1986, are 'ft' and 'in'.

The abbreviation 'm g w' adds unnecessary clutter to the sign, and relies on the driver knowing that it is an English abbreviation for 'maximum gross weight'.

Maximum magnetic flux density 7.5 teslas ?



3. Width, height & length in metres only



Hundreds of foreign lorries pass this 6'-6" width restriction sign every day

The 1968 Vienna Convention on Road Signs and Signals stipulates metric-only for restriction signs.

Airports, garage forecourts, warehouses, and many car parks use metric-only restriction signs.

Vehicle owner's manuals give vehicle dimensions in metric.

The continued use of imperial restriction signs is a serious safety issue in bridge strikes involving foreign lorries.

UK drivers are generally familiar with imperial and metric units, but foreign drivers have no understanding of imperial.

Supplementary metric signs have been used since 1981.

The full switchover to metric-only is overdue.



4. Short distances in metres only



In Wales, distances cannot be shown in 'yards', unless they are also shown in 'llath'. Unlike imperial units, metric symbols do not require translation.

The size and cost of bilingual road signs can be reduced by using the symbol 'm', instead of 'yards' and 'llath'.

Britain is the only country in the world still using yards on road signs.



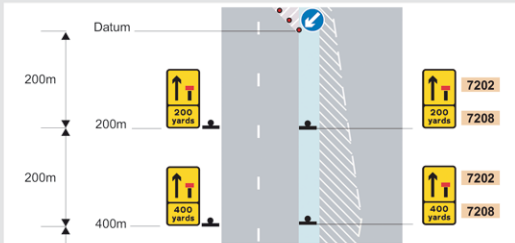
The metre is the standard unit of distance on road signs in all other countries, except the USA where feet are used.

Highway Code stopping distances are in metres, not yards.

All road design and construction is carried out using metres. e.g. Sign positions at roadworks are specified in multiples of 100 m, yet these distances are labelled as yards on the signs.

Always use the standard symbol 'm'. This should always be lower case.

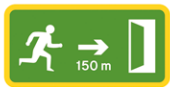
Avoid language specific words such as 'metres' and 'metr', and other improvised abbreviations.



Traffic Signs Manual - Chapter 8 Part 1



In a tunnel fire, confusion can cost lives. Distances to exits should be shown in universally understood metres, as per the diagrams in the Vienna Convention.



5. Do not use fractions



For a given text height, the numeric characters used to express fractions of a mile are smaller than the characters used for whole numbers, and are therefore less readable at a given distance.

e.g. '1/4 m' is not as legible as '400 m'.



6. Use 'up arrows' for hazard extent

For
1/3 mile

Am
1/3 milltir
For
1/3 miles

For
550 yards



↑ 500 m ↑

Language-independent way to say 'For 550 yards'

Language-dependent ways to say '↑ 500 m ↑'



To reduce clutter, replace the words, 'For' and 'Am' on signs such as, 'For 550 yards', with 'up arrows', as per the 1968 Vienna Convention.

'Up arrows' are language-independent.

7. Replace miles with kilometres



A driver location sign on the A38 at kilometre 420.5



Digital tachographs record km and km/h only
The UK's official map system uses a kilometre grid.

All road design and construction is carried out using metric units.

UK vehicle odometers count in units of 0.1 miles (528 feet). This unit does not relate readily to the yards, or fractions of miles, used on road signs. Switching to kilometres will mean that new odometers will count in practical 100 m units.

Always use the standard symbol 'km'. This should always be lower case.

Avoid language specific words such as 'kilometres' and 'cilometr', and other improvised abbreviations.

Services
32 km

Most existing signs can easily be converted to kilometres.

A 46
Nottingham 17
Leicester 32
(M1 South) 35

Metric odometers will be able to be used meaningfully both at home and when driving outside the UK.

A 46 km
Nottingham 27
Leicester 51
(M1 South) 56

Nottingham
A 52
25 1/2 m

In Wales, the word 'miles' can only be used with 'milltir'.

Measuring fuel consumption in standard L/100 km will become possible. (mpg has been impractical since gallons were phased out in the 1980s).

Nottingham
A 52
25 800 m

Services
M 4 STEAKADE 1 m
ROADCOOK 20 m
M 5(N) WOODHOUSE 10 m
FIFTY
M 5(S) NO SERVICES

CO₂ emissions are measured in g/km.

Services km
M 4 STEAKADE 2
ROADCOOK 32
M 5(N) WOODHOUSE 16
FIFTY
M 5(S) NO SERVICES

8. Use pictograms instead of text



What does this sign mean to non-English or Welsh speakers?



The unrestricted black arrows mean 'Any vehicle'

The information in many text only signs can be better conveyed using pictograms and symbols. e.g. 'Unsuitable for heavy goods vehicles' signs can be replaced with standard weight or width restrictions, or other pictograms.

Superfluous text, e.g. 'ANY VEH', can confuse foreign drivers.

Pictograms and symbols are language independent, and can be read more quickly than text.

Metric units have universally understood standard symbols.



9. Redefine all speed limits in km/h



A cluttered dual unit speedometer

Since 1977, in readiness for metric speed limits, all new vehicles have been required to be fitted with speedometers capable of showing speeds in km/h and mph.

Switching to km/h will allow new vehicles to have easy-to-read single unit speedometer displays.

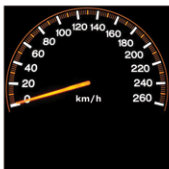
The de facto motorway speed limits for lorries and coaches are defined by speed limiter regulations which are in km/h. e.g. 90 km/h for lorries and 100 km/h for coaches. These regulations are incompatible with official motorway and dual carriageway speed limits set in mph.



This lorry has a 90 km/h speed limiter



Commercial vehicle operators do not use a common system to advertise their vehicles' metric speed limiter settings



An easy-to-read single unit speedometer

Speed limits in km/h would provide Traffic Authorities with a more versatile range of speed restrictions, enabling speed limits to be more finely tuned to individual roads.



The UK has a land border with a country with speed limits in km/h

More than 3 million foreign-registered vehicles enter the UK each year. Most of these vehicles' speedometers cannot show speeds in mph.

Speed limits in km/h will mean that practically every vehicle on Britain's roads will be able to display the relevant unit.

Drivers will benefit from not having to adjust to different systems every time they drive outside the UK.



What's wrong with Britain's road signs ?

Britain has one of the best designed and consistent systems of road signs in the world. However, two fundamental issues need to be addressed if the understanding of road signs is to be improved in the 21st century: Many current signs can only be understood by drivers who can read English; and many can only be understood by those familiar with old imperial units.

Both of these problems can be tackled by following the principles of the 1968 Vienna Convention on Road Signs and Signals: Universally understood symbols and pictograms should be used wherever possible, on the assumption that not all road users will understand the local language. Indeed, better use of pictograms and symbols would reduce costs and signage clutter in Wales, where signs are required to be bilingual. Unlike imperial units, standard metric symbols do not require translation.

Failure to understand road signs can be dangerous, so addressing these issues is vital if accidents are to be reduced. The number of reported bridge strikes has doubled to over 2,000 a year in the past decade, costing the country millions of pounds. Although low bridges are sign-posted, the signs are often only in feet and inches which are meaningless to foreign drivers.

With an increase in international traffic, the continued use of old imperial units is no longer viable; and with the majority of UK drivers educated in the metric system, and not even being taught how many yards there are in a mile, there is now every reason to drop imperial.

The recommendations outlined in this leaflet by the UK Metric Association will provide a quantum shift in the clarity and understanding of road signs in general, and will have other benefits, that are no less important; such as letting our children see the units, that they learn about at school, in use in the environment around them.

For a full report on the case for converting road signs to metric units read "Metric Signs Ahead" by the UK Metric Association.

ISBN 978-0-9552351-0-8

website : www.ukma.org.uk
e-mail : secretary@metric.org.uk

© UK Metric Association 2009

