

Devices for Indirect Vision

There should be no restriction on, or barrier to, current or future product developments and/or emergent technologies.

It is entirely possible that conventional mirrors will largely disappear, being replaced by camera-monitor systems.



Conventional mirrors:

Create blind spots – the very thing they are designed to remove

Create wind resistance/drag – adversely affecting fuel economy and the environment

Create an impact hazard

Require drivers to turn their head/eyes a long way from the road ahead

May cause confusion / information overload (too many mirrors too far apart)



Camera-monitor systems:

Can remove all of these problems

Can give daytime pictures that compare well with conventional mirrors

Can give pictures in low light (dawn/dusk) and at night that are much better than is possible with conventional mirrors



Monitor(s):

It is neither practical, nor desirable, to have separate monitors replacing each mirror (6 on large trucks)

It is possible that future vehicles will feature monitors on each side of the steering wheel, providing at least side view – and also front/rear view if needed

Especially in the case of trucks and buses, it may be appropriate for these to be split screen, with the Class II area being on the inside half of each monitor, and the Class IV area on the outside half

The case for split screen monitors:

Many car mirrors already feature split image, with narrow view on the inner section and wide angle view on the outer section

Neither manufacturers nor drivers want multiple monitors in the cab

The driver can monitor two areas (eg Class IV and Class V; or Class V and Rear View) with a single glance – which increases his awareness and, therefore, safety

Safety is also increased because the driver does not need to take his eyes a long way from the road in front



Split screen already allowed:

UNECE Regulation 46.02

- Device for indirect vision other than (conventional) mirror can be used for Class V + Class VI areas
- A device for indirect vision must 'exclusively' show the Class V area, with the exception that it can show the Class V and VI areas together. In this case, the Class VI area must be visible up to 30Kph, above which speed it is allowed to show other information (eg navigation or rear view) provided that the Class V area is permanently displayed.

This only makes sense in the context of a split screen monitor.



Split screen already used:

UK

- For compliance with 2007/38

SPAIN

- For compliance with ITC/4037/2006
- Basically a requirement for school buses to meet the Class V and Class VI requirements of 2003/97.
- Device for indirect vision other than (conventional) mirror specifically authorised
- Many bodybuilders fitting twin camera systems (mainly side and rear view) with split screen monitor – and these are clearly being approved by the Spanish authorities



Side & Rear View - Split Screen

