



# R46



## Backeye<sup>®</sup>

## Backeye<sup>®</sup> 360

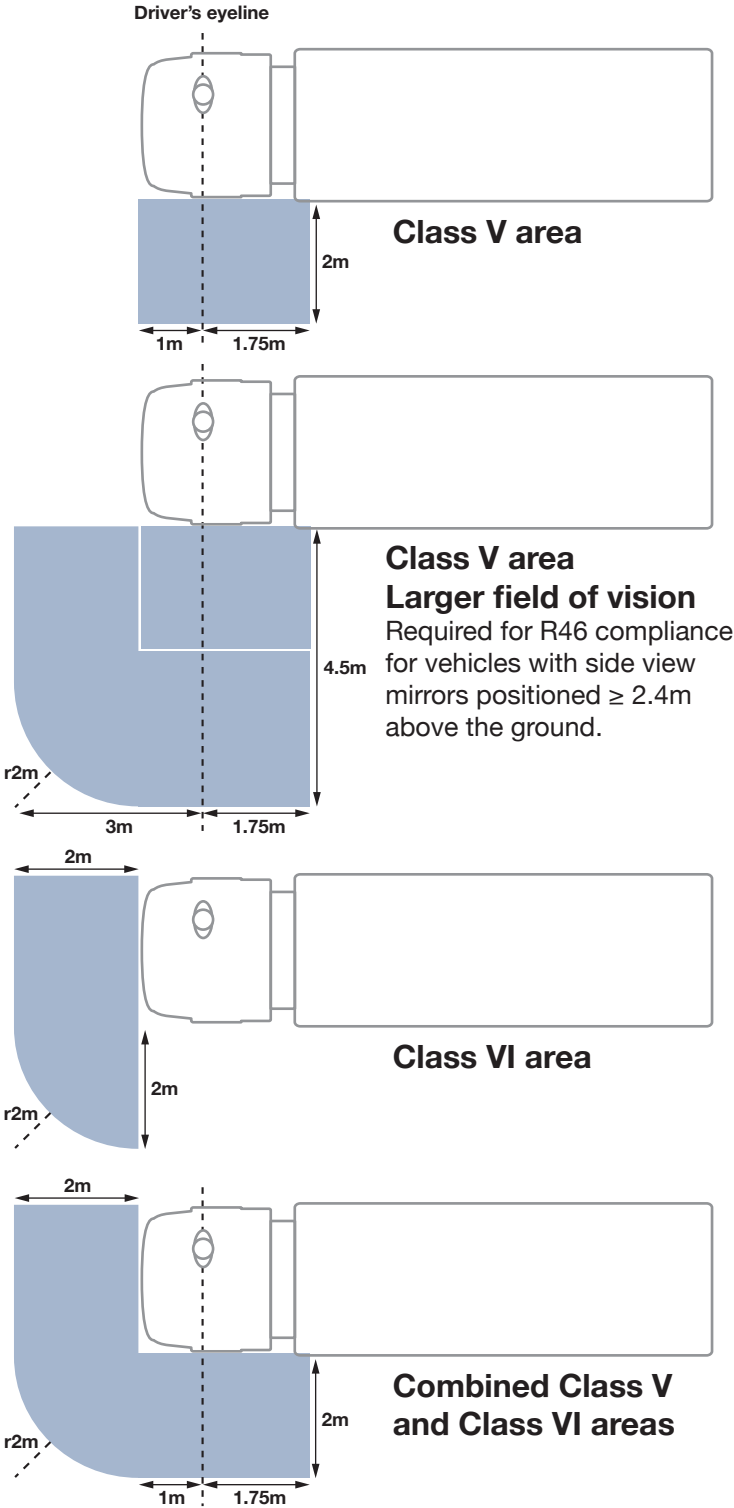
## Camera Monitor Systems



Devices for Indirect Vision

Every year, hundreds of people, mostly vulnerable road users such as pedestrians, cyclists and motorcyclists, are killed in incidents involving large goods vehicles. These incidents are mainly due to drivers not being able to see other road users in blind spots which exist in the area immediately around their vehicles.

To help eliminate this, European Directives 2003/97/EC and 2007/38/EC were introduced. These directives require that ‘devices for indirect vision’ are fitted to large goods vehicles over 3.5 tonnes to observe the traffic area adjacent to the vehicle which cannot be observed by direct vision. These can be conventional mirrors, camera-monitors or other devices able to present information about the indirect field of vision to the driver. These areas are Class V (blind spot area directly beside and below the passenger door) and Class VI (blind spot immediately in front of the vehicle).



R46

UN ECE Regulation No 46 (R46) is a regulation which covers devices for indirect vision and their installation. R46 is widely recognised as a mark of exceptional performance, reliability and quality. In order to comply with the R46 regulation, the components of a camera monitor system must reach specified performance standards and

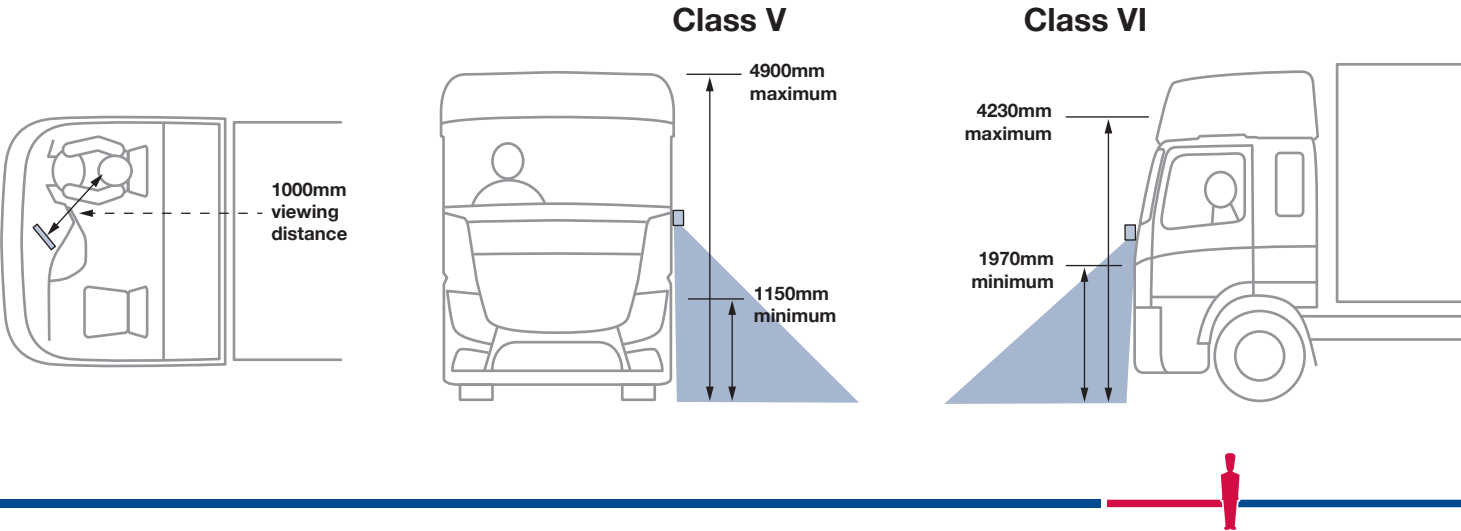
be installed within pre-defined guidelines. The installation height of the camera is dependent on the distance between the driver's eye and the monitor (see below table) An R46 approved camera monitor system can be used instead of a conventional mirror for the Class V and Class VI areas.

Example of installation table:

VBV-770M monitor with VBV-300C or VBV-320C camera					
Class V area Camera installation heights Allowing for vehicle lowering due to maximum loading	Viewing distance (Distance between eye and monitor)				
	500mm	1000mm	1500mm	2000mm	2500mm
Minimum mounting height (mm)	1150	1150	1150	1150	1150
Maximum mounting height (mm)	>4900	4900	4100	3200	2550
Minimum mounting height (mm) (larger field of vision)	1970	1970	1970	-	-
Maximum mounting height (mm) (larger field of vision)	>4700	3800	1970	-	-
Class VI area Camera installation heights Allowing for vehicle lowering due to maximum loading	Viewing distance (Distance between eye and monitor)				
	500mm	1000mm	1500mm	2000mm	2500mm
Minimum mounting height (mm)	1970	1970	1970	1970	-
Maximum mounting height (mm)	>4700	4230	3160	2420	-
Combined Class V and VI areas (corner view) Camera installation heights Allowing for vehicle lowering due to maximum loading	Viewing distance (Distance between eye and monitor)				
	500mm	1000mm	1500mm	2000mm	2500mm
Minimum mounting height (mm)	2700	2700	2700	-	-
Maximum mounting height (mm)	>4700	4300	3200	-	-
Minimum mounting height (mm) (larger field of vision)	3300	-	-	-	-
Maximum mounting height (mm) (larger field of vision)	4700	-	-	-	-

These illustrations use the data from the above table to show the minimum and maximum installation locations for Class V and Class VI areas when using VBV-320C cameras and a VBV-770M monitor at a viewing distance of 1000mm.

It is the responsibility of the installer/driver to ensure the camera views are not obstructed by vehicle bodywork or other fixtures. Visit [brigade-electronics.com/r46](http://brigade-electronics.com/r46) for the full list of installation tables.



# Camera Monitor Systems approved to R46



			MONITORS		
			ELITE BE-870LM	SELECT VBV-770M	SELECT VBV-750M
CAMERAS	ELITE	BE-800C	✓ Plus full or half screen with SS-002 screen splitter	✗	✗
		BE-890C	✓ Plus full or half screen with SS-002 screen splitter	✗	✗
		BE-850C	✓ Plus full or half screen with SS-002 screen splitter	✗	✗
	SELECT	VBV-700C	✗	✓ Plus full or half screen with SS-002 screen splitter	✓
		VBV-790C	✗	✓ Plus full or half screen with SS-002 screen splitter	✓
		VBV-300C	✓ Plus full or half screen with SS-002 screen splitter	✓ Plus full or half screen with SS-002 screen splitter	✓
		VBV-320C	✓ Plus full or half screen with SS-002 screen splitter	✓ Plus full or half screen with SS-002 screen splitter	✓
	360	BN360-000	✗	✓	✗
				Full screen and standard split screen	



Scan the QR code for a full list of installation tables



BE-870LM



VBV-320C



VBV-700C



BE-800C



VBV-770M with  
BN360-000 view

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