

System and Installation Manual













Changelog file

V 06/2023:

- Modification of the distances from the driver's eye to the monitors according to extension 01 of the eMirror system approval (see page 15) :

Driver side: is 940 was 800 mm Passenger side: is 1870 was 1850 mm

- Product description updated acc to product versions

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1. System description

The 12,3" monitor has a two-way communication channel with the cameras. Configured according to the side of the vehicle, it displays the information on the screen. The Class II image is shown at the top and Class IV or V at the bottom. The analogical system Class V or VI image is shown at the 7" monitor (see figure 1.1 to 1.6).



eMirror system Cat. II / IV / V



System description





2. Categories

2.1. eMirror Class II

The Class II field of vision of the main mirror device shows the driver a width of 5 m which is delimited by a plane parallel to the vertical longitudinal median plane and passing through the outermost point of the vehicle from a point 30 m behind the driver's ocular points towards the horizon.

Moreover, it shows a width of 1 m which is delimited by a plane parallel to the vertical longitudinal median plane and passing through the outermost point of the vehicle starting from a point 4 m behind the vertical plane passing through the driver's ocular points (see figure 2.1).

2.2. eMirror Class IV

The Class IV field of vision for the wide-angle vision device shows the driver a horizontal, flat, at least 15 m wide part of the road, delimited by a lane parallel to the vertical longitudinal median plane of the vehicle and passing through the outermost point of the vehicle and extending from at least 10 m to 25 m behind the driver's ocular points.

Moreover, it shows a width of 4.5 m, delimited by a plane parallel to the vertical longitudinal median plane and passing through the outermost point of the vehicle, starting from a point 1.5 m behind the vertical plane and passing through the driver's point (see figure 2.1).

2.3. eMirror Class V

The Class V field of vision shows the driver a horizontal, flat, 2 m wide part of the road, delimited by a plane parallel to the median longitudinal vertical plane of the vehicle which passes through the outermost point of the vehicle cab on the passenger's side.

Moreover, to the front shows a distance of 1 m delimited by a plane parallel to the vertical plane passing through the driver's ocular points and at a distance of 1.75 m behind the driver's ocular points (see figure 2.1).

2.4. eMirror Class VI

The Class VI field of vision shows the driver a distance of 2 m in front of the transverse vertical plane of the outermost point of the front of the vehicle.

Moreover, it shows a width of 2 m delimited by a plane parallel to the vertical longitudinal median plane and going through the outermost point of the vehicle cabin on the passenger side.

The front of this field of vision opposite to the driver's side is limited by a radius of 2000 mm (see figure 2.2).







3. Camera unit fixing points

Left Side / Right Side



Scale 1:1

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4. Camera Unit

4.1 Vehicle mounting position

The positioning and placement of the cameras is essential for the correct functioning of the system.



5. Mounting Instructions Camera Unit

5.1 Camera unit mounting Cat. II / IV

Right Side / Left Side Symmetrical

DIN 7380-2 M4x10

















6. Monitor

6.1 Mounting position

The positioning and placement of the monitor is essential for the correct operation of the system. The position of both monitors, on the driver and passenger sides, should be perpendicular to the horizontal plane passing through the centres of the monitor and the driver's eyes (see Figure 6.1).



The monitor on the driver's side must be positioned so that the angle between the vertical plane passing through the centre of the eyes and the vertical plane of the monitor does not exceed 55°. Both monitors, on the driver and passenger sides, should be positioned perpendicular to the vertical plane passing through the centres of the monitor and the driver's eyes (see Figure 6.2).



If the monitor is integrated into the bodywork (e.g. in the pillar), air circulation inside the monitor must be (!) guaranteed for proper cooling.



7. Monitor Assembly Instruction

7.1 Monitor mounting 12,3"



5.1 Find the right position Mounting position, see page 15

Step 2

System connection: II / IV, see page 19

II / V, see page 20



II/IV/V, see page 21

**Optional VESA 35X75 fixing provided by Arcol







7.3 Monitor mounting 7" coupled monitor system

*System connection II / IV / Va coupled monitor, see page 24 and 25

*System connection II / IV / Va & VIa coupled monitor, see page 26 and 27





Camera Unit

8. Connections

8.1 eMirror category II / IV system connection

* Class II / IV power supply			
Terminal Colour	Function	Voltage	Signal
Blue	Ground	GND	GND
Yellow	Battery (+)	12V/24V	KL 30
Brown	System ON / OFF	12V/24V	KL 15

Camera Unit side





8.2 eMirror category II / V system connection

* Class II / V power supply			
Terminal Colour	Function	Voltage	Signal
Blue	Ground	GND	GND
Yellow	Battery (+)	12V/24V	KL 30
Brown	System ON / OFF	12V/24V	KL 15





8.3 eMirror category II / IV / V system connection

* Class II / IV / V power supply			
Terminal Colour	Function	Voltage	Signal
Blue	Ground	GND	GND
Yellow	Battery (+)	12V/24V	KL 30
Brown	System ON / OFF	12V/24V	KL 15
Gray	Switch	Class IV - GND Class V - 12V / 24 V	-





8.4 eMirror category II / IV / Va system connection

* Class II / IV / Va system connection			
Terminal Colour	Function	Voltage	Signal
Blue	Ground	GND	GND
Yellow	Battery (+)	12V/24V	KL 30
Brown	System ON / OFF	12V/24V	KL 15





eMirror category II / IV / Va system connection

* Monitor 7" Power supply			
Terminal Colour	Function	Voltage	Signal
Black	Ground	GND	GND
Red	Battery (+)	12V/24V	Power
Gray	Trigger 1	12V/24V	Trigger 1
Green	Trigger 2	12V/24V	Trigger 2



8.5 eMirror category II / IV / Va coupled monitor system connection

* Class II / IV / Va with Monitor coupled system connection			
Terminal Colour	Function	Voltage	Signal
Blue	Ground	GND	GND
Yellow	Battery (+)	12V/24V	KL 30
Brown	System ON / OFF	12V/24V	KL 15





eMirror category II / IV / Va coupled monitor system connection



12,3" Monitor side





8.6 eMirror category II / IV / Va & VIa coupled monitor system connection

* Class II / IV / Va & VIa coupled monitor system connection			
Terminal Colour	Function	Voltage	Signal
Blue	Ground	GND	GND
Yellow	Battery (+)	12V/24V	KL 30
Brown	System ON / OFF	12V/24V	KL 15





eMirror category II / IV / Va & VIa coupled monitor system connection





9. eMirror System connection diagram

9.1 eMirror System connection diagram Cat. II / IV

GND	GND
KL-15	KL-15
KL-30	KL-30
COAX. CABLE CAM CLASS II	COAX. CABLE CAM CLASS II
COAX. CABLE CAM CLASS IV	COAX. CABLE CAM CLASS IV
HEATER CAM	HEATER CAM CLASS II
	LHEATER CAM CLASS IV

9.2 eMirror System connection diagram Cat. II / V

GND	GND
KL-15	KL-15
KL-30	KL-30
COAX. CABLE CAM CLASS II	COAX.CABLE CAM CLASS II
COAX. CABLE CAM CLASS IV	COAX.CABLE CAM CLASS IV
HEATER CAM	HEATER CAM CLASS II
	HEATER CAM CLASS V

9.3 eMirror System connection diagram Cat. II / IV / V

GND	GND
KL-15	KL-15
KL-30	KL-30
COAX. CABLE CAM CLASS II	COAX. CABLE CAM CLASS II
COAX. CABLE CAM CLASS IV	COAX. CABLE CAM CLASS IV
HEATER CAM	HEATER CAM CLASS II
	HEATER CAM CLASS IV
	ⁱ HEATER CAM CLASS V

9.4 eMirror System connection diagram Cat. II / IV / Va

DIN MONITOR	DIN CAMERA
GND	GND
KL-15	KL-15
KL-30	KL-30
COAX. CABLE CAM CLASS II	COAX. CABLE CAM CLASS II
COAX. CABLE CAM CLASS IV	COAX. CABLE CAM CLASS IV
COAX. CABLE CAM CLASS V	COAX. CABLE CAM CLASS V
HEATER CAM	HEATER CAM CLASS II
	LHEATER CAM CLASS IV

9.5 eMirror System connection diagram Cat. II / IV / Va coupled monitor

DIN MONITOR	DIN CAMERA
GND	GND
KL-15	KL-15
KL-30	KL-30
COAX. CABLE CAM CLASS II	COAX. CABLE CAM CLASS II
COAX. CABLE CAM CLASS IV	COAX. CABLE CAM CLASS IV
COAX. CABLE MONITOR 2CAM	COAX. CABLE CAM CLASS V
HEATER CAM	HEATER CAM CLASS II
	LHEATER CAM CLASS IV



9. eMirror System connection diagram

9.6 eMirror System connection diagram Cat. II / IV

DIN MONITOR	DIN CAMERA
GND	GND
KL-15	KL-15
KL-30	KL-30
COAX. CABLE CAM CLASS II	COAX. CABLE CAM CLASS II
COAX. CABLE CAM CLASS IV	COAX. CABLE CAM CLASS IV
COAX. CABLE MONITOR 4CAM	COAX. CABLE CAM CLASS V
	COAX. CABLE CAM CLASS VI
HEATER CAM	HEATER CAM CLASS II
	LHEATER CAM CLASS IV

9.7 Observations

The eMirror system must always be connected to the battery.

The system will display the image in less than 7 seconds once the System ON/OFF signal goes from 0V to 12V/24V. The System ON/OFF line must remain in the ON position for 420 seconds after the vehicle is turned off. The image will remain on for 450 seconds.