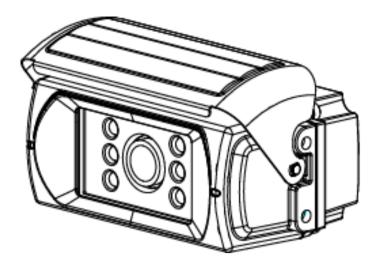
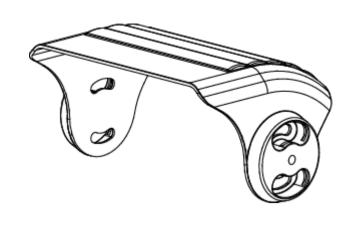
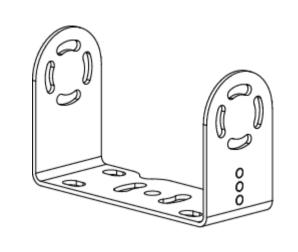
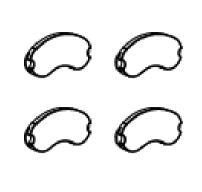
# **Contents**







**Bracket x 1** 





Camera x 1

Sunshield x 1

Camera Screw Kit x 1

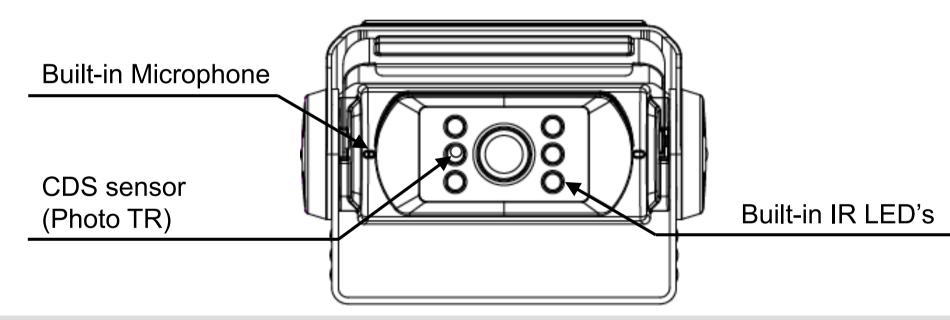
Screw cap cover x 4

Instruction manual x 1

#### **Features**

- Best picture quality (in combination with Digital LCD monitor)
- High resolution CMOS camera (1.23Mega pixels)
- 1/3.2" Color CMOS
- IP69K Waterproof Rating
- Diagonal 130° Viewing
- Normal/Mirror Image switching
- Ultra low light performance ,Built in ICR filter block
- Automatic Electronic Iris ,WDR Function
- Built-in Microphone
- Built-in IR LED's
- Built-in Automatic Heater (below +10°C)
- Temp.  $-40^{\circ}$ C  $\sim 80^{\circ}$ C
- Vibration resistant
- Auto shutter heating camera
- Motorized shutter (to protect the lens surface)
- Waterproof screw type connector (IP67), 4-pin mini-DIN
- E-mark.

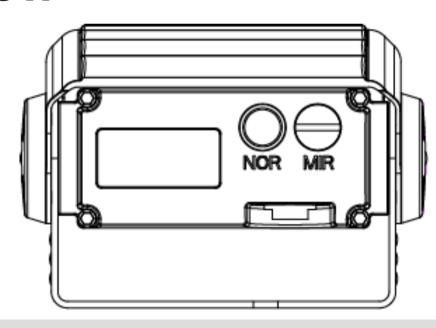
# Front View



# **Technical Specifications**

Scanning SystemPAL, 1.23Mega pixels(1280x960)Resolution750 TV LinesS/N ratioMinimum 45dB (at AGC off)Minimum Illumination0 lux (IR LED's on)Power supplyDC 9 ~ 48VPower ConsumptionDC 12V, 420mA (Heater on) DC 12V, 332mA (Heater off)Operating Temperature-40°C to +80°CField of View angle130° (Diagonal), 102.2° (Horizontal), 72.8° (Vertical)Dimensions95.9(W) x 43(H) x 67.6(D) mm 109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunvWeight386g (total weight incl. bracket & sunvisor: 524g)	Image Sensor	1/3.2" Color CMOS
S/N ratio  Minimum 45dB (at AGC off)  Minimum Illumination  O lux (IR LED's on)  DC 9 ~ 48V  Power Consumption  DC 12V, 420mA (Heater on) DC 12V, 332mA (Heater off)  Operating Temperature  Field of View angle  130° (Diagonal), 102.2° (Horizontal), 72.8° (Vertical)  95.9(W) x 43(H) x 67.6(D) mm 109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunv	Scanning System	PAL, 1.23Mega pixels(1280x960)
Minimum Illumination  O lux (IR LED's on)  DC 9 ~ 48V  Power Consumption  DC 12V, 420mA (Heater on) DC 12V, 332mA (Heater off)  Operating Temperature  -40°C to +80°C  Field of View angle  130° (Diagonal), 102.2° (Horizontal), 72.8° (Vertical)  95.9(W) x 43(H) x 67.6(D) mm  109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunv	Resolution	750 TV Lines
Power supply DC 9 ~ 48V  Power Consumption DC 12V, 420mA (Heater on) DC 12V, 332mA (Heater off)  Operating Temperature $-40^{\circ}$ C to $+80^{\circ}$ C  Field of View angle $130^{\circ}$ (Diagonal), $102.2^{\circ}$ (Horizontal), $72.8^{\circ}$ (Vertical)  Dimensions $95.9$ (W) x $43$ (H) x $67.6$ (D) mm $109.2$ (W) x $85.5$ (H) x $80$ (D) mm (incl.bracket & sunv	S/N ratio	Minimum 45dB (at AGC off)
Power Consumption  DC 12V, 420mA (Heater on) DC 12V, 332mA (Heater off)  -40°C to +80°C  Field of View angle  130° (Diagonal), 102.2° (Horizontal), 72.8° (Vertical)  95.9(W) x 43(H) x 67.6(D) mm 109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunv	Minimum Illumination	0 lux (IR LED's on)
DC 12V, 332mA (Heater off)  Operating Temperature  Field of View angle  Dimensions  DC 12V, 332mA (Heater off)  -40°C to +80°C  130° (Diagonal), 102.2° (Horizontal), 72.8° (Vertical)  95.9(W) x 43(H) x 67.6(D) mm  109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunv	Power supply	DC 9 ~ 48V
Field of View angle  130° (Diagonal), 102.2° (Horizontal), 72.8° (Vertical)  95.9(W) x 43(H) x 67.6(D) mm  109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunv	Power Consumption	
Dimensions 95.9(W) x 43(H) x 67.6(D) mm 109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunv	Operating Temperature	-40°C to +80°C
109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunv	Field of View angle	130° (Diagonal), 102.2° (Horizontal), 72.8° (Vertical)
Weight 386g (total weight incl. bracket & sunvisor: 524g)	Dimensions	95.9(W) x 43(H) x 67.6(D) mm 109.2(W) x 85.5(H) x 80(D) mm (incl.bracket & sunvis
	Weight	386g (total weight incl. bracket & sunvisor: 524g)

#### Rear View



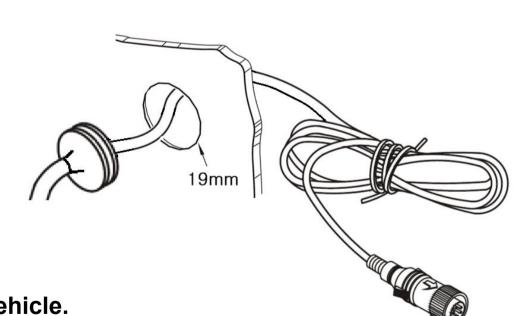
#### Installation

## Camera Assembly

#### Cable grommet

Drill a suitable hole (approx. Ø 19mm) and insert the cable grommet.

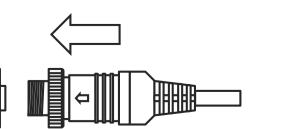
Just before final fixation, please apply a proper sealant (for prevention) between the hole and the grommet and also between the cable and the grommet.



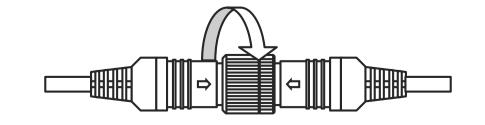
- 1. Fix the supplied mounting bracket to the vehicle.
- 2. Fix the bracket with camera and sun-shield according to drawing.
- 3. Adjust the viewing angle of the camera and fasten the screws firmly.

#### Securing cable connection

Match the arrow marks and press the connectors together.



2. Screw the camera connector up clockwise.

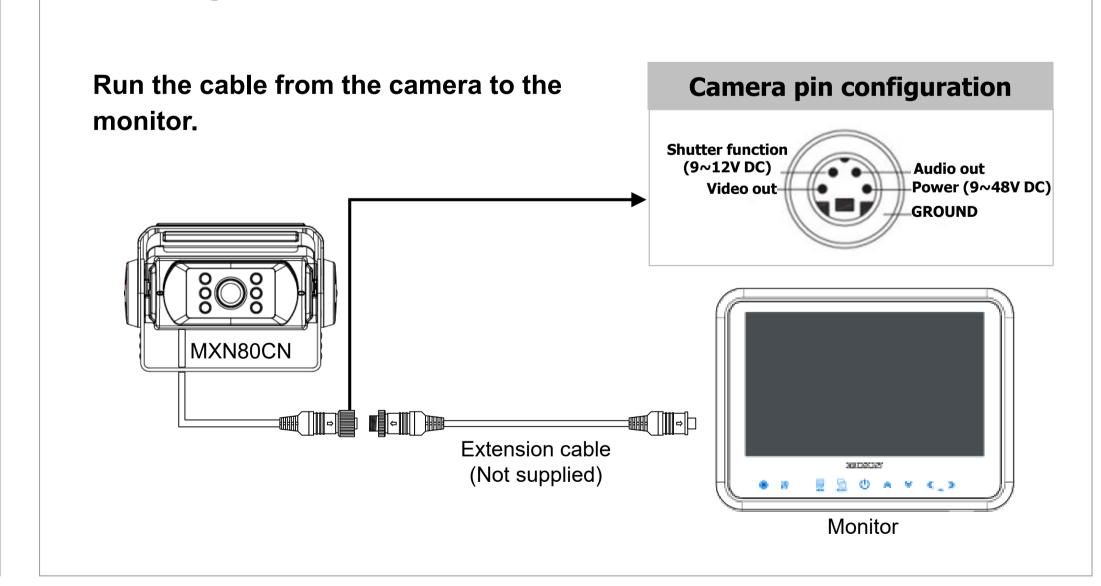


3. Tighten cable connection firmly in order to prevent water ingress.

## Note!

The warranty will not be valid if the problem is related to moist / corrosion in the connector.

## Wiring to Monitor



#### Caution !!

- 1. Before making the connection, disconnect the ground terminal from the battery to avoid short circuits.
- 2. The plugs should be fully inserted into the connectors or jacks. A loose connection may cause malfunctioning of the unit.
- 3. A damaged cable may affect the operation of the camera and may even cause a malfunction of the camera or monitor: Avoid a damaged cable!
- 4. Protect the cable by using a guide tube, pipe or run the cable inside the vehicle as much as possible. Caution! Run the cable in natural shapes in order to prevent cable breaks.
- 5. Preferably use an acid free grease in between the waterproof screw type connectors and tighten them firmly eachother.