

Before installing, connecting and turning on the device carefully read the user's manual and store it in a safe place for future reference.

Furthermore, we strongly recommend that the installation of this parking system is performed by an expert service centre. Unprofessional connection or incorrect installation may damage the vehicle or cause irreparable damages to the vehicle's electronics, or the vehicle's body.

This parking sensor informs the user about the distance from an obstacle and its position through an audio signal and a visual display so as to ensure the safety of persons and things when reversing or parking. The system will be automatically activated when reverse is shifted into gear. The sensors work on the principle of ultrasound detection of sharp edges and have been designed to match the design of the bumper bar on your vehicle. The system comes with a waterproof CMD camera with night-vision, which provides a clear view into the blind angle behind the vehicle.

## Included contents

After unpacking the device ensure that the package includes the following:

- 1 control module
- 4 ultrasound sensors
- 1 CMD camera
- 1 acoustic indicator – wireless TFT-LCD display
- 1 power cable
- 1 drill bit
- 1 accessory set
- 1 user's manual

## Features:

- Automatic activation on shifting into reverse.
- Legible display showing the direction and distance from the obstacle on a real picture.
- Built in buzzer for immediate notification.
- Simple installation, maintenance-free.
- It is not powered from the car battery if the vehicle is parked and the engine is turned off.
- The model is approved in accordance with the electromagnetic compatibility directives of the European Union.

## Technical specifications

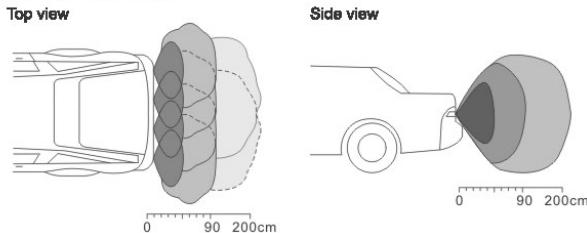
Power source: 10.5 V – 16 V (12 V nominal)

Power input: 40 – 300 mA max

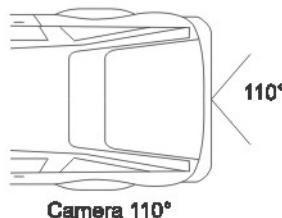
Operating temperature: - 30°C – 80°C

Operating temperature of the display: 0 °C – 60°C

## ULTRASOUND DETECTION



## DISPLAY ANGLE OF THE CAMERA



## Operation

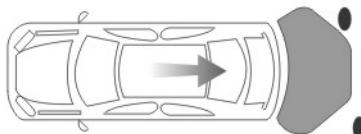
The parking sensor sends ultrasound waves, which bounce off the obstacle, which causes a visual-acoustic signal. The exact distance from the obstacle makes parking easier in confined places. The amount of ultrasound waves was specially selected to limit the disruption or damage to people and animals. The CMD camera assists in watching the real picture behind the vehicle.

## Signal

Distance from the obstacle	Distance category	Sound signal	Display
200 – 100 cm	Safe distance	Bl ..... Bl ..... Bl .....	2.0 m – 1.0 m
90 – 50 cm	Caution distance	Bl ... Bl ... Bl ... Bl ...	0.9 m – 0.5 m
40 – 0 cm	Risk distance	Bl!!!!!!	STOP

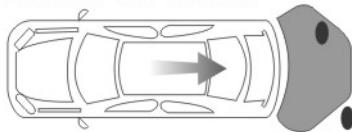
#### **SHOWN ON THE DISPLAY**

**Safe distance 100-200cm**



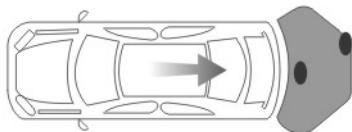
Bi<sub>2</sub>Si<sub>3</sub>N<sub>6</sub>

**Caution distance 50-90cm**



Bi... Bi... Bi...

Risk distance 0-40cm



Bi Bi Bi Bi Bi

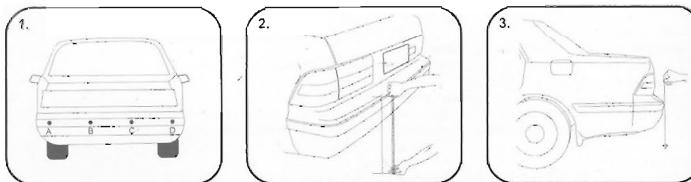
## Installation

Before connecting check the installation location on the rear bumper bar for any obstacles preventing the installation (drilling of the installation hole) of the sensor / camera.

For an optimal installation of the sensor a 25 mm deep free part of the bumper bar is needed. Some bumper bars are equipped with an external cover, strip or metal coating, which will need to be drilled through in order to install the sensor.

Correct installation depends on two factors:

- position: height above the ground and the distance from the centre of the bumper bar (do not install directly above the exhaust pipe).
- angle: exact signals require the sensors to be mounted at the correct angle.



1. The installation location must be as far back as possible and without an obstacle.
2. The sensors must be installed at a height between 45 and 65 cm above the ground, the ideal height is 50 cm.
3. For the installation select a vertical and even surface (do not install on an uneven surface).
4. Using a marker mark out a point 10 – 15 cm from the outer edge of your car. The ideal distance is 12 cm on both sides. You can mark these points as A and D.
5. Measure the distance between both the marked out points and divide this value by 3, which will give you "I".
6. From point "A" mark out two more points – "A + I = B" and "A + 2I = C".
7. Mark out small holes and then using the supplied drill bit drill the openings.
8. Insert the sensors into the openings. Make sure they are correctly located when inserting them.
9. Locate the control module in the boot (trunk). It must be located in a dry place. The control module must not come into contact with water or any other liquid.
10. Place the buzzer - display inside the vehicle depending on your requirements.
11. Connect the red cable to the power supply of the reverse light and connect the black cable to the grounding of the vehicle.
12. A detailed installation diagram can be found in the back of this manual.

## Checking the installation

To check that you have the correct settings, it is necessary for your vehicle to be located on an even surface without any obstacles, with a free space of at least 3 metres in front and behind the vehicle. With the handbrake activated and the engine turned off shift into reverse and turn the key in the ignition so that the reverse indicator light turns on without the vehicle being started.

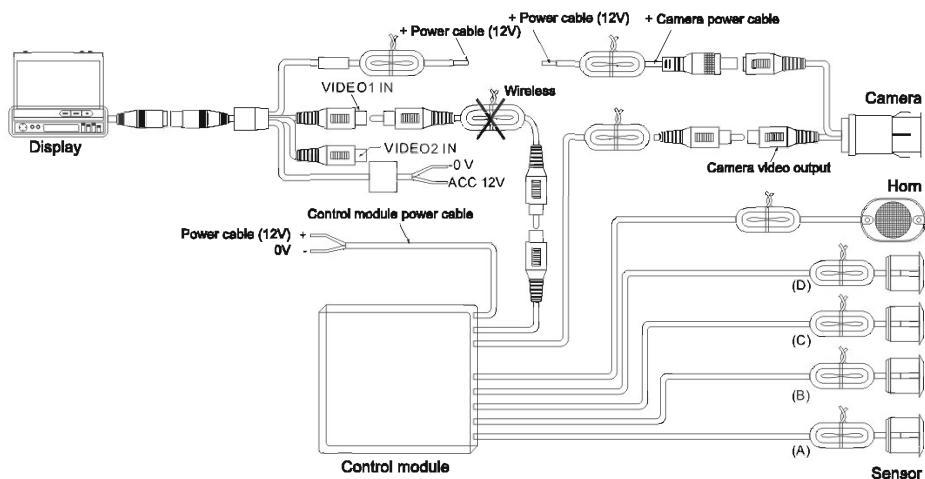
The system will react to your movement in front of and behind the vehicle at various distances and so it will be possible to check the distance from the sensors and your position (right, left).

If the caution or risk distance signals continue, the sensors have been installed too low or at an incorrect angle. Connect one sensor, to identify the error, and then turn the sensor by a maximum of 180 ° and check again.

Once this check has been successfully performed, you can firmly attach the sensors and secure the cables using the supplied tape.

The following situations may lead to the incorrect function of the sensor or an obstacle may not be detected:

- the obstacle forms a complex or has an irregular shape.
- the obstacle is very smooth and reflects the waves (glass or a mirror), especially if it is practically parallel to the vehicle.



## INSTRUCTIONS AND INFORMATION REGARDING THE DISPOSAL OF USED PACKAGING MATERIALS

Dispose of packaging material at a public waste disposal site.

## DISPOSAL OF USED ELECTRICAL AND ELECTRONIC APPLIANCES



The meaning of the symbol on the product, its accessory or packaging indicates that this product shall not be treated as household waste. Please, dispose of this product at your applicable collection point for the recycling of electrical & electronic equipment waste. Alternatively in some states of the European Union or other European states you may return your products to your local retailer when buying an equivalent new product. The correct disposal of this product will help save valuable natural resources and help in preventing the potential negative impact on the environment and human health, which could be caused as a result of improper liquidation of waste. Please ask your local authorities or the nearest waste collection centre for further details. The improper disposal of this type of waste may fall subject to national regulations for fines.

### For business entities in the European Union

If you wish to dispose of an electrical or electronic device, request the necessary information from your seller or supplier.

### Disposal in other countries outside the European Union

If you wish to dispose of this product, request the necessary information about the correct disposal method from local government departments or from your seller.



This product meets all the basic EU regulation requirements that relate to it.

Changes to the text, design and technical specifications may occur without prior notice and we reserve the right to make these changes.