

Parking Sensor offers an ideal solution for demanding drivers who care for their vehicle and the safety of their loved ones. Hidden obstacles such as posts and flower-beds can cause serious damage to cars and children may be in danger during reverse manoeuvres. The parking sensor notifies the driver of the distance and the position of obstacles by means of an acoustic beep and visual display, to make reverse manoeuvres safer. The system switches on automatically when the driver selects reverse gear. The sensors work on cutting-edge ultrasonic detection technology and have been specially designed to blend in perfectly with your vehicle bumper.

❖ **Pack contains:**

1 command module
4 ultrasonic sensors
1 acoustic buzzer
1 power supply cable
1 hole borer
1 accessory kit
1 instruction manual

❖ **Technical data:**

- Automatic activation when the reverse gear is chosen
- Beeper for immediate alert
- Easy-to-install, does not require maintenance
- Does not run on battery power when the vehicle is parked and the engine switched off
- Type approved in conformity with European regulations on electromagnetic compatibility

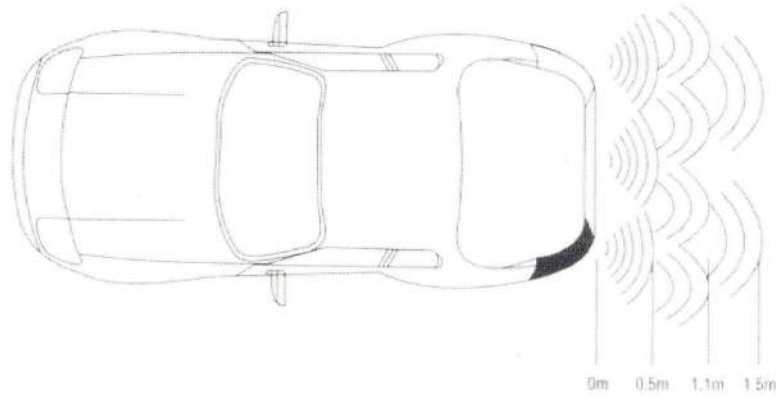
❖ **Features:**

- Supply voltage: 10,5V ÷ 15V (12V nominal)
- Current consumption: 200 mA max
- Working temperature: -20°C ÷ 65°C
- Storage temperature: -35°C ÷ 85°C
- Obstacle detection: from 150 cm from the bumper (post dia. 80 mm)
- Reliability over time: satisfies the strictest automotive standards

❖ **OPERATIONS**

The parking sensor emits ultrasonic waves that are reflected by the obstacle, to cause an acoustic signal. The frequency of the ultrasonic waves has been chosen in order to minimise disturbance or damage to people and pets.

❖ SIGNALS



Obstacle distance	Distance category	Beep
150 ÷ 110 cm	Safety	Bi.....Bi.....Bi.....
100 ÷ 50 cm	Caution	Bi...Bi...Bi...Bi...
40 ÷ 10 cm	Hazard	Bi..Bi..Bi..Bi..Bi..Bi..

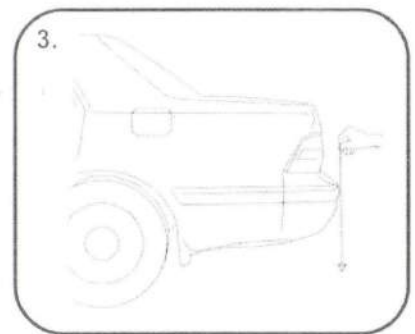
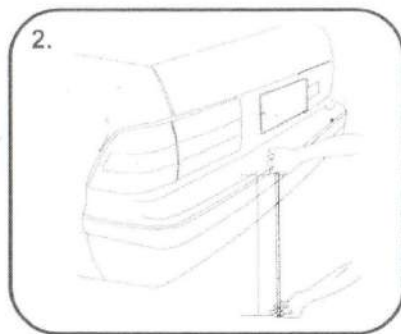
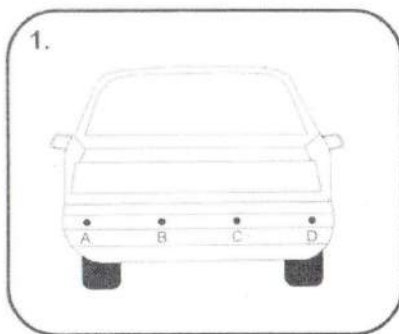
❖ INSTALLATION

Before you start: inspect the installation area on the vehicle's bumper and check that there are no obstructions to making the holes.

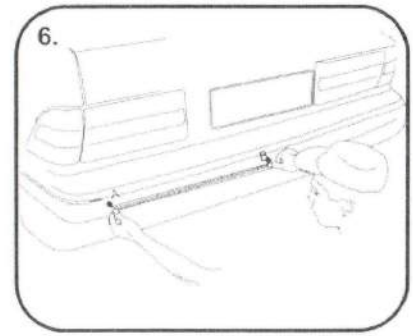
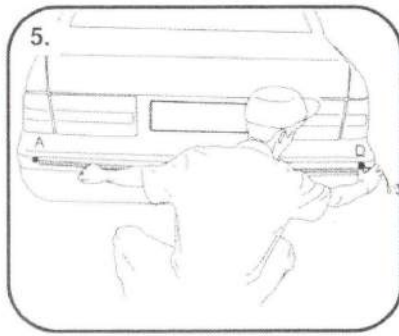
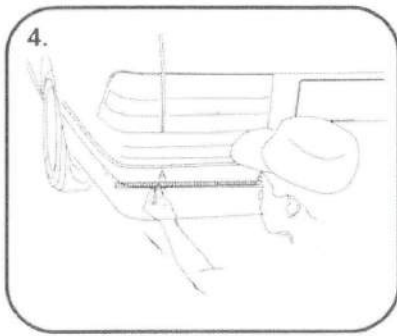
A free space depth of 25 mm is required for optimal sensors installation. Certain bumpers have an external casing or band and a rear metal part and it might be necessary to bore a hole in both in order to mount the device.

Perfect sensor installation relies on two factors:

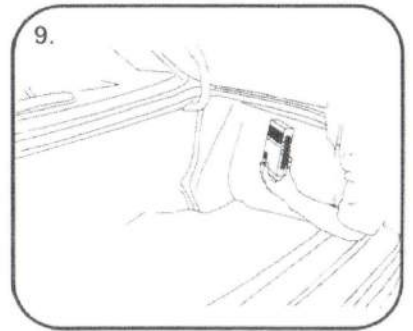
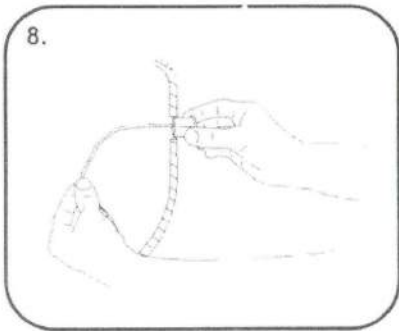
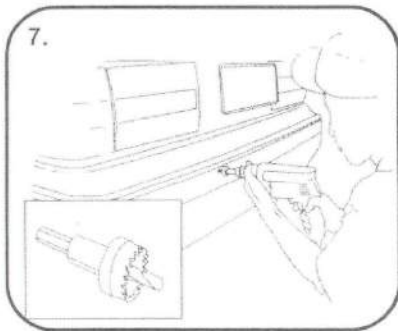
- Position: height from the ground and distance from the middle of the bumper (avoid the area immediately above the exhaust pipe)
- Angle: accurate beep depend on the sensors being mounted at the correct angle



1. The installation area must be as far back as possible and must be obstacle-free
2. The device must be installed at a height of between 45 cm and 65 cm from the ground, the optimal height being 50 cm
3. The surface chosen must be vertical and flat (avoid uneven areas)



4. Use a marker to mark a point 10 - 15 cm in from the outmost point of your vehicle, the ideal distance is 12 cm for both sides
5. Measure the distance between the two outer points and divide that value by 3 = "I".
6. Starting from point "A", mark two more points at "A+I" and "A+2I" respectively



7. Mark a small indent by hand and then use the hole borer supplied to make holes
8. Introduce the sensors in the enclosure, observing the positions (R= Right, CR= Centre - Right, CL= Centre Left, L= Left)
9. Position the command module inside the boot, in a position where it will remain dry
10. Position the beeper buzzer as desired
11. Connect the red cable to the power supply of the reverse light and the black to the vehicle's ground

❖ INSTALLATION CHECK

In order to perform the check your vehicle must be in a flat, smooth area free of obstacles within a radius of 3 meters from the rear and sides of the vehicle. With the hand brake on and the engine switched off, put the car into reverse gear and turn the ignition key to "ON", so that the reverse light switched on.

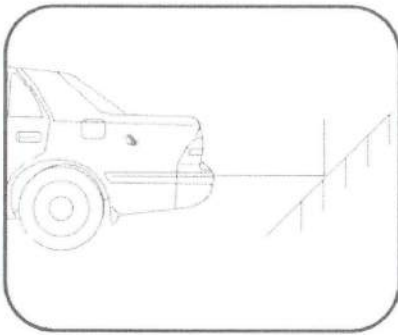
The buzzer will beep by simply standing or walking behind the vehicle at various distances, you should hear different frequency of beep sound indicating your distance from the sensors , The more urgent sound, the more Hazard distance .

If “Hazard” beep sound persist, the sensors are mounted too low or at an incorrect angle. Connect one sensor at a time to isolate the fault and then rotate the sensor through a maximum of 180° and repeat the check.

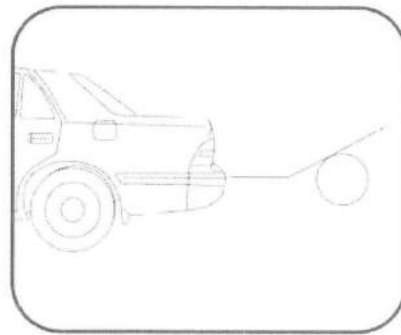
Once the check has been completed, the sensors can be fixed permanently and the cables can be fastened with the bands provided and arranged in the most convenient and aesthetic way.

In the following situations malfunctions may occur or obstacles may not be detected:

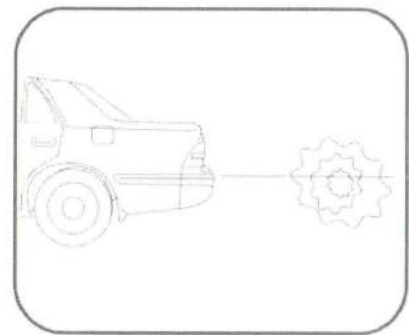
- in the case of obstacles with a complex or very irregular shape
- in the case of very smooth, reflective obstacle (glass or mirror), in particular if almost parallel to the body of the vehicle



smooth and sloping



smooth and circular



or sound-absorbent obstacles

i IMPORTANT NOTES

This device has been designed as a driver aid and must not be considered infallible.

Always manoeuvre vehicles with caution and using common sense.

Manoeuvre your car slowly in the interest of your own safety and that of others.

Always stop the vehicle when the hazard warning is activated, in order to take in account movement inertia.

Periodically perform function checks on the sensors and ensure that they are clean at all times.

In the event of rain, snow or ice, the sensors may be subject to a temporary drop in sensitivity of approximately 20%. Drive with even greater caution until evaporation is complete.