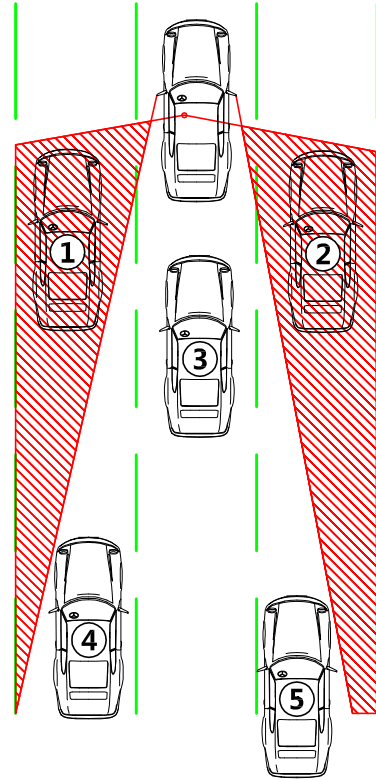


Manual

Forewords

- 1. Blind zone of side rear mirror**
The area that drivers couldn't see from side rear mirror(the area of 1 and 2) is blind zone.



- 2. Blind Spot Assist System**
As there are blind zone of the side mirror, driver can only see two sides of the vehicle from the side mirror, but can't see all the potential risk around the vehicle, especially when the object vehicle's head is close to subject vehicle's rear door, it is very easy to cause collision accidents.
In order to solve this problem, Autostar launched the world's first ultrasonic blind spot assist system which reduce blind zone of side mirror effectively, and warn driver of rear coming vehicle. This product improves driving safety significantly.

Technical parameters

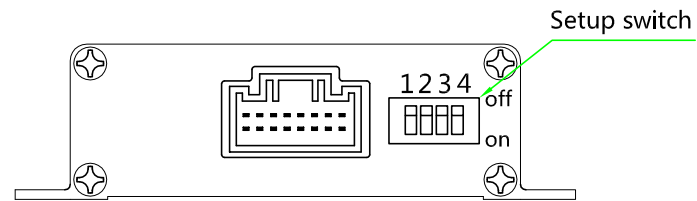
No.	Program	Specification
1	Rated voltage	DC 12V
2	Operated voltage	9.6v~16v
3	Operated temperature	-30°C~70°C
4	Operated current	≤300mA
5	Detection distance	3.0m

Note

- This product is applied to 12V battery vehicle. Please validate the function before installation;
- This product couldn't be fitted to metal bumper, and the one with spare tire;
- Please connect the cables according to the labels;
- Please make sure the wiring harness is fixed well and far away from vent-pipe and avoid heavily pulling;
- Please wrap the broken wiring by insulation tape;
- If there's ice or dirt on the surface of the sensor, please clean it immediately; paint will affect the detection ability;
- It will give out false alarm easily when running on slop, grassland or bumpy road;
- Obstacle such as soft sponge, lubricous sphere and sharp thing can not be detected easily.
- Blind spot assist system is just an auxiliary equipment, drivers need to take responsibility of driving safety.

Function setup

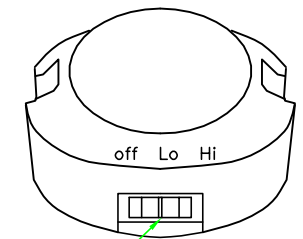
1. Control box



No.	Switch status	Definition	Note
1	Off		
	On		
2	Off	4 sensors' operating	Default
	On	2 rear sensors' operating	
3	Off	Full time working	Default
	On	Work while turning signal triggered	
4	Off		
	On		

Note : After setup the switches, please restart the engine, then the setting will take effect.

2. Buzzer



Volume control (high, low, off)
Default: low

1. Blind spot assist function

(1) Product startup conditions:

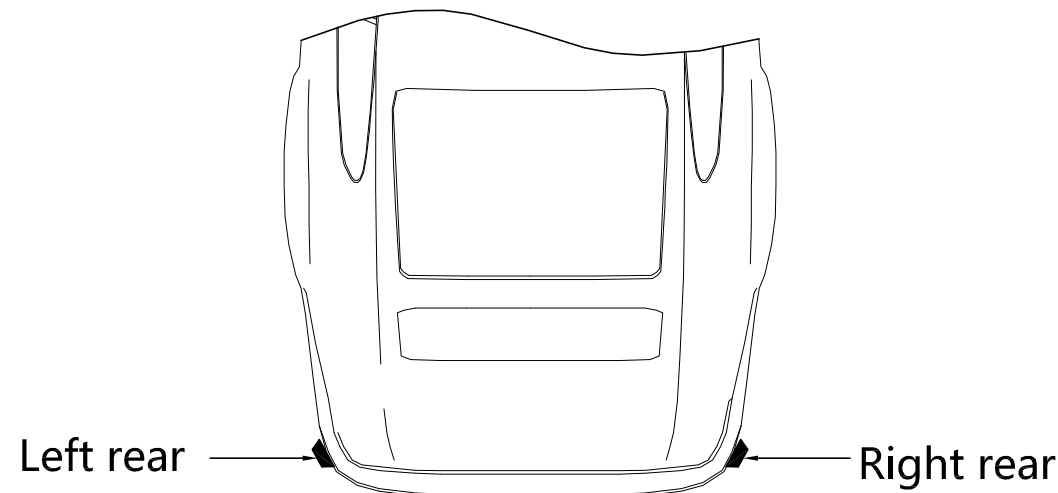
- Key turns to "ON", power on ;
- The "R" gear is not engaged;
- There's no obstacles detected by two sensors in the front bumper.

(2) Basic function

This product monitors the no zone of the two side mirrors by two sensors installed in the rear bumper. The control box collect the obstacles information and warning the drivers by warning light and buzzer.

Detection distance of each sensor as below:

Sensor position	Detection distance	Sensor position	Detection distance
Left rear	3.0m	Right rear	3.0m



(3) Warning LED

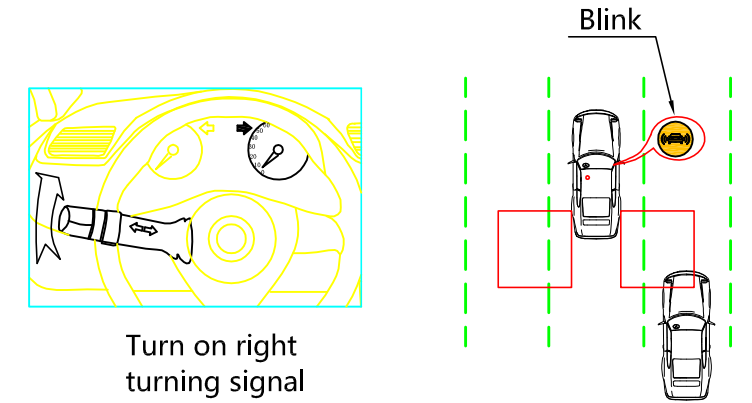
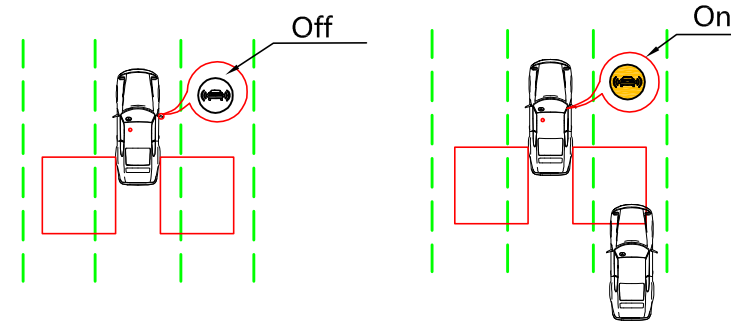
When the target vehicle drivers into the blind zone, the warning light will be lit to warn the driver; if the driver want to change lane and turn on turning signal, the warning light will flash and give out bi-bi warning. Please kindly refer to the example as below.

(4) Warning mode of blind spot assist system

A. There is no target vehicle in the detection area, warning LED won't be lit;

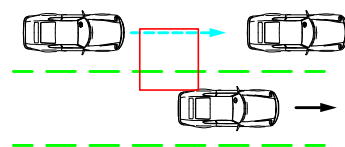
B. There is target car in the detection area, LED will be lit;

C. Turn on right indicate light, there is a car in the detection area, warning LED will keep flash and buzzer will give out "bi-bi" warning;

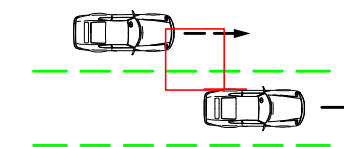


(5) Blind spot assist will alarm in below situation

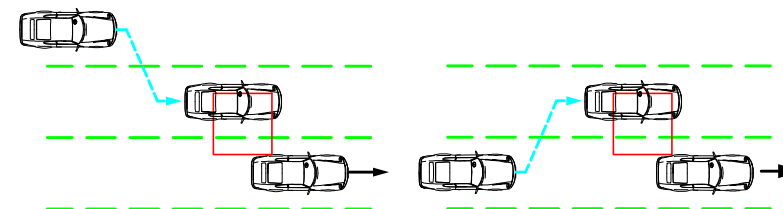
A. Target vehicles overtaking the subject vehicle



B. The target vehicle is in the monitored area

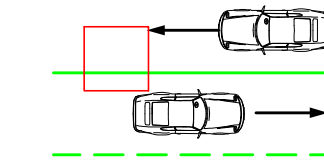


C. Other vehicles driving into detected area after changing lane

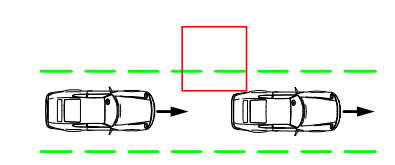


(6) Blind spot assist won't give out alarm in situations as below

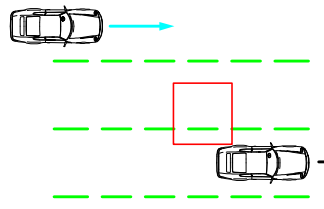
A. The oncoming vehicle



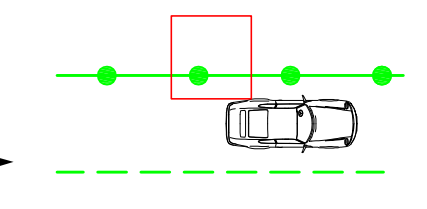
B. Vehicle drive in the same lane



C. Two or more lanes away from the subject vehicle



D. Fence, walls, signs, motionless vehicles or similar motionless objects



Note : Because of the working principle of ultrasonic technology, in some situation, the blind spot assist system might fail to give out alarm. This means the target vehicle is in the detected area but warning LED won't be lit. A few failed alarm is normal , the below situation might cause failed alarm :

- There's ice or dirt on the surface of the sensor ;
- Bad weather conditions ;
- Some cars in the form of a team drive through blind zone collectively ;
- The target car drives through blind zone in a very high speed ;
- Traffic intersection ;

Note: Because of the working principle of ultrasonic technology, in some situation, the blind spot assist system might give out false alarm. This means no target vehicle, but warning LED will be lit. A few false alarm is normal , the below situation might cause false alarm :

- Road median;
- Concrete wall;
- Fence or vegetation;
- Driving around the pole or harp turn of building ;
- There is rear vehicle which is close stop suddenly.