

KEETEC®

Front & Rear Parking Sensor



www.keetec.eu



PRI0000R/A

BS810 LCD
Manual

Contents

User Manual:

Important notice	01
Disclaimer	01
Key features	02
Specifications	02
LCD display	03
Self-testing function	04
Dual intelligent function	06
Sensor sensitivity adjustment	07
Learning function for cars with tow-bar or spare wheels	08
How does the system work	09
Attention	13
Sensor maintenance	14

Installation Manual:

Includes	17
Installation tools	17
Sensor installation	18
Functional test	28
Wiring diagram	29
Troubleshooting	30

Important notice

Parking sensor helps to provide assistance when reversing and parking. Driving skills such as slowing down, use of mirrors etc. are always essential.

1. This system is for vehicles with 12V DC only.
2. This system should be installed by a professional auto technician.
3. Route wiring harness away from heat source and electrical components.
4. It is strongly recommended to check the position of the sensors before drilling the holes.
5. Perform a functional test after installation.

Disclaimer

Parking sensor is designed as a driver assistance device, and should not be used as a substitute for safe parking practices. The area into which the vehicle is to be reversed must be constantly visually monitored while parking.

The manufacturer and its distributors do not guarantee or assume liability for collisions or damages while reversing the vehicle.

Key features

- 8-sensor system with LCD display, complete front and rear protection
- Can be used as 6-sensor system (2 front + 4 rear)
- Precise detection range
- Self-testing function
- Anti-false alert technology
- Dual intelligent function together with learning function for vehicle with tow-bar, spare wheel or other protrusions
- Available in all weather

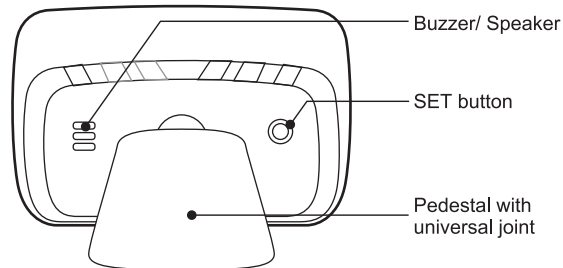
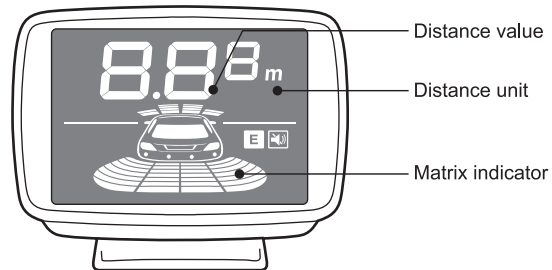
Specifications

Operating voltage: 9~16V DC
Operating current: <350mA
Detection range: 0.3~2.5m
Display range:
Front: 0.3~0.9m(Driving forward)
0.3~0.6m(Reversing)
Rear: 0.3~2.5m

Operating temperature:

ECU: -40°C~+80°C
Display: -20°C~+70°C
Sensor: -40°C~+80°C

LCD display



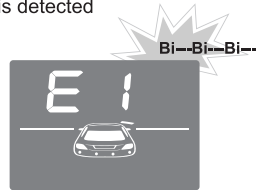
Self-testing function

1. When ACC ON, the system will test 4 front sensor (E,F,G,H) automatically.

1) Normal



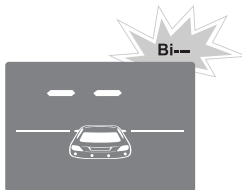
2) Damaged or defective sensor is detected



3) Once the self-test procedure is completed, when you press the footbrake, the system will detect in front of the vehicle for 5 seconds.

2. When reverse gear is selected, the system will test (A,B,C,D,E,H) sensors automatically.

1) Normal



2) Damaged or defective sensor is detected



3) Once the self-test procedure is completed, the system will detect rear of the vehicle automatically.

Normal & no obstacle

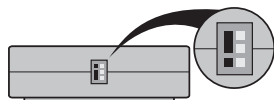
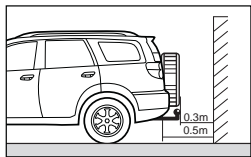


When detected damaged/ defective sensor:

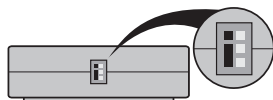
- Beep 3 times for alarm
- Other proper sensors will keep working after the alarm
- No. of sensor damage/ defective (E1~E6) will be show on the display together with the corresponding LCD lights on for showing which sensor(s) is(are) damaged/ defective
- The system will not alarm when sensors (F&G) are damaged/ defective as it will work as 2-sensor system automatically.

Dual intelligent function

When this function is ON, the detected distance will increase 20cm between the sensor and obstacle which is designed for the tow-bar/ Spare wheel.

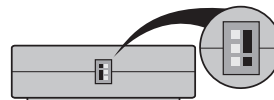


Jumper position: "0" (Default setting)
Normal detected distance

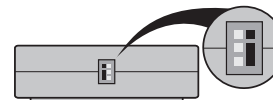


Jumper position: "20"
The detected distance from sensor to obstacle should be increased 20cm.

Sensor sensitivity adjustment

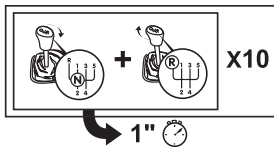


Jumper position: "55~65cm"
Normal sensor sensitivity
Recommended for the sensor which is installed between 55~65 cm from ground



Jumper position: "45~54cm"
(Default setting)
Low sensor sensitivity
Recommended for the sensor which is installed between 45~54 cm from ground

Learning function for cars with tow-bar or spare wheels



1. With the ignition "ON", change the gear from "N" to "R" for 10 times (Each gear change must be within 1 second)
2. After 10th times, leave the gear in "R" position.
3. The display will beep and flash once to complete the learning process.
4. When the learning function is activated, the system will ignore the tow bar or spare wheel and only detect other object behind the vehicle.

Clearing the learning function:

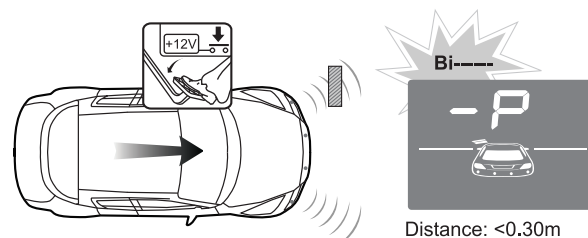
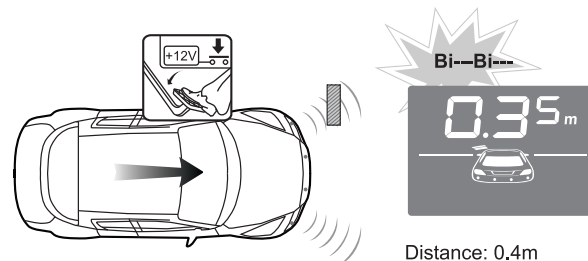
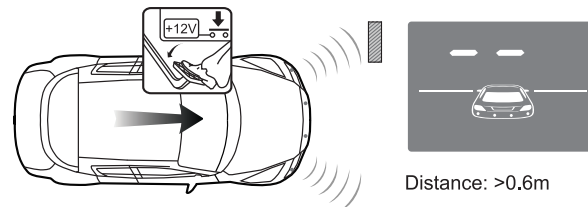
1. With the ignition "ON", change the gear from "N" to "R" for 12 times (Each gear change must be within 1 second)
2. After 12th times, leave the gear in "R" position.
3. The display will beep and flash once will dark in turn to indicate that learning function is cleared successfully and the system is reset.

Note:

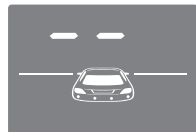
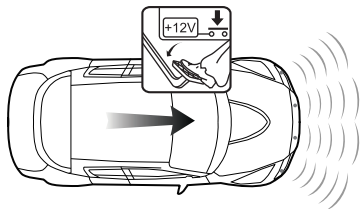
1. If you make a mistake while carrying out the above procedure, leave vehicle in the "R" position for 2 seconds to clear the system memory and then start the procedure again.
2. If the vehicle does not have tow-bar or spare wheel, you do not need to use this function.

How does the system work

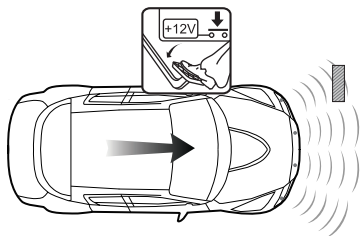
Driving forward (6 sensors)



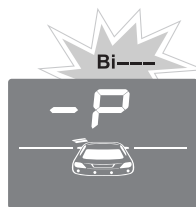
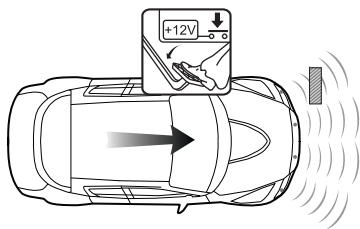
Driving forward (8 sensors)



Distance: >1.0m

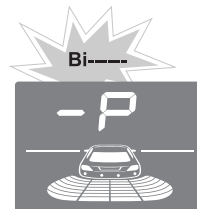
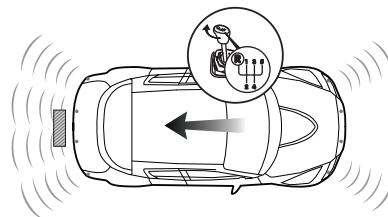


Distance: 0.4m

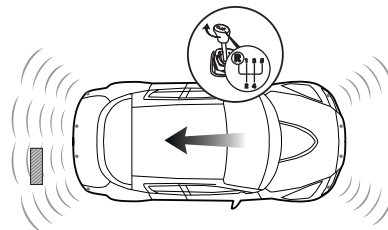


Distance: <0.30m

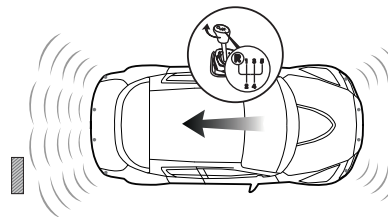
Reversing



Distance: <0.3m

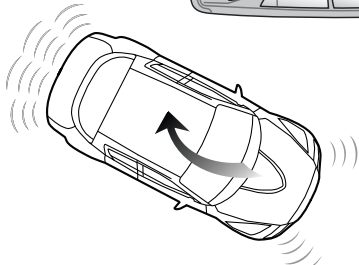
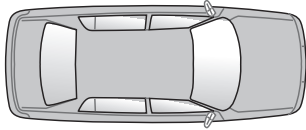


Distance: 0.8m

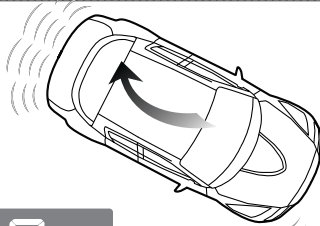


Distance: >1.5m

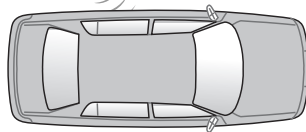
Zigzag reversing



Bi--Bi--Bi--
Distance: 0.4m

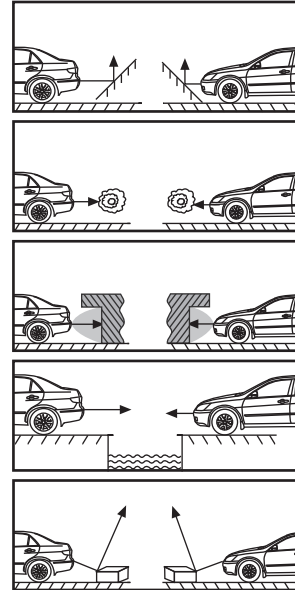


Bi-----
Distance:<0.3m



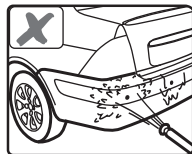
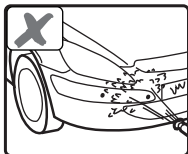
Attention

False detection may occur in the following situations:

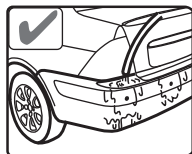
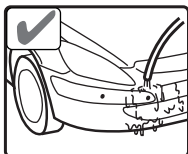


- After installation, please fully test the system before use.
- Heavy rain, dirty or damaged sensors may result in false alarm occasionally.
- Ensure that the self-test procedure is completed and all sensors are functioning before reversing.

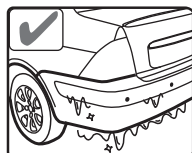
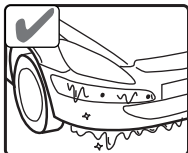
Sensor maintenance



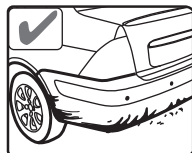
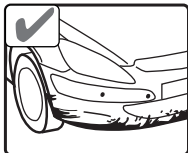
Do not wash the sensor with squirt gun or swab them forcibly.



Please wash car with low-pressure water.



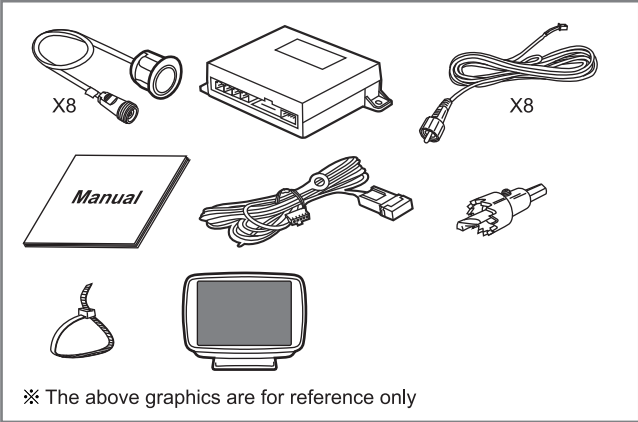
Please melt the ice with water when the sensors are covered by ice.



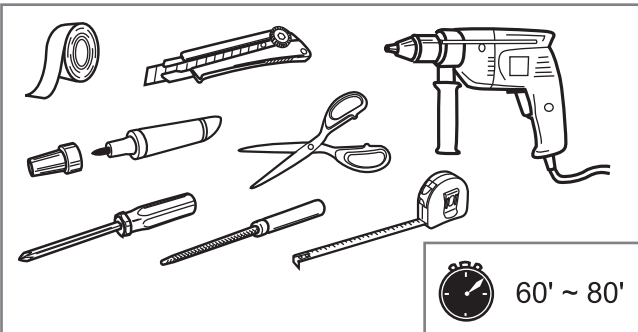
Please clean the sensors with cloth or low-pressure water when the sensors are covered by mud or snow.

Installation Manual

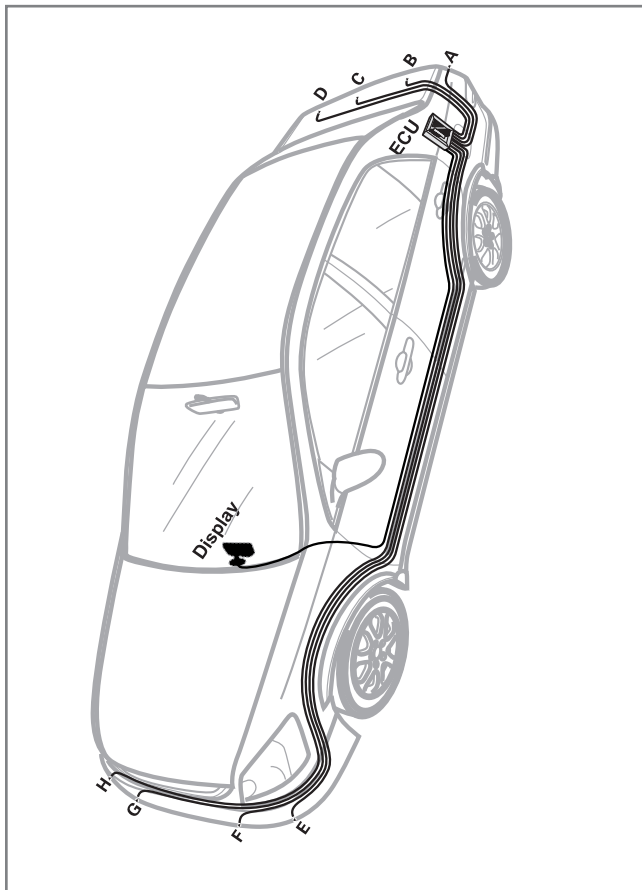
Includes



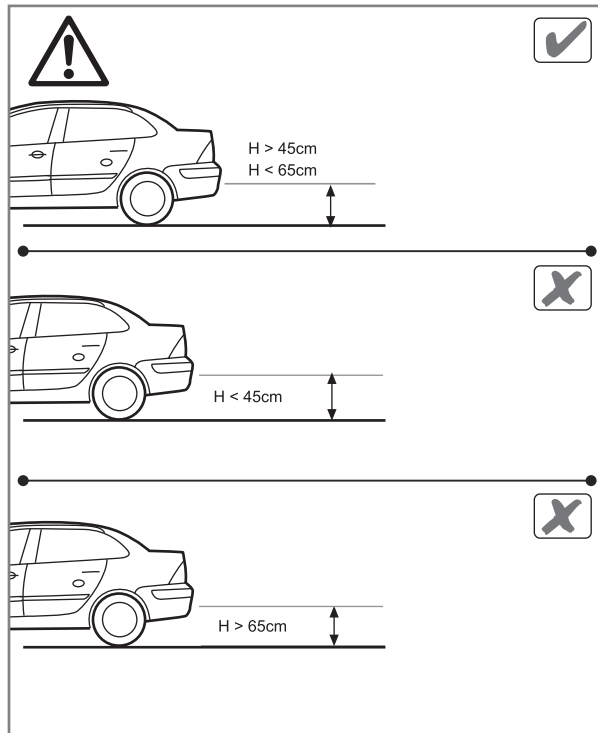
Installation tools

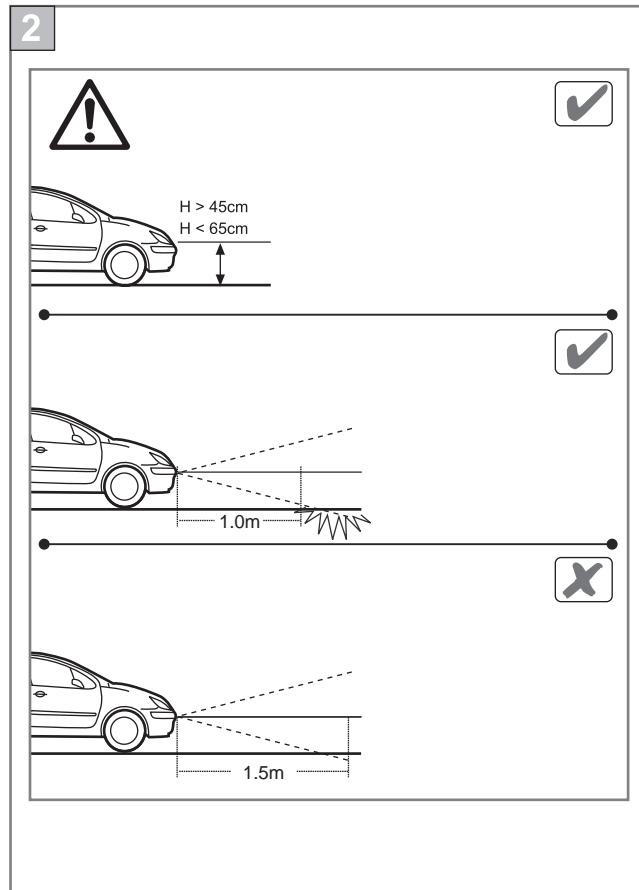
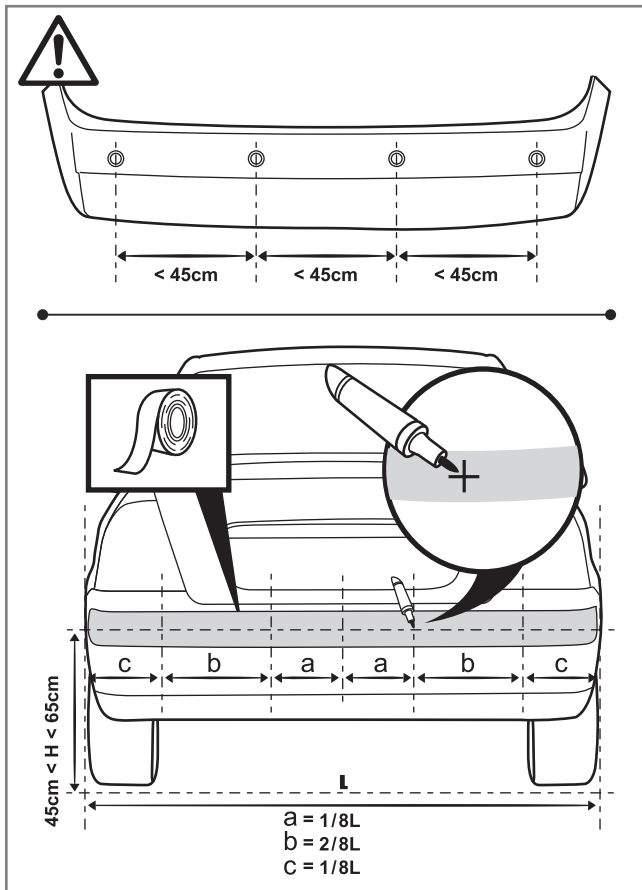


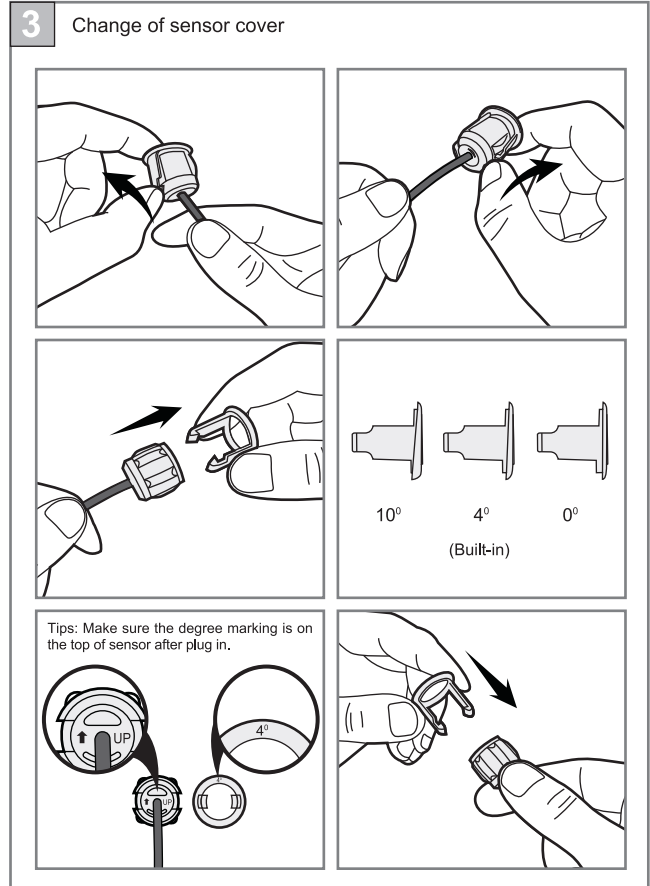
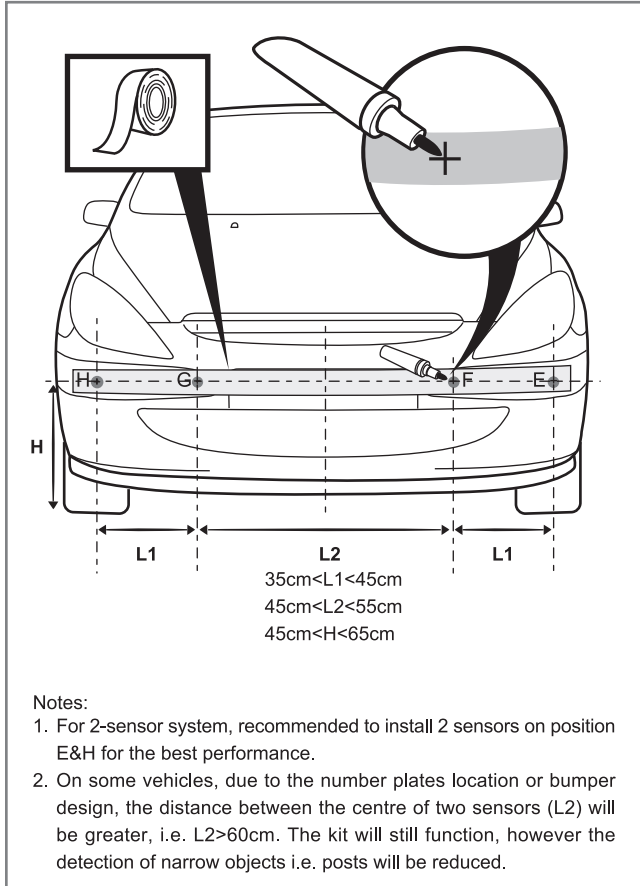
Sensor installation

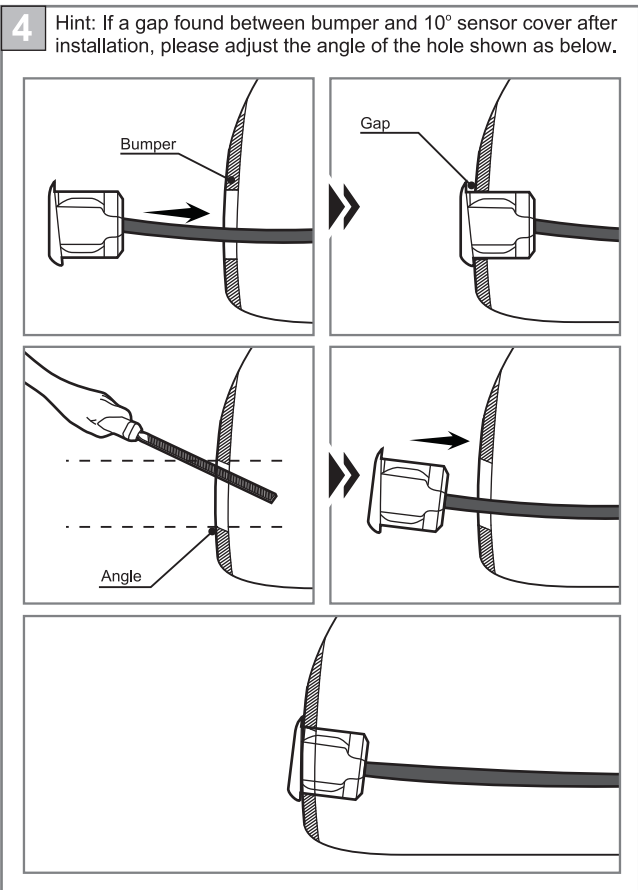
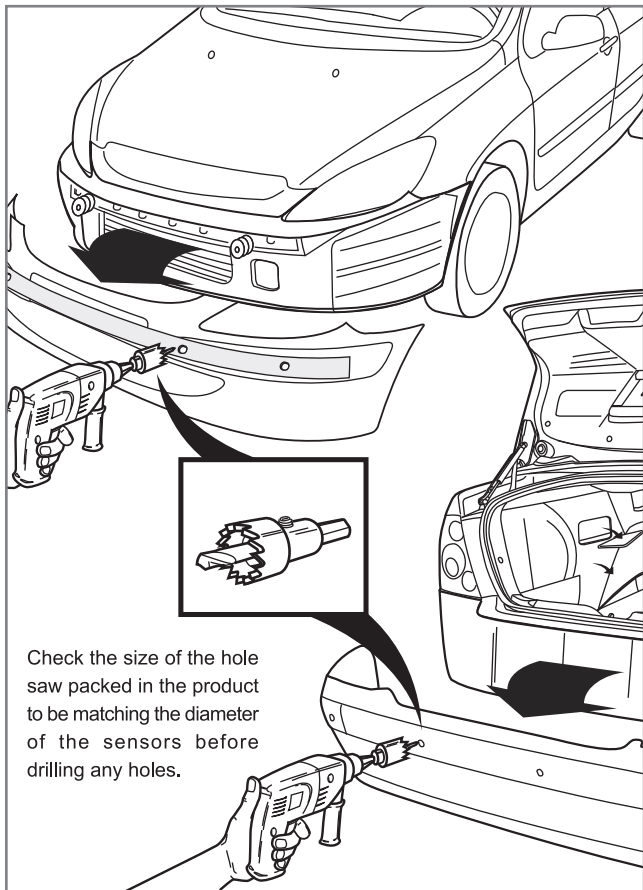


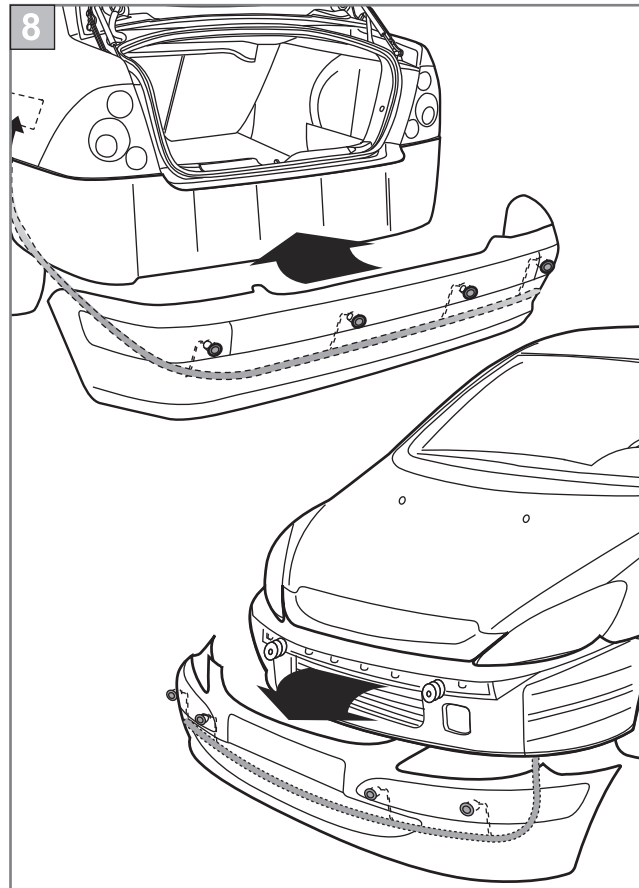
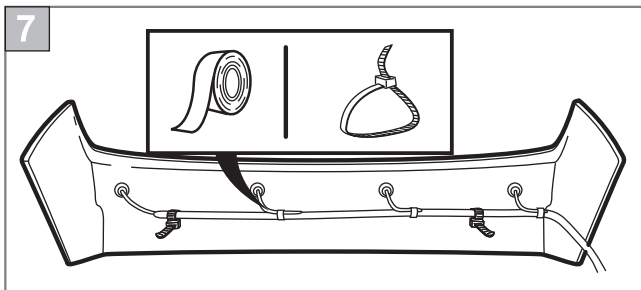
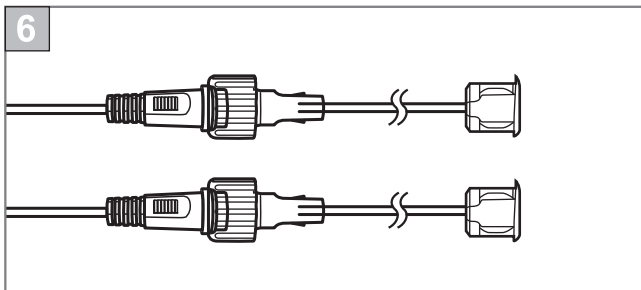
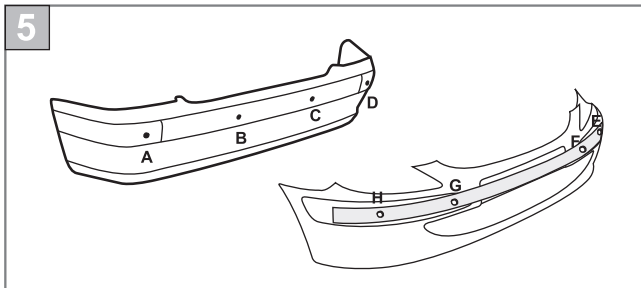
1 The sensor head angle can be changed to compensate for angled bumpers. Please see the instructions overleaf.





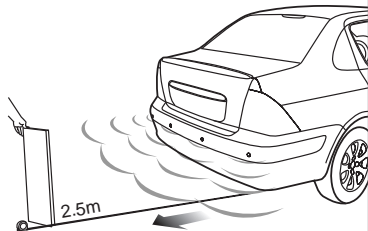




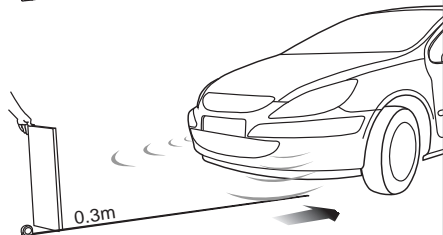
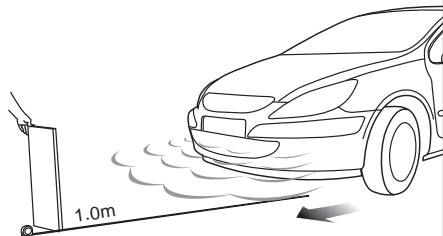


Functional test

Functional testing is possible by holding a wooden board (0.3 x 1.0m) standing at the front or rear of the car, and drive the car forward and backward to test each function respectively as shown in this manual.

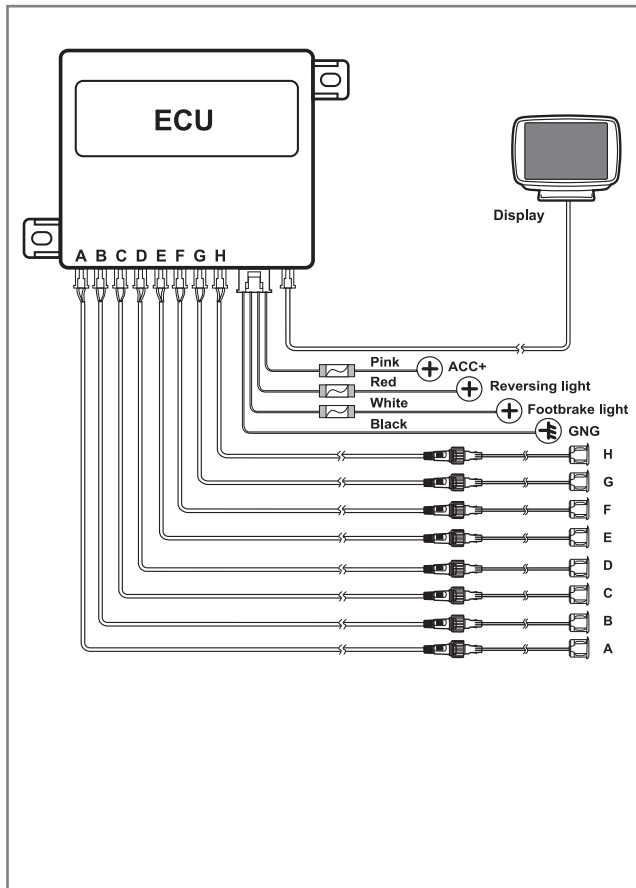


Rear sensor function test



Front sensor function test

Wiring diagram



Troubleshooting

1. After installation, the display doesn't work

- Make sure the wires connected properly
- Make sure the vehicle is ACC ON
- Make sure the reverse gear is selected (the reversing light should be lit on)

2. Damaged sensor detected

- Make sure ALL sensors plugged into the ECU correctly and tightly
- Make sure no snow or dirt covered on the sensor
- Please check the sensor is damaged or not

3. False alarm

- Make sure ALL sensors plugged into the ECU in the correct position tightly
- Please check if any sensors detected the ground
- Please check if the rubber ring of the sensor came out (if sensor comes with rubber ring)

4. Display alarm sound is too low or too high

- Turn the Set button to adjust the volume to a suitable level

5. If the problem persists, please follow below.

- For consumer:
Please contact the nearby dealer or customer service center
- For installer/dealers:
Test the sensors with a certified ECU by performing a functional test
Replace another ECU and retest the sensors
Plug the certified sensors into the ECU and perform a functional test again