

Think safety think Steelmate

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PRI1023R/A



D1

Parking Assist System



Manual

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User Manual

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User Manual

Important notice

Parking assist systems help to provide assistance when driving forward or reversing. Driving skills, such as slowing down, use of mirrors etc. is always essential.

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

Disclaimer

The parking assist system is designed as a driver assistance device, and should not be used as a substitute for safe parking practices. You must constantly check the outside circumstance while parking.

The manufacturer do not guarantee or assume liability for collisions or damages while parking your vehicle.

About the product

The parking assist system is an ultrasonic distance monitoring system. It electronically detects the area behind your vehicle while reversing, and alerts you with multiple warning methods. It assists the driver when parking and in manoeuvring situations.

The system beeps when an obstacle is detected behind the car. The closer the obstacle, the quicker the beeps.

Every piece of our products has passed the most stringent test before releasing to the market. It performs well at a wide temperature range (-40°C~+80°C/-40°F~+176°F) and becomes very useful when you are reversing at a raining day, snowing day or at night. With the help of Steelmate's parking assist system, you can enjoy a convenient and relaxed reversing experience.

Key features

- Sound indicating
- Prevent accidental impact
- Perfect performance in all weather conditions (-40°C ~ +80°C / -40°F~+176°F)
- Does not interfere with the vehicle's electronic system
- Easy installation
- Quality guaranteed

Specifications

Operating voltage: 9 ~ 16V DC
Operating current: <250mA
Detection range: 0.3 ~ 2.5m / 1.0 ~ 8.2ft
Buzzer SPL: 70 ~ 90dB
ECU operating temp.: -40°C~+80°C/-40°F~+176°F
ECU storage temp.: -40°C~+85°C/-40°F~+185°F

Buzzer & display optional

The system comes with a buzzer but can be upgraded to use a visual display.

Below buzzer/display graphics are for reference only.



Display (optional)



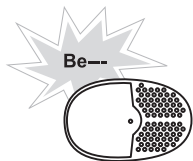
Buzzer

Self-test function

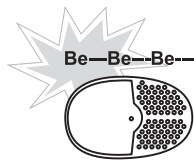
When reverse gear is selected, the system will test all rear sensors automatically. If all sensors are working properly, the buzzer/display will beep once. If a damaged or defective sensor is detected, then the Buzzer/display will beep 3 times.

For buzzer

All sensors are working properly

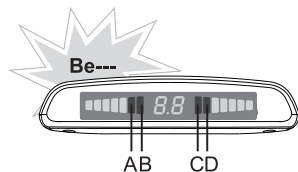


Damaged or defective sensor is detected.

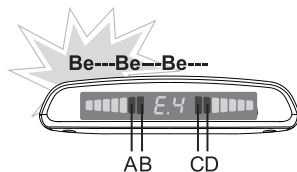


For display

All sensors are working properly.



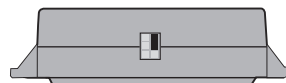
Damaged or defective sensor is detected.



Note:

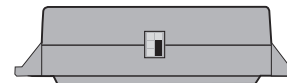
- Beep 3 times for alarm
- Other sensors will keep working after the alarm
- No. of sensors damaged/defective (E1~E4) will be shown on the display together with the corresponding LED lights on for showing which sensor(s) is(are) damaged/defective.
- For E2: The system will not alarm when sensors (B&C) are damaged/defective as it will work as a 2-sensor system automatically.

Sensor installation height adjustment



Jumper position: "54cm~65cm"

Recommended setting for sensor installation heights between 54cm~65cm from the ground.

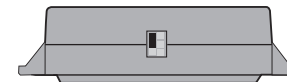
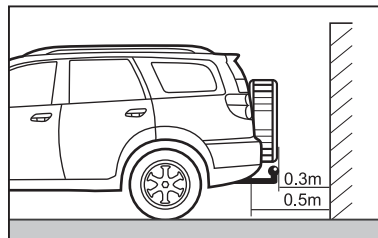


Jumper position: "45cm~54cm" (Default setting)

Recommended setting for sensor installation heights between 45cm~54cm from the ground.

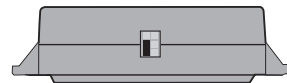
Dual intelligent function for spare wheels

When using this function the detected distance will increase by 20cm between the sensor head and the obstacle, this function is ideal for vehicles with a tow-bar or spare wheel on the back.



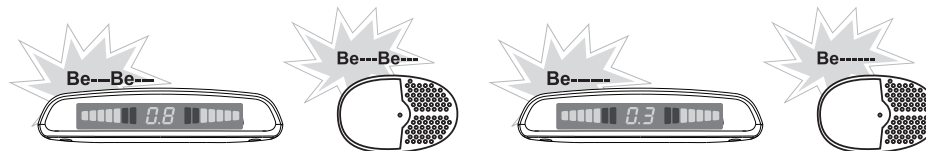
Jumper position: "0" (Default setting)

Normal detected distance

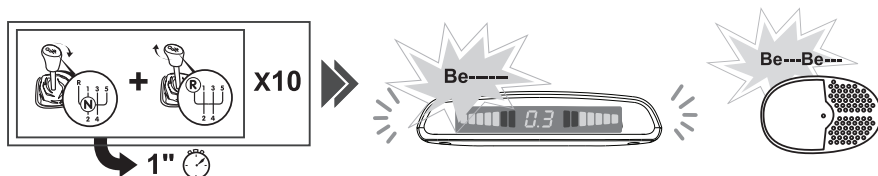


Jumper position: "20"

The detected distance between the sensor head and the obstacle will be increased by 20cm



Learning function for vehicles with tow-bars or spare wheels

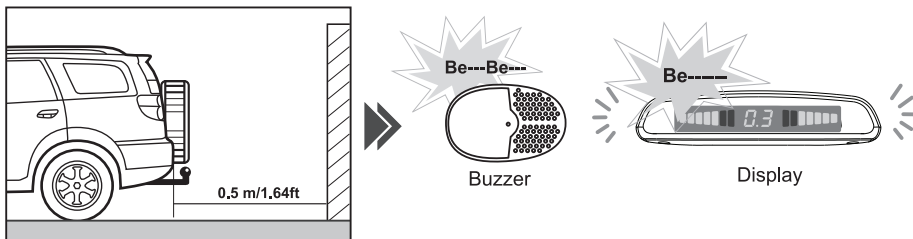


With the ignition on change gear from "N" to "R" 10 times (Each gear change must be within 1 second) At the 10th time leave the vehicle in the "R" position for 6 seconds to complete the learning process.

Clearing the learning function:

With the ignition on change gear from "N" to "R" 12 times (Each gear change must be within 1 second) At the 12th time leave the vehicle in the "R" position for 8 seconds to clear the learning function and reset the system.

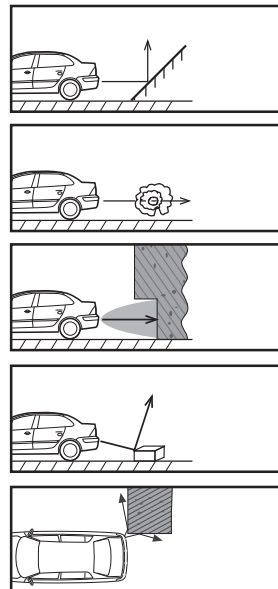
Note: If you make a mistake while carrying out the above procedure leave vehicle in the "R" position for 2 seconds to clear the system memory and then start the procedure again.



Functional test after learning function is set.

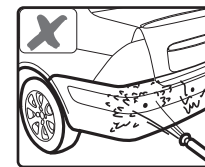
Attention

False detection may occur in the following situations:

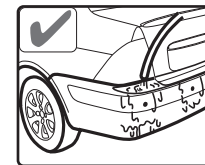


- After installation, please perform a function test before use.
- Heavy rain, dirty/damaged sensors may cause a false alarm occasionally.
- Ensure the self-test is completed and all sensors function properly before using the system.

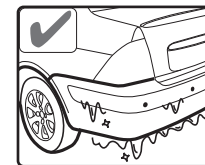
Sensor maintenance



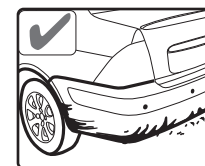
Do not wash the sensor with a pressure washer or scrub them forcibly.



Please wash car with low-pressure spray.



Please melt the snow with water when the sensors are covered.



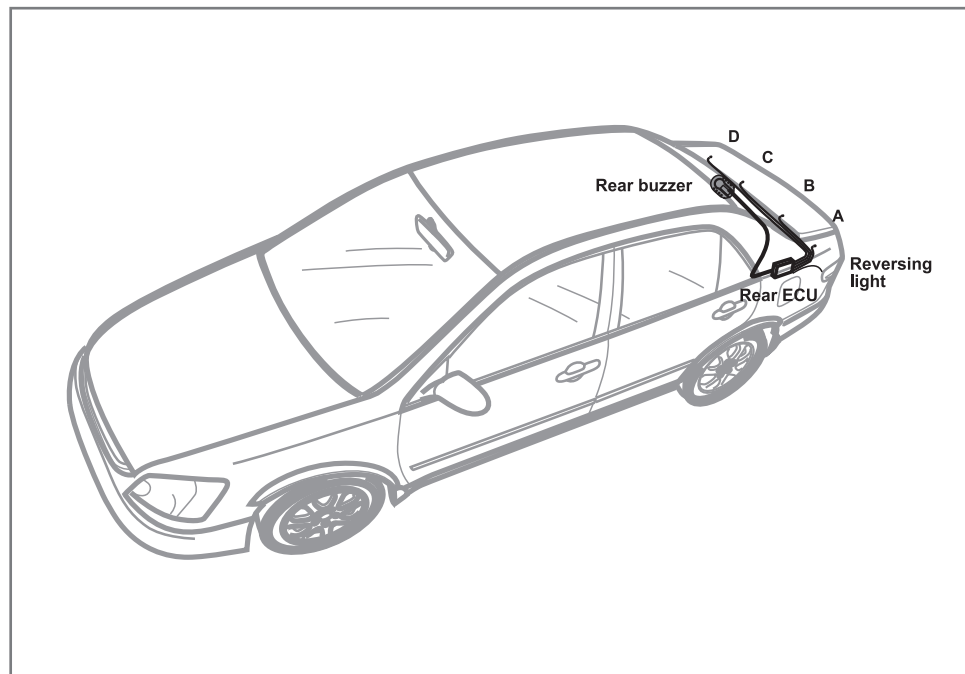
Please clean the sensors with cloth or low-pressure spray when the sensors are covered by dirt or snow.

How the system works with the buzzer

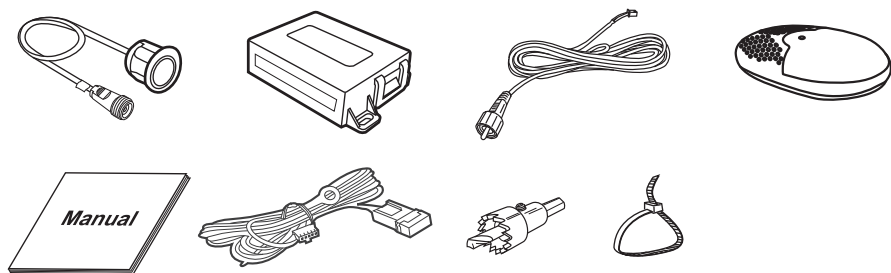
Buzzer	
Be ———	<0.3m/1.0ft
Be--Be--Be--Be--	0.3~0.5m/1.0ft~1.6ft
Be--Be--Be--	0.5~0.9m/1.6ft~3.0ft
Be---Be---	0.9~1.3m/3.0ft~4.3ft
Be----Be----	1.3~1.5m/4.3ft~4.9ft

Installation Manual

Brief installation diagram

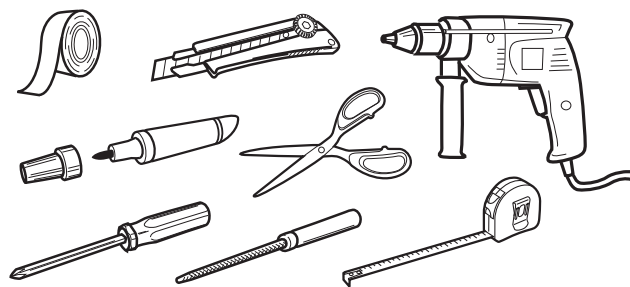


Packing list



※ The above graphics are for reference only

Installation tools

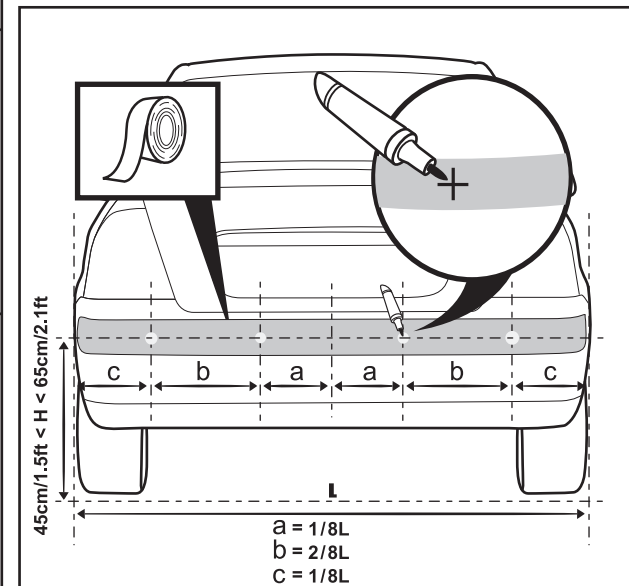
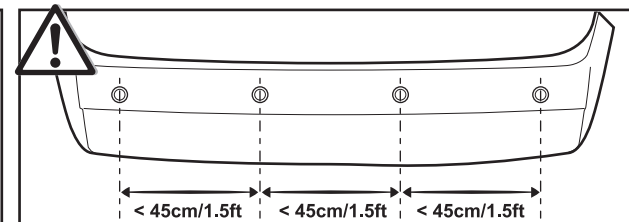
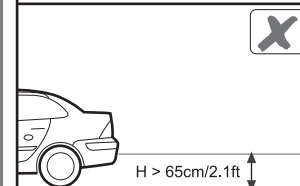
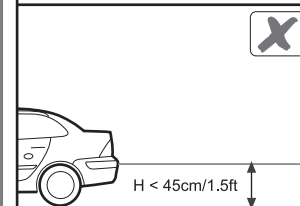
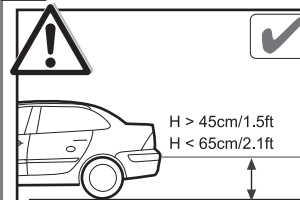


30' ~ 60'

Sensor installation

1

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



2

Changing the sensor head angle.

Fig.1

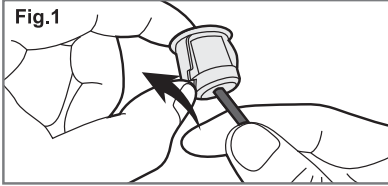


Fig.2

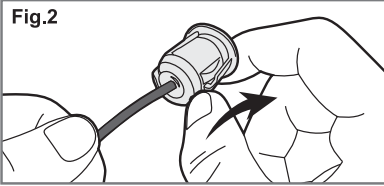


Fig.3

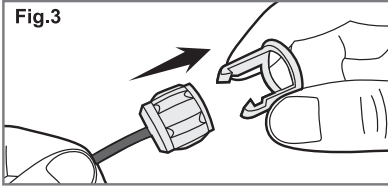


Fig.4

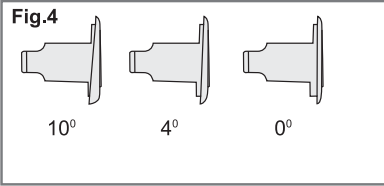
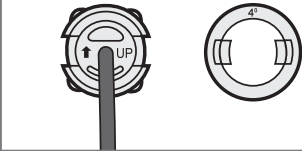


Fig.5



When colour coding the sensor heads it is advisable to paint the heads in two parts to achieve the best finish. When the paint is dry remove excess paint from the silicone then clip back together.

Fig.6

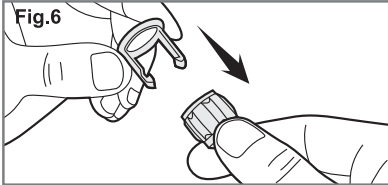
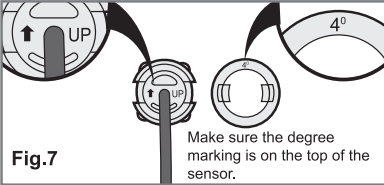


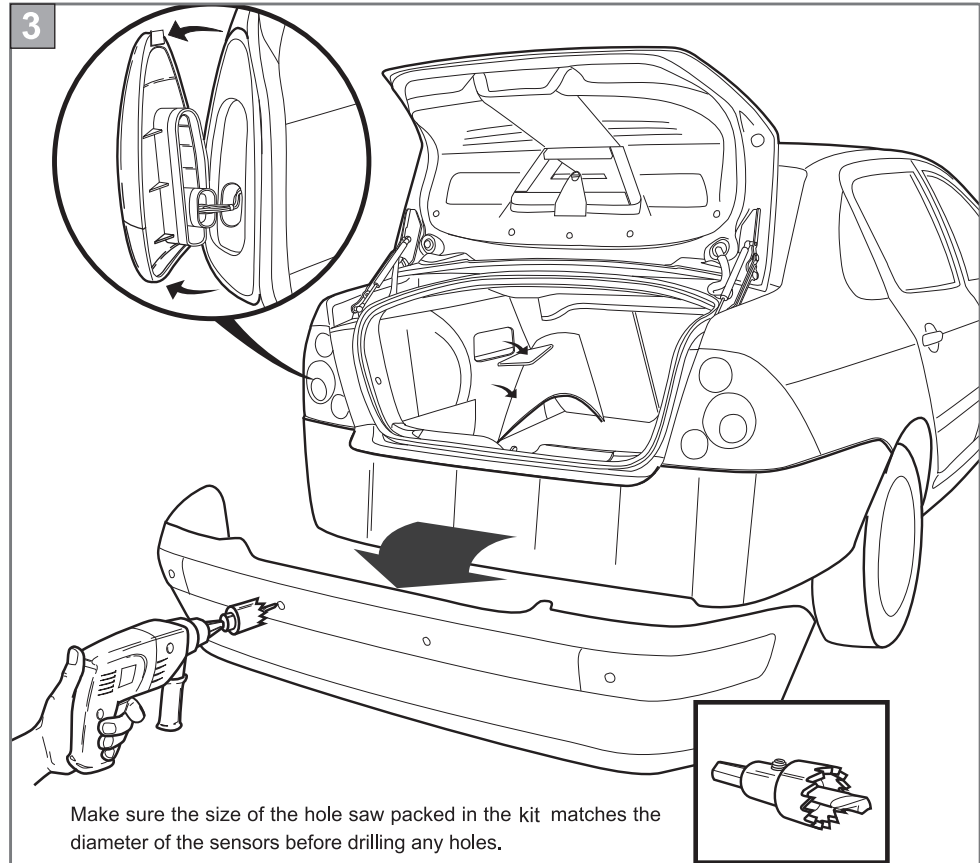
Fig.7



Make sure the degree marking is on the top of the sensor.

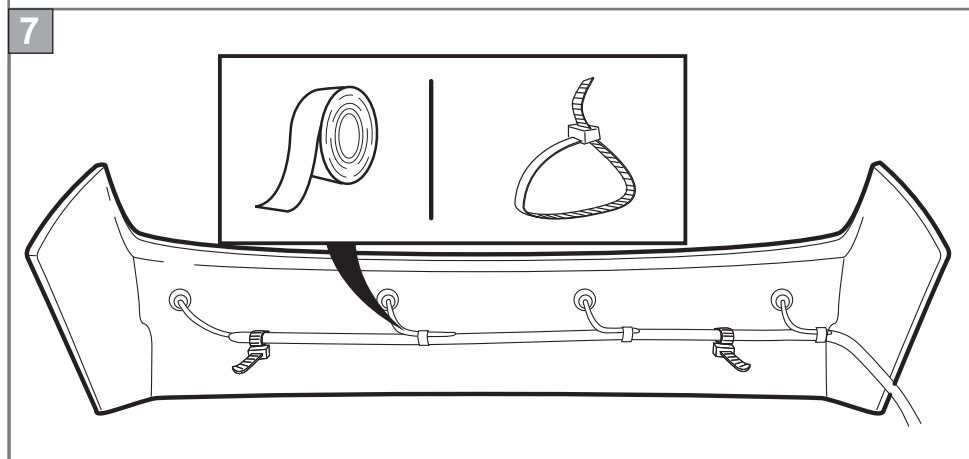
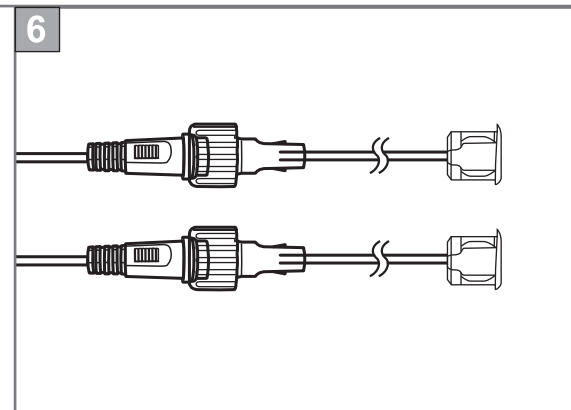
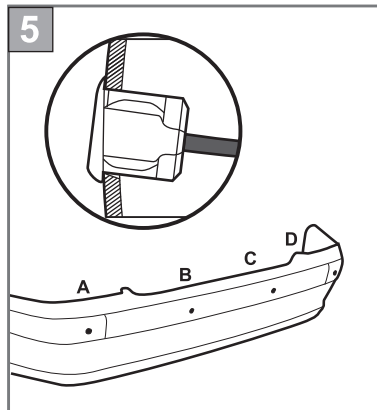
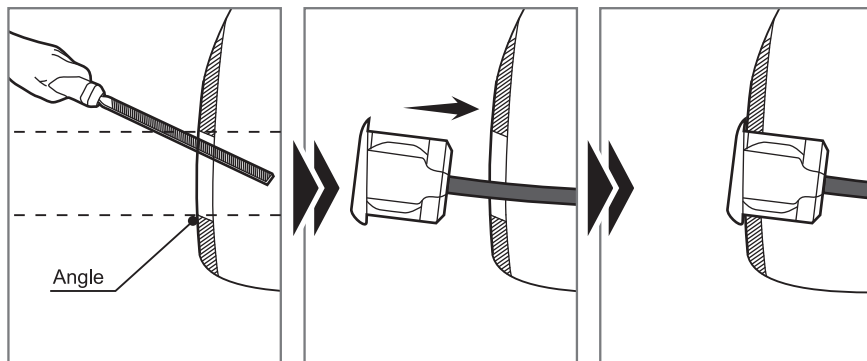
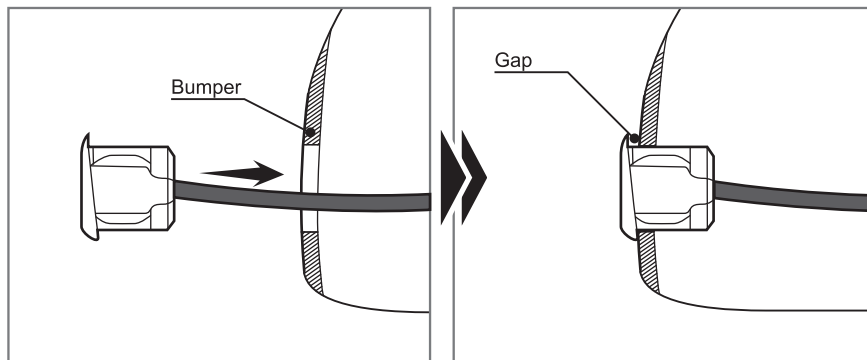
NOTE: For sensor colour coding procedure please refer to Fig.5

3

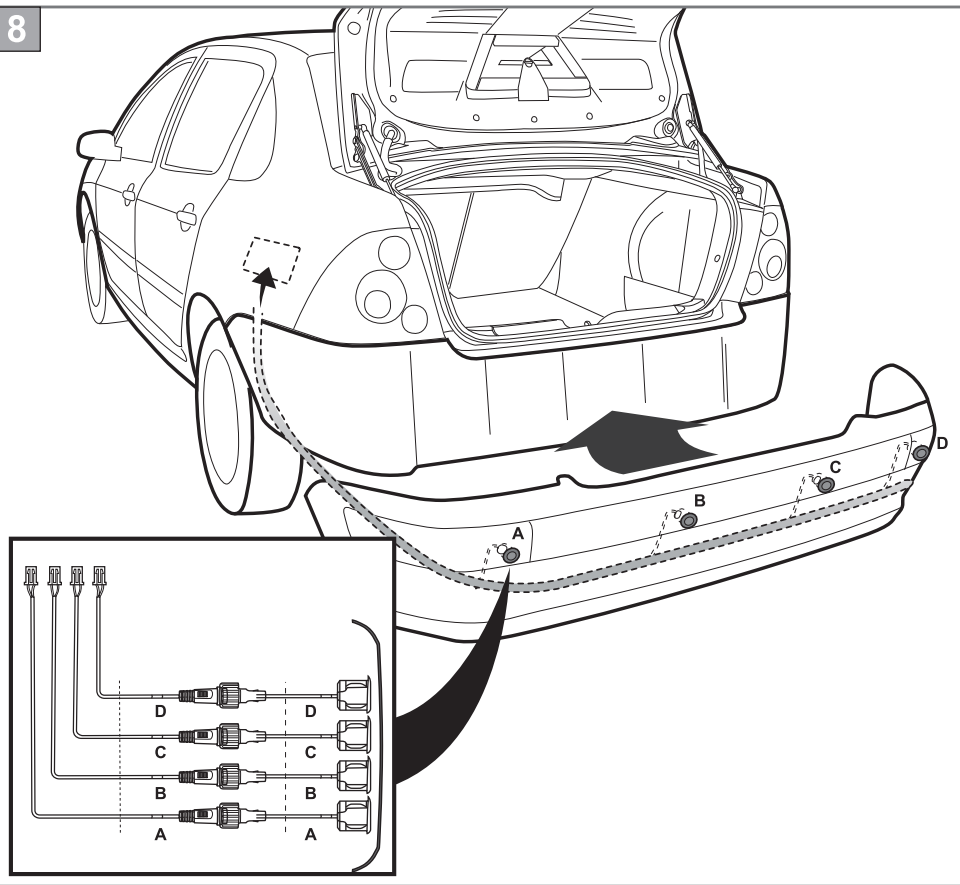


Make sure the size of the hole saw packed in the kit matches the diameter of the sensors before drilling any holes.

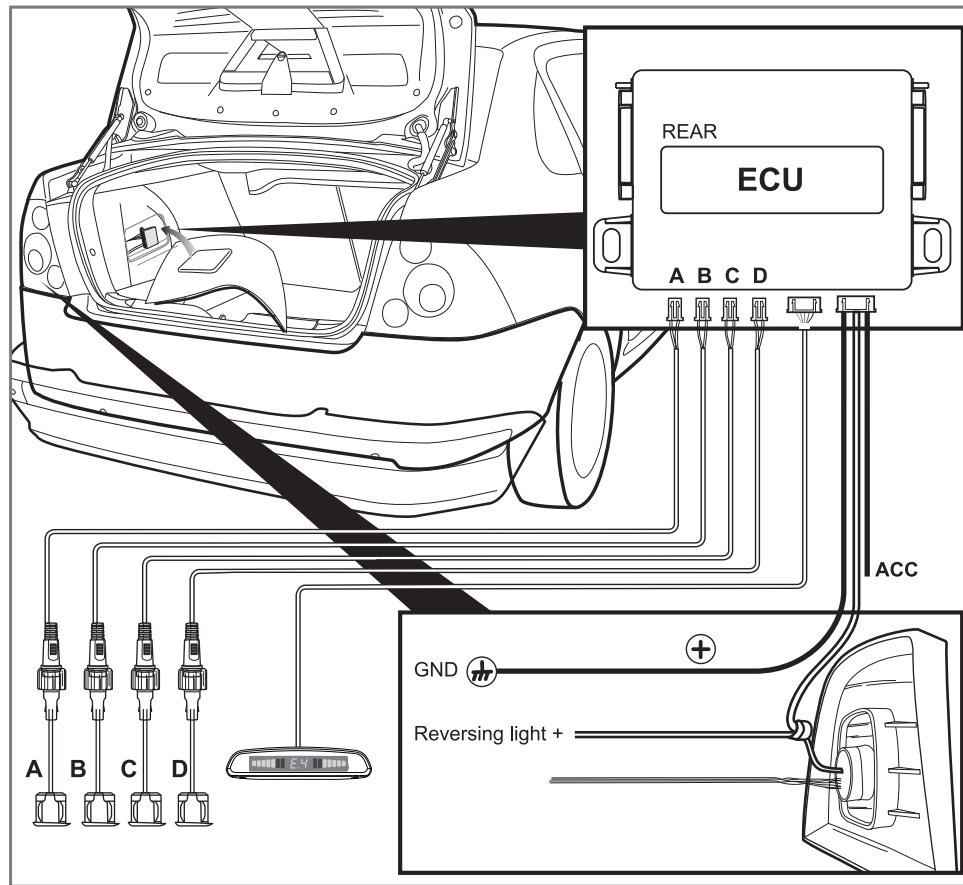
- 4** If a gap is found between the bumper and the sensor head when using the 10 degree clip on head, adjust the angle of the hole as shown below.



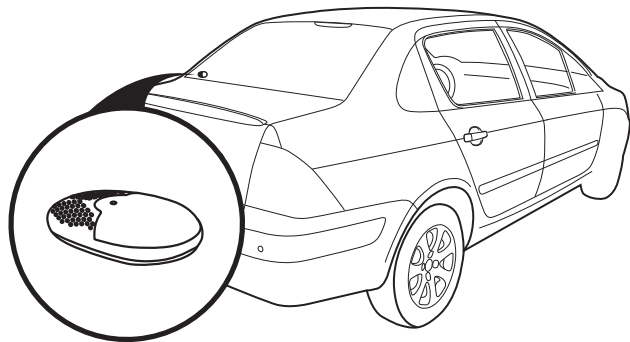
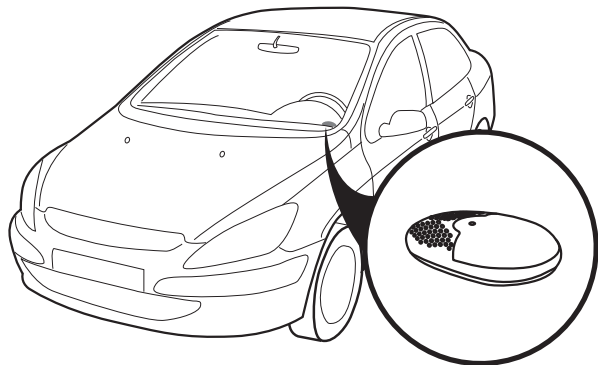
8



ECU installation

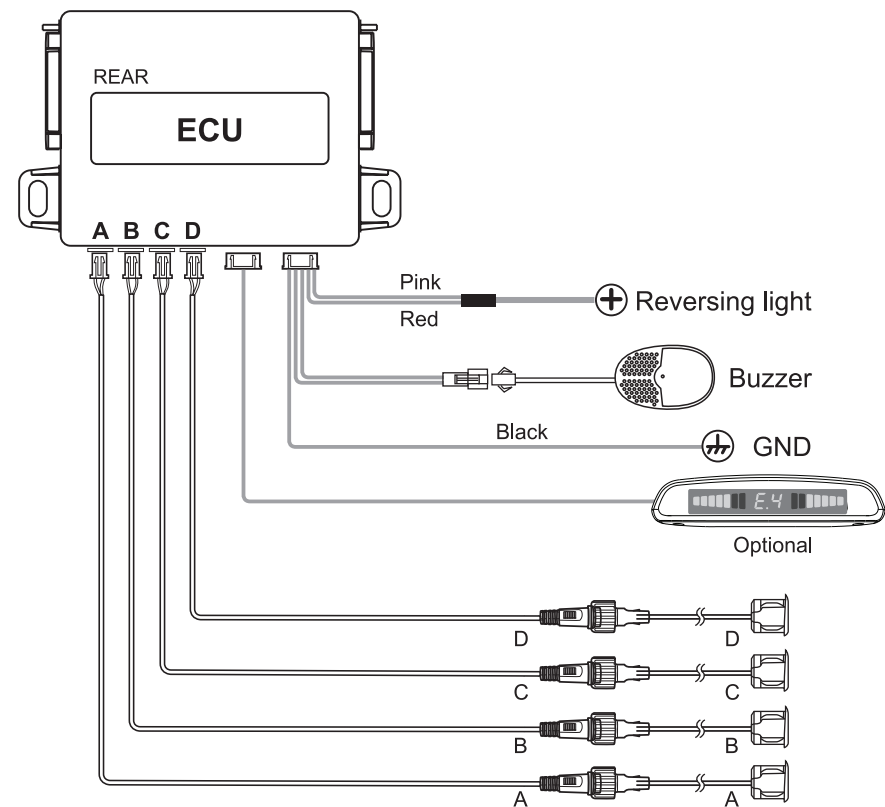


Buzzer installation

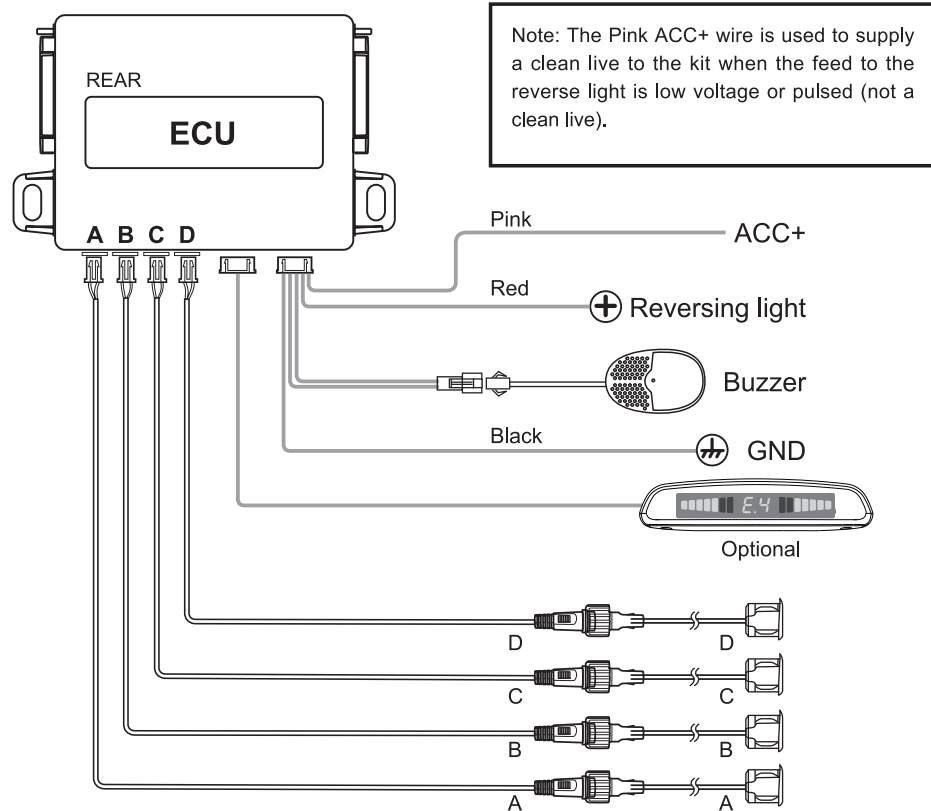


※ Recommended installation location of buzzer.

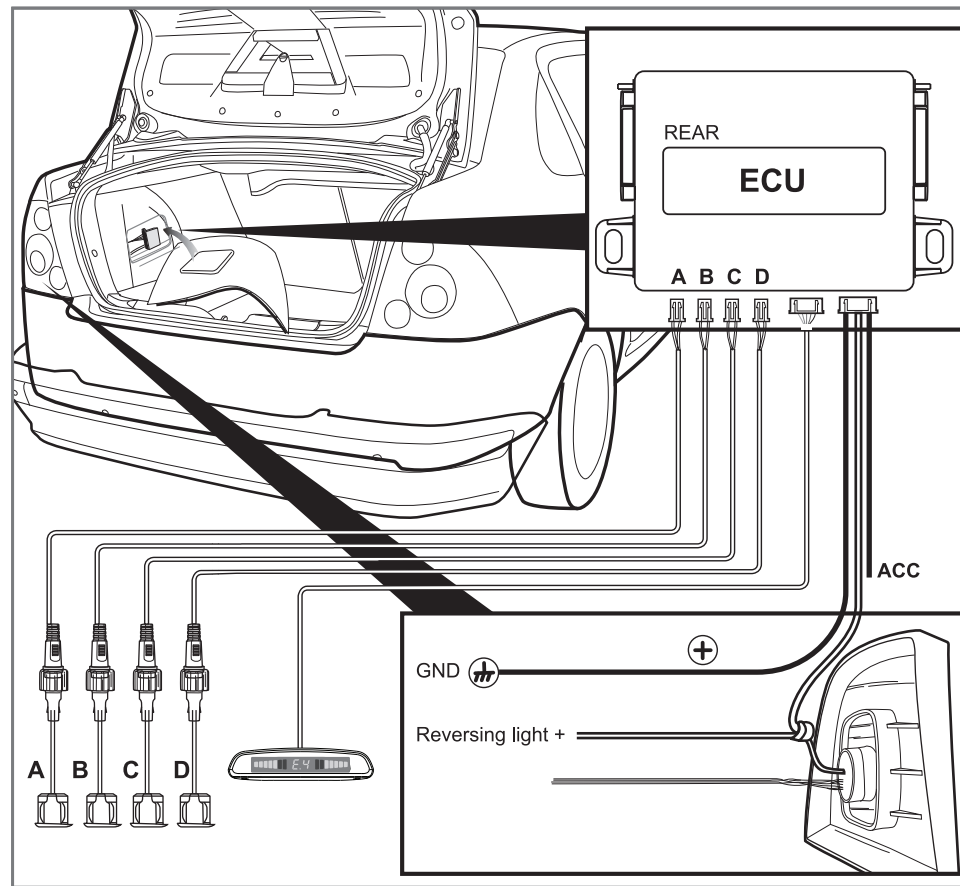
Wiring diagram 1



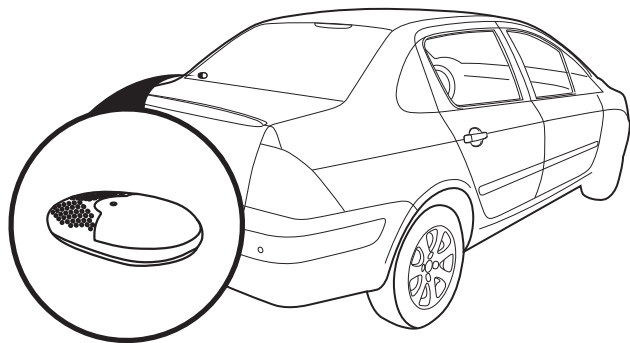
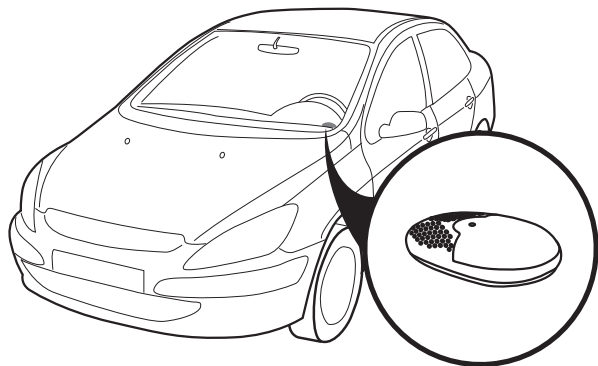
Wiring diagram 2



ECU installation

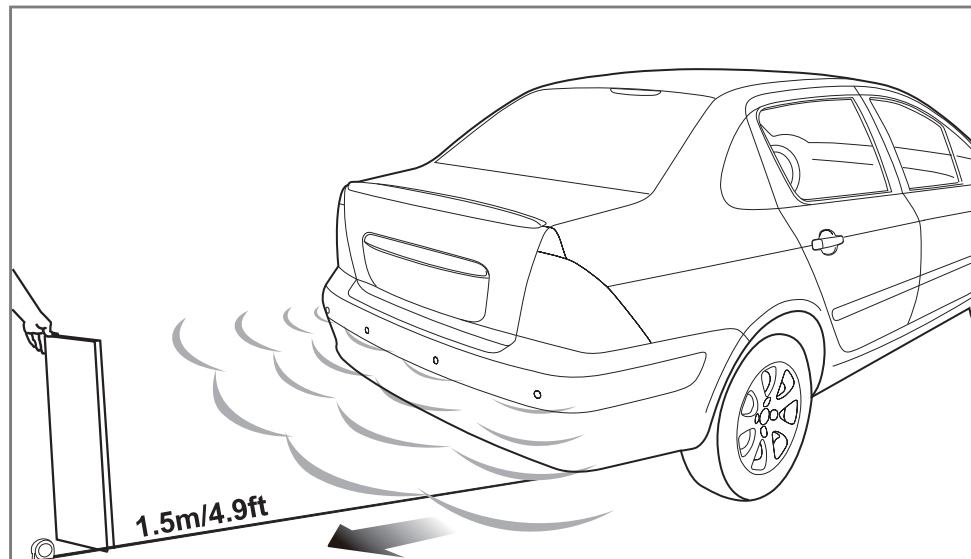


Buzzer installation



※ Recommended installation location of buzzer.

Function test after installation



Function test is performed by holding a wooden board (0.3x1m/1x3.3ft) at the back of the vehicle, and reverse the car slowly to test each function respectively as shown in this manual.

Troubleshooting

After installation, the buzzer or display doesn't work

- a) Are all wires connected properly?
- b) Is the vehicle's ignition ON?
- c) Is reverse gear engaged (the reverse light should be on)?

Damaged sensor detected

- a) Are all sensors plugged into the ECU correctly and tightly?
- b) Is the sensor faulty?
- c) Is the sensor covered by dirt or snow?
- d) Is the sensor damaged?

False warning

- a) Are all sensors plugged into the ECU in the correct position tightly?
- b) Does any sensor detect the ground?

Warning sound is too low or too high (display)

- a) Press the Set button to adjust the volume to a suitable level.

If the problem persists, please follow these steps

- a) For consumer: contact your dealer or nearby service centre.
- b) For installer or dealer:
 - 1) Test the sensors with certified ECU by using a flat wooden board.
 - 2) Replace the ECU and recheck the system.

- 3) Plug the certified sensors into the ECU and recheck.
- 4) Email your question to us and we will reply ASAP.