

Think safety think Steelmate



STEELMATE CO., LTD.
www.steel-mate.com

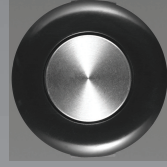
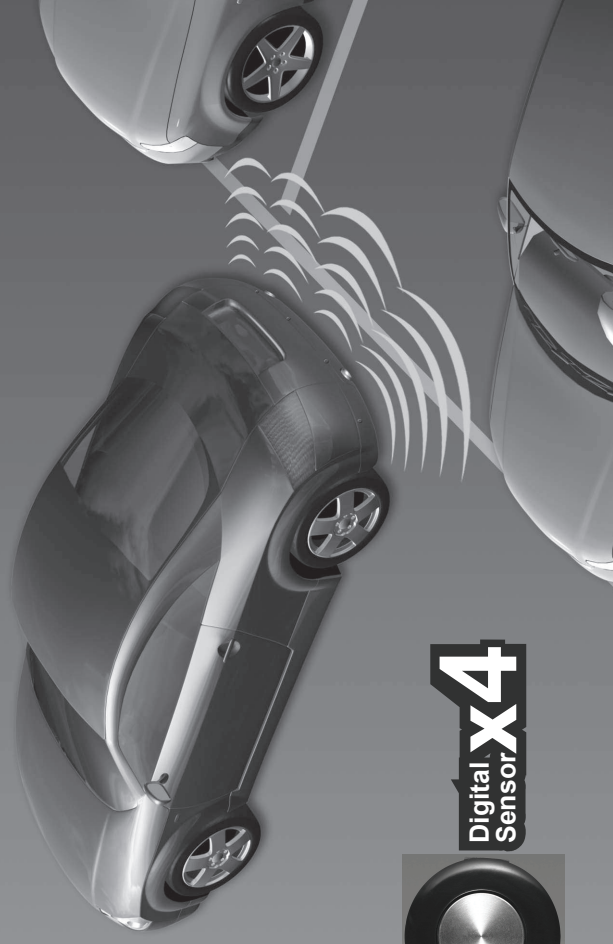
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PD400 75546258



PD400
Manual

STEELMATE
Automotive

OEM
Parking assist system



Digital
Sensor X4

Contents

User's Manual

Reasons to choose Steelmate	1
Important notice	2
Technical specifications	2
Disclaimer	2
Key features	2
About the product	3
Self-test function	3
Learning function for cars with tow-bar or spare tire	4
How does the system work	5
Attention	6
Sensor maintenance	6
Troubleshooting	7
Warranty terms	7
Steelmate warranty card	8

Installation Manual

Packing list	10
Installation tools	10
Sensor installation	11
ECU installation	15
Function test after installation	16
Wire connection	17

Parking Assist System User's Manual

Reasons to choose Steelmate

1. Professional manufacturer with more than 15 years history.
2. There are agents/distributors in more than 80 countries to supply local service and long time after sale service.
3. Customizing designed products for Europe, American and Asian, you can easily choose your favourite product.
4. With more than 300 patents and more than 100 engineers, you can enjoy the latest technology.
5. Leading manufacturer in automotive industry, ISO9001, ISO/TS16949, ISO14001 and OHSAS18001 certified.
6. Products have international approvals, high quality guaranteed.

Important notice

Steelmate parking assist systems help to provide assistance when reversing and parking. 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. The area into which the vehicle is to be reversed must be constantly visually monitored while parking.

Steelmate and its distributors do not guarantee or assume liability for collisions or damages while reversing your vehicle.

Key features

- OEM 4 rear digital sensor system with audible warning
- Accurate detection digital sensors
- Self-test function
- Perfect performance under heavy rain, windy and dusty environments
- Anti-interference and anti-false alert technology
- Detachable sensors with waterproof wire connectors
- Organized wires in one loom for easy installation
- Suitable for plastic and metal bumpers
- All weather design (-30°C+80°C)

Technical specifications

- Input voltage: 9 ~ 16VDC
- Operating current: <100mA
- Operating temperature: -30°C+80°C
- Detection range: 0.1m ~ 1.5m
- Beep volume: 80dB

About the product

PD400 is a 4-sensor rear parking assist system with digital sensors developed by Steelmate.

The system is easy to install, stable and simple to operate with a fashionable industrial quality designed buzzer and the detection range is up to 1.5 meters.

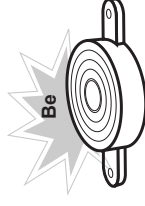
Equipped with four digital sensors, it can provide you with the most accurate information in the quickest way. The self-test function will assure the system is working properly once the reverse gear is selected.

Every piece of our products has passed the most stringent test before releasing to the market. It is reliable at a wide temperature range (-30°C ~ +80°C) and becomes very useful when you are reversing at a raining day, snowing day or at night etc. With the help of Steelmate's parking assist system, you can enjoy a convenient and nervous-free reversing experience.

Self-test function

Once the reverse gear is selected, the system will perform self-test procedure.

1. All sensors are working normally



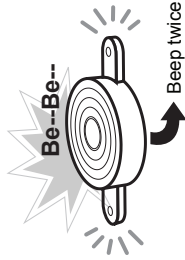
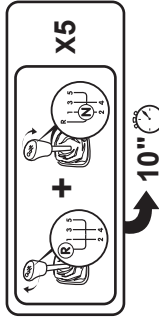
2. Damaged sensor is detected



- Beep three times
- Other sensors keep working

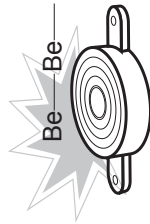
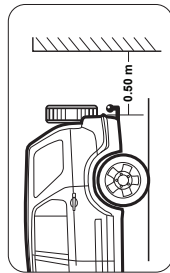
When damaged sensor is detected, please check the sensor's surface and connections before replacing it.

Learning function for cars with tow-bar or spare tire



Ignition on, within 10 seconds, shift the gear from "N" to "R" for 5 times and stay at "R" position for 6 seconds at the 5th time.

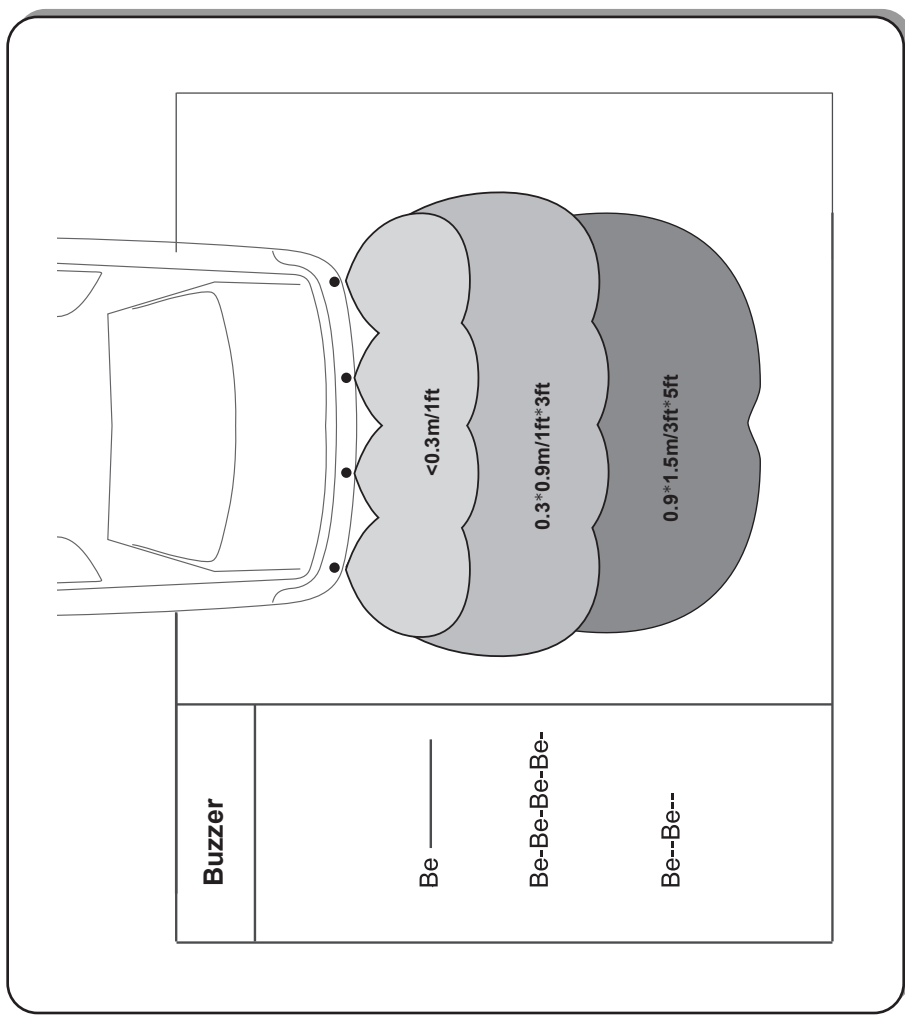
The buzzer will beep twice, this indicates that the learning function is successful.



When the learning function is activated, the system will ignore the tow-bar or spare tire and only detect other objects behind the vehicle.

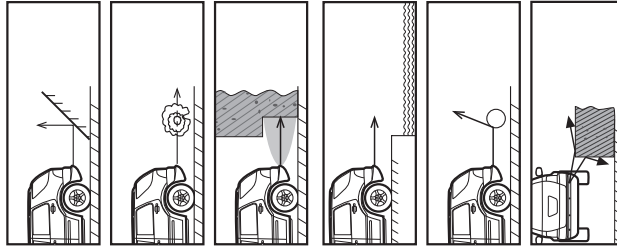
Note: If the vehicle does not have tow-bar or spare tire, you do not need to set this function.

How does the system work



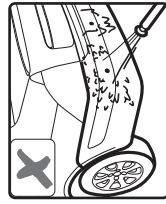
Attention

False detection may occur in the following situations:

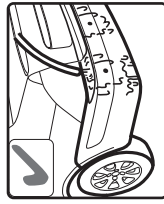


- After installation, please fully test the system before use.
- Heavy rain, dirty or damaged sensor may result in false warning occasionally.
- Ensure that the self-test procedure is completed and all sensors are functioning before reversing.

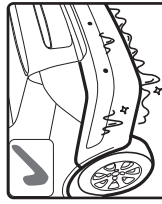
Sensor maintenance



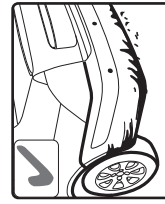
Do not wash the sensor with squirt gun or swab them forcibly.



Please wash car with low-pressure water.



Please melt the ice with warm 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.

Troubleshooting

● After installation, the buzzer doesn't work

- Are all wires connected properly?
- Is the vehicle's ignition ON?
- Is the reversing gear engaged (the reversing light should be turned on)?

● Damaged sensor is detected

- Are all sensors plugged into the ECU correctly and tightly?
- Is the sensor wire broken?
- Is the sensor covered by mud or snow?
- Is the sensor damaged?

● False warning

- Are all sensors plugged into the ECU in the correct position tightly?
- Does any sensor detect the ground?
- Is the sensor mounted upside-down?

● If the problem persists, please follow these steps

- Replaced the ECU with a certified ECU, then test the system
- Test the sensors
- Contact the dealers or distributors.

Warranty terms

I. The unit is warranted for a limited period of time from the date of purchase. In the unlikely event of a defect arising in this product when used in accordance with the manufacturer's instructions, the parts would be repaired or replaced free of charge.

- It is required to show warranty card when making any warranty claims.
- The model and the unit's serial number must be the same as the information on the warranty card..

II. This warranty is non-transferable and is automatically void if:

- The original purchaser has not completed the warranty card.
- The unit's serial number is defaced, missing or altered.
- The unit has been modified or used in a manner contrary to its intended purpose.
- The unit has been damaged by accident, unreasonable use, neglect, improper installation or service.

III. The warranty does not cover:

- Damage caused by incorrect or poor installation problems which may be caused by anomalies in the vehicle's electrical system or originating from the environment in which the system is operated.

Steelmate warranty card

- b) Damage to the system caused by accident or improper use in any manner whatsoever not the fault of Steelmate, including but not limited to damage by water or as a result of excess voltage applied to the system or if misused or repaired or altered in any way other than by Steelmate or its authorized agent.
- c) False information displayed in the panel of the dash board that is caused by car with CAN bus system.

User:

Tel:

Vehicle Reg No.:

Product Model No.:

Serial No.:

Date of Installation:

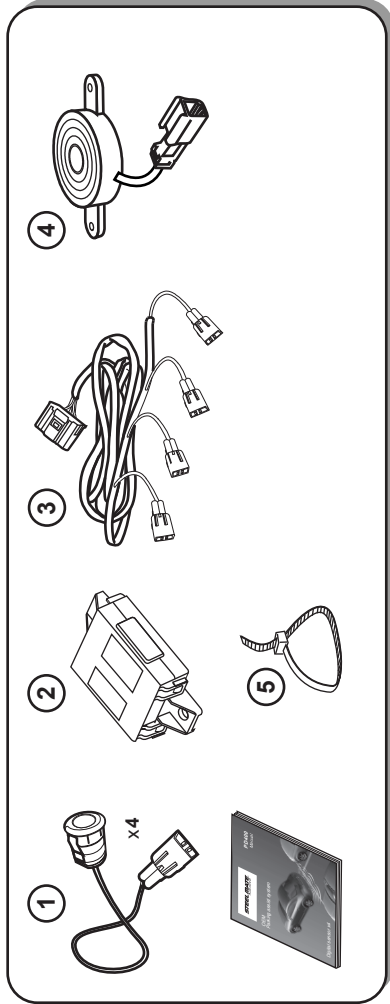
Name of the Retailer:

Signed by Retailer:

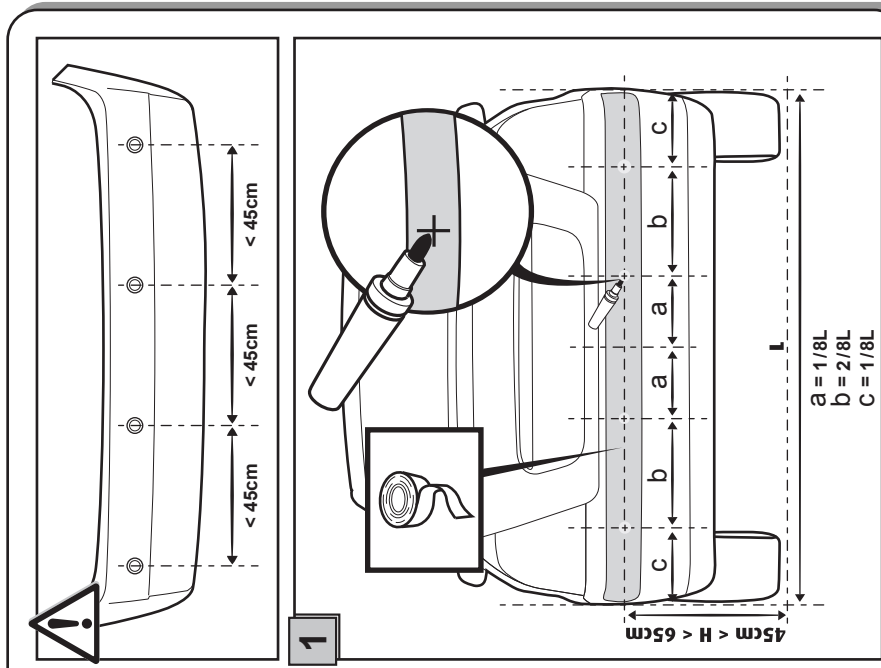
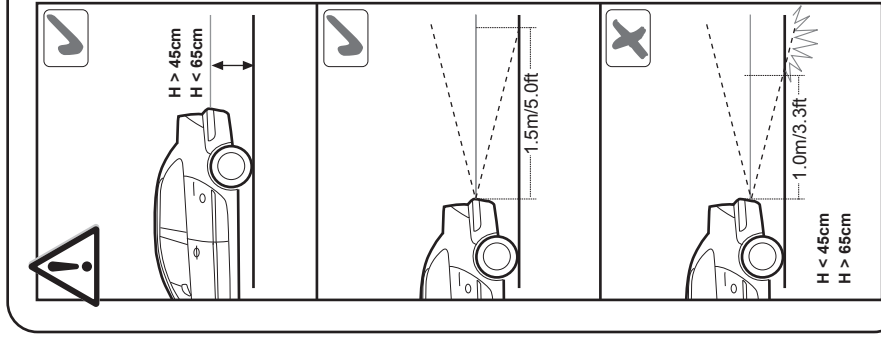
**Parking Assist
System**

Installation Manual

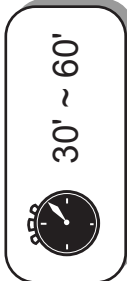
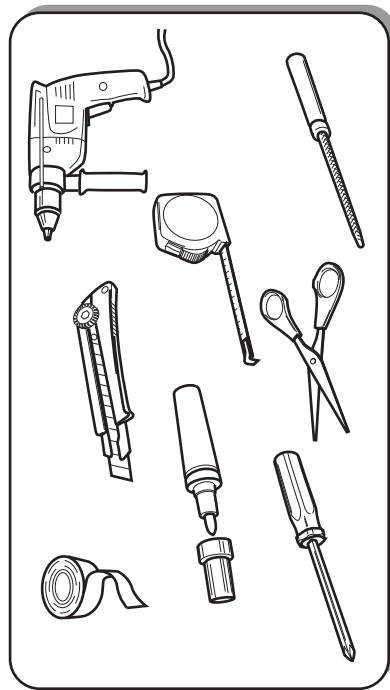
Packing list

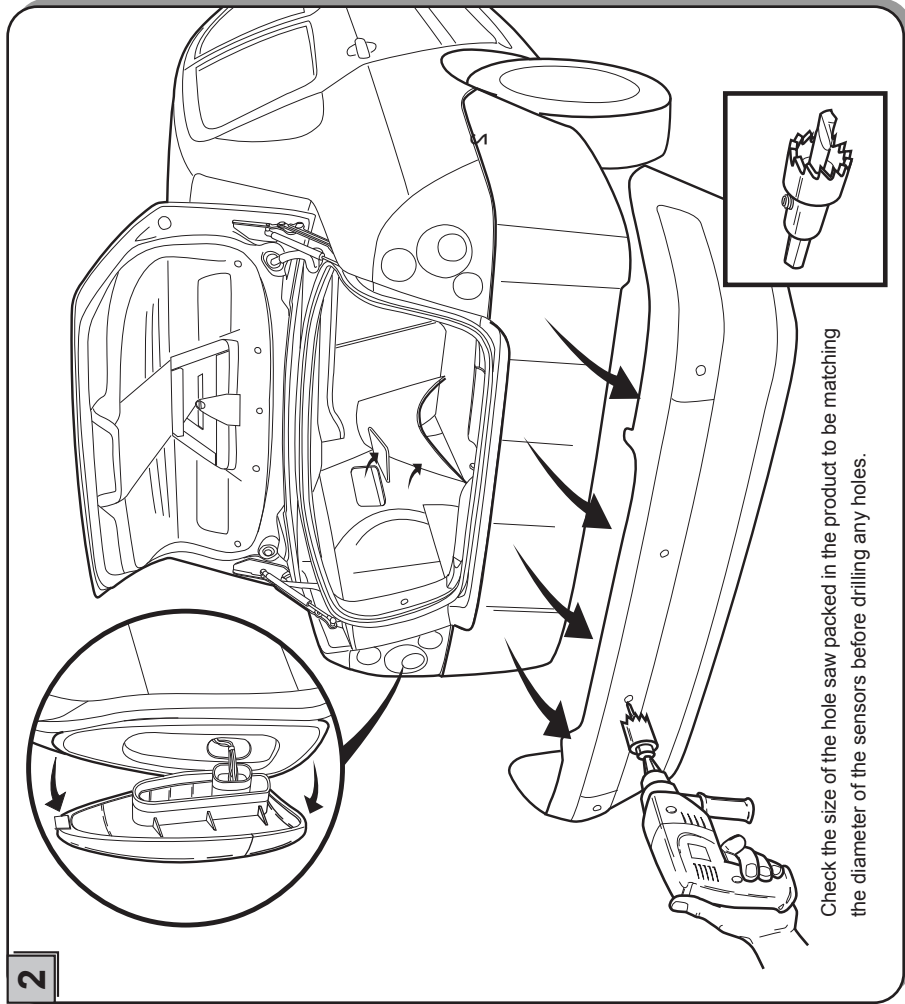


Sensor installation

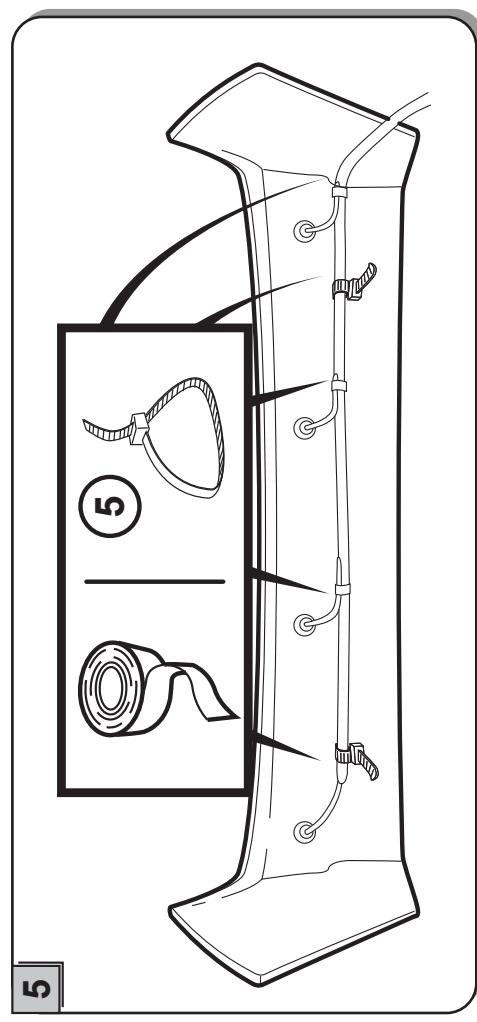
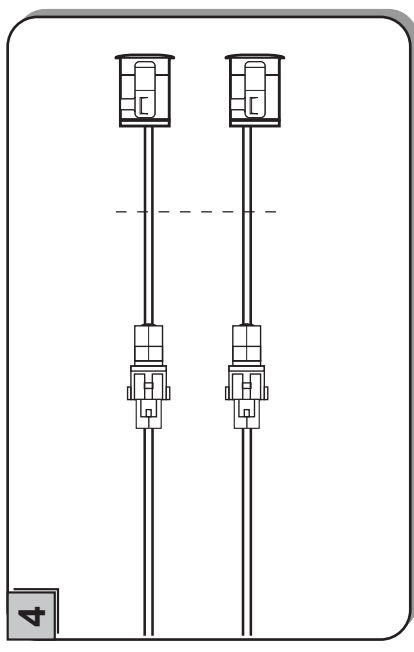
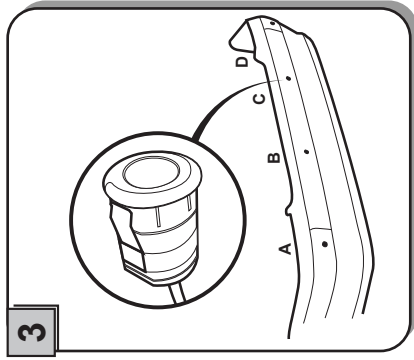


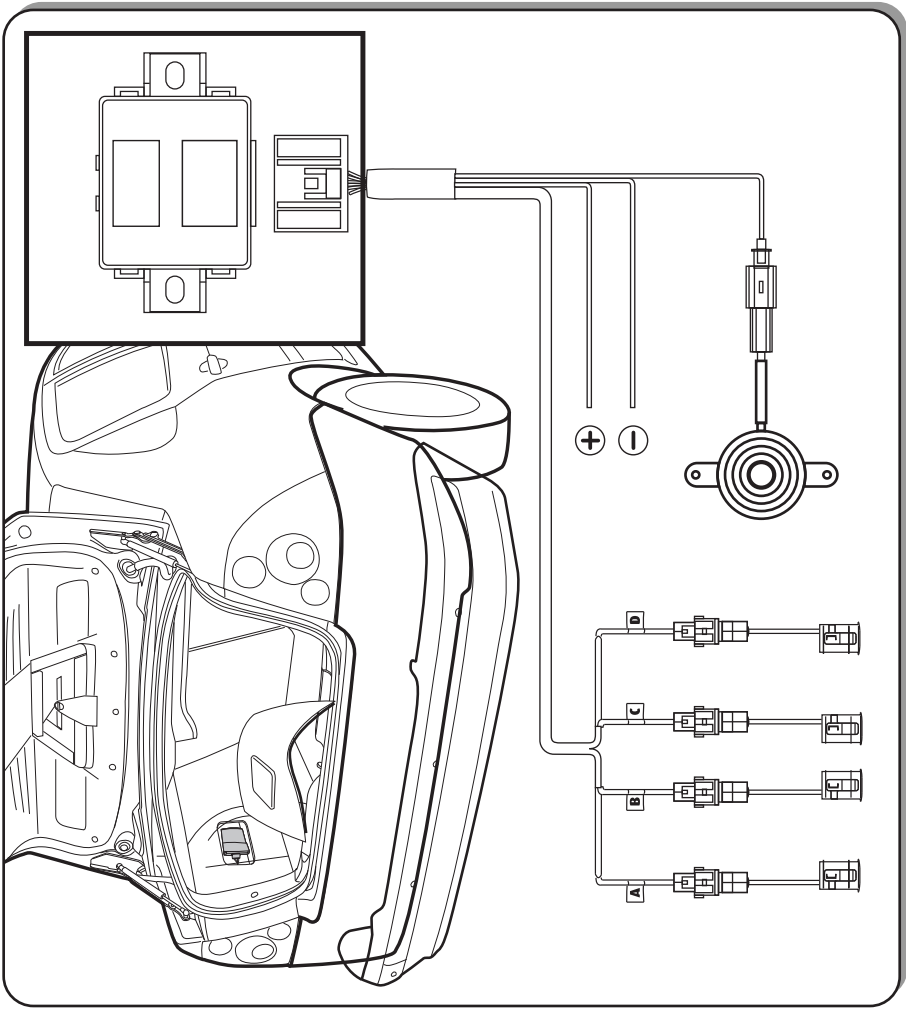
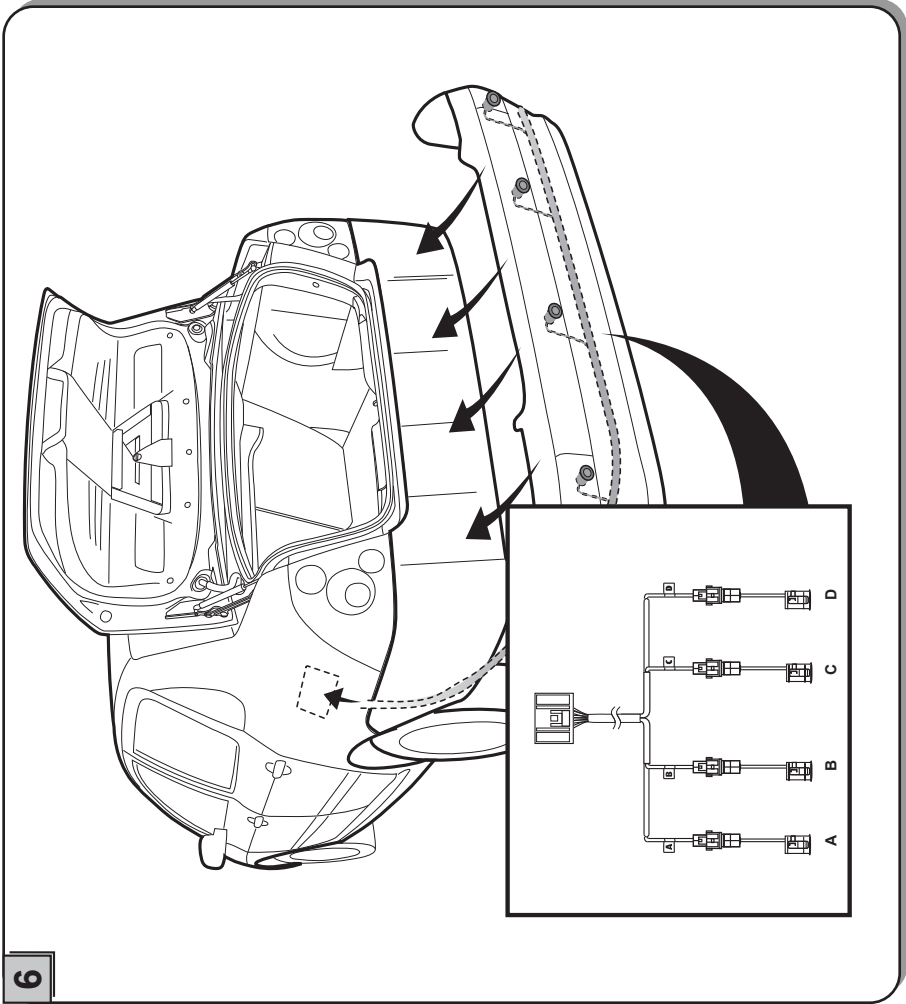
Installation tools





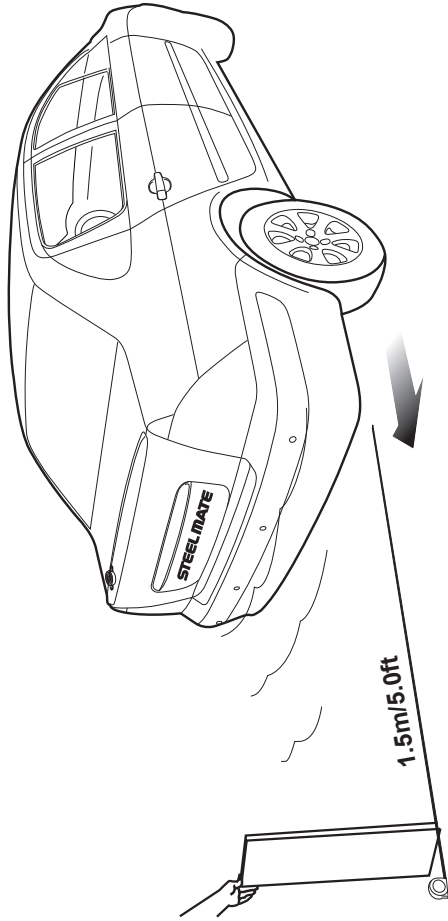
Check the size of the hole saw packed in the product to be matching the diameter of the sensors before drilling any holes.





ECU installation

Function test after installation



Function test is performed by holding a wooden board (0.3mx1m/1ftx3ft) standing against the back of the car, and slowly reverse the car to test each function respectively as shown in this manual.

Wire connection

ECU

