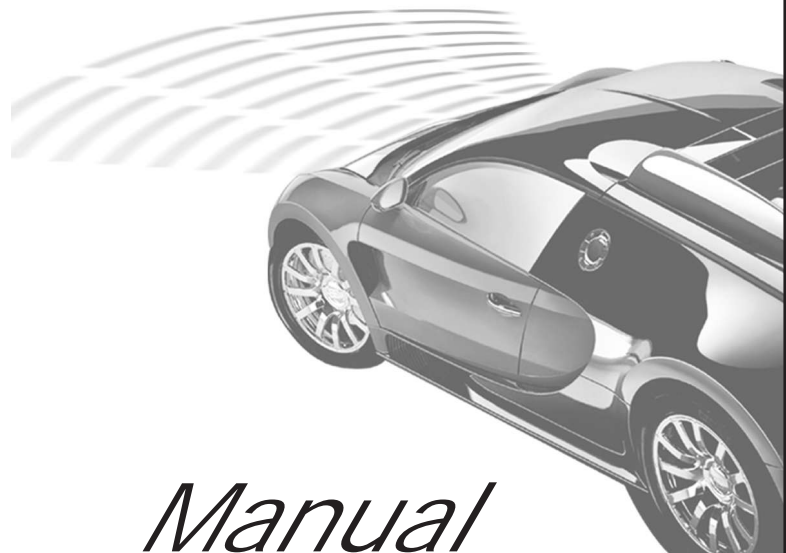


**Honesty
Innovation
Passion**

STEELMATE

PTS400-F/PTS400M-F

Front Parking Assist System



Steelmate Co., Ltd.

<http://www.steel-mate.com>

E-mail: sales@steel-mate.com

Manual



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The trademark, patent and copyright are owned by Steelmate Co., Ltd.

The right to change designs and specifications for improving the product is reserved

Reasons to choose Steelmate

1. Professional manufacturer with superior quality
2. Complete range of products, you can choose what you need easily.
3. There are agents/distributors in more than 60 countries, quick response
4. More than 100 engineers in the company, you can enjoy the latest technology.
5. Products have international approvals, quality guaranteed
6. 20 years leading experience in the automotive industry
7. ISO 9001:2000 and ISO/TS16949:2002 and ISO 14001:2004 certified
8. The National Famous Trademark in the Chinese automotive industry

Warranty

- I. The unit is warranted for a 1 year 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 will be repaired or replaced free of charge.
 - I It is required to show the warranty card when making any warranty claims.
 - I The model and serial number on the unit must be the same as the information on the warranty card.
 - II. This warranty is non-transferable and is automatically void if:
 - I The original purchaser has not completed the warranty card.
 - I The unit's serial number is defaced, missing or altered.
 - I The unit has been modified or used in a manner contrary to its intended purpose.
 - I The unit has been damaged by accident, unreasonable use, neglect, improper installation or service.
- III. The warranty does not cover damage to the unit caused by installation or removal of the unit.

Steelmate warranty card

User:	
Tel:	
Vehicle reg No.:	
Product model No.:	
Serial No.:	
Date of installation:	
Name of the distributor	Signed by distributor

Specifications

Operating Voltage: 9V~16V

Frequency: 40KHZ

Input Current : <300mA

Warning Buzzer: 70~90dB

Working temperature: - 40°F ~ + 185°F

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 only.
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 advised to check the position of the sensors before the definitive drilling of the holes.
5. Perform test after finishing the installation.

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.

Every part of our products has passed the most stringent test before releasing to the market. It can operate at a wide temperature range (-40°F ~ +185°F) and has good stability in all weather conditions.

Steelmate's parking assist system, will result in an increased level of control while reversing and parking.

How to work

1. How to activate the parking detection system

The parking assistant system will be activated when the key is turned to ACC ON position

2. Self-testing function

When turn the key to ACC ON position, the system tests the sensors automatically.

I. When the sensors are in good condition:

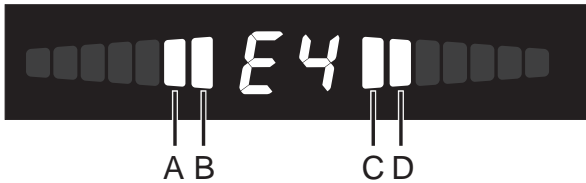
The buzzer will "bee" once to indicate that the system is activated ;

One yellow LED of the left and right 7 phase LED display will flash (for system with display).

II. When one or more sensors are damaged:

The buzzer will beep three times to indicate that the system is activated but one or more sensors are damaged. The system will work partially with the good sensor(s). Please replace the damaged sensor ASAP.

The number and position of the damaged sensors will be shown on the display.



- E1: one sensor is damaged
 - E2: two sensors are damaged
 - E3: three sensors are damaged
 - E4: four sensors are damaged
- (For the model with display)

Troubleshooting

1. Visual display does not power on after installation.

- 1) Is the power supply wire connected correctly?
- 2) Is the ignition turned to ACC/ON?
- 3) Is reverse gear selected?
- 4) Are all wiring connections correct?
- 5) Is the display damaged?

2. The display indicates a defective sensor.

- 1) Check if the sensor surface is clean.
- 2) Check that the sensor wires are plugged in the ECU properly.
- 3) Check that the sensor wires are not damaged.

3. The obstacle position is not corresponding to the display indicator.

- 1) Are the sensors' wires connected to the ECU according to the manual?

4. False readings from the buzzer and visual display in zone 5.

- 1) There are obstacles within 2.0ft.
- 2) Are sensors mounted too low or detecting the ground?
- 3) Unplug 1 sensor at a time to check for response.

5. Audible voice and warning tones too low.

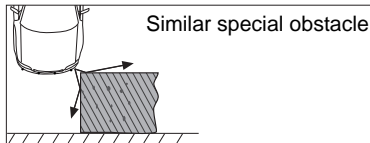
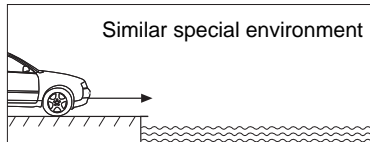
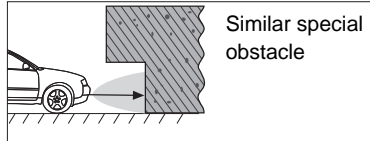
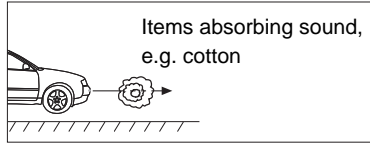
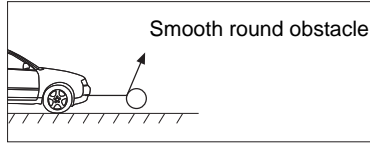
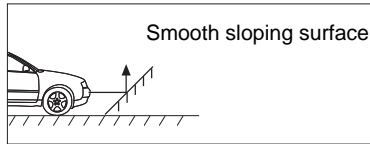
- 1) Press the volume button to achieve the required level.

6. No audible voice warnings.

- 1) Check whether the voice warning is switched on at the display or the version of this product is without voice warning.

Notice

False detection may occur in the following situations:

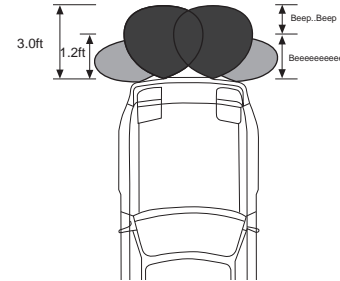


- 1 After installation, fully test the system before use.
- 1 Heavy rain, dirt or a damaged sensor can cause incorrect detection.
- 1 Ensure that the self-testing function is complete and indicates no faults before reversing.

The product is a driver assistance device. No warranty as to the operating efficient of the system or prevention of accidents is guaranteed.

Alert mode (for system with buzzer only)

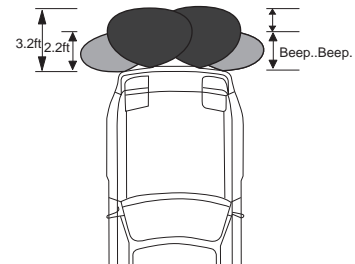
Alert stages	Range	Alert sound
1st stage	2.9~1.9ft	Beep..Beep..
2nd stage	1.9~1.0ft	Beeeeeep.Beeeeeep
3rd stage	<1.0ft	Beeeeeeeeeeeee



For system with buzzer

Alert mode (for system with display)

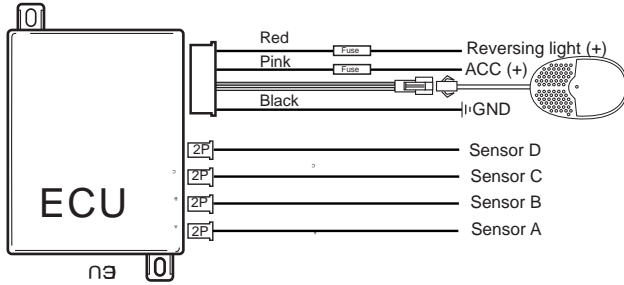
Stages	Distance range	Alert sound	Remark
1st stage	3.2~2.6ft	Beep..Beep..	Safe
2nd stage	2.5~2.2ft		
3rd stage	2.2~1.9ft		
4th stage	1.9~1.6ft	Beeeeeep.Beeeeeep	Slow
5th stage	1.6~1.3ft		
6th stage	1.2~1.0ft		
7th stage	<1.0ft		



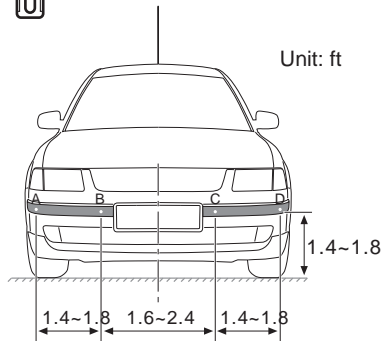
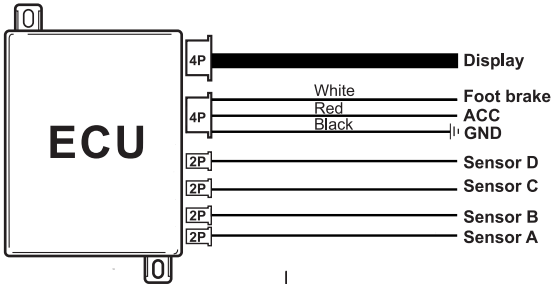
For system with display

Installation diagram

1. PTS400 (Front) diagram



2. PTS400M (Front) diagram



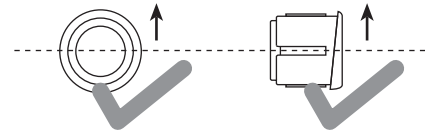
Installation diagram for front 4 sensors

For the system with digital display:

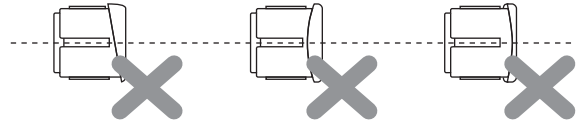
The digital display will show the distance, when the distance is less than 1.0ft, "-P" will be shown on the display.

Sensor installation

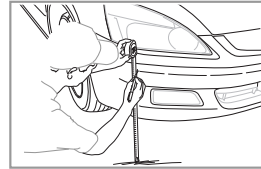
Important note: the sensor should be installed with the "up" sign to the top



The sensor should be installed vertically



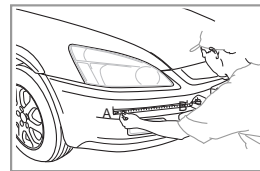
Improper installation will result in false alert



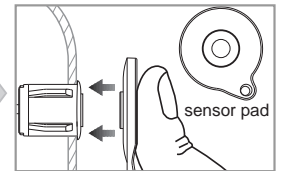
Select a smooth position which is 1.3ft~1.9ft to the ground as the horizontal guideline.



Select a smooth position on the left and right side of the car along the horizontal guideline for A and D sensor.



Along the horizontal guideline, select a smooth position which is 1.1~1.4ft away to A sensor for B sensor and 1.1~1.4ft away to D sensor for C sensor.



Push the sensor into the hole firmly with sensor pad supplied with the product.

Note: The sensor shown above maybe different from the product.