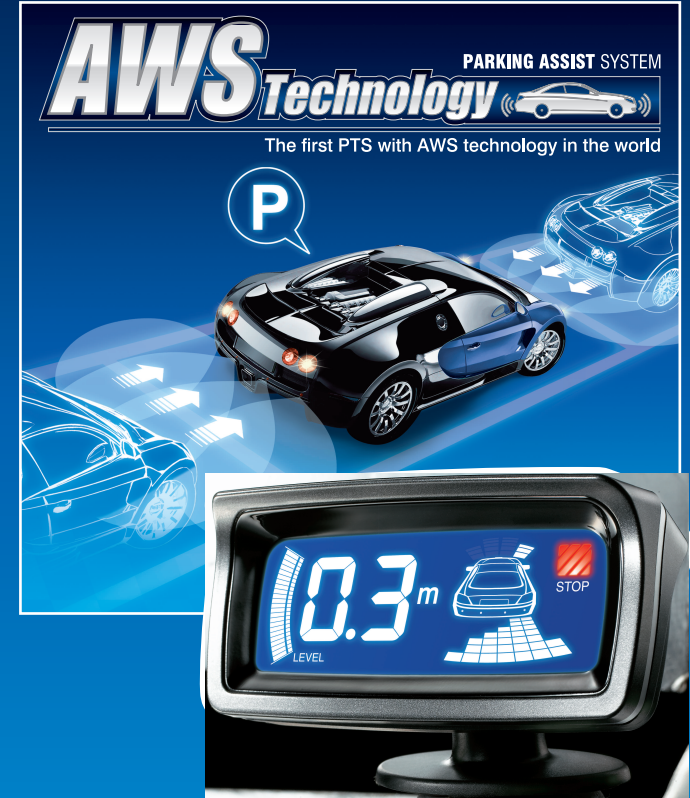




MODEL
PTS800V3



Honesty Innovation Passion



Manufactured by:
Steelmate Co., Ltd
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E-mail: service@steel-mate.com

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The right to change design and specification for improving the product is reserved



User's Manual

Reasons to choose Steelmate

1. Professional manufacturer with super 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. Nearly 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

About the product

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

PTS800V3 is the world's first PTS with AWS (Active Warning System) technology.

The 3:1 wide blue screen will offer you super wide vision which you can see comfortably and easily.

All the detachable sensors are water-resistance and can be easily changed.

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°C ~ +85°C) and has good stability in all weather conditions.

This user-friendly designed PTS will result in an increased level of control while reversing and parking.

Features

- 1 AWS Technology
- 1 0.08s response time
- 1 Real time and all round protection with 8 sensors
- 1 Not affect the working status of another parking assist system
- 1 Detachable sensors with fully insulated & waterproof connector
- 1 Blue LCD display of 3:1 super wide screen
- 1 Dynamic matrix indication
- 1 Display with universal adjustment
- 1 Display can be installed at 5 locations
- 1 Built-in speaker & volume adjustable
- 1 Audible/voice warning mode selectable
- 1 Up to 6 warning modes
- 1 Self-testing function of all 8 sensors
- 1 All weather design (-40°C ~ +85°C)
- 1 Anti-false alert technology

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.

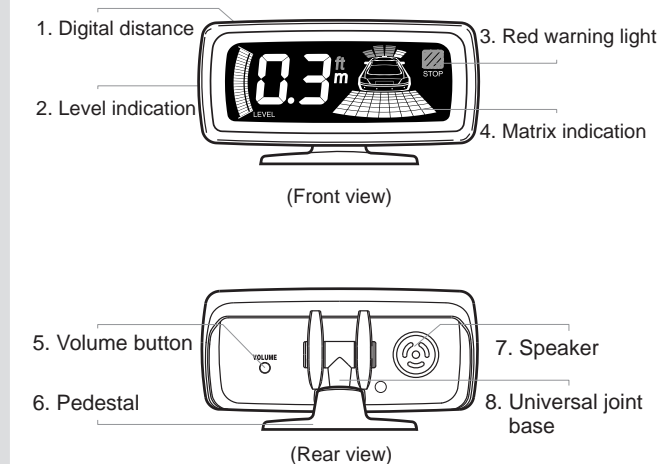
1. This unit is for vehicles with 12V DC only.
2. Unit should be installed by a professional auto technician.
3. Route wiring harness away from heat sources and electrical components.
4. It is strongly advised to check the position of the sensors before the definitive drilling of the holes.
5. Perform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

Technical parameters

- 1 Voltage: 12V ± 3V
- 1 Static current: < 80mA
- 1 Working current: < 300mA
- 1 Detecting range:
 - Driving forward: 0.10~0.99m.
 - Reversing backward: 0.10~2.59m.
- 1 Display range:
 - Driving forward: 0.3~0.9m.
 - Reversing backward: 0.3~2.5m
- 1 Temperature: -40°C ~ +85°C
- 1 Beep volume: 70 ~ 90dB

Blue LCD display

Driving status:



1. Digital distance

The digital display will indicate 0.3~2.5m if the object is within the detection range.

If there are several objects in front or at rear of the car, the digital number will indicate the shortest distance. The digital number will be refreshed every 0.1m.

2. Level indication

The level of the indicator will be changed according to the shortest distance of the object to the car.

3. Matrix indication

The matrix indicator will show the accurate position and distance of the object in front or at rear of the car.

4. Red warning light

When the object distance is less than 0.3m, "STOP" will appear and the red warning light will flash quickly to warn the driver to stop the vehicle.

5. Pedestal

The sticky tape under the pedestal base is very strong and can be stuck on the dashboard or windshield firmly.

6. Universal joint base

Its flexible structure allows the driver to adjust the display angle in any direction for an easy reading.

Active warning system (AWS) technology

PTS800V3 is the world's first PTS with AWS technology, the system will actively warn any approaching vehicle towards the parked car by turn signals flashing or siren chirping.

When a car is parked with engine stopped, the system will be activated. When the system detects an approaching vehicle and the distance is about 1.5m, the system will warn with turn signals flashing. When the approaching vehicle is about 1m, the horn of the parked car will chirp once and followed by turn signals flashing quickly. If the vehicle is continuously approaching, the horn will chirp once again and the turn signals will flash again.

Voice warning ON/OFF

When reverse gear is selected, press and hold the "VOLUME" button at the back of the display to turn the voice warning ON/OFF.

Turn voice warning OFF: Press and hold the volume button for 2 seconds, the display will beep once and 01 or 02 or 03 will appear on the screen to indicate the voice warning is OFF.



Turn voice warning ON: Press and hold on the volume button for 2 seconds, the display will beep once and 11 or 12 or 13 will appear on the screen to indicate the voice warning is ON.



Volume adjustment

When reverse gear is selected, press "VOLUME" button at the back of the display to adjust the volume of the warning sound.

Low level: press the volume button once, it will beep once and 11 or 01 on the screen indicates the volume is low.



Medium level: press the volume button again, it will beep twice and 12 or 02 on the screen indicates the volume is medium.



High level: press the volume button the third time, it will beep three times and 13 or 03 on the screen indicates the volume is high.



Notice: The above modes can be switched over. When the distance of the object is less than 0.3m, the volume will turn to high level automatically; when the object is out of range, the system will return to its former status. The factory setting is HIGH level and the voice warning is ON.

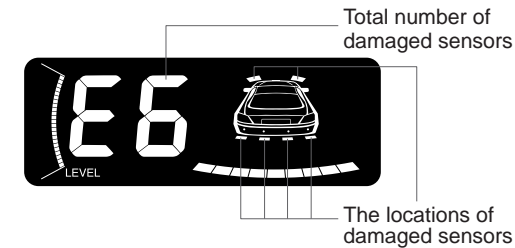
Self-testing function

When ACC ON, the system will test the 4 front sensors E, F, G and H automatically.

When the reverse gear is selected, the system will test the 4 rear sensors A, B, C, D and 2 front sensors E, H automatically.

If all the sensors are functioning, the system will beep once.

If there is any problem with the sensors, the system will beep three times to indicate that one or more sensors are damaged. The damaged sensors' locations and the total number will be shown on the display.



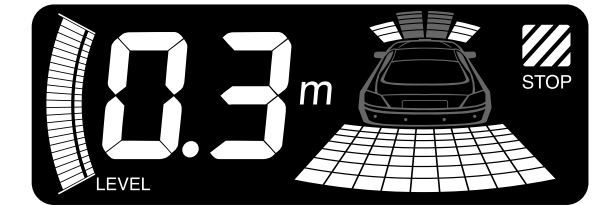
Example 1 One sensor is damaged, it is sensor E.



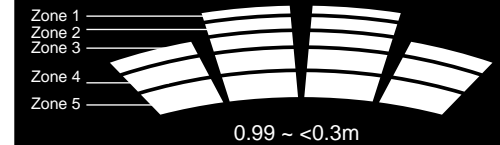
Example 2 Two sensors are damaged, they're sensor A and E.

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

Matrix LCD indication

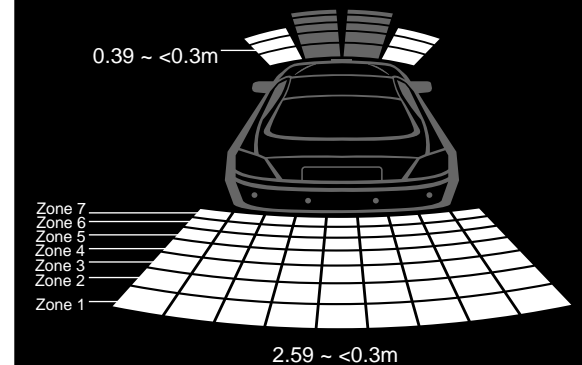


1. Driving forward



The front matrix indicator will show the object locations when driving forward and the footbrake is pressed.

2. Reversing backward



The front sides and rear matrix indicators will show the object locations when reversing backward.

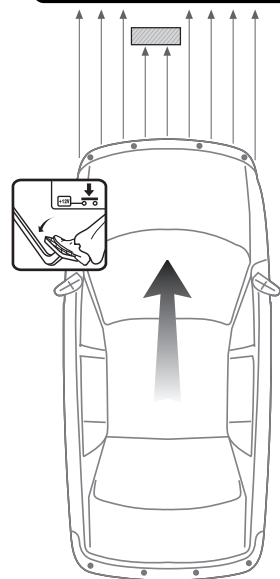
How does the system work

Driving forward:

Insert the key and turn it to ON position, when driving forward or in static situation, every time when the footbrake is pressed, the system will be activated and the 4 front sensors will start working.

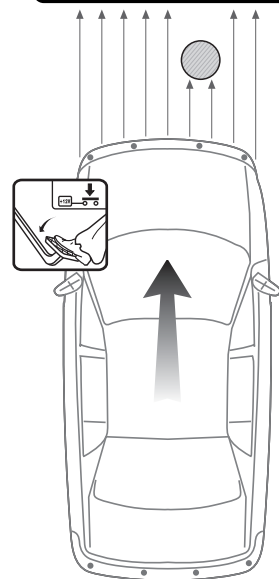
If the object appears in the detecting range, corresponding information, such as the level and front matrix indicator as well as digital distance will be shown on the display. The system will prolong the working time by 5 seconds once the footbrake is released.

Audible warning: No beep
※ Voice warning : Attention



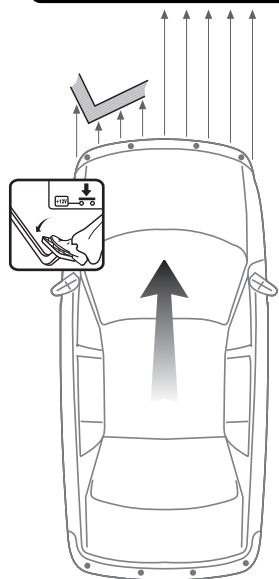
The object distance is
0.99~0.9 meters

Audible warning: Be-Be-
※ Voice warning : 0.5m



The object distance is
0.59~0.5 meters

Audible warning: Be—Be—
※ Voice warning : 0.3m



The object distance is
0.39~0.3 meters

Audible warning: Be—
※ Voice warning : stop



The object distance is < 0.3 meters.
“-P” and “STOP” will be displayed
and the red warning light will be on.

※ Voice warning: when voice warning is switched ON, the audible warning will be OFF.

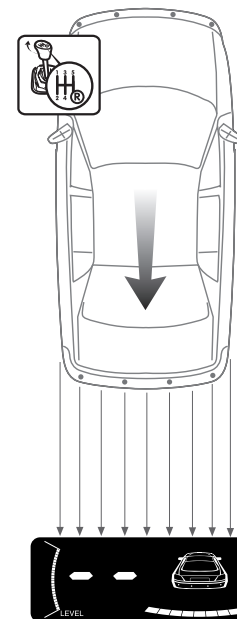
How does the system work

Reversing backward

Insert the key and turn it to ON position, every time when the reverse gear is selected, the system will self-test 2 front side sensors (E, H) and 4 rear sensors (A, B, C, D). Then, they will begin to scan and detect the corresponding areas.

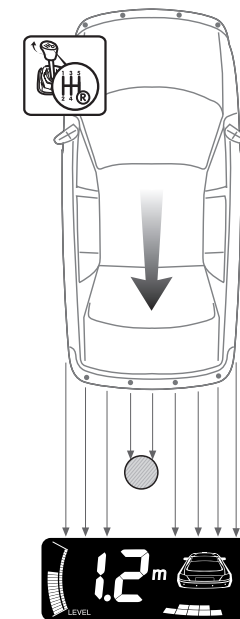
If the object appears within the detecting range at the rear of the car, corresponding information will be shown on the display.

Audible warning: No beep
※ Voice warning: No warning



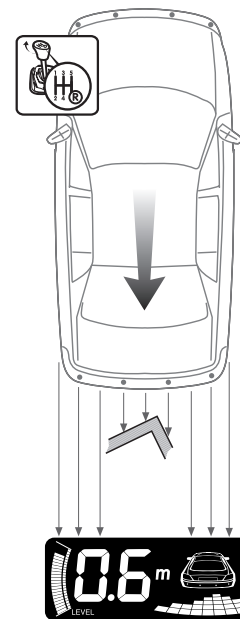
The object distance is
greater than 2.6 meters or
there's no object in the
detecting range: "-- --" will
be shown on the display
and zone 1 of the matrix
indicator will flash.

Audible warning: Be-Be-
※ Voice warning: 1.2m



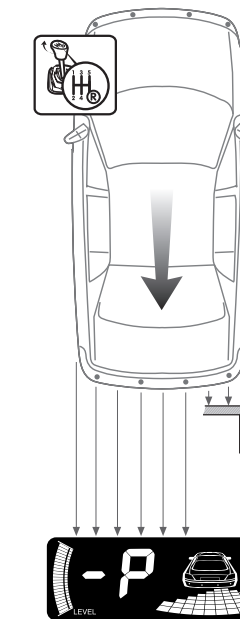
The object distance is:
1.29~1.20 meters

Audible warning: Be—Be—
※ Voice warning: 0.6m



The object distance is:
0.69~0.60 meters

Audible warning: Be—
※ Voice warning: stop



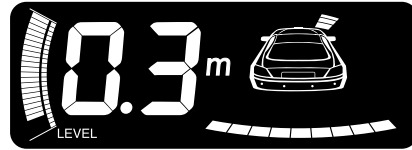
The object distance is < 0.3
meters. “-P” and “STOP”
will be displayed and the
red warning light will be
on.

How does the system work

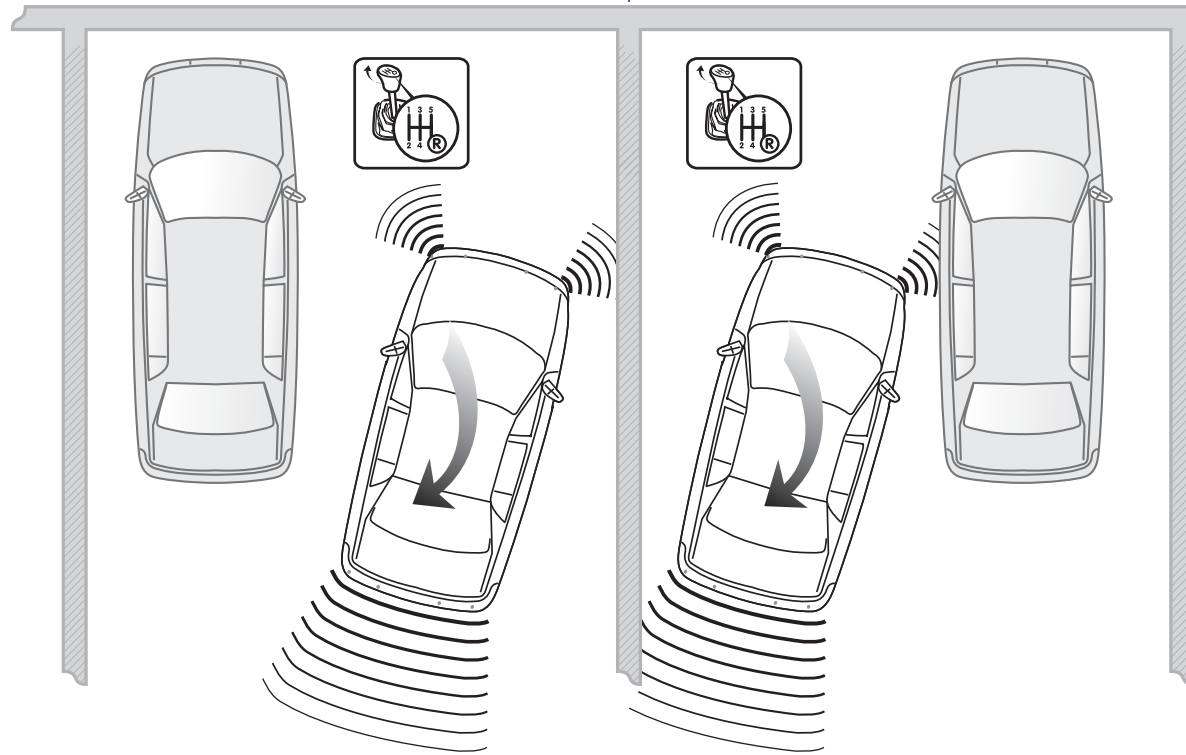
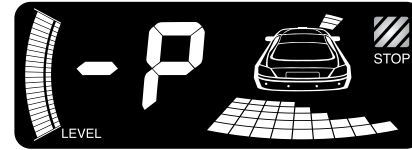
All round protection and corner warning when reversing backward

When reversing backward, the 2 front sensors and 4 rear sensors will be activated. If there are objects at the front corner and at the rear of the car, the shortest distance will be shown on the display, while the matrix indicator will indicate the objects' locations.

Audible warning: Be—Be—
 ※ Voice warning: Attention



Audible warning: Be—
 ※ Voice warning: stop



The object is at the right front corner while the car is reversing backwards

The object at the right front corner is closer to the car than the object at the left rear of the car.

Warning modes and indications

Driving forward, when footbrake is pressed.

Audible warning	Voice	Distance indication		Matrix indication
		Sensor F&G	Sensor E&H	
No Beep	Attention	0.99~0.70m		Stage 1
Be-Be-Be-Be-	0.8m	0.9m~0.3m	0.6m~0.3m	Stage 2
Be—Be—	0.6m			Stage 3
	0.5m			Stage 4
	0.4m			Stage 5
	0.3m			
Be—	Stop	-P	-P	

Warning modes and indications

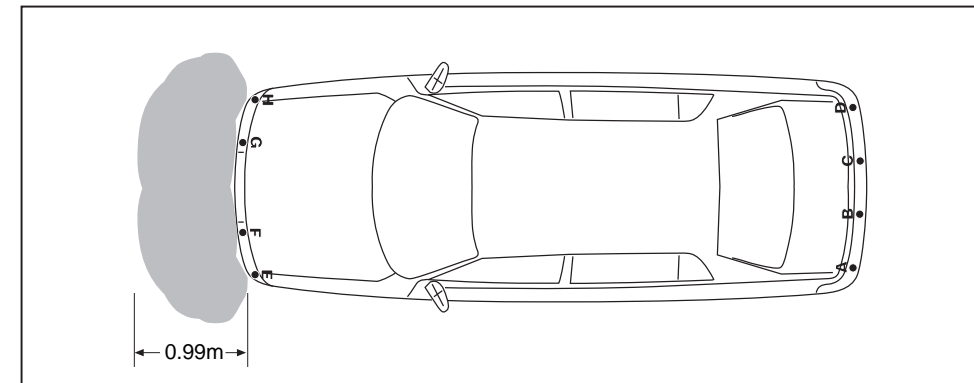
Reversing backward, when the reversing gear is selected.

Audible warning	Voice	Distance indication	Matrix indication
Be—Be— Be——	Attention Stop	<0.39m 0.3m -P	Zone 3~Zone 5

Audible warning	Voice	Distance indication	Matrix indication
Be—— Be—Be— Be-Be-Be-Be-	Stop 0.3m 0.4m 0.5m 0.6m 0.8m 1.0m 1.2m	Sensor B&C -P 2.5m~0.3m	Zone 7 Zone 6 Zone 5 Zone 4 Zone 3 Zone 2
Be...Be... No Beep	1.5m 2.0m Attention	Sensor A&D -P 1.5m~0.3m	Zone 1

Detection & display range

Driving forward

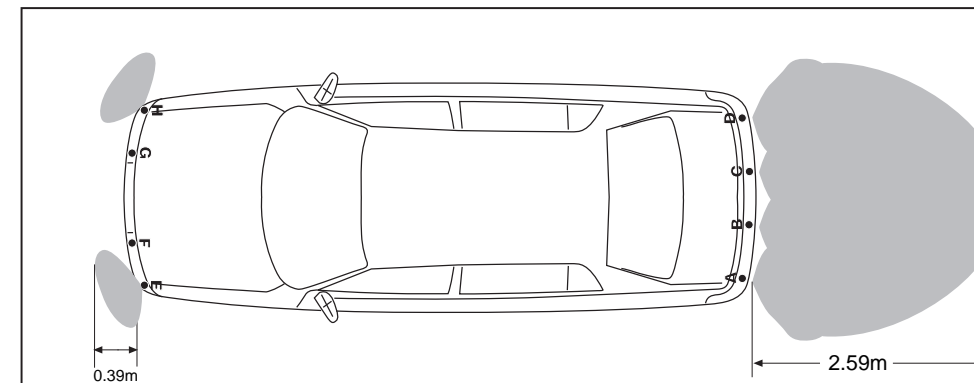


Insert the key and turn it to ON position, every time when the footbrake is pressed, the 4 front sensors (E. F. G. H) will be activated.

The detection range of sensor E & H is 0.1~ 0.69m, the display range of sensors E & H is 0.3~0.6m

The detection range of sensor F & G is 0.1~ 0.99m, the display range of sensors E & H is 0.3~0.9m

Reversing backward



Insert the key and turn it to ON position, when the reverse gear is selected, two front side sensors and 4 rear sensors will be activated.

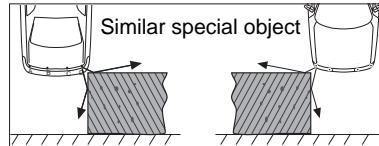
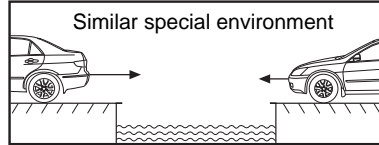
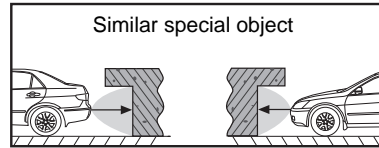
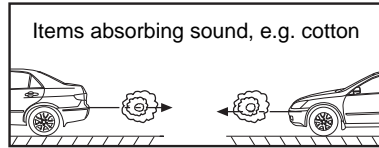
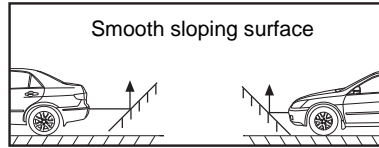
The detection range of sensor E & H is 0.1~0.39m, the display range of sensors E & H is -P, 0.3m

The detection range of sensor A & D is 0.1~1.59m, the display range of sensors A & D is 0.3~1.5m

The detection range of sensor B & C is 0.1~2.59m, the display range of sensors B & C is 0.3~2.5m

Attention

False detection may occur in the following situations:



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

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

Troubleshooting

1. The 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 the reverse gear selected or is the footbrake pressed?
 - 4) Are all wiring connections correct?
 - 5) Is the display damaged?
2. False reading from the visual display without selecting the reverse gear.
Check whether the power wire of ECU is connected to the reversing light correctly.
3. The display indicates a defective sensor.
 - 1) Check whether the sensor surface is clean.
 - 2) Check whether the sensor wires are plugged in the ECU properly.
 - 3) Check whether the sensor wires are damaged or not.
4. The object position does not correspond to the correct indicator on the blue digital display.
Are the sensor cables connected to the control unit (ECU) in the correct order eg. A. B. C. D. E. F. G. H?
5. When reverse gear is selected, the blue digital indicator indicates 0.5 m or 0.6m.
 - 1) There are obstacles within 0.6 m.
 - 2) Are sensors mounted too low or detecting the ground?
 - 3) Check whether the sensor is installed up-side-down.
 - 4) Unplug 1 sensor at a time to check for response.
6. Audible voice or warning sound is too low.
Adjust the volume to a certain level.

If the problem persists please follow these steps:

- A. For consumers: contact your dealer or nearby service centre
- B. For installer or dealer:
 - 1) Replace the ECU and recheck the system.
 - 2) Test the sensors with certified ECU using a flat wooden board.
 - 3) Plug the certified sensors into the ECU and recheck.
 - 4) Email your questions to us and we will reply ASAP.

Warranty

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.

I It is required to show 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.:	
Series No.:	
Date of installation:	
Name of the distributor	Signed by distributor